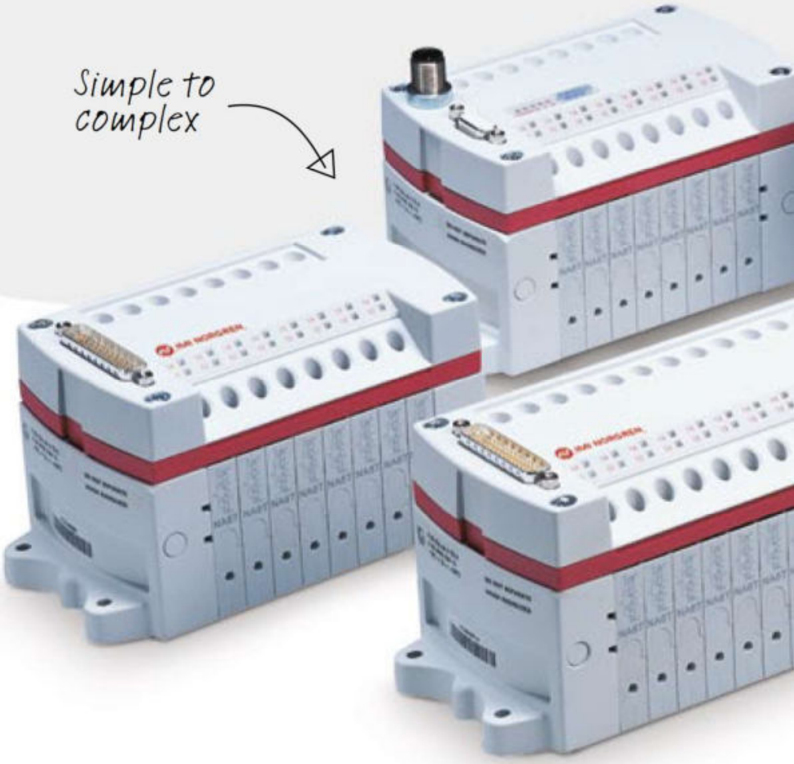
3

Valves

IMI Precision Engineering has all manner of control valves – in line, sub base, valve islands, electrically or air operated, manual and mechanical valves, for just compressed air or complex fluid control requirements. We have ISO and NAMUR standard ranges and cover many ATEX requirements. Tried and trusted product ranges like IMI Buschjost, IMI Herion, Walter, IMI FAS, Webber, Enots and Martonair.

Many ranges in stock for immediate delivery or configured to requirements. Our valve islands feature a 24/7 online configurator for specification, technical information including CAD, pricing, lead time and ordering. For expert advice and guidance, contact the please contact us.

Simple to complex



Over 20,000 combinations

Rugged and Reliable

Fast Find Guide

Please note: These products represent only part of the IMI Precision Engineering valves range.
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Valve Islands

VM10
2 x 3/2, 5/2 & 5/3
10 mm

EXPRESS Page 165

VM15
2 x 3/2, 5/2 & 5/3
15 mm

EXPRESS Page 175

VS18
2 x 2/2, 2 x 3/2, 5/2 & 5/3
ISO 15407-2
18 mm

EXPRESS Page 180

VS26
2 x 2/2, 2 x 3/2, 5/2 & 5/3
ISO 15407-2
26 mm

EXPRESS Page 196

VS45
2 x 3/2, 5/2 & 5/3 valves
45 mm

Page 211

Sub-base Valves

V40/V41
2 x 3/2, 5/2 & 5/3 Valve
ISO 15407-1/VDMA 24 563
18 mm

EXPRESS Page 221

V44/V45
2 x 3/2, 5/2 & 5/3 Valve
ISO 15407-1/VDMA 24 563
26 mm

EXPRESS Page 229

ISO★STAR
5/2 & 5/3
ISO #1 … ISO #3

EXPRESS Page 237

UM/22000
5/2 & 5/3
ISO #4

EXPRESS Page 242

In-line and Manifold Valves

V60 … 63
3/2, 2x3/2, 5/2 & 5/3
G1/8 … G1/2

EXPRESS Page 247

V50 … 53
3/2, 5/2 & 5/3
G1/8 … G1/2

EXPRESS Page 261

VCB22
In-line: M5, 1/8 … 1/2 (ISO G),
NAMUR: 1/4, 3/8 (ISO G)

EXPRESS Page 270

VCB10
In-line: G1/8

EXPRESS Page 280

EXCEL 22, M/49
3/2
G1/8

EXPRESS Page 284

EXCEL 32, V04 & V05
2/2 & 3/2
G1/8, G1/4, interface

Page 285

70300
2/2
G1/2 … G1

Page 286

80200
3/2
G1/2 … G2

Page 289

Prospector®
2/2, 3/2
G3/8 … G1

Page 291

26360, 80207
3/2, 5/2
G1/4 & G1/2

Page 294

26230, 80107
3/2, 5/2, 5/3
G1/4, G1/2

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Flexisol
2/2, 3/2 NC/NO
6,5 mm

Page 303

Chipsol
2/2, 3/2 NC/NO
8 mm

Page 305

Picosol
2/2, 3/2 NC/NO
10 mm

Page 307

Microsol
2/2, 3/2 NC/NO
15 mm

Page 309

Microsol
2/2 Media Separated
15 mm

Page 312

Microsol
3/2 Media Separated
15 mm

Page 314

Intersol
2/2, 3/2 NC/NO
22 mm

Page 315

Minisol
2/2, 3/2 NC/NO
22 mm

Page 317

Bacosol
2/2, 3/2 NC/NO
32 mm

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Fast Find Guide

Please note: These products represent only part of the IMI Precision Engineering valves range.
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Special Purpose Safety Valves

Two-hand control unit XSHC04
4 mm PIF

EXPRESS
Page 321

Safety valves SCVA
3/2
G1/4, G3/4, G1

Page 323

Safety valves SCVA10
3/2
G1/2

EXPRESS
Page 325

Safety valves SCSQ
3/2
G1/2

Page 327

Solenoid actuated press safety valves XSz
3/2
G1/4 … G2

Page 329

Inline lockout valve CR04 & C002
G1/2 … G1
1/2 PTF … 1 PTF

Page 334

Manual/Mechanical Valves

Super X
3/2, 5/2 & 5/3
G1/8, G1/4
6 mm PIF

EXPRESS
Page 336

VHLA
4/2, 4/3 APB
G1/4 … G1/2

EXPRESS
Page 355

S/666
3/2
G1/8

EXPRESS
Page 357

M/1700
5/2, 5/3
G1/4, G1/2

EXPRESS
Page 359

S/1340
G1/4

EXPRESS
Page 360

Proportional Valves

VP10
G1/4

Page 361

VP12
G1/8

Page 362

VP50
G1/4

Page 363

VP50S
G1/4

EXPRESS
Page 364

VP51
G1/4

EXPRESS
Page 365

VP23
G1/4 … G3/8

Page 366

140 Failsafe
G1/4 or 1/4 NPT

Page 367

422 Fail Freeze
1/4 NPT

Page 368

422 IS Fail Freeze
G1/4 or 1/4 NPT

Page 369

VP60 Proportional Flow
G1/4

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Process Industry/Namur Valves

95000 2/2 G1/4  EXPRESS Page 373	**96000** 3/2 G1/4  EXPRESS Page 374	**97300 NAMUR** 3/2 & 5/2 G1/4  Page 377	**97100 Namur/Inline** 3/2, 5/2, 5/3 G1/4  Page 379	**97105 Inline/Namur** 3/2, 5/2, 5/3 G1/4 … G1/2  Page 384	**6316 Inline** G1/4, 1/4 NPT  Page 389
24011 NAMUR 3/2 G1/4, 1/4 NPT  Page 393	**6215M Inline & NAMUR** 3/2, 5/2 1/4 NPT  Page 395	**6215L Inline & NAMUR** 3/2, 5/2 1/4 NPT  Page 402	**6215SS Inline & NAMUR** 3/2, 5/2 1/4 NPT  Page 409	**82510/82610** 2/2 G1/4 … G3/8  EXPRESS Page 419	**82530/82560** 2/2 G1/4 … G1/2  Page 421
82540/82590/82090/83040 2/2 G1/4 … G1/G2  Page 423	**86700/86740/86720** 2/2 G1/4 … G2  Page 426	**82400/82730/82470/83030** 2/2 G1/4 … G2  EXPRESS Page 429	**85360/85380/85660** 2/2 G1/4 … G2  Page 431	**VID Series** G1, G1 1/2, G2, G2 1/2, G3  Page 433	**84500/84520** 2/2 G1/2 … G2  EXPRESS Page 436
84720/84740 2/2 G1/2 … G1  Page 438	**82180/82280/82580** 2/2 G1/2 … G2  Page 440	**83240/83250** 2/2 G1/2 … G2  Page 422	**83350/83380** 2/2 G1/2 … G2  Page 444	**82210** 2/2  Page 446	**84660/84680** 3/2 G1/4  Page 448
82160/82710 2/2 G1/4 … G2  Page 450	**82380/82480** 2/2 G1/2 … G2  Page 452	**84180/84190** 2/2  Page 454	**82960/82970** 2/2 Twist-on®  Page 457	**82900, 82910** 2/2  Page 459	**82080** 2/2  Page 461
83150/83153 2/2 G1/4 … G3/8  Page 462	**85340/85440** Backpressure-Tight 2/2 G1/2 … G2  Page 464	**86540/86580** 2/2  Page 466	**85780/85840 SIL** 2/2  Page 468	**86500/86520** 2/2  Page 470	**82880** 2/2 G1/2 … G1  Page 472

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Flow Control Valves

C00GE, C00GP
Ø 4 … 12 mm

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T1000 Uni-directional
M5, G1/8 … G1/2

EXPRESS Page 475

T1100 Bi-directional
G1/8 … G1/2

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M/800
G1/8 … G1

Page 476

T20
M5, G1/8 … G1/2

EXPRESS Page 478

Other Valves and Accessories

T70, S/511, S/513, S/514
Quick exhaust valves
G1/8 … G1/2

EXPRESS Page 479

T55 Non-return valves
M5, G1/8 … G1/2

EXPRESS Page 480

C00GL, C01G, C02G
Non-return valves
Ø 4 … 12 mm
M5, 1/8 … 1/2

EXPRESS Page 481

T50P Non-return valves
Ø 4 … 12 mm PIF

Page 482

S/520 Non-return valves
G1/8 … G1

Page 483

T65 Shuttle valves
G1/8 & G1/4

EXPRESS Page 484

102GA, 102GH
Blocking valves
G1/8 … G1/2

Page 485

102GB
Pressure reducing valves
G1/8 … G1/2

Page 487

102GD
Pressure sensor valves
G1/8 &G1/4

Page 488

T60 Air fuses
G1/4 … G1 1/2

Page 489

Solenoid plugs and cables
15 mm, 22 mm & 30 mm

EXPRESS Page 490

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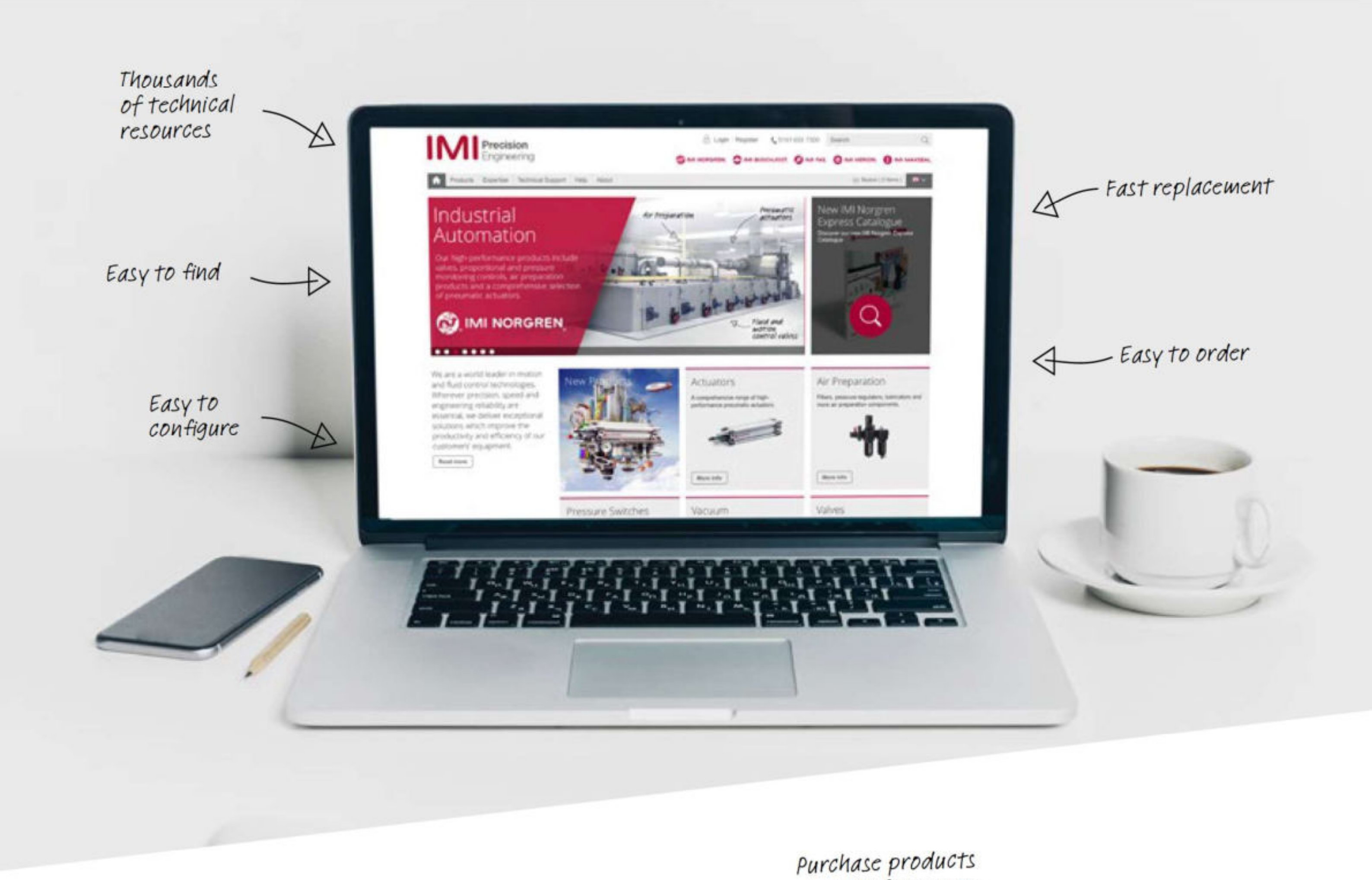

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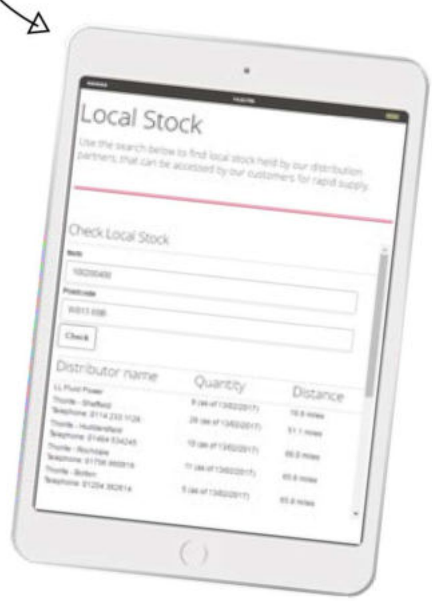

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IMI NORGREN

DESIGN & SIZING IN PNEUMATICS

Golden Rules

Design and sizing in pneumatics is often based upon experience coupled with an element of fear of under specifying crucial equipment. In an attempt to ensure enough power, engineers may select over sized cylinders and then select oversized valves to supply them with enough air. The same uncertainty can also lead to over sized specification of air line equipment, fittings and tubing. The outcome is components larger than necessary that use too much compressed air and waste energy and money. However when following some well proven golden rules and a few laws of pneumatics it is easy to achieve correctly sized pneumatic installations.

BASICS TO CONSIDER:

The cylinder: The force required, the pressure available, the speed of movement and air consumption. ISO and VDMA standard or compact style as well as cushioning and sensors.

The valve: Flow to achieve the time for the cylinder movement. Solenoid, air pilot, manual or mechanical operator. In line, manifold or sub-base mounting or tailor made valve island. Solenoid individually wired or with multipole or fieldbus.

Air preparation: Flow rating and micrometre size of the filter element. Automatic or manual drain, piping away the condensate. Source pressure and optimal working pressure. Pressure regulator for standard or precision regulation. Lubrication, Oil-fog or Micro-fog.

Fittings and tubing: Compression, push-on or push-in fittings. Metal, nylon or soft polyurethane tubing. Correct sizing of fittings and tubing combination according to flow requirements.

General: Temperature and environmental conditions.

GOLDEN RULES:

The cylinder:

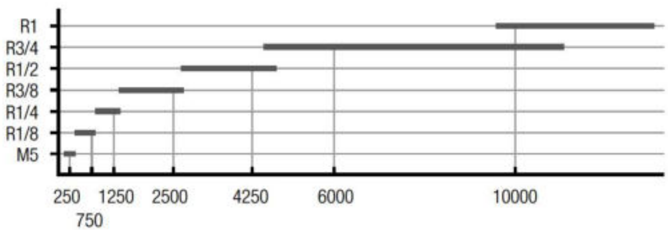
The Correct sizing is based upon the required force and applied pressure. Go to page 18 for more information on cylinder sizing and air consumption.

Golden rule: The theoretical force of the cylinder should be 25% extra for high speed, 50% extra for low speed and 100% extra for ultra low speed (positioning) applications.

The Valve:

Developments in valve technology have given higher flow in smaller valve envelope sizes - eg. the flow from a traditional 42 mm wide ISO #1 valve is about 1250l/min, a modern valve that can deliver the same flow is only 20 mm wide. The old rule of selecting a control valve with the same port size as the cylinder has a number of drawbacks. Firstly the cylinder port may not have a full through bore and secondly the cylinder may not be required for anything near it's maximum potential speed. Far better is to match valve flow to the flow requirement of the cylinder for a particular application.

The graph gives a guide to the typical flow ranges appropriate to different nominal valve sizes. The flow values indicated by the vertical lines are at 6 bar, with 1bar pressure drop.



Golden rule: Calculate the greatest instantaneous flow required by the cylinder. This is the flow rate required during the fastest stroke. Do not use l/min average values.

Filtration & Lubrication:

In general, pneumatics are designed for working in a wide temperature range from-20°C up to +80°C. Electrical parts like solenoids are limited to +50°C, but specific figures can be found in the catalogue.

For filtration and dew point the following apply: 5°C to 50°C ambient temperature,40 micron filtration and a dew point of 10°C lower than the ambient temperature is recommended.

Below 5°C and above 50°C, 25 or 5 micron filtration is recommended and below 5°C a dew point 5°C lower than the ambient temperature is recommended.

Valves and cylinders are greased on assembly and operate under normal conditions without additional lubrication. However using a lubricator will extend the life of these products.

Golden rule: Always lubricate when:

- Valve frequency is >3 Hz
- Cylinder speed is high
- Ambient temperature is below freezing point or above 50°C
- There is a combination of the conditions above.

If possible always lubricate and if you start to lubricate then continue to do so. Use micro-fog lubricators for cylinders and oil-fog lubricators for air tools.

Fittings & Tubing:

Golden rule: Rule number one is use as few fittings as possible. Tubing should be as short as practical and be related to port thread sizes - e.g. Ø 8/6 mm for G1/4. Banjo type fittings and quick connection couplings can be restrictive to flow. Minimise the use of elbows, Y's and tee connectors. For use below freezing or when exposed to sunlight use black plastic tubing.

If you do not want to calculate use the golden rule table:

Valve size	Flow l/min	Tube Ø mm	Cylinder max. Ø mm
M5	250	6/4	40
1/8"	750	8/6	63
1/4"	1250	10/7	80
3/8"	2500	12/8,5	125
1/2"	4250	16/12	160
3/4"	6000	22/17	250
1"	10000	26/18	320

Based on cylinder speed of 500 mm/sec, 50% loaded, cylinder pressure 5 bar, 1 metre tube length and two fittings per tube.

BEST PRACTISE

Compressed air is not free and must be used with consideration. Compression from 7 -10 bar has the same cost as compression from 0 - 7 bar, this means that pressure should be as low as possible. Use pressure regulators where possible. Cylinders and valves should be correctly sized. Tubing that is unnecessarily long or large in diameter will waste energy and adversely influence response times. Locally placed valve islands will use shorter tube lengths than valves in centrally placed control cabinets. If you are in doubt or just need good advice contact us. We will always be pleased to help you. We have decades of experience in pneumatic control, design and sizing.

TABLES AND CONVERSION FACTORS IN PNEUMATICS

Frequently asked questions in pneumatics typically concern: air quality, cylinder forces, loading and bending, air consumption plus valve flow and lubrication. The tables on this page can be used in combination with the guidance and golden rules stated on the previous page. For sizing cylinders and air consumption go to page 17.

AIR QUALITY

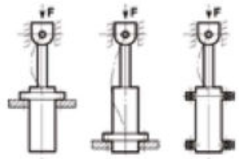
ISO 8573-1 specifies quality classes for compressed air. A class number is made up from the individual maximum allowable contents of solid particles, water and oil in air and can be used to specify air quality for use with valves and other pneumatic applications.

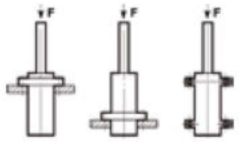
Class	Solids particle size max µm	concentration maximum mg/m³	Water Max. Pressure Dew Point °C	Oil concentration mg/m³
1	0,1	0,1	-70	0,01
2	1	1	-40	0,1
3	5	5	-20	1
4	15	8	+3	5
5	40	10	+7	25
6	–	–	+10	–

For general applications where ambient temperature is between +5 and +35°C, air quality to ISO8573-1 class 5.6.4 is normally sufficient. This is 40 µm filtration, +10°C maximum pressure dew point and 5 mg/m³ maximum oil content. Pressure dew point is the temperature to which compressed air must be cooled before water vapour in the air starts to condense into water particles.

LOAD AND BUCKLING

For applications with high side loading, use pneumatic slide actuators or standard cylinders fitted with guide units. Alternatively external guide bearings should be installed. When a long stroke length is specified, care must be taken to ensure the rod length is within the limits for prevention of buckling. The table shows the maximum stroke length for a variety of installation arrangements.

1]


2]


3]


4]


Cylinder Ø mm (inch)	Piston rod Ø mm (inch)	Load case 1 Pressure (bar)				Load case 2 Pressure (bar)				Load case 3 Pressure (bar)				Load case 4 Pressure (bar)			
		4	6	10	16	4	6	10	16	4	6	10	16	6	6	10	16
8	3	270	220	170	130	130	100	80	60	170	130	100	80	190	160	120	90
10	4	380	300	230	170	170	140	100	70	230	180	130	100	260	210	160	120
12	4	310	250	180	140	140	110	80	50	180	140	100	80	220	170	120	90
	6	730	590	450	350	350	280	210	160	450	360	270	210	520	420	320	240
16	6	540	440	330	250	250	200	150	110	330	260	190	150	380	300	230	240
	8	980	790	600	470	470	370	280	210	600	480	360	280	700	560	430	330
20	8	780	620	470	370	370	290	220	160	470	380	280	210	550	440	330	250
	10	1200	1000	760	590	590	470	350	270	760	610	460	350	880	710	540	410
25	10	970	790	600	460	460	370	270	200	600	480	360	270	690	560	420	320
	12	1400	1100	880	680	680	550	410	310	870	700	530	410	1000	820	620	480
31,75 (1,25)	12	1100	890	680	520	520	420	310	230	680	540	410	310	790	630	480	360
32	12	1100	860	650	500	500	390	290	210	650	520	380	290	760	600	450	340
	16	2000	1600	1200	960	960	770	580	450	1200	990	750	580	1400	1100	870	680
40	14	1200	960	730	570	570	450	340	250	730	580	440	330	850	680	510	390
	16	1600	1200	950	730	730	580	430	320	940	750	560	430	1100	880	660	500
44,45 (1,75)	16	1400	1100	870	670	670	540	400	300	860	690	520	400	1000	810	610	470
50	20	2000	1600	1200	930	930	740	550	420	1200	960	720	550	1400	1100	840	640
50,8 (2)	20	1900	1600	1200	930	930	740	550	420	1200	960	720	550	1400	1100	840	640
63	20	1500	1200	930	720	720	570	420	310	930	740	550	420	1100	860	650	490
63,5 (2,5)	25	2400	2000	1500	1200	1200	930	700	530	1500	1200	900	690	1700	1400	1100	810
76,2 (3)	25	2000	1600	1200	950	950	760	560	420	1200	980	740	560	1400	1100	860	660
80	25	1900	1500	1100	880	880	700	510	380	1100	910	680	510	1300	1100	800	600
100	25	1500	1200	880	670	670	520	380	270	880	690	510	370	1000	820	600	450
101,6 (4')	32	2400	2000	1500	1100	1100	910	670	500	1500	1200	890	670	1700	1400	1000	790
125	32	2000	1600	1200	910	910	710	520	380	1200	940	690	520	1400	1100	820	620
127 (5')	38,1 (1,5)	2800	2200	1700	1300	1300	1000	760	570	1700	1300	1000	760	2000	1600	1200	900
152,4 (6')	38,1 (1,5)	2300	1800	1400	1100	1100	830	610	440	1400	1100	810	600	1600	1300	950	720
160	40	2400	1900	1500	1100	1100	880	640	480	1400	1200	860	640	1700	1400	1000	760
200	40	1900	1500	1100	860	860	670	480	350	1100	890	650	480	1300	1000	770	580
203,2 (8)	44,45 (1,75)	2300	1900	1400	1100	1100	840	610	440	1400	1100	810	600	1600	1300	960	720
250	50	2400	1900	1400	1100	1100	850	620	440	1400	1100	830	610	1700	1300	980	730
254 (10)	57,15 (2,25)	3100	2500	1900	1400	1400	1100	840	620	1900	1500	1100	830	2200	1700	1300	990
304,8 (12)	57,15 (2,25)	2500	2000	1500	1200	1200	920	660	480	1500	1200	890	660	1800	1400	1100	790
320	63	3000	2400	1800	1400	1400	1100	780	570	1800	1400	1000	780	2100	1700	1200	930
355,6(14)	57,15 (2,25)	2100	1700	1300	970	970	760	540	380	1300	1000	730	540	1500	1200	870	650

VALVE FLOW

There are a variety of standards and methods for the measurement and display of valve flow performance. These can give rise to confusion and difficulty when comparing the published performance of different valves. The table below provides conversion factors as a guide to expressing valve performance in different units.

HOW TO USE:

There Select the unit of measurement that is known in the left hand column and multiply by the factor given in the column of the required unit of measurement.
'Cv' is specified by ANSI/NFPA
'Kv' used in Germany and based on water flow.
'C' sonic conductance in dm³/s/bar specified by ISO 6358
'A' effective area in mm² specified by ISO 6358
'S' effective area in mm² according to the Japanese standard JIS B 8375
A further measurement is the NW value. This gives the equivalent diameter in mm² of the smallest path through a valve. This is non-comparable and not in the table.

FLOW FACTOR CONVERSION TABLE

	Factors Cv	Kv	C	Flow * m³/h	l/min	Orifice Size A	S
Cv	1	0,869	4,08	59,1	985	16,3	21,5
Kv	1,15	1	4,69	67,9	1132	18,7	24,7
C	0,245	0,213	1	14,5	241	4,11	5,27
m³/h	0,017	0,015	0,069	1	16,67	0,276	0,364
l/min	0,001	0,0088	0,0041	0,06	1	0,016	0,022
A	0,061	0,053	0,243	3,62	60,4	1	1,31
S	0,046	0,04	0,189	2,75	45,8	0,761	1

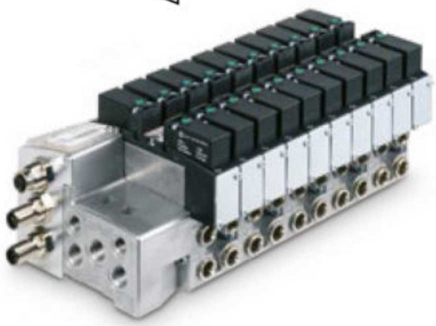
* Flow parameters are 6 bar inlet and 5 bar outlet at 20°C, 1013 mbar and 65% humidity.

LUBRICANTS

When to lubricate, via an oil-fog or micro-fog lubricator, is generally explained in this catalogue. However the oil recommended is very much dependant on the local conditions and not least availability of various brands and labels. In each country IMI Norgren can recommend equivalent products, based on the information from the suppliers.

Engineered polymer – VM series

Conforms to ISO15407-2 – VS series



Valve
Islands

For almost 20 years, IMI Precision Engineering has been able to offer a pre-assembled valve block generally known as a 'valve island'. The current VM and VS series offer a choice of product to meet most industrial control applications.

VM is a lightweight, high-strength polymer manifold, while VS is a more traditional diecast aluminium base system which conforms to an ISO dimensional standard. Both can be configured online via our configurator software which gives immediate technical data including CAD, price and delivery information.

All common valve functions are covered, port connections can be threaded or complete with push-in fittings. Electrical connection is via individual wires, multipole connector or fieldbus in a number of industry-standard protocols.

> Light, strong assembly meeting IP65 protection standard

> All common valve functions (2/2, 3/2, 5/2 and 5/3) can be combined and up to 40 solenoids per island are possible

> Choice of valve spool types (VS only), soft seal or glandless for higher flow or extended life in excess of 200 million cycles

> Diagnostics as standard on all electrical connections, and full traceability of island throughout its life supported by the IMI Precision Engineering production system

Engineering GREAT Solutions

IMI NORGREN

Find out more
www.imi-precision.com

VALVE ISLANDS

VM10 2 x 3/2, 5/2 or 5/3 – 10 mm

- Valve slices 2 x 3/2, 5/2 and 5/3 with integral push-in fittings Ø 3, 4, 6 mm
- Multipole or individually wired for installation flexibility
- Interchangeable Fieldbus modules
- Compact and lightweight
- High flow from 10 mm valve width
- Flexible design concept
- To configure and order a Valve Island visit - www.imi-precision.com/technical-support/configurators

Technical Data

Medium:
Compressed air, filtered, lubricated and non-lubricated

Operation:
Spool valve indirectly actuated

Port sizes:
Ø 3, 4, 6 mm Push-in fittings
Imperial versions also available

Flow:
Function l/min

5/2 ports
1 » 2 & 4 430

5/2 ports
2 » 3 & 4 » 5 400
3/2 and 5/3 350

Insulation protection:
Individually wired: IP40
Multipole & Fieldbus: IP65

Ambient temperature:
-5°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body & End plates:
Engineered PPA co-polymer

Spool:
Aluminium

Seals:
NBR

EXPRESS

c UL US LISTED

SP c US

Models - 2 x 3/2 Double solenoid actuated valves

Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
VM10*A11AB213B	2 x 3/2 NC	Solenoid/Spring	Internal	Turn & lock	3 … 8	–
VM10*A11AB313B	2 x 3/2 NC	Solenoid/Spring	Internal	Push only	3 … 8	–
VM10*A22AB213B	2 x 3/2 NC	Solenoid/Spring	External	Turn & lock	-0,9 … 8	3 … 8
VM10*A22AB313B	2 x 3/2 NC	Solenoid/Spring	External	Push only	-0,9 … 8	3 … 8
VM10*B11AB213B	2 x 3/2 NO	Solenoid/Spring	Internal	Turn & lock	3 … 8	–
VM10*B11AB313B	2 x 3/2 NO	Solenoid/Spring	Internal	Push only	3 … 8	–
VM10*B22AB213B	2 x 3/2 NO	Solenoid/Spring	External	Turn & lock	-0,9 … 8	3 … 8
VM10*B22AB313B	2 x 3/2 NO	Solenoid/Spring	External	Push only	-0,9 … 8	3 … 8
VM10*C11AB213B	2 x 3/2 NO/NC	Solenoid/Spring	Internal	Turn & lock	3 … 8	–
VM10*C11AB313B	2 x 3/2 NO/NC	Solenoid/Spring	Internal	Push only	3 … 8	–
VM10*C22AB213B	2 x 3/2 NO/NC	Solenoid/Spring	External	Turn & lock	-0,9 … 8	3 … 8
VM10*C22AB313B	2 x 3/2 NO/NC	Solenoid/Spring	External	Push only	-0,9 … 8	3 … 8

VALVE ISLANDS

VM10 2 x 3/2, 5/2 or 5/3 – 10 mm

Models - 5/2 Single and double solenoid actuated valves

Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
VM10*517AB213B	5/2	Solenoid/Spring	Internal	Turn & lock	3 … 8	–
VM10*517AB313B	5/2	Solenoid/Spring	Internal	Push only	3 … 8	–
VM10*527AB213B	5/2	Solenoid/Spring	External	Turn & lock	-0,9 … 8	3 … 8
VM10*527AB313B	5/2	Solenoid/Spring	External	Push only	-0,9 … 8	3 … 8
VM10*511AB213B	5/2	Solenoid/Solenoid	Internal	Turn & lock	2 … 8	–
VM10*511AB313B	5/2	Solenoid/Solenoid	Internal	Push only	2 … 8	–
VM10*522AB213B	5/2	Solenoid/Solenoid	External	Turn & lock	-0,9 … 8	2 … 8
VM10*522AB313B	5/2	Solenoid/Solenoid	External	Push only	-0,9 … 8	2 … 8

Models - 5/3 Double solenoid actuated valves

Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
VM10*611AB213B	5/3 APB	Solenoid/Solenoid	Internal	Turn & lock	3 … 8	–
VM10*611AB313B	5/3 APB	Solenoid/Solenoid	Internal	Push only	3 … 8	–
VM10*622AB213B	5/3 APB	Solenoid/Solenoid	External	Turn & lock	-0,9 … 8	3 … 8
VM10*622AB313B	5/3 APB	Solenoid/Solenoid	External	Push only	-0,9 … 8	3 … 8

* For selection of port sizes please refer to the following table:

Tube size	Substitute
3 mm PIF	3
4 mm PIF	4
6 mm PIF	6

Note: For 5/3 COE please use 2 x 3/2 NC. For 5/3 COP please use 2 x 3/2 NO.
APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.

Accessories

Valve blanking station	Port blanking station	DIN Rail fixing kit	DIN rail	Label cover kit	
					
VM106517AQ0300	VM106517AQ0301 (Port 1 blanked)	V11900-C01, 8D	V10009-C00 (1 m)	V12016-K36 (4 Station)	V12016-K39 (10 Station)
	VM106517AQ0302 (Ports 3 & 5 blanked)			V12016-K37 (6 Station)	V12016-K40 (12 Station)
	VM106517AQ0303 (Ports 1, 3 & 5 blanked)			V12016-K38 (8 Station)	V12016-K41 (16 Station)

Labels	Pressure switch for pilot ports 12 and 14	Silencer	Plug	Manual override kit Push only	Rotate by hand, lockable
					
V12033-L02 (write and seal label)	VM106517AQ0804 (4 mm)	T45P0006 (6 mm)	C00040600 (6 mm)	V11574-K30	V11574-K31
–	VM106517AQ0806 (6 mm)	T45P0008 (8 mm)	C00040800 (8 mm)	–	–
–	–	T45P0010 (10 mm)	C00041000 (10 mm)	–	–
–	–	T45P0012 (12 mm)	C00041200 (12 mm)	–	–

D Sub-connector 25 pin, IP65	D Sub-connector 44 pin, IP65	D Sub-connector 25 pin 90°, IP65	D Sub-connector 44 pin 90°, IP65	2 Pin connector IP40
				
V11569-E01 (1 m) — L1	V11570-E01 (1 m) — M1	V12086-E01 (1 m) — L4	V12088-E01 (1 m) — M4	V11556-E10 (1 m) — K2
V11569-E03 (3 m) — L2	V11570-E03 (3 m) — M1	V12086-E03 (3 m) — L5	V12088-E03 (3 m) — M5	V11556-E03 (0,3 m) — K1
V11569-E05 (5 m) — L3	V11570-E05 (5 m) — M1	V12086-E05 (5 m) — L6	V12088-E05 (5 m) — M6	–

Fieldbus accessories

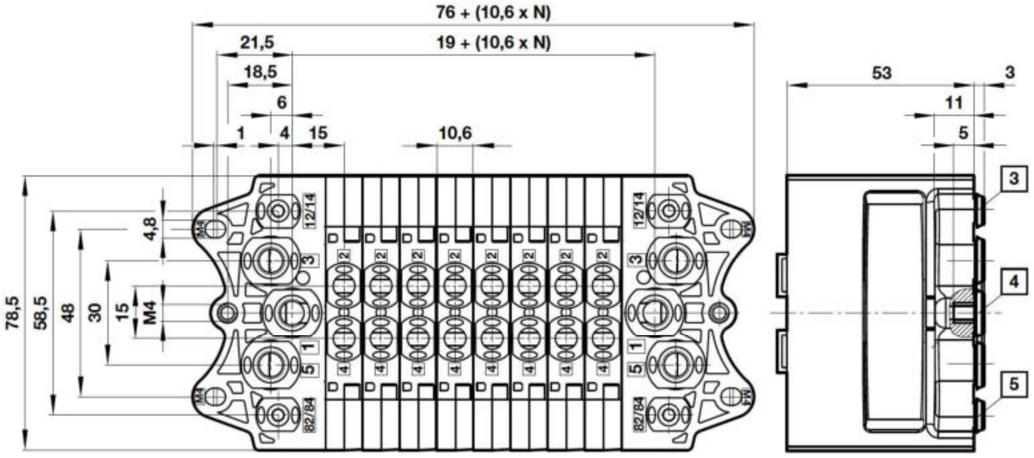
	Model	Description	Connection	Cable length	Short code
	V11588-E01	Fielbus power connector DeviceNet (4 pin, female) CANopen (4 pin, female) Profibus-DP (4 pin, female)	M12	Wireable	R1
	V11589-E01	DeviceNet (5 pin, female) CANopen (5 pin, female)	M12	Wireable	R2
	V11590-E01	Profibus-DP, reverse keyway (5 pin, female)	M12	Wireable	R3
	V11591-E01	Profibus-DP, reverse keyway (5 pin male)	M12	Wireable	R4
	V11592-E01	Profibus - DP terminating resistor	M12	–	R6

VALVE ISLANDS

VM10 2 x 3/2, 5/2 or 5/3 – 10 mm

● Dimensions

Port connections

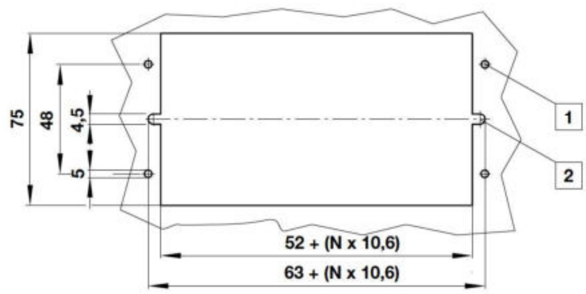


[3] Ports 12/14
[4] Ports 1, 3 & 5
[5] Ports 82/84
N = number of stations Detailed CAD drawings available at; www.imi-precision.com/technical-support/configurators

Model	Description	Ports 1 ,3 & 5 Tube outside Ø	Ports 12/14 & 82/84 Tube outside Ø	Ports 2 & 4 Tube outside Ø	Short code
VM106517AQ010Y	End plate kit - feed both ends	10	6	6	F100
VM106517AQ0108	End plate kit - feed both ends	8	4	4	F800
VM106517AQ011Y	End plate kit - feed left, right blocked	10	6	6	L100
VM106517AQ0118	End plate kit - feed left, right blocked	8	4	4	L800
VM106517AQ012Y	End plate kit - feed right, left blocked	10	6	6	R100
VM106517AQ0128	End plate kit - feed right, left blocked	8	4	4	R800

Available valve port sizes – Ø 3 mm, 4 mm and 6 mm.

Panel cut-out detail

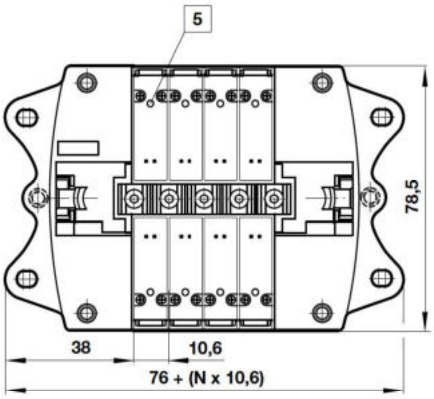


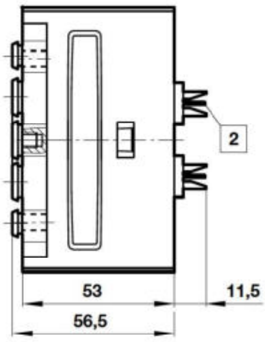
[1] For mounting island from outside of panel using M4 threads in valve island end plates

[2] For using through-mounting holes in valve island end plates

Modular assembly

Individually wired IP40

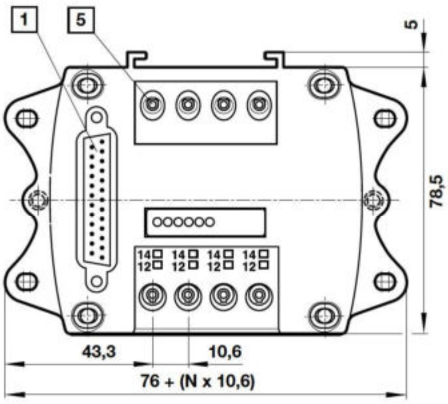


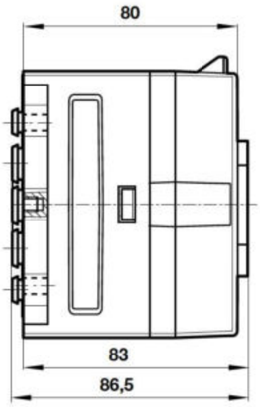


[2] 2 pin connector interface
[5] Manual override
N = number of stations

Individually wired	No. of stations	Max. no. of coils
2 pin connector	2 … 20	40

Multipole IP65



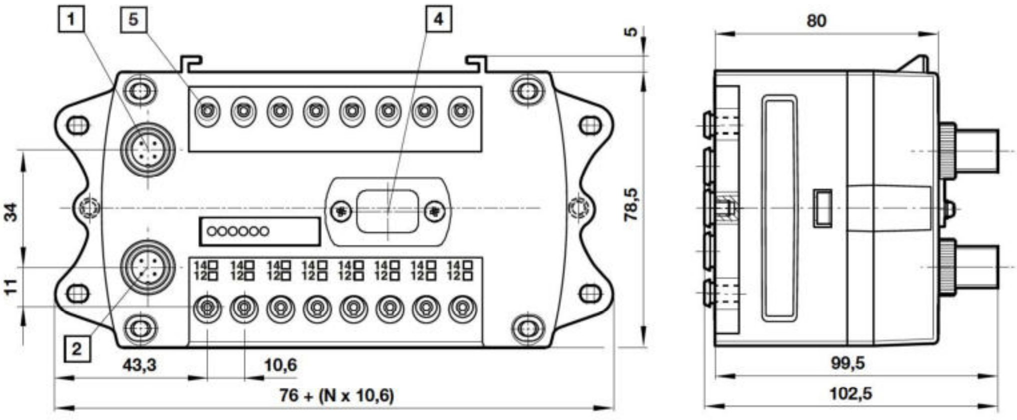


[1] 25 Pin connector for 4, 6, 8, 10 & 12 station
[5] 44 Pin connector for 12 & 16 station Manual override, actuate with srew driver
N = number of stations

-ve common Model	Multipole	No. of stations	Max. no. of coils
VM106517AQ0404	25 Pin connector	4	8
VM106517AQ0406	25 Pin connector	6	12
VM106517AQ0408	25 Pin connector	8	16
VM106517AQ0410	25 Pin connector	10	20
VM106517AQ0412	25 Pin connector	12	24
VM106517AQ0512	44 Pin connector	12	24
VM106517AQ0516	44 Pin connector	16	32

Fieldbus connections (M12 connector types IP65)

DeviceNet
CANopen



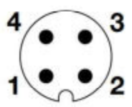
1 M12 power connector
2 M12 protocol connector
4 Rotary address switch
5 Manual override, actuate with srew driver

N = number of stations

Model	Standard fieldbus	No. of stations	Max. no. of coils	Short code
VM10DNFNB00082	DeviceNet	08	16	DR08
VM10DNFNB00102	DeviceNet	10	20	DR10
VM10DNFNB00122	DeviceNet	12	24	DR12
VM10DNFNB00162	DeviceNet	16	32	DR16
VM10CAFNB00082	CANopen	08	16	CR08
VM10CAFNB00102	CANopen	10	20	CR10
VM10CAFNB00122	CANopen	12	24	CR12
VM10CAFNB00162	CANopen	16	32	CR16

Connector details

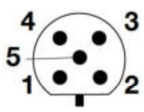
Power connection, male



Pin no.	Function	Tolerance	Max. current
1	24 VB Logic circuit supply	±30%	300 mA
2	24 VA Valves	±10%	1,5 A
3	0 V	–	1,53 A
4	Earth	–	–

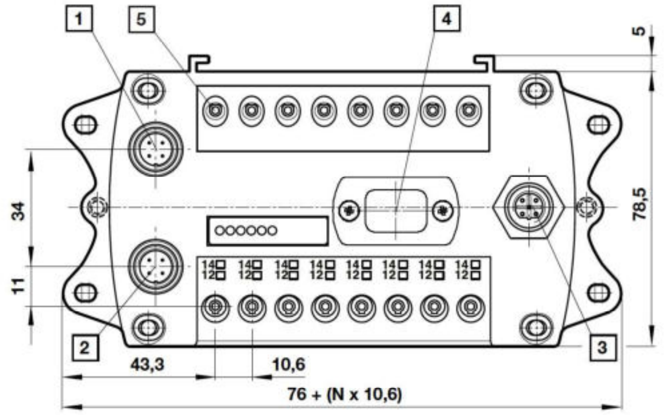
Viewed from above.

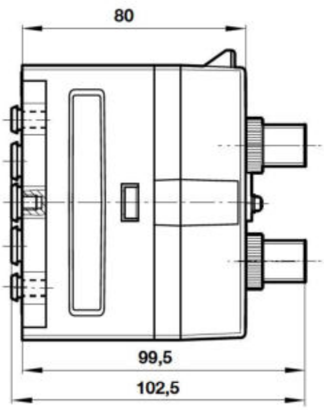
DeviceNet & CANopen



Pin no.	Function
1	Drain
2	V+
3	V-
4	CAN_H
5	CAN_L2

Fieldbus connections (M12 connector types IP65)





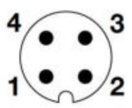
1 M12 power connector
2 M12 protocol connector (male)
3 M12 protocol connector (female)
4 Rotary address switch
5 Manual override, actuate with srew driver

N = number of stations

Model	Standard fieldbus	No. of stations	Max. no. of coils	Short code
VM10DPFNB00082	Profibus-DP	08	16	PS08
VM10DPFNB00102	Profibus-DP	10	20	PS10
VM10DPFNB00122	Profibus-DP	12	24	PS12
VM10DPFNB00162	Profibus-DP	16	32	PS16

Connector details

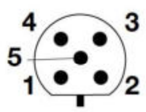
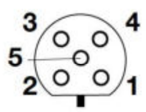
Power connection, male



Pin no.	Function	Tolerance	Max. current
1	24 VB Logic circuit supply	±30%	300 mA
2	24 VA Valves	±10%	1,5 A
3	0 V	–	1,53 A
4	Earth	–	–

Viewed from above.

Profibus-DP

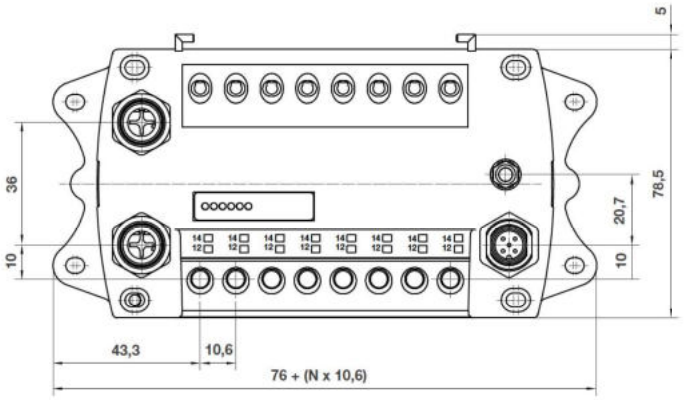
Male Communication in	Female Communication out	Pin no.	Function
		1	5 VI Opto isolator
		2	A-line (green)
		3	0 VI Opto isolated
		4	B-line (red)
		5	Shield

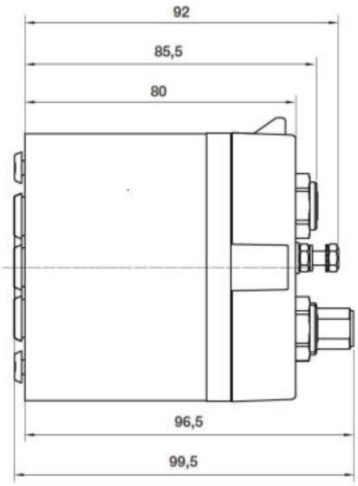
VALVE ISLANDS

VM10 2 x 3/2, 5/2 or 5/3 – 10 mm

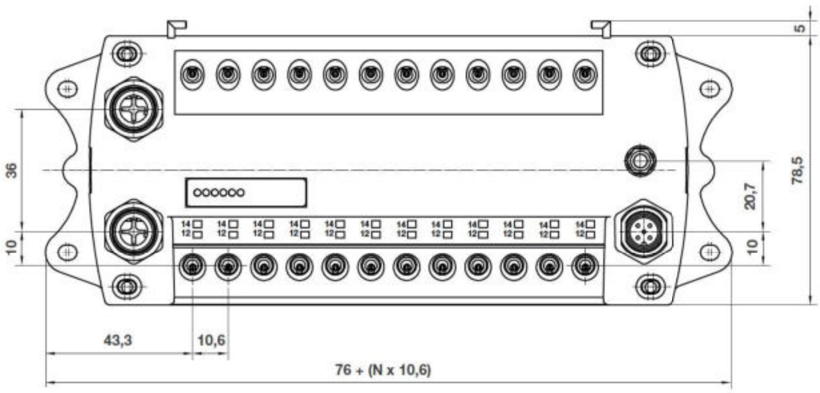
Profinet IRT connector (M12 connector types IP65)

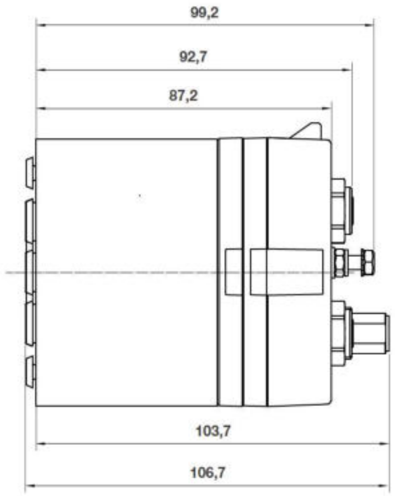
Dimensions for a 8 and 10 stations





Dimensions for a 12 and 16 stations



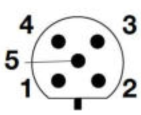


Model	Industrial Ethernet protocol	No. of stations	Max. no. of coils	Short code
VM10PNIEB00080	PROFINET IRT	08	16	PN08
VM10PNIEB00100	PROFINET IRT	10	20	PN10
VM10PNIEB00120	PROFINET IRT	12	24	PN12
VM10PNIEB00160	PROFINET IRT	16	32	PN16

Connector details

Power supply

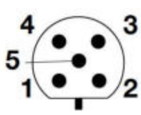
M12 x 5 pins, male connector A coded



	Pin no.	Function
	1	L1 (VB+) 24V electronics power supply
	2	N2 (VA-) DV valves power supply
	3	N1 (VB-) DV electronics power supply
	4	L2 (VA+) 24V valves power supply
	5	FE (functional earth)

Bus connectors Ports 1 and 2

M12 x 5 pins, female connector D coded

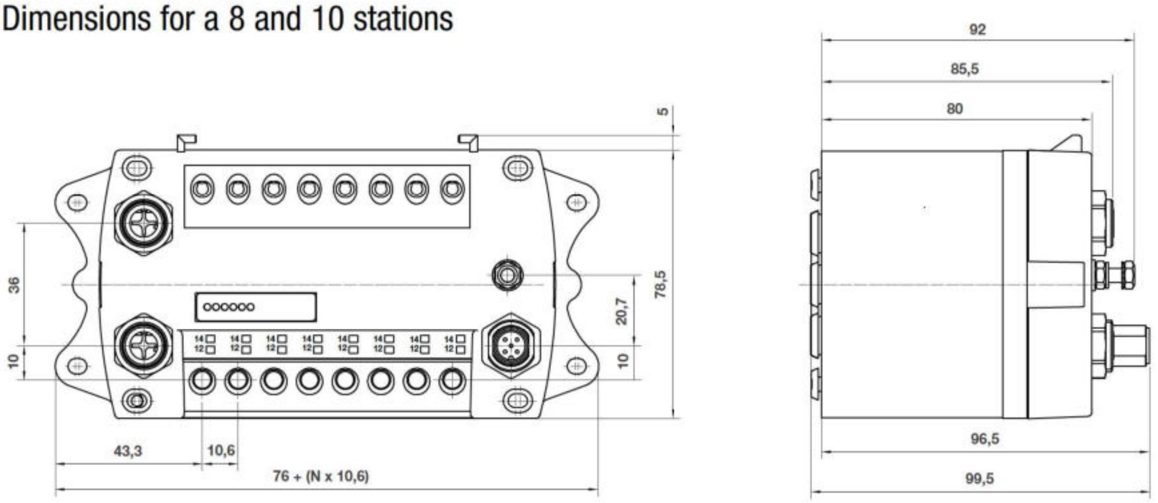


Male Communication in	Pin no.	Function
	1	Transmission Data + (TD+)
	2	Receive Data + (RD+)
	3	Transmission Data - (TD -)
	4	Receive Data - (RD -)
	5	(FE) functional earth

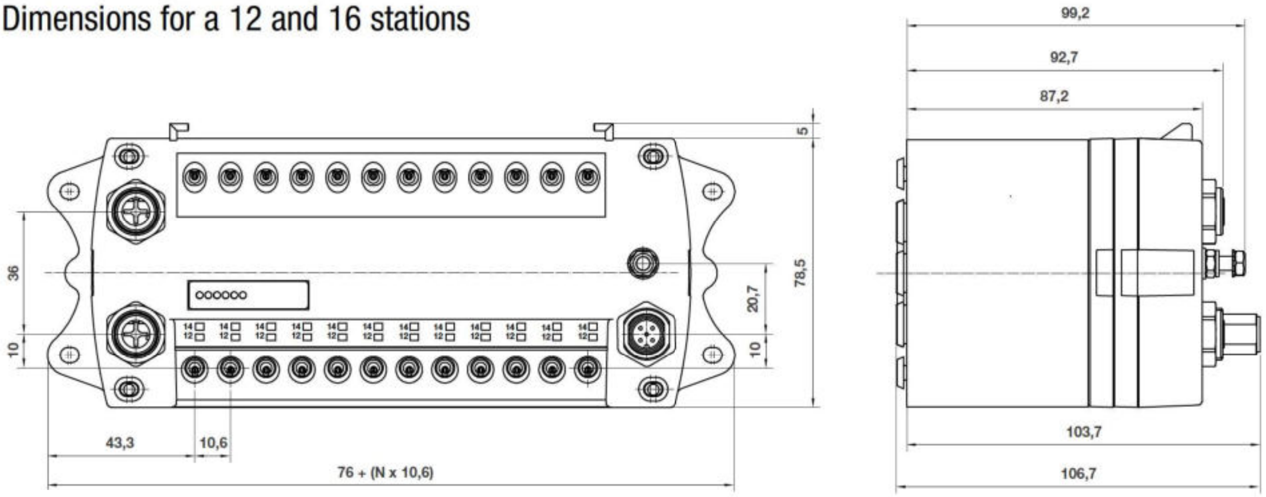
EtherNet/IP connections (M12 connector types IP65)

EtherNet/IP

Dimensions for a 8 and 10 stations



Dimensions for a 12 and 16 stations

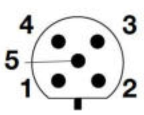


Model	Industrial Ethernet protocol	No. of stations	Max. no. of coils	Short code
VM10EPIEB00080	EtherNet/IP	08	16	EP08
VM10EPIEB00100	EtherNet/IP	10	20	EP10
VM10EPIEB00120	EtherNet/IP	12	24	EP12
VM10EPIEB00160	EtherNet/IP	16	32	EP16

Connector details

Power connection

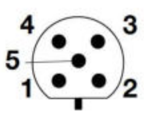
M12 x 5 pins, male connector A coded



	Pin no.	Function
	1	L1 (VB+) 24V electronics power supply
	2	N2 (VA-) DV valves power supply
	3	N1 (VB-) DV electronics power supply
	4	L2 (VA+) 24V valves power supply
	5	FE (functional earth)

Bus connectors Ports 1 and 2

M12 x 5 pins, female connector D coded



Male Communication in	Pin no.	Function
	1	Transmission Data + (TD+)
	2	Receive Data + (RD+)
	3	Transmission Data - (TD -)
	4	Receive Data - (RD -)
	5	(FE) functional earth

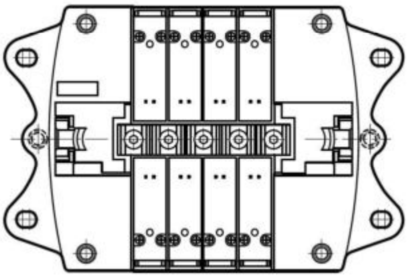
VALVE ISLANDS

VM10 2 x 3/2, 5/2 or 5/3 – 10 mm

Multi-pressure options

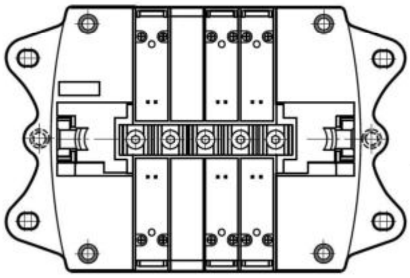
Single pressure

Pressure 1



Two pressure

Pressure 1

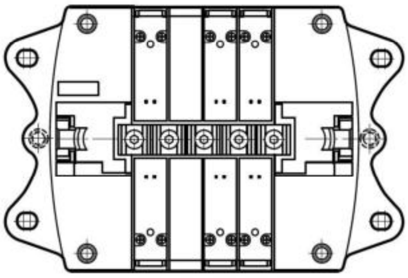


Pressure 2

Blanking slice gallery 1 VM106517AQ0301

Three pressure

Pressure 1



Pressure 2
Port 3

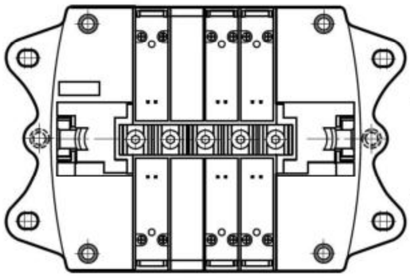
Pressure 3
Port 5

Blanking slice galleries 1, 3 & 5 VM106517AQ0303

Four pressure

Pressure 1
Port 3a

Pressure 2
Port 5a



Pressure 3
Port 3b

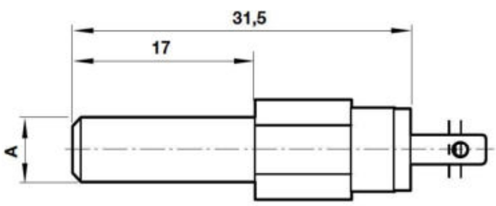
Pressure 4
Port 5b

Blanking slice galleries 3 & 5 VM106517AQ0302

3 & 4 Pressure islands are achieved by using externally piloted 2x3/2 valves and reverse porting via ports 3 & 5.
Please note that when 2x3/2 valves are reverse ported the functions are also reversed i.e. N/C becomes N/O and N/O becomes N/C.

Pressure switch for pilot ports 12 & 14

Voltage	24 V d.c.
Pressure range	0 … 10 bar
Switching point rising pressure	3 … 5 bar
Switch point falling pressure	2,5 … 3,7 bar
AMP E-terminals	2,8 x 0,8
Degree of protection	IP00
Adjustment	None



Model	A	Short code	Weight (kg)
VM106517AQ0804	4	7A	0,004
VM106517AQ0806	6	7B	0,004

VALVE ISLANDS

VM15 2 x 3/2, 5/2 or 5/3 – 15 mm

- Valve slices 2 x 3/2, 5/2 and 5/3 with integral push-in fittings Ø 6, 8 and 10 mm
- Multipole or individually wired for installation flexibility
- Compact and lightweight, integral push in fittings
- High flow from 15 mm valve width
- To configure and order a Valve Island visit: www.imi-precision.com/technical-support/configurators

Technical Data

Medium:
Compressed air, filtered, lubricated and non-lubricated

Operation:
Spool valve indirectly actuated

Port sizes:
Ports 1, 3 & 5: Ø 10 & 12 mm
Ports 2 & 4: Ø 6, 8 & 10 mm
Ports 12/14 & 82/84: Ø 6 mm push-in fittings
Imperial versions also available

Flow:

Function	l/min
5/2	1000
2x3/2	965
5/3	900

Degree of protection:
Individually wired: IP40
Multipole: IP65

Ambient temperature:
-5°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body, end plates:
Engineered PPA co-polymer

Spool:
Aluminium

Seals:
NBR

EXPRESS

Models - 2 x 3/2 Double solenoid actuated valves

Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
VM15*A11AB213B	2 x 3/2 NC	Solenoid/spring	Internal	Push and turn to lock	3 … 8	–
VM15*A11AB313B	2 x 3/2 NC	Solenoid/spring	Internal	Push only	3 … 8	–
VM15*A22AB213B	2 x 3/2 NC	Solenoid/spring	External	Push and turn to lock	-0,9 … 8	3 … 8
VM15*A22AB313B	2 x 3/2 NC	Solenoid/spring	External	Push only	-0,9 … 8	3 … 8
VM15*B11AB213B	2 x 3/2 NO	Solenoid/spring	Internal	Push and turn to lock	3 … 8	–
VM15*B11AB313B	2 x 3/2 NO	Solenoid/spring	Internal	Push only	3 … 8	–
VM15*B22AB213B	2 x 3/2 NO	Solenoid/spring	External	Push and turn to lock	-0,9 … 8	3 … 8
VM15*B22AB313B	2 x 3/2 NO	Solenoid/spring	External	Push only	-0,9 … 8	3 … 8
VM15*C11AB213B	2 x 3/2 NO/NC	Solenoid/spring	Internal	Push and turn to lock	3 … 8	–
VM15*C11AB313B	2 x 3/2 NO/NC	Solenoid/spring	Internal	Push only	3 … 8	–
VM15*C22AB213B	2 x 3/2 NO/NC	Solenoid/spring	External	Push and turn to lock	-0,9 … 8	3 … 8
VM15*C22AB313B	2 x 3/2 NO/NC	Solenoid/spring	External	Push only	-0,9 … 8	3 … 8

* For selection of port sizes please refer to the following table:

Tube size	Substitute
6 mm PIF	6
8 mm PIF	8
10 mm PIF	Y

Note: For 5/3 COE please use 2 x 3/2 NC. For 5/3 COP please use 2 x 3/2 NO.
APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.

VALVE ISLANDS

VM15 2 x 3/2, 5/2 or 5/3 – 15 mm

Models - 5/2 Single and double solenoid actuated valves

Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
VM15*517AB213B	5/2	Solenoid/spring	Internal	Push and turn to lock	3 … 8	–
VM15*517AB313B	5/2	Solenoid/spring	Internal	Push only	3 … 8	–
VM15*527AB213B	5/2	Solenoid/spring	External	Push and turn to lock	-0,9 … 8	3 … 8
VM15*527AB313B	5/2	Solenoid/spring	External	Push only	-0,9 … 8	3 … 8
VM15*511AB213B	5/2	Solenoid/solenoid	Internal	Push and turn to lock	3 … 8	–
VM15*511AB313B	5/2	Solenoid/solenoid	Internal	Push only	3 … 8	–
VM15*522AB213B	5/2	Solenoid/solenoid	External	Push and turn to lock	-0,9 … 8	2 … 8
VM15*522AB313B	5/2	Solenoid/solenoid	External	Push only	-0,9 … 8	2 … 8

Models - 5/3 Double solenoid actuated valves

Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
VM15*611AB213B	5/3 APB	Solenoid/solenoid	Internal	Push and turn to lock	3 … 8	–
VM15*611AB313B	5/3 APB	Solenoid/solenoid	Internal	Push only	3 … 8	–
VM15*622AB213B	5/3 APB	Solenoid/solenoid	External	Push and turn to lock	0,9 … 8	3 … 8
VM15*622AB313B	5/3 APB	Solenoid/solenoid	External	Push only	0,9 … 8	3 … 8

* For selection of port sizes please refer to the following table:

Tube size	Substitute
6 mm PIF	6
8 mm PIF	8
10 mm PIF	Y

Note: For 5/3 COE please use 2 x 3/2 NC. For 5/3 COP please use 2 x 3/2 NO.
APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.

Accessories

Valve blanking station	Port blanking station	Intermediate supply and exhaust manifold (ISEM)
		
VM156517AQ0300	VM156517AQ0301 (Port 1 blanked)	VM156517AQ0304 (Feed right)
–	VM156517AQ0302 (Ports 3 & 5 blanked)	VM156517AQ0305 (Feed left)
–	VM156517AQ0303 (Ports 1, 3 & 5 blanked)	–

DIN Rail fixing kit	DIN rail	Label cover kit		Labels
				
V12022-K30	V10009-C00 (1 m)	V12016-K30 (4 Station)	V12016-K33 (10 Station)	V12033-L01 (write and seal label)
–	–	V12016-K31 (6 Station)	V12016-K34 (12 Station)	–
–	–	V12016-K32 (8 Station)	V12016-K35 (16 Station)	–

Pressure switch for pilot ports 12 and 14	Silencer	Plug
		
VM106517AQ0806 (6 mm)	T45P0006 (6 mm)	C00040600 (6 mm)
–	T45P0008 (8 mm)	C00040800 (8 mm)
–	T45P0010 (10 mm)	C00041000 (10 mm)
–	T45P0012 (12 mm)	C00041200 (12 mm)

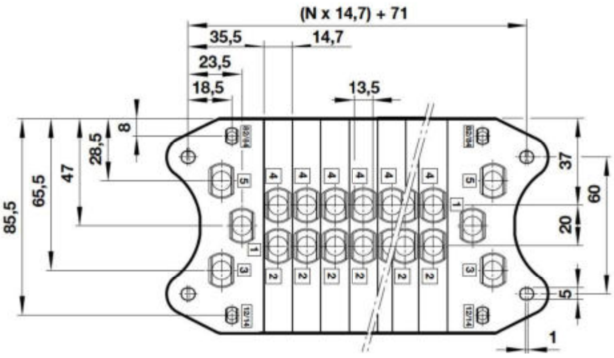
D Sub-connector 25 pin, IP65	D Sub-connector 44 pin, IP65	D Sub-connector 25 pin 90°, IP65	D Sub-connector 44 pin 90°, IP65	2 Pin connector IP40
				
V11569-E01 (1 m)	V11570-E01 (1 m)	V12086-E01 (1 m)	V12088-E01 (1 m)	V11556-E03 (0,3 m)
V11569-E03 (3 m)	V11570-E03 (3 m)	V12086-E03 (3 m)	V12088-E03 (3 m)	–
V11569-E05 (5 m)	V11570-E05 (5 m)	V12086-E05 (5 m)	V12088-E05 (5 m)	–

VALVE ISLANDS

VM15 2 x 3/2, 5/2 or 5/3 – 15 mm

● Dimensions

Port connections and mountings



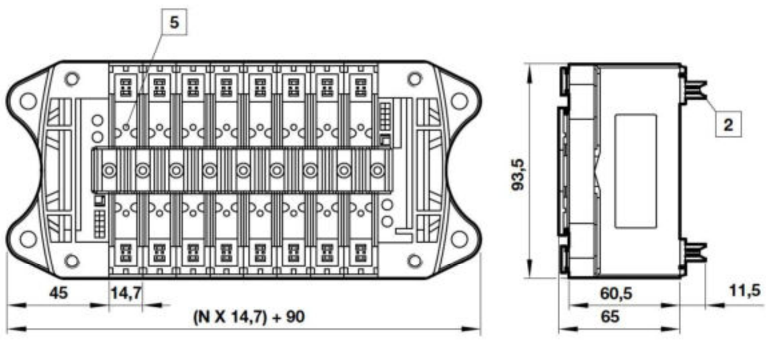
N = number of stations

Model	Description	Ports 1, 3 & 5 Tube outside Ø	Ports 12/14 & 82/84 Tube outside Ø	Ports 2 & 4 Tube outside Ø
VM156517AQ010Z	End plate kit - feed both ends	12	6	6, 8 or 10
VM156517AQ010Y	End plate kit - feed both ends	10	6	6, 8 or 10
VM156517AQ011Z	End plate kit - left blocked	12	6	6, 8 or 10
VM156517AQ011Y	End plate kit - left blocked	10	6	6, 8 or 10
VM156517AQ012Y	End plate kit - right blocked	10	6	6, 8 or 10

"Note: Ports 82/84 (solenoid pilot exhausts) should not be plugged. A filter or silencer can be fitted or the air can be piped away with tubing."

Modular assembly

Individually wired IP40

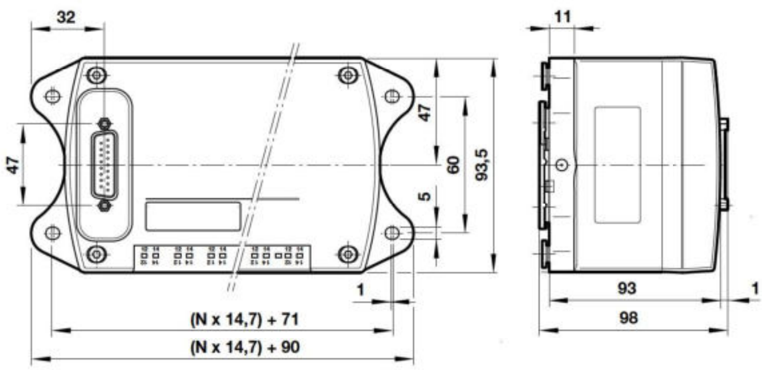


2 2 pin connector interface
5 Manual override
N = number of stations

Individually wired	No. of stations	Max. no. of coils
2 pin connector	2 … 20	40

* kg + valves weight.

Multipole IP65



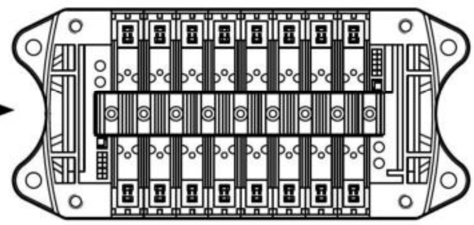
N = number of stations

Model -ve common	Multipole	No. of stations	Max. no. coils
VM156517AQ0404	25 Pin connector	4	8
VM156517AQ0406	25 Pin connector	6	12
VM156517AQ0408	25 Pin connector	8	16
VM156517AQ0410	25 Pin connector	10	20
VM156517AQ0412	25 Pin connector	12	24
VM156517AQ0516	44 Pin connector	16	32

Multi-pressure options

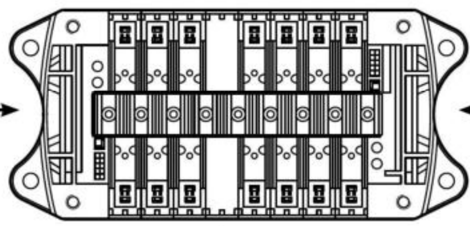
Single pressure

Pressure 1



Two pressure

Pressure 1
Port 1

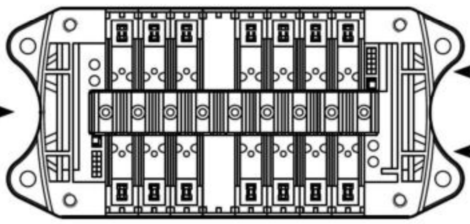


Pressure 2
Port 1b

Blanking slice
Gallery 1
VM156517AQ0301

Three pressure

Pressure 1
Port 1

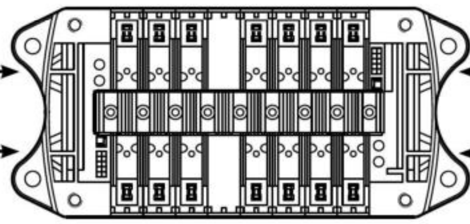


Pressure 2
Port 3
Pressure 3
Port 5

Blanking slice
Galleries 1, 3 & 5
VM156517AQ0303

Four pressure

Pressure 1
Port 3a
Pressure 2
Port 5a



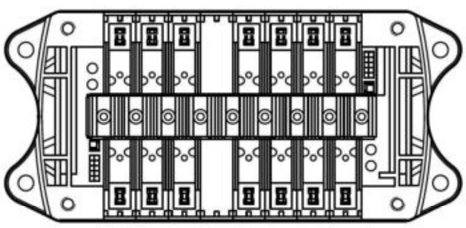
Pressure 3
Port 3b
Pressure 4
Port 5b

Blanking slice
Galleries 3 & 5
VM156517AQ0302

Please Note - the 3 & 4 Pressure islands shown above are achieved by using externally piloted 2x3/2 valves and reverse porting via ports 3 & 5.
Please note that when 2x3/2 valves are reverse ported the functions are also reversed i.e. N/C becomes N/O and N/O becomes N/C.

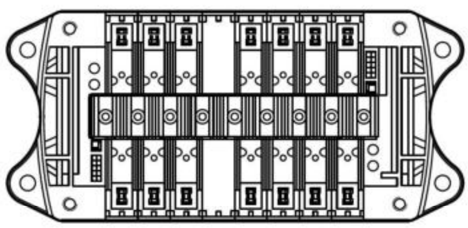
Multi-pressure options – Intermediate supply exhaust manifolds single pressure

Feed right



ISEM
VM156517AQ0304

Feed left

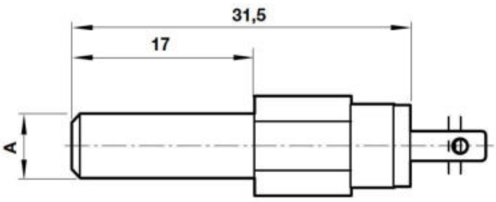


ISEM
VM156517AQ0305

Online at **www.imi-precision.com**

Pressure switch for pilot ports 12 & 14

Voltage	**24 V d.c.**
Pressure range	0 … 10 bar
Switching point rising pressure	3 … 5 bar
Switch point falling pressure	2,5 … 3,7 bar
AMP E-terminals	2,8 x 0,8
Degee of protection	IP00
Adjustment:	None



A	Short code	Model
6	7B	VM106517AQ0806

PLUG-IN MINI ISO VALVE ISLANDS

VS18 2 x 2/2, 2 x 3/2, 5/2 or 5/3, size 18 mm

- Modular system offering a wide range of configuration options conforming to ISO 15407-2, 18 mm wide valves
- 24 V d.c. or 115 V a.c. Multipole and single station sub-base
- Integrated Fieldbus and Industrial Ethernet
- Fieldbus expandable with single add-on stations, Industrial Ethernet expandable with double add-on stations.
- Wide range of accessories including shut off valves enabling non-stop operation
- Dual spool technology, solenoid pilot actuated
  - VS18G Glandless spool and sleeve for long life
  - VS18S Softseal spool for high flow
- Up to 40 solenoids, operating at 16 bar pressure
- UL and ATEX
- To configure and order a Valve Island visit - www.imi-precision.com/uk/valve-islands

Technical Data

Medium:
Compressed air, filtered to 40 µm, lubricated or non-lubricated

Flow:
Softseal

Function	l/min
2x2/2	550
2x3/2	600
5/2; 5/3	650
Glandless	
5/2; 5/3	550

Mounting:
Sub-base

Ports 2+4:
G1/8, NPTF 1/8, PIF 8 mm, PIF 6 mm, PIF 1/4

Operating pressure:
Maximum pressure
10 bar VS18S models and VS18G solenoid pilot actuated valves with internal pilot supply
16 bar VS18G solenoid pilot actuated valves with external pilot supply

Ambient/Media temperature:
Ambient:-15°C … +50°C
Media: -5°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body/sub-base:
Die-cast aluminium

Glandless spool & Sleeve (VS18G):
Aluminium, hard anodised, PTFE coated

Softseal spool (VS18S):
Aluminium with HNBR seals

Plastic parts:
POM, PA, PPA

Mounting sheets/screws:
Steel, zinc coated

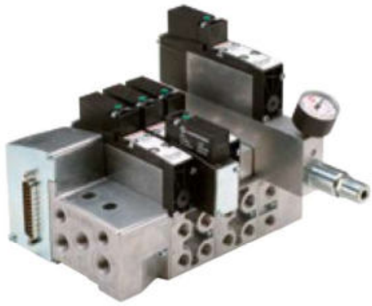
Springs:
Stainless steel

Sandwich plates:
Aluminium bar material, PA

Electrical contacts:
Brass, tin coated

PCB:
Glass epoxy

EXPRESS



DeviceNet CANopen

Electrical details for solenoid operators

Voltage tolerances	(24 V d.c) +/- 10%
	(115 V a.c) -10%/+15%
Rating	100% Continuous duty
Inlet orifice	0,8 mm
Indication	LED green
Surge suppression	Transil diode
Materials	PPS (body), FKM and NBR (seal)

Note: For alternative voltage and voltage tolerances please contact us.

Protection classification (IP Code):
All VS18 valve islands fulfill IP65 and NEMA4 ratings.

Power supply and precautions:
All VS18 24 V d.c products are designed to be used with a protective extra low voltage (PELV) power supply. All VS18 115 V a.c products correspond to the protection class I. Connection of the protective earth (PE) ground is required.

UL approval:
Recognized to UL 429 for Electrically Operated Valves (not applicable for Industrial Ethernet options).

ATEX:
The 24 V d.c Multipole and Fieldbus valve islands fulfils the requirement of the standard 2014/34/EU for intended use in hazardous locations.

Multipole and Industrial Ethernet versions:
II 3G Ex nA IIC T4 Gc
II 3D Ex tc IIIC T135°C Dc

Fieldbus versions:
II 3G Ex nA IIC T4 Gc
II 3D Ex tc IIIB T135°C Dc

Equipment group, category, type of protection:
The Declaration of Conformity of the valve islands was conducted by IMI Precision Engineering Norgren GmbH, D-70731 Fellbach. Please review all ATEX data and notes in the maintenance and instruction booklet to eliminate any risks, allowing for safe function of the valve islands.

● Models - 2 x 2/2 Double solenoid actuated softseal valves (flow 550 l/min)

Model	Function 2 x 2/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage
VS18SE11DF313A	NC	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS18SE11DF318A	NC	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS18SE11DF213A	NC	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS18SE11DF218A	NC	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS18SE11DF513A	NC	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18SE11DF518A	NC	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18SE22DF313A	NC	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS18SE22DF318A	NC	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS18SE22DF213A	NC	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS18SE22DF218A	NC	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS18SE22DF513A	NC	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18SE22DF518A	NC	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18SF11DF313A	NO	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS18SF11DF318A	NO	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS18SF11DF213A	NO	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS18SF11DF218A	NO	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS18SF11DF513A	NO	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18SF11DF518A	NO	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18SF22DF313A	NO	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS18SF22DF318A	NO	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS18SF22DF213A	NO	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS18SF22DF218A	NO	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS18SF22DF513A	NO	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18SF22DF518A	NO	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18SG11DF313A	NO/NC	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS18SG11DF318A	NO/NC	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS18SG11DF213A	NO/NC	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS18SG11DF218A	NO/NC	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS18SG11DF513A	NO/NC	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18SG11DF518A	NO/NC	Sol/Spring	Internal	2,5 … 10*1)	-0,9 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18SG22DF313A	NO/NC	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS18SG22DF318A	NO/NC	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS18SG22DF213A	NO/NC	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS18SG22DF218A	NO/NC	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS18SG22DF513A	NO/NC	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18SG22DF518A	NO/NC	Sol/Spring	External	1,7 + (0,5 x press. port1)*2)	-0,9 … 10	Extended, Push only	115 V a.c. 1,5 VA

Valve dimensions see page 189.
NO = Normally open, NC = Normally closed.
*1) Pilot air supply through port 1.
*2) Pilot air supply through port 12/14.

● Models - 2 x 3/2 Double solenoid actuated softseal valves (flow 600 l/min)

Model	Function 2 x 3/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage
VS18SA11DF313A	NC	Sol/Spring	Internal	–	2,5 … 10	Push only	24 V d.c. 1,2 W
VS18SA11DF318A	NC	Sol/Spring	Internal	–	2,5 … 10	Push only	115 V a.c. 1,5 VA
VS18SA11DF213A	NC	Sol/Spring	Internal	–	2,5 … 10	Push & turn	24 V d.c. 1,2 W
VS18SA11DF218A	NC	Sol/Spring	Internal	–	2,5 … 10	Push & turn	115 V a.c. 1,5 VA
VS18SA11DF513A	NC	Sol/Spring	Internal	–	2,5 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18SA11DF518A	NC	Sol/Spring	Internal	–	2,5 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18SA22DF313A	NC	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Push only	24 V d.c. 1,2 W
VS18SA22DF318A	NC	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Push only	115 V a.c. 1,5 VA
VS18SA22DF213A	NC	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Push & turn	24 V d.c. 1,2 W
VS18SA22DF218A	NC	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Push & turn	115 V a.c. 1,5 VA
VS18SA22DF513A	NC	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18SA22DF518A	NC	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18SB11DF313A	NO	Sol/Spring	Internal	–	2,5 … 10	Push only	24 V d.c. 1,2 W
VS18SB11DF318A	NO	Sol/Spring	Internal	–	2,5 … 10	Push only	115 V a.c. 1,5 VA
VS18SB11DF213A	NO	Sol/Spring	Internal	–	2,5 … 10	Push & turn	24 V d.c. 1,2 W
VS18SB11DF218A	NO	Sol/Spring	Internal	–	2,5 … 10	Push & turn	115 V a.c. 1,5 VA
VS18SB11DF513A	NO	Sol/Spring	Internal	–	2,5 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18SB11DF518A	NO	Sol/Spring	Internal	–	2,5 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18SB22DF313A	NO	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Push only	24 V d.c. 1,2 W
VS18SB22DF318A	NO	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Push only	115 V a.c. 1,5 VA
VS18SB22DF213A	NO	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Push & turn	24 V d.c. 1,2 W
VS18SB22DF218A	NO	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Push & turn	115 V a.c. 1,5 VA
VS18SB22DF513A	NO	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18SB22DF518A	NO	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18SC11DF313A	NO/NC	Sol/Spring	Internal	–	2,5 … 10	Push only	24 V d.c. 1,2 W
VS18SC11DF318A	NO/NC	Sol/Spring	Internal	–	2,5 … 10	Push only	115 V a.c. 1,5 VA
VS18SC11DF213A	NO/NC	Sol/Spring	Internal	–	2,5 … 10	Push & turn	24 V d.c. 1,2 W
VS18SC11DF218A	NO/NC	Sol/Spring	Internal	–	2,5 … 10	Push & turn	115 V a.c. 1,5 VA
VS18SC11DF513A	NO/NC	Sol/Spring	Internal	–	2,5 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18SC11DF518A	NO/NC	Sol/Spring	Internal	–	2,5 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18SC22DF313A	NO/NC	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Push only	24 V d.c. 1,2 W
VS18SC22DF318A	NO/NC	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Push only	115 V a.c. 1,5 VA
VS18SC22DF213A	NO/NC	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Push & turn	24 V d.c. 1,2 W
VS18SC22DF218A	NO/NC	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Push & turn	115 V a.c. 1,5 VA
VS18SC22DF513A	NO/NC	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18SC22DF518A	NO/NC	Sol/Spring	External	1,7 + (0,35 x op. press.)	0 … 10	Extended, Push only	115 V a.c. 1,5 VA

Valve dimensions see page 189.
NO = Normally open, NC = Normally closed.

● Models - 5/2 Single and double solenoid actuated glandless valves (flow 550 l/min)

Model	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage
VS18G511DF313A	Sol/Sol	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W
VS18G511DF318A	Sol/Sol	Internal	–	2 … 10	Push only	115 V a.c. 1,5 VA
VS18G511DF213A	Sol/Sol	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W
VS18G511DF218A	Sol/Sol	Internal	–	2 … 10	Push & turn	115 V a.c. 1,5 VA
VS18G511DF513A	Sol/Sol	Internal	–	2 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18G511DF518A	Sol/Sol	Internal	–	2 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18G522DF313A	Sol/Sol	External	2 … 10	-0,9 … 16	Push only	24 V d.c. 1,2 W
VS18G522DF318A	Sol/Sol	External	2 … 10	-0,9 … 16	Push only	115 V a.c. 1,5 VA
VS18G522DF213A	Sol/Sol	External	2 … 10	-0,9 … 16	Push & turn	24 V d.c. 1,2 W
VS18G522DF218A	Sol/Sol	External	2 … 10	-0,9 … 16	Push & turn	115 V a.c. 1,5 VA
VS18G522DF513A	Sol/Sol	External	2 … 10	-0,9 … 16	Extended, Push only	24 V d.c. 1,2 W
VS18G522DF518A	Sol/Sol	External	2 … 10	-0,9 … 16	Extended, Push only	115 V a.c. 1,5 VA
VS18G591DF313A	Sol(Priority)/Sol	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W
VS18G591DF318A	Sol(Priority)/Sol	Internal	–	2 … 10	Push only	115 V a.c. 1,5 VA
VS18G591DF213A	Sol(Priority)/Sol	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W
VS18G591DF218A	Sol(Priority)/Sol	Internal	–	2 … 10	Push & turn	115 V a.c. 1,5 VA
VS18G591DF513A	Sol(Priority)/Sol	Internal	–	2 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18G591DF518A	Sol(Priority)/Sol	Internal	–	2 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18G592DF313A	Sol(Priority)/Sol	External	2 … 10	-0,9 … 16	Push only	24 V d.c. 1,2 W
VS18G592DF318A	Sol(Priority)/Sol	External	2 … 10	-0,9 … 16	Push only	115 V a.c. 1,5 VA
VS18G592DF213A	Sol(Priority)/Sol	External	2 … 10	-0,9 … 16	Push & turn	24 V d.c. 1,2 W
VS18G592DF218A	Sol(Priority)/Sol	External	2 … 10	-0,9 … 16	Push & turn	115 V a.c. 1,5 VA
VS18G592DF513A	Sol(Priority)/Sol	External	2 … 10	-0,9 … 16	Extended, Push only	24 V d.c. 1,2 W
VS18G592DF518A	Sol(Priority)/Sol	External	2 … 10	-0,9 … 16	Extended, Push only	115 V a.c. 1,5 VA
VS18G517DF313A	Sol/Spring	Internal	–	1,6 … 10	Push only	24 V d.c. 1,2 W
VS18G517DF318A	Sol/Spring	Internal	–	1,6 … 10	Push only	115 V a.c. 1,5 VA
VS18G517DF213A	Sol/Spring	Internal	–	1,6 … 10	Push & turn	24 V d.c. 1,2 W
VS18G517DF218A	Sol/Spring	Internal	–	1,6 … 10	Push & turn	115 V a.c. 1,5 VA
VS18G517DF513A	Sol/Spring	Internal	–	1,6 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18G517DF518A	Sol/Spring	Internal	–	1,6 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18G527DF313A	Sol/Spring	External	1,6 … 10	-0,9 … 16	Push only	24 V d.c. 1,2 W
VS18G527DF318A	Sol/Spring	External	1,6 … 10	-0,9 … 16	Push only	115 V a.c. 1,5 VA
VS18G527DF213A	Sol/Spring	External	1,6 … 10	-0,9 … 16	Push & turn	24 V d.c. 1,2 W
VS18G527DF218A	Sol/Spring	External	1,6 … 10	-0,9 … 16	Push & turn	115 V a.c. 1,5 VA
VS18G527DF513A	Sol/Spring	External	1,6 … 10	-0,9 … 16	Extended, Push only	24 V d.c. 1,2 W
VS18G527DF518A	Sol/Spring	External	1,6 … 10	-0,9 … 16	Extended, Push only	115 V a.c. 1,5 VA

Valve dimensions see page 189.

PLUG-IN MINI ISO VALVE ISLANDS

VS18 2 x 2/2, 2 x 3/2, 5/2 or 5/3, size 18 mm

● Models - 5/2 Single and double solenoid actuated softseal valves (flow 650 l/min)

Model	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage
VS18S511DF313A	Sol/Sol	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W
VS18S511DF318A	Sol/Sol	Internal	–	2 … 10	Push only	115 V a.c. 1,5 VA
VS18S511DF213A	Sol/Sol	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W
VS18S511DF218A	Sol/Sol	Internal	–	2 … 10	Push & turn	115 V a.c. 1,5 VA
VS18S511DF513A	Sol/Sol	Internal	–	2 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18S511DF518A	Sol/Sol	Internal	–	2 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18S522DF313A	Sol/Sol	External	2 … 10	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS18S522DF318A	Sol/Sol	External	2 … 10	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS18S522DF213A	Sol/Sol	External	2 … 10	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS18S522DF218A	Sol/Sol	External	2 … 10	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS18S522DF513A	Sol/Sol	External	2 … 10	-0,9 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18S522DF518A	Sol/Sol	External	2 … 10	-0,9 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18S517DF313A	Sol/Spring	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W
VS18S517DF318A	Sol/Spring	Internal	–	2 … 10	Push only	115 V a.c. 1,5 VA
VS18S517DF213A	Sol/Spring	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W
VS18S517DF218A	Sol/Spring	Internal	–	2 … 10	Push & turn	115 V a.c. 1,5 VA
VS18S517DF513A	Sol/Spring	Internal	–	2 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18S517DF518A	Sol/Spring	Internal	–	2 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18S527DF313A	Sol/Spring	External	2 … 10	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS18S527DF318A	Sol/Spring	External	2 … 10	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS18S527DF213A	Sol/Spring	External	2 … 10	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS18S527DF218A	Sol/Spring	External	2 … 10	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS18S527DF513A	Sol/Spring	External	2 … 10	-0,9 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18S527DF518A	Sol/Spring	External	2 … 10	-0,9 … 10	Extended, Push only	115 V a.c. 1,5 VA

Valve dimensions see page 189.

● Models - 5/3 Double solenoid actuated glandless valves (flow 550 l/min)

Model	Function	Actuation/ retur	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage
VS18G611DF313A	APB	Sol/Sol	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W
VS18G611DF318A	APB	Sol/Sol	Internal	–	2 … 10	Push only	115 V a.c. 1,5 VA
VS18G611DF213A	APB	Sol/Sol	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W
VS18G611DF218A	APB	Sol/Sol	Internal	–	2 … 10	Push & turn	115 V a.c. 1,5 VA
VS18G611DF513A	APB	Sol/Sol	Internal	–	2 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18G611DF518A	APB	Sol/Sol	Internal	–	2 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18G622DF313A	APB	Sol/Sol	External	2 … 10	-0,9 … 16	Push only	24 V d.c. 1,2 W
VS18G622DF318A	APB	Sol/Sol	External	2 … 10	-0,9 … 16	Push only	115 V a.c. 1,5 VA
VS18G622DF213A	APB	Sol/Sol	External	2 … 10	-0,9 … 16	Push & turn	24 V d.c. 1,2 W
VS18G622DF218A	APB	Sol/Sol	External	2 … 10	-0,9 … 16	Push & turn	115 V a.c. 1,5 VA
VS18G622DF513A	APB	Sol/Sol	External	2 … 10	-0,9 … 16	Extended, Push only	24 V d.c. 1,2 W
VS18G622DF518A	APB	Sol/Sol	External	2 … 10	-0,9 … 16	Extended, Push only	115 V a.c. 1,5 VA
VS18G711DF313A	COE	Sol/Sol	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W
VS18G711DF318A	COE	Sol/Sol	Internal	–	2 … 10	Push only	115 V a.c. 1,5 VA
VS18G711DF213A	COE	Sol/Sol	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W
VS18G711DF218A	COE	Sol/Sol	Internal	–	2 … 10	Push & turn	115 V a.c. 1,5 VA
VS18G711DF513A	COE	Sol/Sol	Internal	–	2 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18G711DF518A	COE	Sol/Sol	Internal	–	2 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18G722DF313A	COE	Sol/Sol	External	2 … 10	-0,9 … 16	Push only	24 V d.c. 1,2 W
VS18G722DF318A	COE	Sol/Sol	External	2 … 10	-0,9 … 16	Push only	115 V a.c. 1,5 VA
VS18G722DF213A	COE	Sol/Sol	External	2 … 10	-0,9 … 16	Push & turn	24 V d.c. 1,2 W
VS18G722DF218A	COE	Sol/Sol	External	2 … 10	-0,9 … 16	Push & turn	115 V a.c. 1,5 VA
VS18G722DF513A	COE	Sol/Sol	External	2 … 10	-0,9 … 16	Extended, Push only	24 V d.c. 1,2 W
VS18G722DF518A	COE	Sol/Sol	External	2 … 10	-0,9 … 16	Extended, Push only	115 V a.c. 1,5 VA

Valve dimensions see page 189.
APB = All Ports Blocked, COE = Centre Open Exhaust.

Models - 5/3 Double solenoid actuated softseal valves (flow 650 l/min)

Model	Function	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage
VS18S611DF313A	APB	Sol/Sol	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W
VS18S611DF318A	APB	Sol/Sol	Internal	–	2 … 10	Push only	115 V a.c. 1,5 VA
VS18S611DF213A	APB	Sol/Sol	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W
VS18S611DF218A	APB	Sol/Sol	Internal	–	2 … 10	Push & turn	115 V a.c. 1,5 VA
VS18S611DF513A	APB	Sol/Sol	Internal	–	2 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18S611DF518A	APB	Sol/Sol	Internal	–	2 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18S622DF313A	APB	Sol/Sol	External	2 … 10	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS18S622DF318A	APB	Sol/Sol	External	2 … 10	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS18S622DF213A	APB	Sol/Sol	External	2 … 10	-0,9 … 10	Push & turn	24 V c.c. 1,2 W
VS18S622DF218A	APB	Sol/Sol	External	2 … 10	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS18S622DF513A	APB	Sol/Sol	External	2 … 10	-0,9 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18S622DF518A	APB	Sol/Sol	External	2 … 10	-0,9 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18S711DF313A	COE	Sol/Sol	Internal	–	2,5 … 10	Push only	24 V d.c. 1,2 W
VS18S711DF318A	COE	Sol/Sol	Internal	–	2,5 … 10	Push only	115 V a.c. 1,5 VA
VS18S711DF213A	COE	Sol/Sol	Internal	–	2,5 … 10	Push & turn	24 V d.c. 1,2 W
VS18S711DF218A	COE	Sol/Sol	Internal	–	2,5 … 10	Push & turn	115 V a.c. 1,5 VA
VS18S711DF513A	COE	Sol/Sol	Internal	–	2,5 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18S711DF518A	COE	Sol/Sol	Internal	–	2,5 … 10	Extended, Push only	115 V a.c. 1,5 VA
VS18S722DF313A	COE	Sol/Sol	External	2,5 … 10	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS18S722DF318A	COE	Sol/Sol	External	2,5 … 10	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS18S722DF213A	COE	Sol/Sol	External	2,5 … 10	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS18S722DF218A	COE	Sol/Sol	External	2,5 … 10	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS18S722DF513A	COE	Sol/Sol	External	2,5 … 10	-0,9 … 10	Extended, Push only	24 V d.c. 1,2 W
VS18S722DF518A	COE	Sol/Sol	External	2,5 … 10	-0,9 … 10	Extended, Push only	115 V a.c. 1,5 VA

Valve dimensions see page 189.
APB = All Ports Blocked, COE = Centre Open Exhaust.

PLUG-IN MINI ISO VALVE ISLANDS
VS18 2 x 2/2, 2 x 3/2, 5/2 or 5/3, size 18 mm

Accessories

DIN EN 50 022 rail (1 m)	DIN-rail mounting kit	Blanking disc to modular sub-base	Manual override set-up kit	Spare valve identification labels *1)	Blanking plug for base connector hole *2)
					
V10009-C00 (35 x 7,5 mm)	V70531-KA0	VS1872405-KF00 (Ports 1, 3, 5)	VS2672906-KG00	VS2672905-KG00 (10 pcs.)	VS2672914-KG00
–	–	VS1872406-KF00 (Port 12/14)	–	–	–

*1) When purchasing assembled valve islands from IMI Precision Engineering, valve identification labels are already included.
*2) When V40/V41 valves are fitted on VS18 bases.

Base accessories

Intermediate supply/exhaust module	Blanking plate
	
VS1872402-AF00 (G1/8)	VS1872404-KF00
VS1872402-PF00 (NPTF 1/8)	–

Sandwich plates

Single pressure regulator plate	Double pressure regulator plate	Flow regulator plate	Sandwich plate with additional pressure port 1	Single valve shut-off plate
				
VS1872400-KF10 (Port *1)	VS1872400-KF40 (Ports 2+4)	VS1872401-KF00 (Ports 3+5)	VS1872428-KFG00 (G1/8)	VS1872403-KF00 (Port *1)
VS1872400-KF20 (Port *2)	–	–	–	–
VS1872400-KF30 (Port 4)	–	–	–	–

Sub-bases and end plates

Single station sub-base	Double station modular sub-base	Single station modular sub-base	End plate kit
			
Page 179	Page 180 for dimensions.		

Multipole options

Connector type	Voltage	No. of stations	Max. no. solenoids
D-Sub 9-pin	24 V d.c.	02/03/04	8
D-Sub 15-pin	24 V d.c.	02/03/04/05/06/07	14
D-Sub 25-pin	24 V d.c.	02/03/04/05/06/07/08/09/10/11/12	24
D-Sub 44-pin	24 V d.c.	08/09/10/11/12/13/14/15/16/17/18/19/20	40
M23 19-pin	115 V a.c., 24 V d.c.	02/03/04/05/06/07/08	16
NPTF1 Conduit entry with terminals	115 V a.c., 24 V d.c.	02/03/04/05/06/07/08/09/10/11/12	24

For valve islands with 17 … 20 valve stations, please contact our customer service. For details of single parts see pages 192 … 195.

Multipole accessories

Cable length	D-Sub connector 9-pin IP65 *1)	D-Sub connector 15-pin IP65 *1)	D-Sub connector 25-pin IP65 *1)	D-Sub connector 44-pin IP65 *1)	M23 connector 19-pin IP65 *1)
					
1 m	VS2672910-KG00	VS2672915-KG00	V11569-E01	V11570-E01	VS2672943-KG00
3 m	VS2672911-KG00	VS2672916-KG00	V11569-E03	V11570-E03	VS2672944-KG00
5 m	VS2672912-KG00	VS2672917-KG00	V11569-E05	V11570-E05	VS2672945-KG00

*1) Required for ATEX.
For cable length longer than 5 m please contact customer service.

PLUG-IN MINI ISO VALVE ISLANDS

VS18 2 x 2/2, 2 x 3/2, 5/2 or 5/3, size 18 mm

Fieldbus options: Overview

Fieldbus protocol	Communications Connector	Power connector	No. of stations	Max. no. solenoids
Profibus DP	1 x D-Sub; 9-pin	M12; 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
	2 x M12; 5-pin	M12; 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
	2 x M12; 5-pin	7/8; 5-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
Profinet IRT	2 x M12; 4-pin	M12; 5-pin	04/06/08/10/12/14/16/18/20	40
DeviceNet	1 x M12; 5-pin	M12; 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
EtherNet/IP	2 x M12; 4-pin	M12; 5-pin	04/06/08/10/12/14/16/18/20	40
CANopen	1 x M12; 5-pin	M12; 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
Interbus-S	2 x D-Sub; 9-pin	M12; 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
AS-Interface-Singleslave	1 x M12; 4-pin	M12; 4-pin	02/03/04	4
AS-Interface-Doubleslave	1 x M12; 4-pin	M12; 4-pin	04/05/06/07/08	8

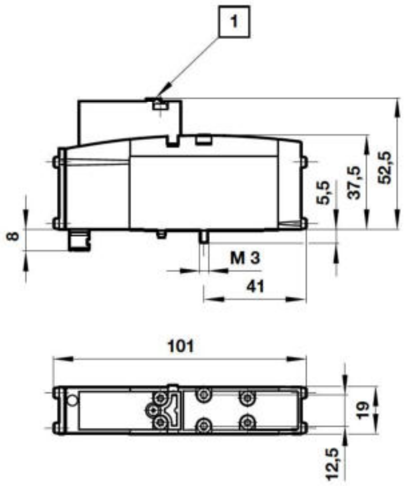
For parts and assembly instructions of Fieldbus and Industrial Ethernet components, consult our technical service.

Fieldbus accessories

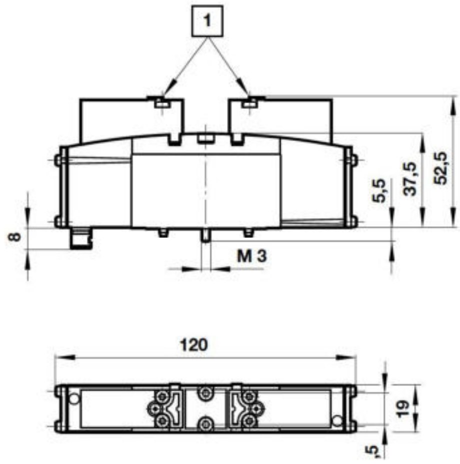
	Model	Description	Connection	Cable length	Protection class
Fieldbus power connector					
	V11588-E01	Profibus DP (4-pin, female) Interbus-S (4-pin, female) DeviceNet (4-pin, female) CANopen (4-pin, female)	M12	Wireable	IP65 Required for ATEX
	VS2672907-KG00	Profibus DP (5-pin, female)	7/8	Wireable	IP65 Required for ATEX
Communication cable and connector					
	V11589-E01	DeviceNet (5-pin, female) CANopen (5-pin, female)	M12	Wireable	IP65 Required for ATEX
	V11590-E01	Profibus DP, reverse keyway (5-pin, male)	M12	Wireable	IP65 Required for ATEX
	V11591-E01	Profibus DP, reverse keyway (5-pin, female)	M12	Wireable	IP65 Required for ATEX
	V11654-E01	Profibus DP connector (9-pin, male) with terminating resistor	D-Sub	Wireable	IP40
	V11592-E01	Profibus DP terminating resistor (male)	M12	–	IP65 Required for ATEX
	VE1ASCN1-M1200	AS-Interface power or communications (4-pin, female)	M12	Wireable	IP65 Required for ATEX

Dimensions - Valves

VS18*5*7DF*1*A
5/2 Single solenoid pilot valve, mechanical spring return



VS18****DF*1*A
2x2/2, 2x3/2, 5/2 and 5/3 Double solenoid, pilot valve

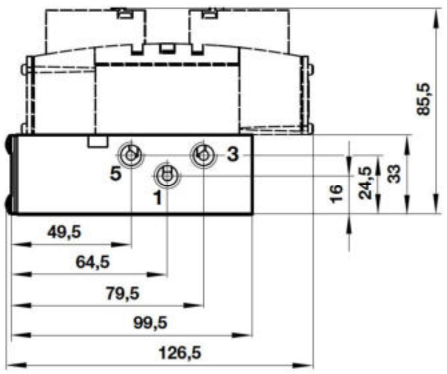


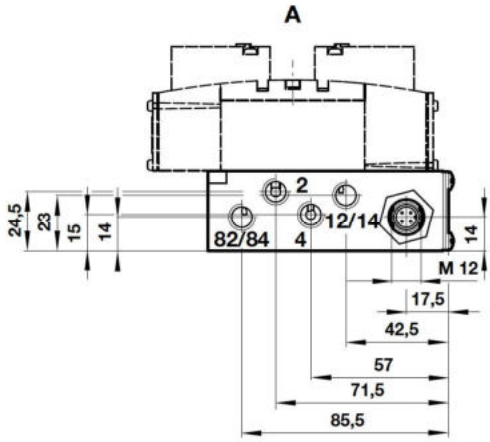
1 Manual override

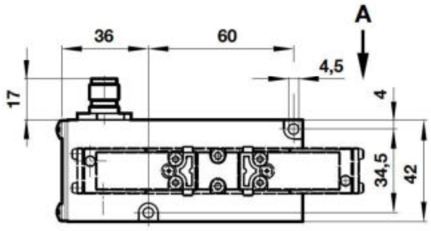
Single station sub-base

Model	Description	Ports 1, 3 & 5	Ports 12/14 & 82/84	Ports 2 & 4	Connector type
VS1872010-AF00	Single station sub-base for 24 V d.c.	G1/8	G1/8	G1/8	M12

Connector type: M12





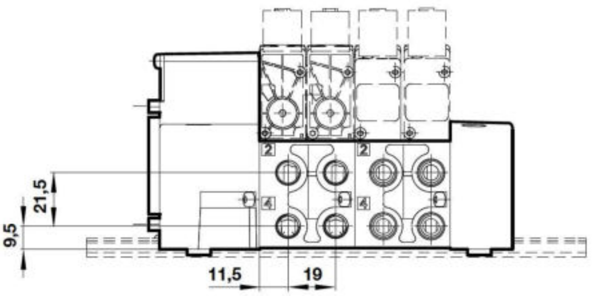


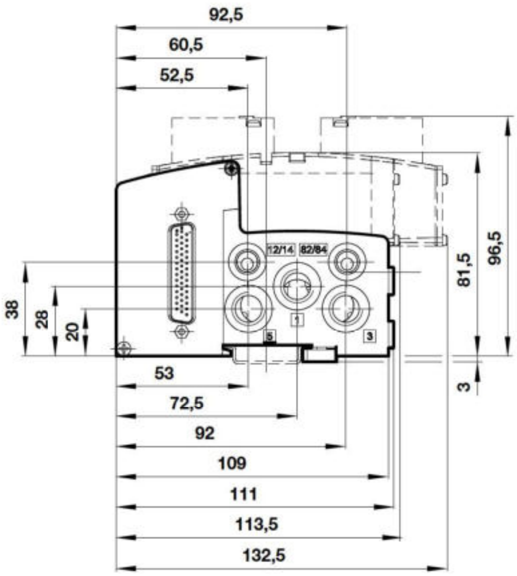
Pin assignment (acc. VDMA 24571)

Symbol	Pin no.	Function
	1	Not used
	2	Signal for solenoid 12
	3	Common for solenoid 12 and 14
	4	Signal for solenoid 14

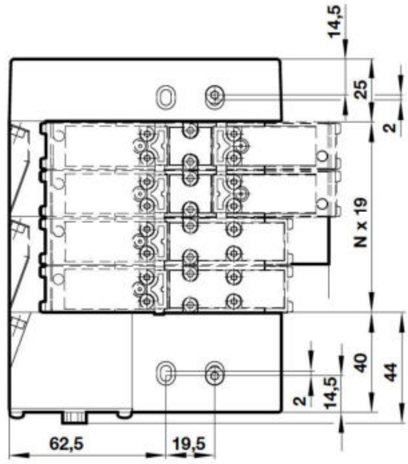
Dimensions - Valve island

Contact us for sub-base and end plate kit ordering information





Dimensions for surface mounting:
Slot length = 4,3 mm (max. M4 screws).
Clamp length = 35,7 mm.
Note: Never plug port 82/84. Plugging this port will cause valves to malfunction.



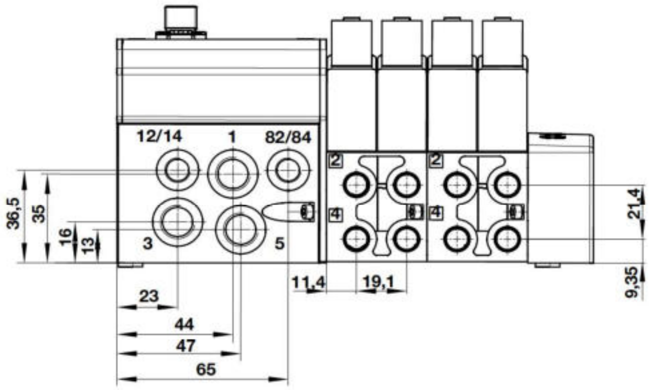
N Number of stations

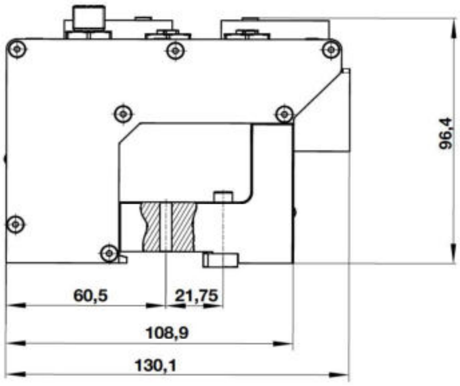
Electrical connection	Min. no. of valve stations	Max. no. of valve stations
Multipole	2	20
AS-Interface	2	6
Other Fieldbus protocols	4	16

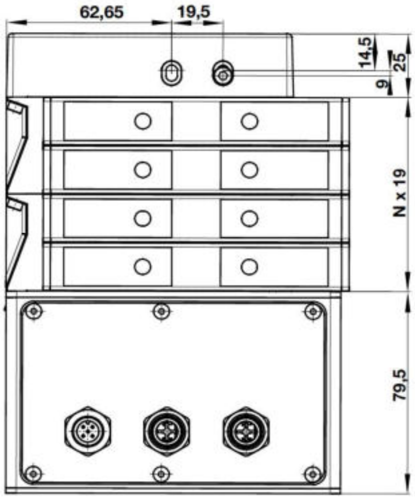
PLUG-IN MINI ISO VALVE ISLANDS

VS18 2 x 2/2, 2 x 3/2, 5/2 or 5/3, size 18 mm

Dimensions - Valve island - Industrial Ethernet







Electrical connection	Min. no. of valve stations	Max. no. of valve stations
Industrial Ethernet protocols	2	20

Multi pressure configurations

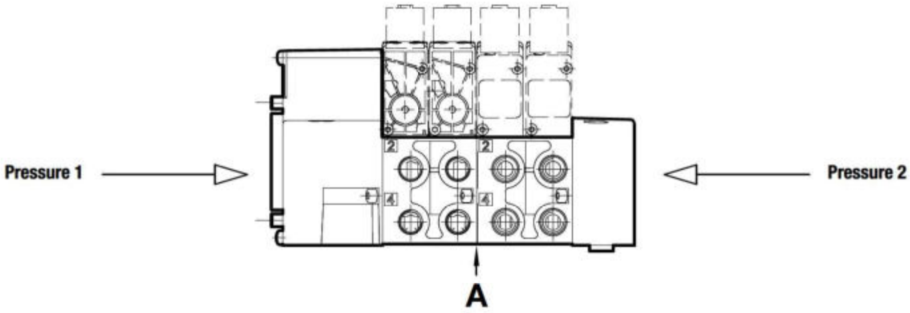
A

Blanking disc	Type
VS1872405-KF00	Suitable for ports 1, 3 and/or 5

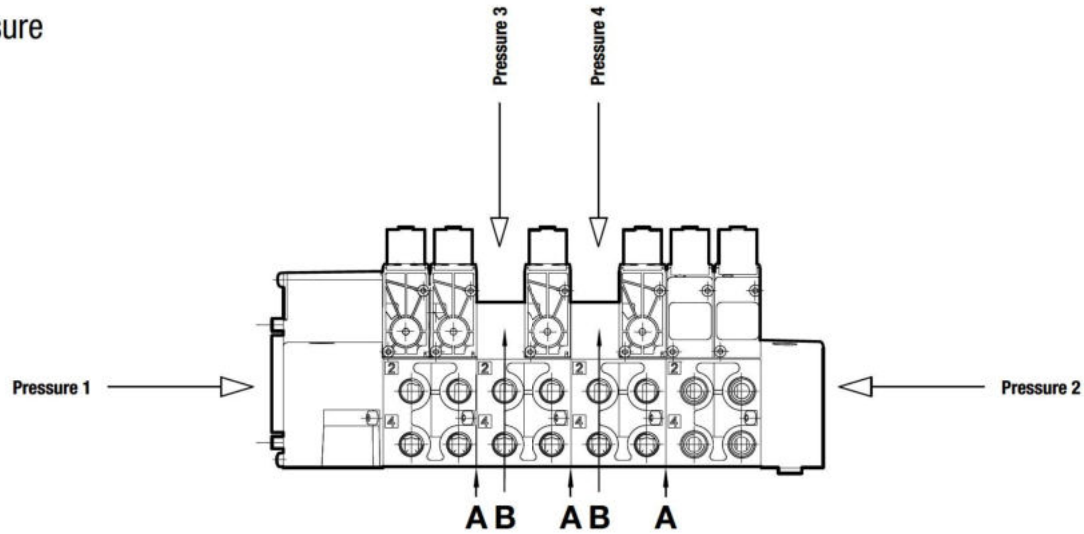
B

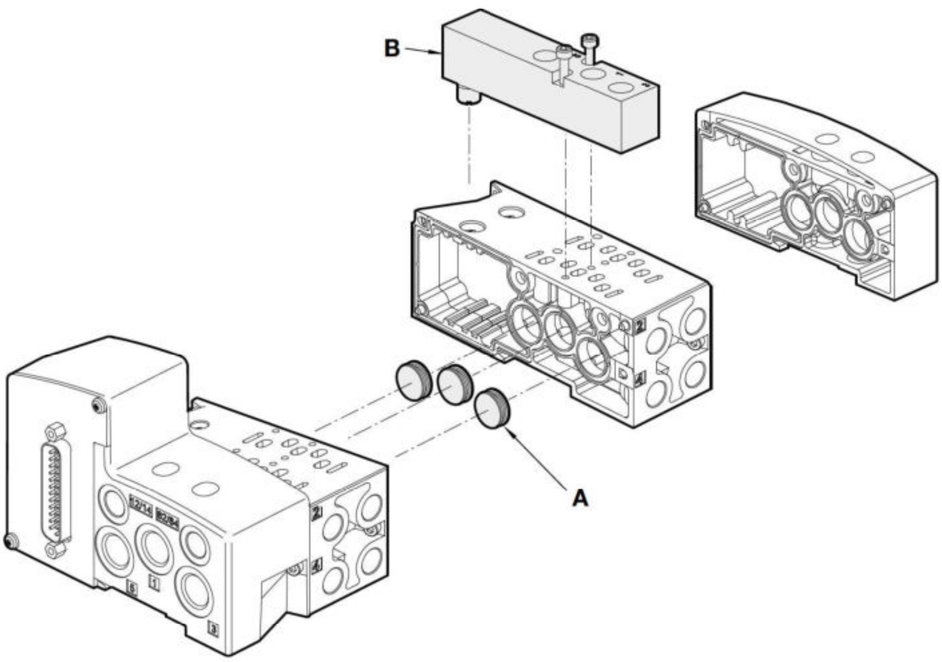
Intermediate supply/exhaust module	Type
VS1872402-AF00	G1/8

Dual pressure



Multi pressure





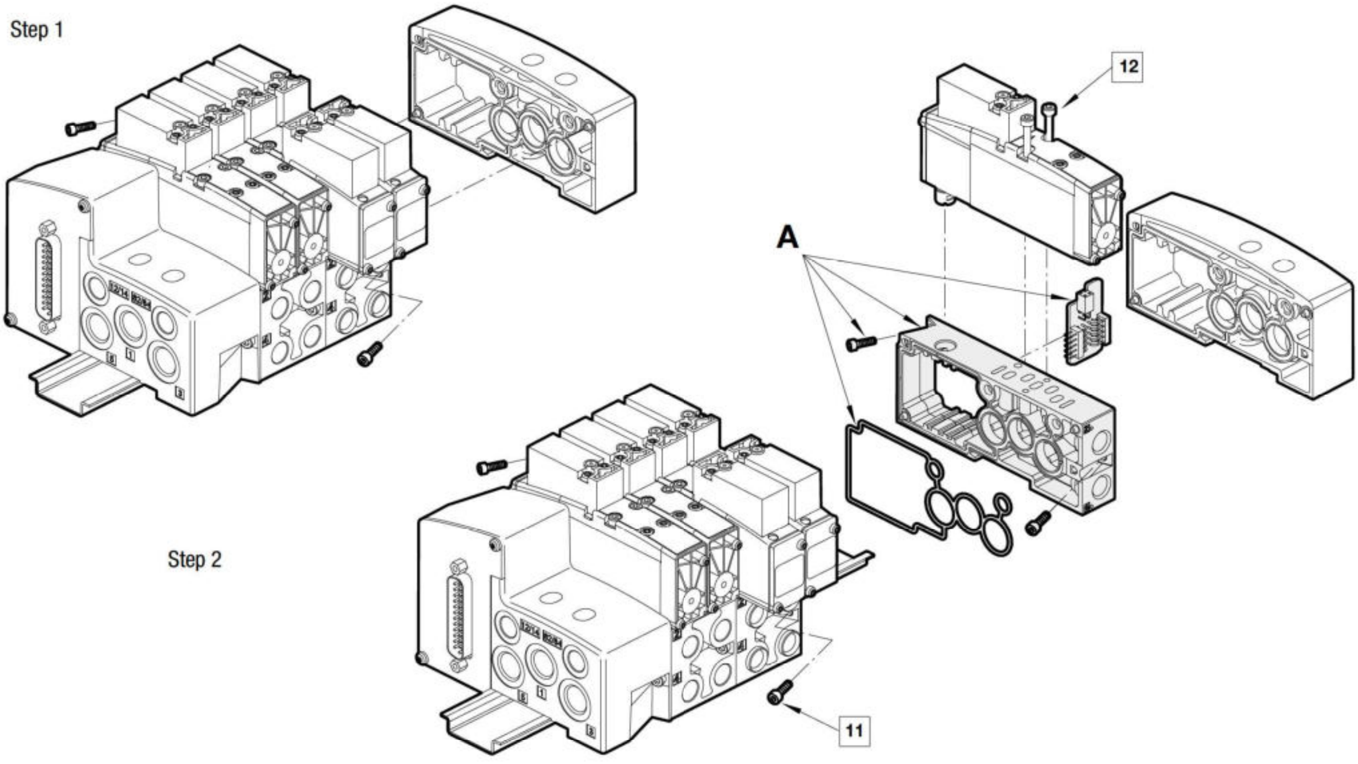
PLUG-IN MINI ISO VALVE ISLANDS

VS18 2 x 2/2, 2 x 3/2, 5/2 or 5/3, size 18 mm

A – Single add-on stations including PCB, sub-base, gasket and screws

Model	Ports 2 & 4	Description
VS1872004-AFF0	G1/8	Add-on station for D-Sub connectors and Fieldbus
VS1872004-6FF0	PIF6 mm	Add-on station for D-Sub connectors and Fieldbus
VS1872004-8FF0	PIF8 mm	Add-on station for D-Sub connectors and Fieldbus
VS1872005-AFF0	G1/8	Add-on station for Conduit entry and M23 connector
VS1872005-6FF0	PIF6 mm	Add-on station for Conduit entry and M23 connector
VS1872005-8FF0	PIF8 mm	Add-on station for Conduit entry and M23 connector

Valves and accessories to be ordered separately, see page 186.



11 Torque = 0,8 … 0,9 Nm
Screwdriver speed = max. 1100 r.p.m
12 Torque = 1,1 … 1,5 Nm
Screwdriver speed = max. 1100 r.p.m

For detailed assembly instructions, please see maintenance & instruction booklet

A – Two station PCB

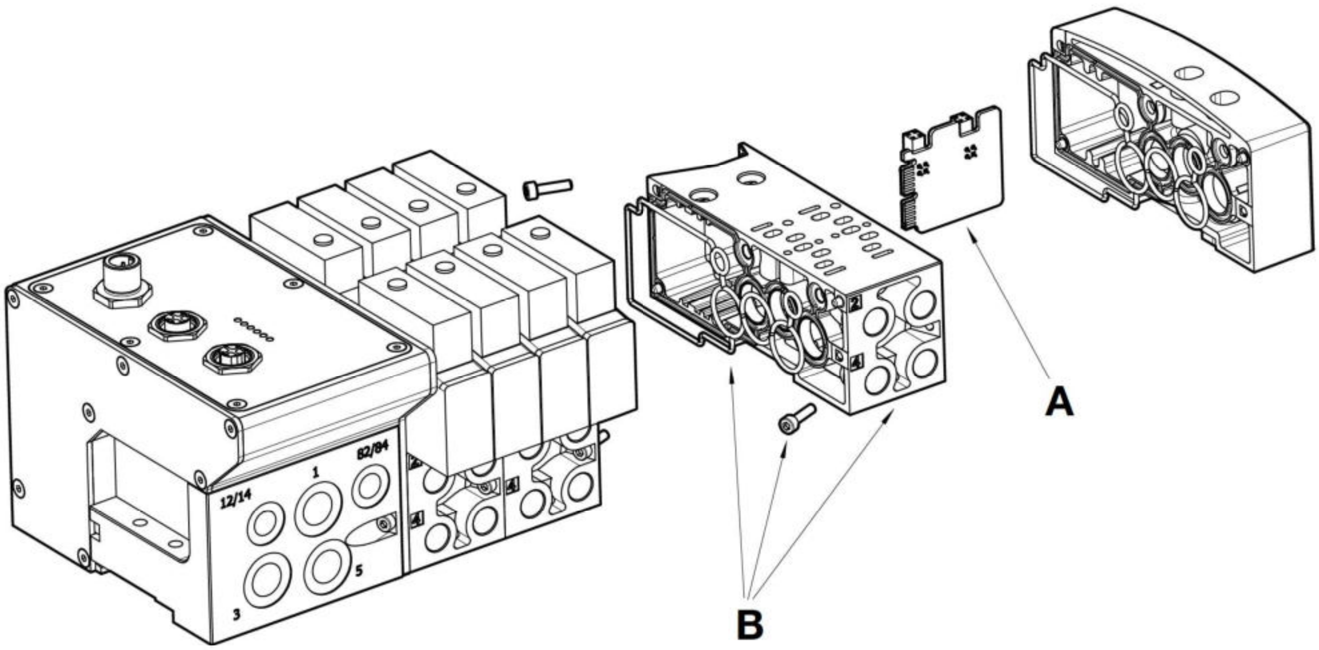
Model	Description
VS1872261-KF00	Ethernet two station expansion PCB

B – Double station modular sub-base

Model	Ports 2 & 4
VS1872002-AFF0	G1/8
VS1872002-PFF0	NPTF 1/8
VS1872002-6FF0	PIF6 mm
VS1872002-8FF0	PIF8 mm
VS1872002-1FF0	PIF1/4

Additionally available PCBs

Model	Description
VS1872262-KF00	Ethernet four station PCB
VS1872263-KF00	Single station blank PCB (no valve connections)



PLUG-IN MINI ISO VALVE ISLANDS

VS26 2 x 2/2, 2 x 3/2, 5/2 or 5/3, size 26 mm

- Modular system offering a wide range of configuration options conforming to ISO 15407-2, Size 26 mm
- 24 V d.c. or 115 V a.c. Multipole and single station sub-base
- Integrated Fieldbus and Industrial Ethernet
- Fieldbus expandable with single add-on stations, Industrial Ethernet expandable with double add-on stations.
- Wide range of accessories including shut off valves enabling non-stop operation
- Dual spool technology, solenoid pilot actuated
  - VS26G Glandless spool and sleeve for long life
  - VS26S Softseal spool for high flow
- Up to 40 solenoids, operating at 16 bar pressure
- UL and ATEX
- To configure and order a Valve Island visit – www.imi-precision.com/technical-support/configurators

Technical Data

Medium:
Compressed air, filtered to 40 µm, lubricated or non-lubricated

Flow:
Softseal

Function	l/min
2x2/2	1150
2x3/2	1250
5/2; 5/3	1350
Glandless	
5/2; 5/3	1000

Mounting:
Sub-base

Ports 2+4:
G1/4, NPTF 1/4, PIF 10 mm, PIF 8 mm, PIF 3/8

Operating pressure:
Maximum pressure
10 bar VS26S models and VS26G solenoid pilot actuated valves with internal pilot supply
16 bar VS26G solenoid pilot actuated valves with external pilot supply.
Details of minimum and maximum pilot pressure see overleaf

Ambient/Media temperature:
Ambient: -15°C … +50°C
Media: -5°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body/sub-base:
Die-cast aluminium

Glandless spool & Sleeve (VS26G):
Aluminium, hard anodised, PTFE coated

Softseal spool (VS26S):
Aluminium with HNBR seals

Plastic parts:
POM, PA, PPA

Mounting sheets/screws:
Steel, zinc coated

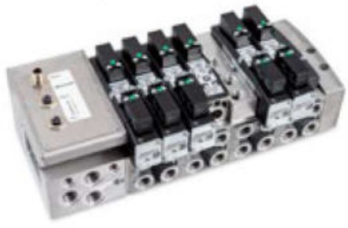
Springs:
Stainless steel

Sandwich plates:
Aluminium bar material, PA

Electrical contacts:
Brass, tin gold coated

PCB:
Glass epoxy

EXPRESS



DeviceNet CANopen

Electrical details for solenoid operators

Voltage tolerances	(24 V d.c) +/- 10%
	(115 V a.c) -10%/+15%
Rating	100% Continuous duty
Inlet orifice	0,8 mm
Indication	LED green
Surge suppression	Transil diode
Materials	PPS (body), FKM and NBR (seal)

Note: For alternative voltage and voltage tolerances please contact us.

Protection classification (IP Code):
All VS18 valve islands fulfill IP65 and NEMA4 ratings.

Power supply and precautions:
All VS18 24 V d.c products are designed to be used with a protective extra low voltage (PELV) power supply. All VS18 115 V a.c products correspond to the protection class I. Connection of the protective earth (PE) ground is required.

UL approval:
Recognized to UL 429 for Electrically Operated Valves (not applicable for Industrial Ethernet options).

ATEX:
The 24 V d.c Multipole and Fieldbus valve islands fulfils the requirement of the standard 2014/34/EU for intended use in hazardous locations.

Multipole and Industrial Ethernet versions:
II 3G Ex nA IIC T4 Gc
II 3D Ex tc IIIC T135°C Dc

Fieldbus versions:
II 3G Ex nA IIC T4 Gc
II 3D Ex tc IIIB T135°C Dc

Equipment group, category, type of protection:
The Declaration of Conformity of the valve islands was conducted by IMI Precision Engineering Norgren GmbH, D-70731 Fellbach. Please review all ATEX data and notes in the maintenance and instruction booklet to eliminate any risks, allowing for safe function of the valve islands.

Models - 2x2/2 Double solenoid actuated softseal valves (flow 1150 l/min)

Model	Function 2 x 2/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage
VS26SE11DF313A	NC	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS26SE11DF318A	NC	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS26SE11DF213A	NC	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS26SE11DF218A	NC	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS26SE11DF513A	NC	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Extended, push only	24 V d.c. 1,2 W
VS26SE11DF518A	NC	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26SE22DF313A	NC	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS26SE22DF318A	NC	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS26SE22DF213A	NC	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS26SE22DF218A	NC	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS26SE22DF513A	NC	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Extended, push only	24 V d.c. 1,2 W
VS26SE22DF518A	NC	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26SF11DF313A	NO	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS26SF11DF318A	NO	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS26SF11DF213A	NO	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS26SF11DF218A	NO	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS26SF11DF513A	NO	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Extended, push only	24 V d.c. 1,2 W
VS26SF11DF518A	NO	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26SF22DF313A	NO	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS26SF22DF318A	NO	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS26SF22DF213A	NO	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS26SF22DF218A	NO	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS26SF22DF513A	NO	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Extended, push only	24 V d.c. 1,2 W
VS26SF22DF518A	NO	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26SG11DF313A	NO/NC	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS26SG11DF318A	NO/NC	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS26SG11DF213A	NO/NC	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS26SG11DF218A	NO/NC	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS26SG11DF513A	NO/NC	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Extended, push only	24 V d.c. 1,2 W
VS26SG11DF518A	NO/NC	Sol/Spring	Internal	3 … 10 *1)	-0,9 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26SG22DF313A	NO/NC	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS26SG22DF318A	NO/NC	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS26SG22DF213A	NO/NC	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS26SG22DF218A	NO/NC	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS26SG22DF513A	NO/NC	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Extended, push only	24 V d.c. 1,2 W
VS26SG22DF518A	NO/NC	Sol/Spring	External	1,7 + (0,35 x press. port 1) *2)	-0,9 … 10	Extended, push only	115 V a.c. 1,5 VA

Valve dimensions see page 204.
NO = Normally open, NC = Normally closed.

*1) Pilot air supply through port 1.
*2) Pilot air supply through port 12/14.

PLUG-IN MINI ISO VALVE ISLANDS
VS26 2 x 2/2, 2 x 3/2, 5/2 or 5/3, size 26 mm

● Models - 2x3/2 Double solenoid actuated softseal valves (flow 1250 l/min)

Model	Function 2 x 3/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage
VS26SA11DF313A	NC	Sol/Spring	Internal	-	3 … 10	Push only	24 V d.c. 1,2 W
VS26SA11DF318A	NC	Sol/Spring	Internal	-	3 … 10	Push only	115 V a.c. 1,5 VA
VS26SA11DF213A	NC	Sol/Spring	Internal	-	3 … 10	Push & turn	24 V d.c. 1,2 W
VS26SA11DF218A	NC	Sol/Spring	Internal	-	3 … 10	Push & turn	115 V a.c. 1,5 VA
VS26SA11DF513A	NC	Sol/Spring	Internal	-	3 … 10	Extended, push only	24 V d.c. 1,2 W
VS26SA11DF518A	NC	Sol/Spring	Internal	-	3 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26SA22DF313A	NC	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Push only	24 V d.c. 1,2 W
VS26SA22DF318A	NC	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Push only	115 V a.c. 1,5 VA
VS26SA22DF213A	NC	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Push & turn	24 V d.c. 1,2 W
VS26SA22DF218A	NC	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Push & turn	115 V a.c. 1,5 VA
VS26SA22DF513A	NC	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Extended, push only	24 V d.c. 1,2 W
VS26SA22DF518A	NC	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26SB11DF313A	NO	Sol/Spring	Internal	-	3 … 10	Push only	24 V d.c. 1,2 W
VS26SB11DF318A	NO	Sol/Spring	Internal	-	3 … 10	Push only	115 V a.c. 1,5 VA
VS26SB11DF213A	NO	Sol/Spring	Internal	-	3 … 10	Push & turn	24 V d.c. 1,2 W
VS26SB11DF218A	NO	Sol/Spring	Internal	-	3 … 10	Push & turn	115 V a.c. 1,5 VA
VS26SB11DF513A	NO	Sol/Spring	Internal	-	3 … 10	Extended, push only	24 V d.c. 1,2 W
VS26SB11DF518A	NO	Sol/Spring	Internal	-	3 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26SB22DF313A	NO	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Push only	24 V d.c. 1,2 W
VS26SB22DF313A	NO	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Push only	115 V a.c. 1,5 VA
VS26SB22DF213A	NO	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Push & turn	24 V d.c. 1,2 W
VS26SB22DF213A	NO	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Push & turn	115 V a.c. 1,5 VA
VS26SB22DF513A	NO	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Extended, push only	24 V d.c. 1,2 W
VS26SB22DF513A	NO	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26SC11DF313A	NO/NC	Sol/Spring	Internal	-	3 … 10	Push only	24 V d.c. 1,2 W
VS26SC11DF318A	NO/NC	Sol/Spring	Internal	-	3 … 10	Push only	115 V a.c. 1,5 VA
VS26SC11DF213A	NO/NC	Sol/Spring	Internal	-	3 … 10	Push & turn	24 V d.c. 1,2 W
VS26SC11DF218A	NO/NC	Sol/Spring	Internal	-	3 … 10	Push & turn	115 V a.c. 1,5 VA
VS26SC11DF513A	NO/NC	Sol/Spring	Internal	-	3 … 10	Extended, push only	24 V d.c. 1,2 W
VS26SC11DF518A	NO/NC	Sol/Spring	Internal	-	3 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26SC22DF313A	NO/NC	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Push only	24 V d.c. 1,2 W
VS26SC22DF318A	NO/NC	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Push only	115 V a.c. 1,5 VA
VS26SC22DF213A	NO/NC	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Push & turn	24 V d.c. 1,2 W
VS26SC22DF218A	NO/NC	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Push & turn	115 V a.c. 1,5 VA
VS26SC22DF513A	NO/NC	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Extended, push only	24 V d.c. 1,2 W
VS26SC22DF518A	NO/NC	Sol/Spring	External	1,7 + (0,5 x op. press.)	0 … 10	Extended, push only	115 V a.c. 1,5 VA

Valve dimensions see page 204.
Valve function:
NO = Normally open, NC = Normally closed

Models - 5/2 Single and double solenoid actuated glandless valves (flow 1000 l/min)

Model	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage
VS26G511DF313A	Sol/Sol	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W
VS26G511DF318A	Sol/Sol	Internal	–	2 … 10	Push only	115 V a.c. 1,5 VA
VS26G511DF213A	Sol/Sol	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W
VS26G511DF218A	Sol/Sol	Internal	–	2 … 10	Push & turn	115 V a.c. 1,5 VA
VS26G511DF513A	Sol/Sol	Internal	–	2 … 10	Extended, push only	24 V d.c. 1,2 W
VS26G511DF518A	Sol/Sol	Internal	–	2 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26G522DF313A	Sol/Sol	External	2 … 10	-0,9 … 16	Push only	24 V d.c. 1,2 W
VS26G522DF318A	Sol/Sol	External	2 … 10	-0,9 … 16	Push only	115 V a.c. 1,5 VA
VS26G522DF213A	Sol/Sol	External	2 … 10	-0,9 … 16	Push & turn	24 V d.c. 1,2 W
VS26G522DF218A	Sol/Sol	External	2 … 10	-0,9 … 16	Push & turn	115 V a.c. 1,5 VA
VS26G522DF513A	Sol/Sol	External	2 … 10	-0,9 … 16	Extended, push only	24 V d.c. 1,2 W
VS26G522DF518A	Sol/Sol	External	2 … 10	-0,9 … 16	Extended, push only	115 V a.c. 1,5 VA
VS26G591DF313A	Sol (Priority)/Sol	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W
VS26G591DF318A	Sol (Priority)/Sol	Internal	–	2 … 10	Push only	115 V a.c. 1,5 VA
VS26G591DF213A	Sol (Priority)/Sol	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W
VS26G591DF218A	Sol (Priority)/Sol	Internal	–	2 … 10	Push & turn	115 V a.c. 1,5 VA
VS26G591DF513A	Sol (Priority)/Sol	Internal	–	2 … 10	Extended, push only	24 V d.c. 1,2 W
VS26G591DF518A	Sol (Priority)/Sol	Internal	–	2 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26G592DF313A	Sol (Priority)/Sol	External	2 … 10	-0,9 … 16	Push only	24 V d.c. 1,2 W
VS26G592DF318A	Sol (Priority)/Sol	External	2 … 10	-0,9 … 16	Push only	115 V a.c. 1,5 VA
VS26G592DF213A	Sol (Priority)/Sol	External	2 … 10	-0,9 … 16	Push & turn	24 V d.c. 1,2 W
VS26G592DF218A	Sol (Priority)/Sol	External	2 … 10	-0,9 … 16	Push & turn	115 V a.c. 1,5 VA
VS26G592DF513A	Sol (Priority)/Sol	External	2 … 10	-0,9 … 16	Extended, push only	24 V d.c. 1,2 W
VS26G592DF518A	Sol (Priority)/Sol	External	2 … 10	-0,9 … 16	Extended, push only	115 V a.c. 1,5 VA
VS26G517DF313A	Sol/Spring	Internal	–	1,6 … 10	Push only	24 V d.c. 1,2 W
VS26G517DF318A	Sol/Spring	Internal	–	1,6 … 10	Push only	115 V a.c. 1,5 VA
VS26G517DF213A	Sol/Spring	Internal	–	1,6 … 10	Push & turn	24 V d.c. 1,2 W
VS26G517DF218A	Sol/Spring	Internal	–	1,6 … 10	Push & turn	115 V a.c. 1,5 VA
VS26G517DF513A	Sol/Spring	Internal	–	1,6 … 10	Extended, push only	24 V d.c. 1,2 W
VS26G517DF518A	Sol/Spring	Internal	–	1,6 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26G527DF313A	Sol/Spring	External	1,6 … 10	-0,9 … 16	Push only	24 V d.c. 1,2 W
VS26G527DF318A	Sol/Spring	External	1,6 … 10	-0,9 … 16	Push only	115 V a.c. 1,5 VA
VS26G527DF213A	Sol/Spring	External	1,6 … 10	-0,9 … 16	Push & turn	24 V d.c. 1,2 W
VS26G527DF218A	Sol/Spring	External	1,6 … 10	-0,9 … 16	Push & turn	115 V a.c. 1,5 VA
VS26G527DF513A	Sol/Spring	External	1,6 … 10	-0,9 … 16	Extended, push only	24 V d.c. 1,2 W
VS26G527DF518A	Sol/Spring	External	1,6 … 10	-0,9 … 16	Extended, push only	115 V a.c. 1,5 VA

Valve dimensions see page 204.

PLUG-IN MINI ISO VALVE ISLANDS

VS26 2 x 2/2, 2 x 3/2, 5/2 or 5/3, size 26 mm

Models - 5/2 Single and double solenoid actuated softseal valves (flow 1350 l/min)

Model	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage
VS26S511DF313A	Sol/Sol	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W
VS26S511DF318A	Sol/Sol	Internal	–	2 … 10	Push only	115 V a.c. 1,5 VA
VS26S511DF213A	Sol/Sol	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W
VS26S511DF218A	Sol/Sol	Internal	–	2 … 10	Push & turn	115 V a.c. 1,5 VA
VS26S511DF513A	Sol/Sol	Internal	–	2 … 10	Extended, push only	24 V d.c. 1,2 W
VS26S511DF518A	Sol/Sol	Internal	–	2 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26S522DF313A	Sol/Sol	External	2 … 10	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS26S522DF318A	Sol/Sol	External	2 … 10	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS26S522DF213A	Sol/Sol	External	2 … 10	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS26S522DF218A	Sol/Sol	External	2 … 10	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS26S522DF513A	Sol/Sol	External	2 … 10	-0,9 … 10	Extended, push only	24 V d.c. 1,2 W
VS26S522DF518A	Sol/Sol	External	2 … 10	-0,9 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26S517DF313A	Sol/Spring	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W
VS26S517DF318A	Sol/Spring	Internal	–	2 … 10	Push only	115 V a.c. 1,5 VA
VS26S517DF213A	Sol/Spring	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W
VS26S517DF218A	Sol/Spring	Internal	–	2 … 10	Push & turn	115 V a.c. 1,5 VA
VS26S517DF513A	Sol/Spring	Internal	–	2 … 10	Extended, push only	24 V d.c. 1,2 W
VS26S517DF518A	Sol/Spring	Internal	–	2 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26S527DF313A	Sol/Spring	External	2 … 10	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS26S527DF318A	Sol/Spring	External	2 … 10	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS26S527DF213A	Sol/Spring	External	2 … 10	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS26S527DF218A	Sol/Spring	External	2 … 10	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS26S527DF513A	Sol/Spring	External	2 … 10	-0,9 … 10	Extended, push only	24 V d.c. 1,2 W
VS26S527DF518A	Sol/Spring	External	2 … 10	-0,9 … 10	Extended, push only	115 V a.c. 1,5 VA

Valve dimensions see page 204.

Models - 5/3 Double solenoid actuated glandless valves (flow 1000 l/min)

Model	Function	Actuation/ retur	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage
VS26G611DF313A	APB	Sol/Sol	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W
VS26G611DF318A	APB	Sol/Sol	Internal	–	2 … 10	Push only	115 V a.c. 1,5 VA
VS26G611DF213A	APB	Sol/Sol	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W
VS26G611DF218A	APB	Sol/Sol	Internal	–	2 … 10	Push & turn	115 V a.c. 1,5 VA
VS26G611DF513A	APB	Sol/Sol	Internal	–	2 … 10	Extended, push only	24 V d.c. 1,2 W
VS26G611DF518A	APB	Sol/Sol	Internal	–	2 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26G622DF313A	APB	Sol/Sol	External	2 … 10	-0,9 … 16	Push only	24 V d.c. 1,2 W
VS26G622DF318A	APB	Sol/Sol	External	2 … 10	-0,9 … 16	Push only	115 V a.c. 1,5 VA
VS26G622DF213A	APB	Sol/Sol	External	2 … 10	-0,9 … 16	Push & turn	24 V d.c. 1,2 W
VS26G622DF218A	APB	Sol/Sol	External	2 … 10	-0,9 … 16	Push & turn	115 V a.c. 1,5 VA
VS26G622DF513A	APB	Sol/Sol	External	2 … 10	-0,9 … 16	Extended, push only	24 V d.c. 1,2 W
VS26G622DF518A	APB	Sol/Sol	External	2 … 10	-0,9 … 16	Extended, push only	115 V a.c. 1,5 VA
VS26G711DF313A	COE	Sol/Sol	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W
VS26G711DF318A	COE	Sol/Sol	Internal	–	2 … 10	Push only	115 V a.c. 1,5 VA
VS26G711DF213A	COE	Sol/Sol	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W
VS26G711DF218A	COE	Sol/Sol	Internal	–	2 … 10	Push & turn	115 V a.c. 1,5 VA
VS26G711DF513A	COE	Sol/Sol	Internal	–	2 … 10	Extended, push only	24 V d.c. 1,2 W
VS26G711DF518A	COE	Sol/Sol	Internal	–	2 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26G722DF313A	COE	Sol/Sol	External	2 … 10	-0,9 … 16	Push only	24 V d.c. 1,2 W
VS26G722DF318A	COE	Sol/Sol	External	2 … 10	-0,9 … 16	Push only	115 V a.c. 1,5 VA
VS26G722DF213A	COE	Sol/Sol	External	2 … 10	-0,9 … 16	Push & turn	24 V d.c. 1,2 W
VS26G722DF218A	COE	Sol/Sol	External	2 … 10	-0,9 … 16	Push & turn	115 V a.c. 1,5 VA
VS26G722DF513A	COE	Sol/Sol	External	2 … 10	-0,9 … 16	Extended, push only	24 V d.c. 1,2 W
VS26G722DF518A	COE	Sol/Sol	External	2 … 10	-0,9 … 16	Extended, push only	115 V a.c. 1,5 VA

Valve dimensions see page 204.
APB = All Ports Blocked, COE = Centre Open Exhaust.

Models - 5/3 Double solenoid actuated softseal valves (flow 1350 l/min)

Model	Function	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage
VS26S611DF313A	APB	Sol/Sol	Internal	–	2,5 … 10	Push only	24 V d.c. 1,2 W
VS26S611DF318A	APB	Sol/Sol	Internal	–	2,5 … 10	Push only	115 V a.c. 1,5 VA
VS26S611DF213A	APB	Sol/Sol	Internal	–	2,5 … 10	Push & turn	24 V d.c. 1,2 W
VS26S611DF218A	APB	Sol/Sol	Internal	–	2,5 … 10	Push & turn	115 V a.c. 1,5 VA
VS26S611DF513A	APB	Sol/Sol	Internal	–	2,5 … 10	Extended, push only	24 V d.c. 1,2 W
VS26S611DF518A	APB	Sol/Sol	Internal	–	2,5 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26S622DF313A	APB	Sol/Sol	External	2,5 … 10	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS26S622DF318A	APB	Sol/Sol	External	2,5 … 10	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS26S622DF213A	APB	Sol/Sol	External	2,5 … 10	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS26S622DF218A	APB	Sol/Sol	External	2,5 … 10	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS26S622DF513A	APB	Sol/Sol	External	2,5 … 10	-0,9 … 10	Extended, push only	24 V d.c. 1,2 W
VS26S622DF518A	APB	Sol/Sol	External	2,5 … 10	-0,9 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26S711DF313A	COE	Sol/Sol	Internal	–	2,5 … 10	Push only	24 V d.c. 1,2 W
VS26S711DF318A	COE	Sol/Sol	Internal	–	2,5 … 10	Push only	115 V a.c. 1,5 VA
VS26S711DF213A	COE	Sol/Sol	Internal	–	2,5 … 10	Push & turn	24 V d.c. 1,2 W
VS26S711DF218A	COE	Sol/Sol	Internal	–	2,5 … 10	Push & turn	115 V a.c. 1,5 VA
VS26S711DF513A	COE	Sol/Sol	Internal	–	2,5 … 10	Extended, push only	24 V d.c. 1,2 W
VS26S711DF518A	COE	Sol/Sol	Internal	–	2,5 … 10	Extended, push only	115 V a.c. 1,5 VA
VS26S722DF313A	COE	Sol/Sol	External	2,5 … 10	-0,9 … 10	Push only	24 V d.c. 1,2 W
VS26S722DF318A	COE	Sol/Sol	External	2,5 … 10	-0,9 … 10	Push only	115 V a.c. 1,5 VA
VS26S722DF213A	COE	Sol/Sol	External	2,5 … 10	-0,9 … 10	Push & turn	24 V d.c. 1,2 W
VS26S722DF218A	COE	Sol/Sol	External	2,5 … 10	-0,9 … 10	Push & turn	115 V a.c. 1,5 VA
VS26S722DF513A	COE	Sol/Sol	External	2,5 … 10	-0,9 … 10	Extended, push only	24 V d.c. 1,2 W
VS26S722DF518A	COE	Sol/Sol	External	2,5 … 10	-0,9 … 10	Extended, push only	115 V a.c. 1,5 VA

Valve dimensions see page 204.
APB = All Ports Blocked, COE = Centre Open Exhaust.

PLUG-IN MINI ISO VALVE ISLANDS

VS26 2 x 2/2, 2 x 3/2, 5/2 or 5/3, size 26 mm

Accessories

DIN EN 50 022 rail (1 m)	DIN-rail mounting kit	Blanking disc to modular sub-base	Manual override set-up kit	Spare valve identification labels *1)	Blanking plug for base connector hole *2)
					
V10009-C00 (35 x 7,5 mm)	V70531-KA0	V70522-K00 (Ports 1, 3, 5)	VS2672906-KG00	VS2672905-KG00 (10 pcs.)	VS2672914-KG00
–	–	V70523-K00 (Port 12/14)	–	–	–

*1) When purchasing assembled valve islands, valve identification labels are already included.
*2) When V44/V45 valves are fitted on VS26 bases.

Base accessories

Intermediate supply/ exhaust module	Blanking plate	Soft start and relief valve
		
VS2672902-BG00 (G1/4)	VS2672904-KG00	VS2672530-KG00
VS2672902-RG00 (NPTF 1/4)	–	–

Sandwich plates

Single pressure regulator plate	Double pressure regulator plate	Flow regulator plate	Sandwich plate with additional pressure port 1	Single valve shut-off plate
				
VS2672900-KG10 (Port 1)	VS2672900-KG40 (Ports 2+4)	VS2672901-KG00 (Ports 3+5)	VS2672928-KG00 (G1/4)	VS2672903-KG00 (Port 1)
VS2672900-KG20 (Port 2)	–	–	VS2672929-KG00 (NPTF 1/4)	–
VS2672900-KG30 (Port 4)	–	–	–	–

Sub-bases and end plates

Single station sub-base	Double station modular sub-base	Single station modular sub-base	End plate kit
			
See next pages for dimensions	See next pages for dimensions		

Multipole options

Connector type	Voltage	No. of stations	Max. no. solenoids
D-Sub 9-pin	24 V d.c.	02/03/04	8
D-Sub 15-pin	24 V d.c.	02/03/04/05/06/07	14
D-Sub 25-pin	24 V d.c.	02/03/04/05/06/07/08/09/10/11/12	24
D-Sub 44-pin	24 V d.c.	08/09/10/11/12/13/14/15/16/17/18/19/20	40
M23 19-pin	115 V a.c., 24 V d.c.	02/03/04/05/06/07/08	16
NPTF1 Conduit entry with terminals	115 V a.c., 24 V d.c.	02/03/04/05/06/07/08/09/10/11/12	24

For valve islands with 17 … 20 valve stations, please contact our customer service. For details of single parts see pages 182 … 184.

Multipole accessories

Cable length	D-Sub connector 9-pin IP65 *1)	D-Sub connector 15-pin IP65 *1)	D-Sub connector 25-pin IP65 *1)	D-Sub connector 44-pin IP65 *1)	M23 connector 19-pin IP65 *1)
					
1 m	VS2672910-KG00	VS2672915-KG00	V11569-E01	V11570-E01	VS2672943-KG00
3 m	VS2672911-KG00	VS2672916-KG00	V11569-E03	V11570-E03	VS2672944-KG00
5 m	VS2672912-KG00	VS2672917-KG00	V11569-E05	V11570-E05	VS2672945-KG00

*1) Required for ATEX.
For cable length longer than 5 m please contact customer service.

Fieldbus options: overview

Fieldbus protocol	Communications Connector	Power connector	No. of stations	Max. no. solenoids
Profibus DP	1 x D-Sub; 9-pin	M12; 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
	2 x M12; 5-pin	M12; 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
	2 x M12; 5-pin	7/8; 5-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
Profinet IRT	2 x M12; 4-pin	M12; 5-pin	04/06/08/10/12/14/16/18/20	40
DeviceNet	1 x M12; 5-pin	M12; 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
EtherNet/IP	2 x M12; 4-pin	M12; 5-pin	04/06/08/10/12/14/16/18/20	40
CANopen	1 x M12; 5-pin	M12; 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
Interbus-S	2 x D-Sub; 9-pin	M12; 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
AS-Interface-Singleslave	1 x M12; 4-pin	M12; 4-pin	02/03/04	4
AS-Interface-Doubleslave	1 x M12; 4-pin	M12; 4-pin	04/05/06/07/08	8

For parts and assembly instructions of Fieldbus components, consult our technical service.

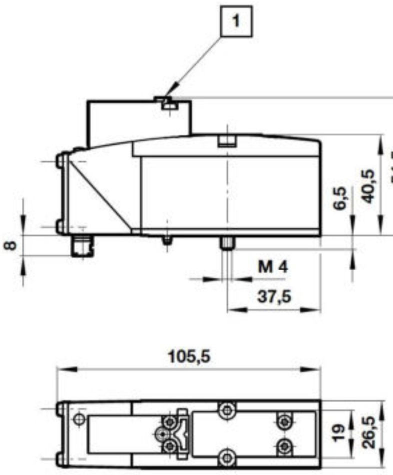
Fieldbus accessories

	Model	Description	Connection	Cable length	Protection class
Fieldbus power connector					
	V11588-E01	Profibus DP (4-pin, female) Interbus-S (4-pin, female) DeviceNet (4-pin, female) CANopen (4-pin, female)	M12	Wireable	IP65 Required for ATEX
	VS2672907-KG00	Profibus DP (5-pin, female)	7/8	Wireable	IP65 Required for ATEX
Communication cable and connector					
	V11589-E01	DeviceNet (5-pin, female) CANopen (5-pin, female)	M12	Wireable	IP65 Required for ATEX
	V11590-E01	Profibus DP, reverse keyway (5-pin, male)	M12	Wireable	IP65 Required for ATEX
	V11591-E01	Profibus DP, reverse keyway (5-pin, female)	M12	Wireable	IP65 Required for ATEX
	V11654-E01	Profibus DP connector (9-pin, male) with terminating resistor	D-Sub	Wireable	IP40
	V11592-E01	Profibus DP terminating resistor (male)	M12	–	IP65 Required for ATEX
	VE1ASCN1-M1200	AS-Interface power or communications (4-pin, female)	M12	Wireable	IP65 Required for ATEX

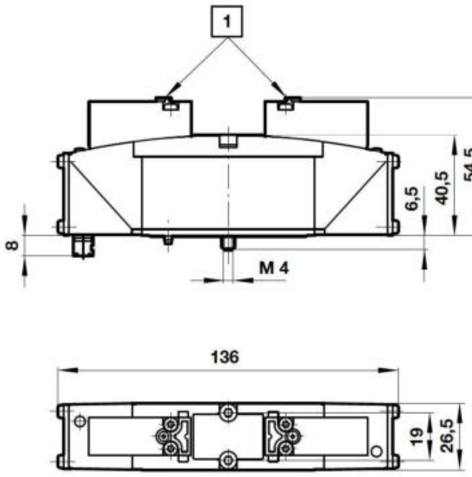
PLUG-IN MINI ISO VALVE ISLANDS
VS26 2 x 2/2, 2 x 3/2, 5/2 or 5/3, size 26 mm

Dimensions - Valve

VS26*5*7DF*1*A
5/2 Single solenoid pilot valve, mechanical spring return

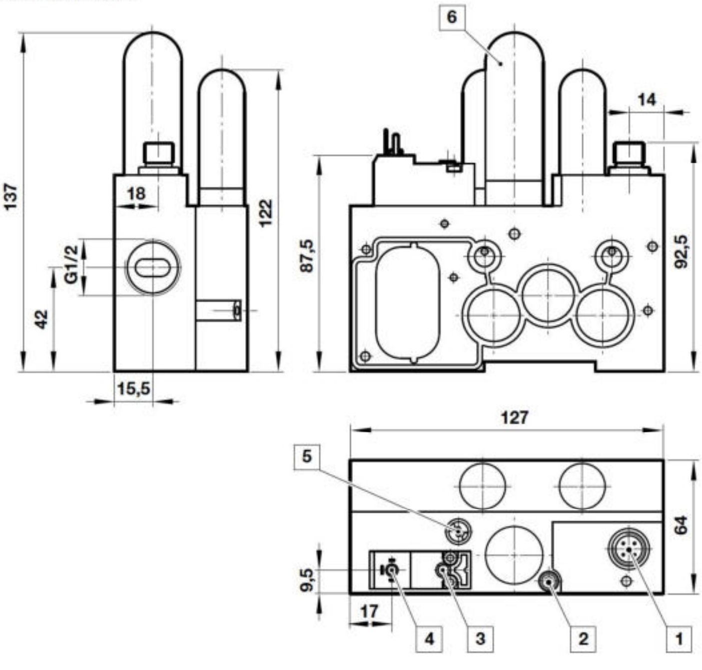


VS26*5*7DF*1*A
2 x 2/2, 2 x 3/2, 5/2 and 5/3 Double solenoid pilot valve



1 Manual override

Soft
t and relief valve



1 Connector M12 x 1; 4-pin; A-coated (enable signal)
2 Regulating screw (six turns maximum)
3 Manual override for pilot valve (push only)
4 Connector interface acc. EN 175 301-803, form C
5 Manual override (push to lock)
6 Silencer with bypass

Valve control

Connector interface acc. EN 175 301-803, form C

Male	Pin no.	Function	Tolerance	Max. current
	1	24 V d.c.	±10%	1,2 W
	2	0 V	–	–
	3	Earth	–	–

Enable signal

M12 x 1; 4-pin; (A-coded)

Male	Pin no.	Function	Outlet current
	1	24 V d.c.	–
	2	free	–
	3	0 V	–
	4	Outlet (PNP), enable signal	150 mA

Single station sub-base

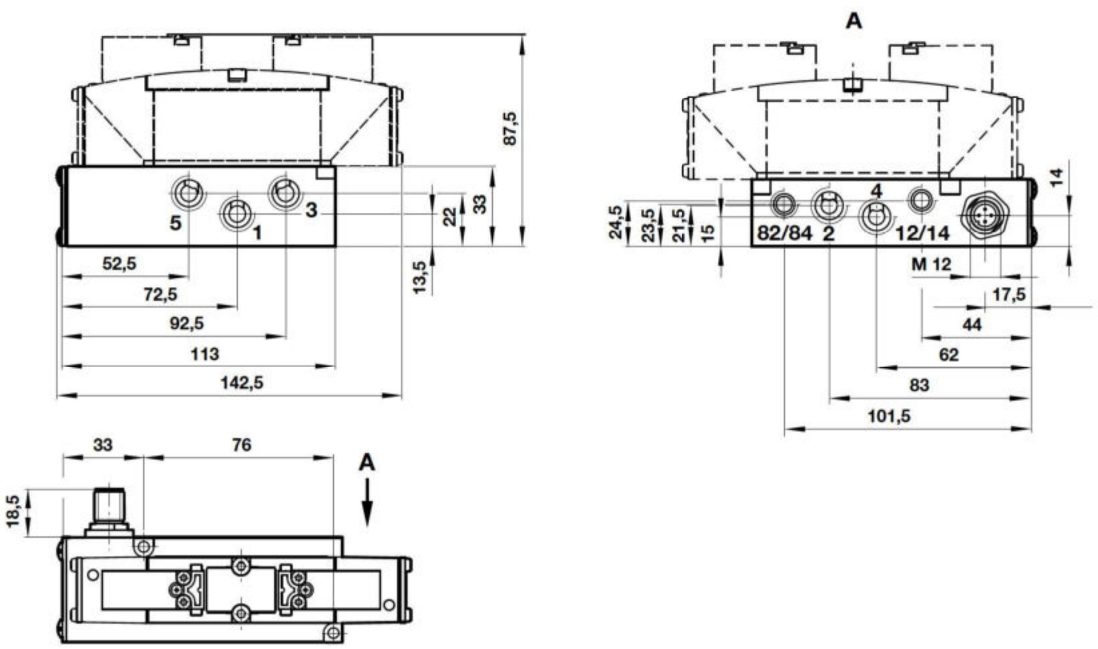
Model	Description	Ports 1, 3 & 5	Ports 12/14 & 82/84	Ports 2 & 4	Connector type
VS2672510-BG00	Single station sub-base for 24 V d.c.	G1/4	G1/8	G1/4	M12

Base accessories

Model	Description
VS2672902-BG00	Intermediate supply/exhaust module, port size G1/4 *1)
VS2672904-KG00	Blanking plate for blocking of unused stations (supplied with gasket)

*1) For use see page 206.

Connector type: M12



Pin assignment (acc. VDMA 24571)

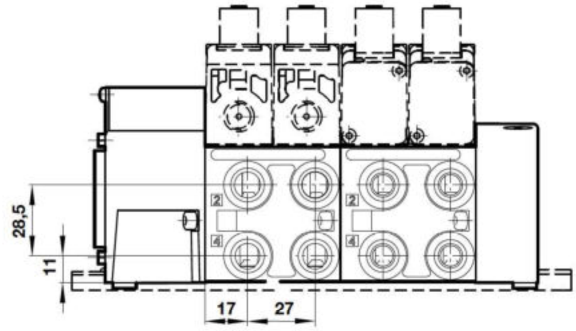
Symbol	Pin no.	Function
	1	Not used
	2	Signal for solenoid 12
	3	Common for solenoid 12 and 14
	4	Signal for solenoid 14

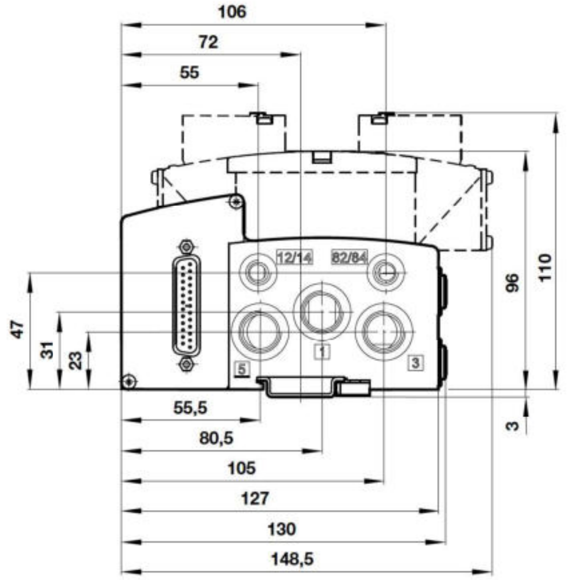
PLUG-IN MINI ISO VALVE ISLANDS

VS26 2 x 2/2, 2 x 3/2, 5/2 or 5/3, size 26 mm

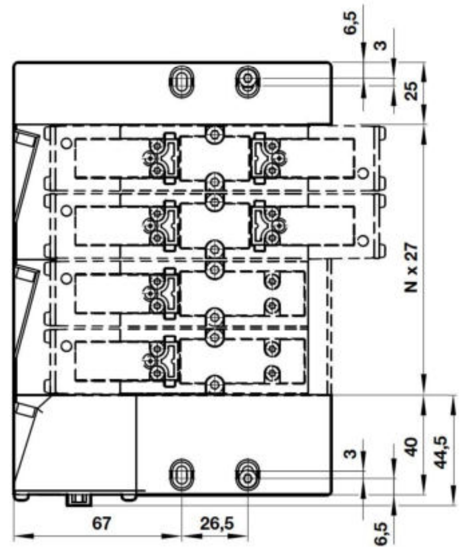
● Dimensions - Valve island

Contact us for sub-base and end plate kit ordering information





Dimensions for surface mounting:
Slot length = 4,3 mm (max. M4 screws).
Clamp length = 35,7 mm.
Note: Never plug port 82/84. Plugging this port will cause valves to malfunction.



N Number of stations

Electrical connection	Min. no. of valve stations	Max. no. of valve stations
Multipole	2	20
AS-Interface	2	8
Other Fieldbus protocols	4	16

Multi pressure configurations

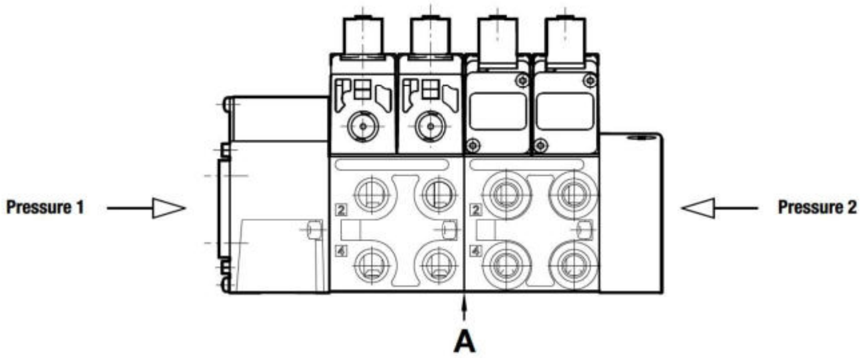
A

Blanking disc	Type
V70522-K00	Suitable for ports 1, 3 and/or 5

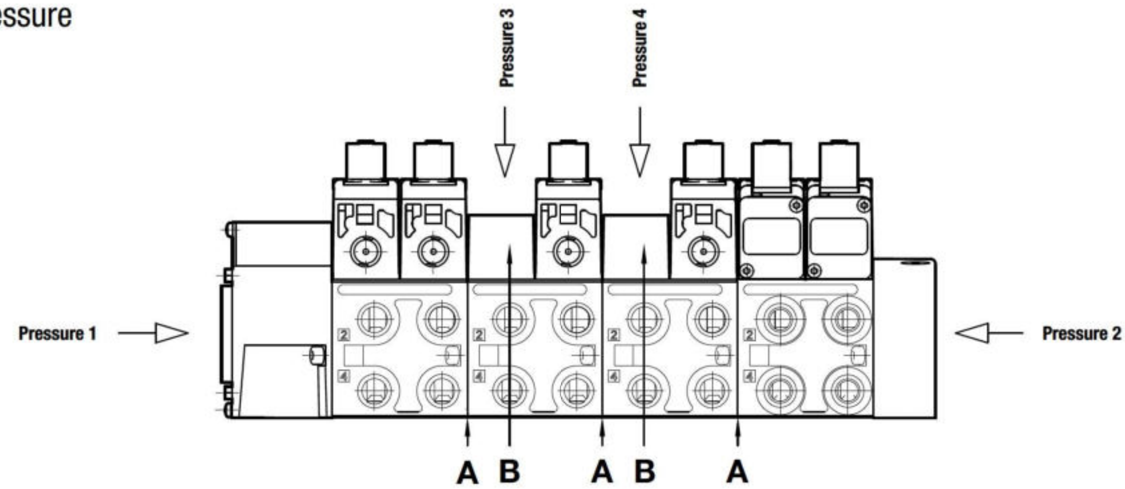
B

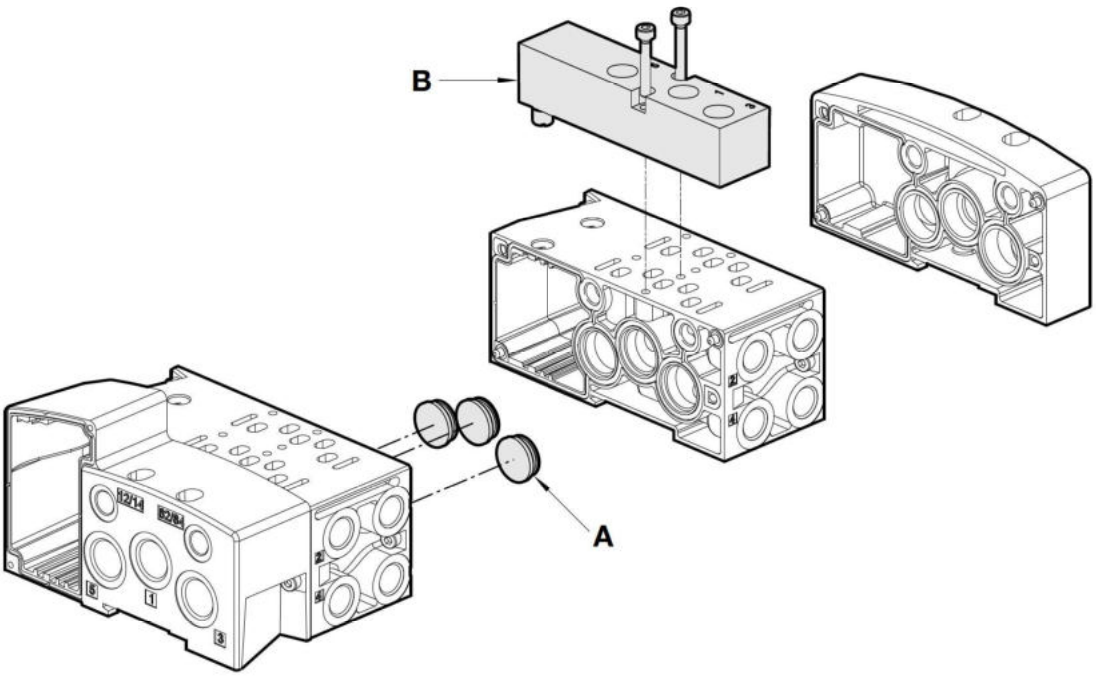
Intermediate supply/exhaust module	Type
VS2672902-BG00	G1/4

Dual pressure



Multi pressure





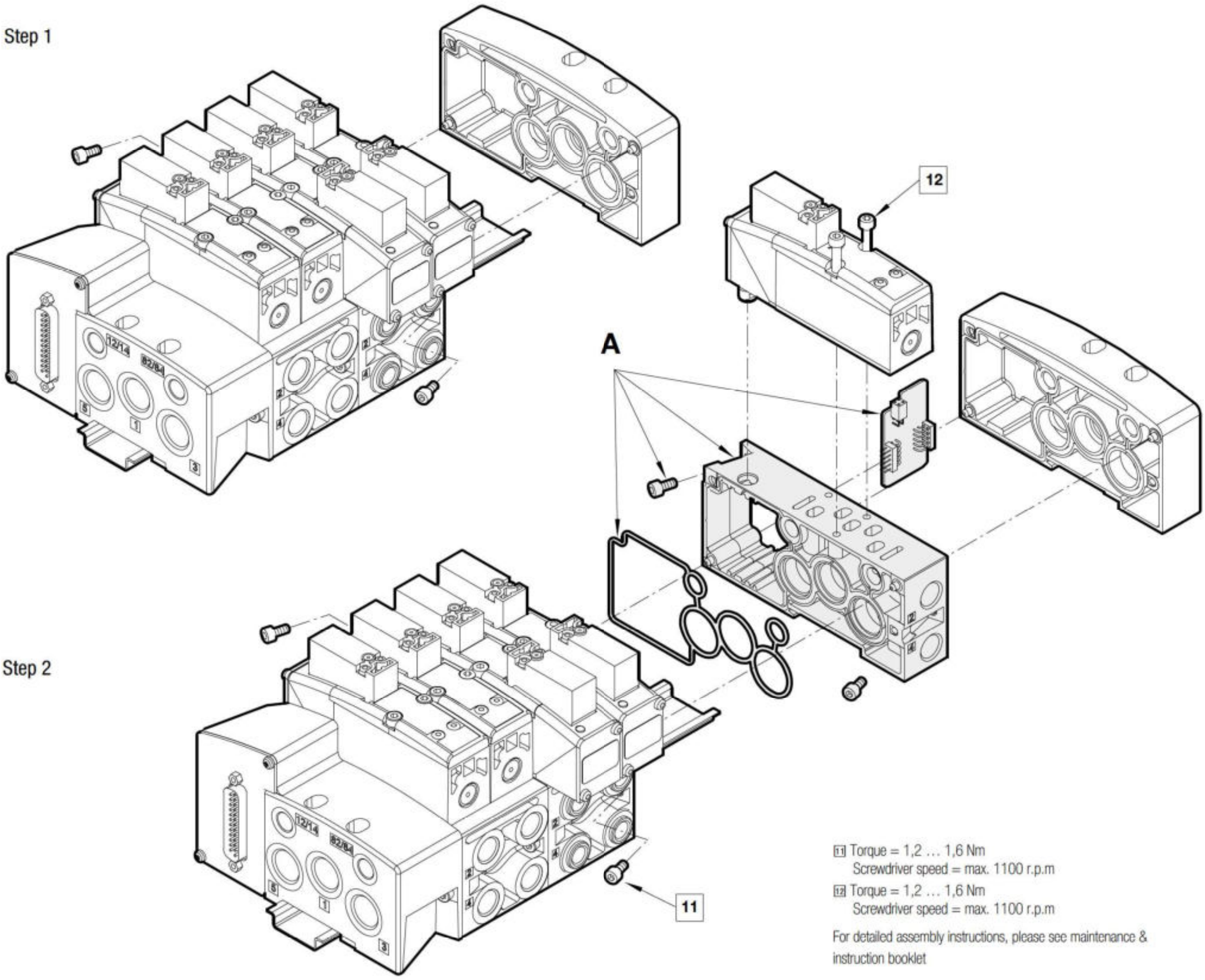
PLUG-IN MINI ISO VALVE ISLANDS

VS26 2 x 2/2, 2 x 3/2, 5/2 or 5/3, size 26 mm

A – Single add-on stations including PCB, sub-base, gasket and screws

Model	Ports 2 & 4	Description
VS2672504-BGF0	G1/4	Add-on station for D-Sub connectors and Fieldbus
VS2672504-YGF0	PIF 6 mm	Add-on station for D-Sub connectors and Fieldbus
VS2672504-8GF0	PIF 8 mm	Add-on station for D-Sub connectors and Fieldbus
VS2672505-BGF0	G1/4	Add-on station for Conduit entry and M23 connector
VS2672505-YGF0	PIF 6 mm	Add-on station for Conduit entry and M23 connector
VS2672505-8GF0	PIF 8 mm	Add-on station for Conduit entry and M23 connector

Valves and accessories to be ordered separately.



11 Torque = 1,2 … 1,6 Nm
Screwdriver speed = max. 1100 r.p.m
12 Torque = 1,2 … 1,6 Nm
Screwdriver speed = max. 1100 r.p.m

For detailed assembly instructions, please see maintenance & instruction booklet

Industrial Ethernet expansion - double station sub-base
A – Two station PCB

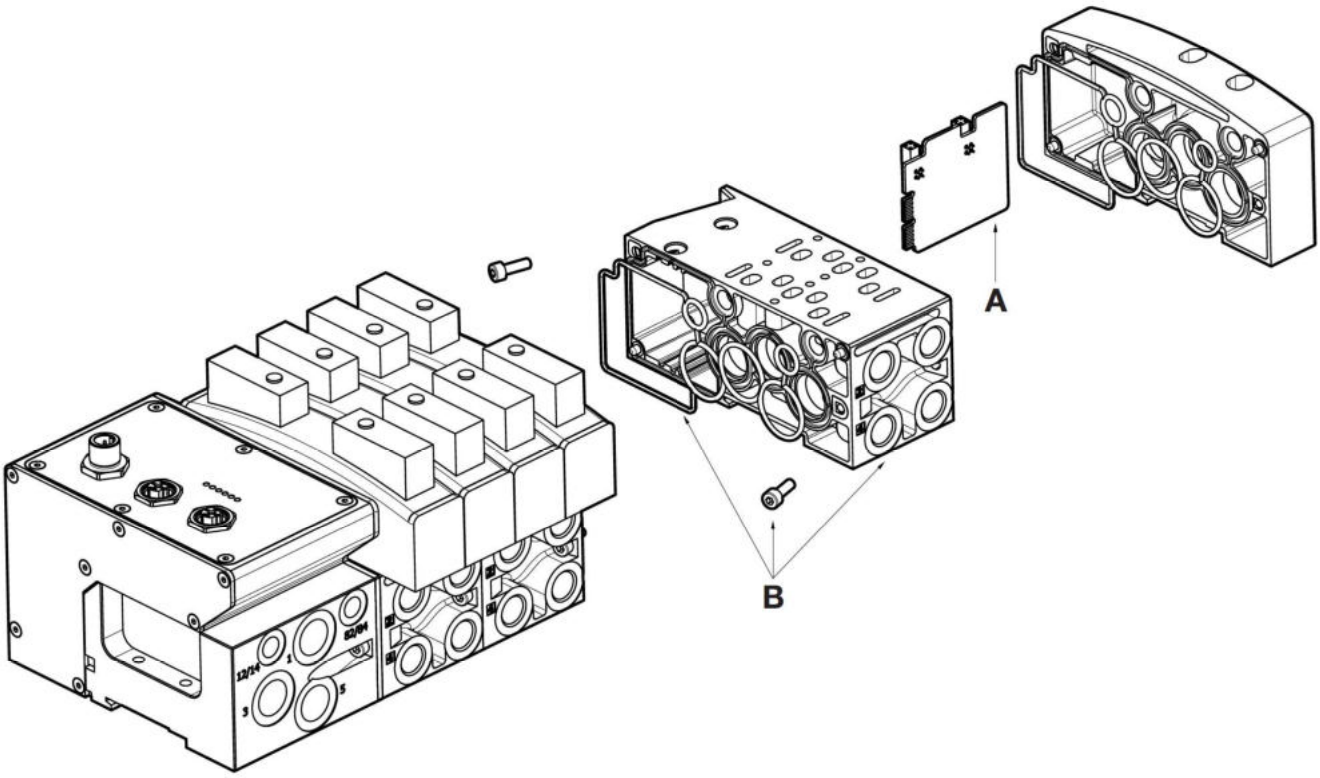
Model	Description
VS2672761-KG00	Ethernet two station expansion PCB

B – Double station modular sub-base

Model	Ports 2 & 4
VS2672502-BGF0	G1/4
VS2672502-RGF0	NPTF 1/4
VS2672502-YGF0	PIF10 mm
VS2672502-8GF0	PIF8 mm
VS2672502-2GF0	PIF3/8

Additionally available PCBs

Model	Description
VS2672762-KG00	Ethernet four station PCB
VS2672763-KG00	Single station blank PCB (no valve connections)



VALVE ISLANDS

VS45 2 x 3/2, 5/2, 5/3, Size 45 mm

- 24 V d.c. Multipole
- Integrated Fieldbus
- Field expandable with single add-on stations
- Dual spool technology, solenoid and air pilot actuated valves
  - VS45G Glandless spool and sleeve for long life
  - VS45S Softseal spool for high flow
- Wide range of accessories
- Universal PNP/NPN 24 V d.c. Multipole

Technical Data

Medium:
Compressed air, filtered to 40 µm, lubricated or non-lubricated

Flow:

Series	Function	l/min
VS45G	5/2	3200
VS45G	5/3	2900
VS45S	2x3/2	3900
VS45S	5/2	4200
VS45S	5/3	3700

Mounting:
Sub-base

Ports 2+4:
G3/8, G1/2

Ports 1, 3, 5:
G3/4

Ambient/Media temperature:
Ambient:
-15°C … +50°C
Media:
-5°C … +50°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body/sub-base:
Die-cast aluminium

Glandless spool & Sleeve (VS45G):
Aluminium, hard anodised,PTFE coated

Softseal spool (VS45S):
Aluminium with HNBR seals

Plastic parts:
POM, PA, PPA, TPE, PBT

Mounting sheets/screws:
Steel, zinc coated

Springs:
Stainless steel

Sandwich plates:
Aluminium bar material

Electrical contacts:
Brass, tin/gold coated

PCB:
Glass reinforced epoxy

Models - Plug-in connection

2x3/2 Double solenoid actuated softseal valves (flow 3900 l/min)

Model	Function 2x2/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
VS45SA11DF313A	2x3/2 NC or 5/3 COE	Solenoid/Spring	Internal	–	3 … 10	Push only	24 V d.c. 1,2 W	SAU
VS45SA11DF213A	2x3/2 NC or 5/3 COE	Solenoid/Spring	Internal	–	3 … 10	Push & turn	24 V d.c. 1,2 W	SAT
VS45SA22DF313A	2x3/2 NC or 5/3 COE	Solenoid/Spring	External	1,7 *1)	0 … 10	Push only	24 V d.c. 1,2 W	SDU
VS45SA22DF213A	2x3/2 NC or 5/3 COE	Solenoid/Spring	External	1,7 *1)	0 … 10	Push & turn	24 V d.c. 1,2 W	SDT
VS45SB11DF213A	2x3/2 NO or 5/3 COP	Solenoid/Spring	Internal	–	3 … 10	Push & turn	24 V d.c. 1,2 W	SBT
VS45SB22DF213A	2x3/2 NO or 5/3 COP	Solenoid/Spring	External	1,7 *1)	0 … 10	Push & turn	24 V d.c. 1,2 W	SET

*1) Plus 0,6 x operating pressure.
NO = Normally Open, NC = Normally Closed, COE = Central Open Exhaust, COP = Central Open Pressure.
Valve dimensions see page 218.

5/2 Single and double solenoid actuated glandless valves (flow 3200 l/min)

Model	Function 2x2/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
VS45G511DF213A	5/2	Solenoid/Solenoid	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W	GJT
VS45G517DF313A	5/2	Solenoid/Spring	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W	GGU
VS45G517DF213A	5/2	Solenoid/Spring	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W	GGT

VALVE ISLANDS

VS45 2 x 3/2, 5/2, 5/3, Size 45 mm

5/2 Single and double solenoid actuated softseal valves (flow 4200 l/min)

Model	Function 2x2/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
VS45S511DF313A	5/2	Solenoid/Solenoid	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W	SJU
VS45S511DF213A	5/2	Solenoid/Solenoid	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W	SJT
VS45S517DF313A	5/2	Solenoid/Spring	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W	SGU
VS45S517DF213A	5/2	Solenoid/Spring	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W	SGT
VS45S527DF313A	5/2	Solenoid/Spring	External	2 … 10	-0,9 … 10	Push only	24 V d.c. 1,2 W	SHU

5/3 Double solenoid actuated glandless valves (flow 3200 l/min)

Model	Function 2x2/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
VS45G611DF313A	5/3 APB	Solenoid/Solenoid	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W	GLU
VS45G611DF213A	5/3 APB	Solenoid/Solenoid	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W	GLT
VS45G711DF313A	5/3 COE	Solenoid/Solenoid	Internal	–	2 … 10	Push only	24 V d.c. 1,2 W	GQU
VS45G711DF213A	5/3 COE	Solenoid/Solenoid	Internal	–	2 … 10	Push & turn	24 V d.c. 1,2 W	GQT
VS45G722DF313A	5/3 COE	Solenoid/Solenoid	External	2 … 10	-0,9 … 16	Push only	24 V d.c. 1,2 W	GRU

5/3 Double solenoid actuated softseal valves (flow 3700 l/min)

Model	Function 2x2/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
VS45S611DF313A	5/3 APB	Solenoid/Solenoid	Internal	–	2,5 … 10	Push only	24 V d.c. 1,2 W	SLU
VS45S611DF213A	5/3 APB	Solenoid/Solenoid	Internal	–	2,5 … 10	Push & turn	24 V d.c. 1,2 W	SLT
VS45S622DF313A	5/3 APB	Solenoid/Solenoid	External	2,5 … 10	-0,9 … 10	Push only	24 V d.c. 1,2 W	SMU

Valve dimensions see page 218.
APB = All Ports Blocked, COE = Centre Open Exhaust.

Electrical details for solenoid operators

Voltage tolerances	(24 V d.c) +/- 10%
Rating	100% Continuous duty
Inlet orifice	0,8 mm
Indication	LED green
Surge surpression	Transil diode
Materials	PPS (body), FPM and NBR (seal)

Protection classification (IP Code):
All VS45 valve islands fulfill IP65 and NEMA4 ratings.

Power supply and precautions:
All VS45 24 V d.c products are designed to be used with a protective extra low voltage (PELV) power supply.
All VS45 115 V a.c products correspond to the protection class I. Connection of the protective earth (PE) ground is required.

● Models - Individually wired

2x3/2 Double solenoid actuated softseal valves (flow 3900 l/min)

Model	Function 2x2/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override
VS45SA11DC3**#	2x3/2 NC or 5/3 COE	Solenoid/Spring	Internal	–	3 … 10	Push only
VS45SA11DC2**#	2x3/2 NC or 5/3 COE	Solenoid/Spring	Internal	–	3 … 10	Push & turn
VS45SA22DC3**#	2x3/2 NC or 5/3 COE	Solenoid/Spring	External	1,7 *1)	0 … 10	Push only
VS45SA22DC2**#	2x3/2 NC or 5/3 COE	Solenoid/Spring	External	1,7 *1)	0 … 10	Push & turn
VS45SB11DC3**#	2x3/2 NO or 5/3 COP	Solenoid/Spring	Internal	–	3 … 10	Push only
VS45SB11DC2**#	2x3/2 NO or 5/3 COP	Solenoid/Spring	Internal	–	3 … 10	Push & turn
VS45SB22DC3**#	2x3/2 NO or 5/3 COP	Solenoid/Spring	External	1,7 *1)	0 … 10	Push only
VS45SB22DC2**#	2x3/2 NO or 5/3 COP	Solenoid/Spring	External	1,7 *1)	0 … 10	Push & turn
VS45SC11DC3**#	2x3/2 NO/NC	Solenoid/Spring	Internal	–	3 … 10	Push only
VS45SC11DC2**#	2x3/2 NO/NC	Solenoid/Spring	Internal	–	3 … 10	Push & turn
VS45SC22DC3**#	2x3/2 NO/NC	Solenoid/Spring	External	1,7 *1)	0 … 10	Push only
VS45SC22DC2**#	2x3/2 NO/NC	Solenoid/Spring	External	1,7 *1)	0 … 10	Push & turn

*1) Plus 0,6 x operating pressure.
NO = Normally Open, NC = Normally Closed, COE = Central Open Exhaust, COP = Central Open Pressure.
Valve dimensions see page 218.

5/2 Single and double solenoid actuated glandless valves (flow 3200 l/min)

Model	Function	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override
VS45G511DC3**#	5/2	Solenoid/Solenoid	Internal	–	2 … 10	Push only
VS45G511DC2**#	5/2	Solenoid/Solenoid	Internal	–	2 … 10	Push & turn
VS45G522DC3**#	5/2	Solenoid/Solenoid	External	2 … 10	-0,9 … 16	Push only
VS45G522DC2**#	5/2	Solenoid/Solenoid	External	2 … 10	-0,9 … 16	Push & turn
VS45G517DC3**#	5/2	Solenoid/Spring	Internal	–	1,6 … 10	Push only
VS45G517DC2**#	5/2	Solenoid/Spring	Internal	–	1,6 … 10	Push & turn
VS45G527DC3**#	5/2	Solenoid/Spring	External	2 … 10	-0,9 … 16	Push only
VS45G527DC2**#	5/2	Solenoid/Spring	External	2 … 10	-0,9 … 16	Push & turn

5/2 Single and double solenoid actuated softseal valves (flow 4200 l/min)

Model	Function	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override
VS45S511DC3**#	5/2	Solenoid/Solenoid	Internal	–	2 … 10	Push only
VS45S511DC2**#	5/2	Solenoid/Solenoid	Internal	–	2 … 10	Push & turn
VS45S522DC3**#	5/2	Solenoid/Solenoid	External	2 … 10	-0,9 … 10	Push only
VS45S522DC2**#	5/2	Solenoid/Solenoid	External	2 … 10	-0,9 … 10	Push & turn
VS45S517DC3**#	5/2	Solenoid/Spring	Internal	–	2 … 10	Push only
VS45S517DC2**#	5/2	Solenoid/Spring	Internal	–	2 … 10	Push & turn
VS45S527DC3**#	5/2	Solenoid/Spring	External	2 … 10	-0,9 … 10	Push only
VS45S527DC2**#	5/2	Solenoid/Spring	External	2 … 10	-0,9 … 10	Push & turn

5/2 Single and double solenoid actuated glandless valves (flow 3200 l/min)

Model	Function	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override
VS45G611DC3**#	5/3 APB	Solenoid/Solenoid	Internal	–	2 … 10	Push only
VS45G611DC2**#	5/3 APB	Solenoid/Solenoid	Internal	–	2 … 10	Push & turn
VS45G622DC3**#	5/3 APB	Solenoid/Solenoid	External	2 … 10	-0,9 … 16	Push only
VS45G622DC2**#	5/3 APB	Solenoid/Solenoid	External	2 … 10	-0,9 … 16	Push & turn
VS45G711DC3**#	5/3 COE	Solenoid/Solenoid	Internal	–	2 … 10	Push only
VS45G711DC2**#	5/3 COE	Solenoid/Solenoid	Internal	–	2 … 10	Push & turn
VS45G722DC3**#	5/3 COE	Solenoid/Solenoid	External	2 … 10	-0,9 … 16	Push only
VS45G722DC2**#	5/3 COE	Solenoid/Solenoid	External	2 … 10	-0,9 … 16	Push & turn

** Please insert voltage codes at first, # Please insert connector codes.
APB = All Ports Blocked, COE = Centre Open Exhaust.
Valve dimensions see page 218.

5/3 Double solenoid actuated softseal valves (flow 3700 l/min)

Model	Function	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override
VS45S611DC3**#	5/3 APB	Solenoid/Solenoid	Internal	–	2,5 … 10	Push only
VS45S611DC2**#	5/3 APB	Solenoid/Solenoid	Internal	–	2,5 … 10	Push & turn
VS45S622DC3**#	5/3 APB	Solenoid/Solenoid	External	2,5 … 10	-0,9 … 10	Push only
VS45S622DC2**#	5/3 APB	Solenoid/Solenoid	External	2,5 … 10	-0,9 … 10	Push & turn

** Please insert voltage codes at first, # Please insert connector codes.
APB = All Ports Blocked, COE = Centre Open Exhaust.
Valve dimensions see page 218.

** Voltage codes and spare pilot valves

Voltage	Code	Manual override	Power Inrush/Hold	Pilot valve
24 V d.c.	13	Push & turn	1,2 W	VS45DC213-KG00
110/120 V 50/60 Hz	18	Push & turn	2,1 / 1,5 VA	VS45DC218-KG00
24 V d.c.	13	Push only	1,2 W	VS45DC313-KG00
110/120 V 50/60 Hz	18	Push only	2,1 / 1,5 VA	VS45DC318-KG00

Connector codes and part numbers

Code			Part number
A	=	Solenoid without connector	
B	=	12-250 V a.c./d.c. wireable connector	V10027-D00
C	=	12-250 V a.c./d.c. 3 m moulded cable	V10013-D03
H	=	12-24 V d.c. LED, Surge suppression, wireable connector	V10012-D13
J	=	110 V a.c. LED, Surge suppression, wireable connector	V10012-D18
5	=	24 V a.c./d.c., LED, Surge suppression, 3 m moulded cable	V10014-D03
6	=	110 V a.c., LED, Surge suppression, 3 m moulded cable	V10015-D03

Models - Air pilot actuation

5/2 Single and double pilot actuated glandless valves (flow 3200 l/min)

Model	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)
VS45G5D7AX900A	Air/spring	External	2 … 10	1,6 … 10

5/2 Single and double pilot actuated softseal valves (flow 4200 l/min)

Model	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)
VS45S5D7AX900A	Air/spring	External	2 … 10	2 … 10
VS45S5DDAX900A	Air/Air	External	2 … 10	2 … 10

5/3 Double external pilot actuated glandless valves (flow 2900 l/min)

Model	Function	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)
VS45G5DDAX900A	APB	Air/Air	External	2 … 10	-0,9 … 16

5/3 Double internal pilot actuated glandless valves (flow 2900 l/min)

Model	Function	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)
VS45S5D7AX900A	APB	Air/Air	External	2 … 10	2,5 … 10

*1) Plus 0,6 x operating pressure.
Valve dimensions see page 218.

VALVE ISLANDS
VS45 2 x 3/2, 5/2, 5/3, Size 45 mm

Accessories - Base accessories

Blanking plate	Port blanking discs for modular sub-base
	
VS4540415-KG00	V40414-K00 (Ports 1, 3, 5)

Sandwich plates

Single pressure regulator plate	Double pressure regulator plate	Flow regulator plate	Replacement gauge
			
VS4540410-KG10 (Port 1)	VS4540410-KG40 (Ports 2+4)	VS4540408-KG00	18-015-212

Replacement Solenoids

Plug-in replacement solenoids			Individually wired replacement solenoids			Air pilot replacement operator
						
VS45DF313-KG00	24V DC 1,2W	Push only	VS45DC313-KG00	24V DC 1,2W	Push only	VS45AX900-KG00
VS45DF213-KG00	24V DC 1,2W	Push & turn	VS45DC213-KG00	24V DC 1,2W	Push & turn	–
VS45DF513-KG00	24V DC 1,2W	Extended, push only	VS45DC318-KG00	110/120 Vac	Push only	–
–	–	–	VS45DC218-KG00	110/120 Vac	Push & turn	–

Kits include screws, gasket and V ring.

Cables

D Sub-connector 25 pin, IP65	D Sub-connector 44 pin, IP65	D Sub-connector 25 pin 90°, IP65	D Sub-connector 44 pin 90°, IP65
			
V11569-E01 (1 m)	V11570-E01 (1 m)	V12086-E01 (1 m)	V12088-E01 (1 m)
V11569-E03 (3 m)	V11570-E03 (3 m)	V12086-E03 (3 m)	V12088-E03 (3 m)
V11569-E05 (5 m)	V11570-E05 (5 m)	V12086-E05 (5 m)	V12088-E05 (5 m)

Multipole options

Connector type	Voltage	No. of stations	Max. no. solenoids
D-Sub 25-pin	24 V d.c.	02/03/04/05/06/07/08/09/10/11/12	24
D-Sub 44-pin	24 V d.c.	08/09/10/11/12/13/14/15/16	32

For details of single parts, consult our technical service.

Fieldbus options and accessories

Fieldbus protocol	Fieldbus interface/connector	Power connector (Fieldbus and valves)	No. of stations	Max. no. solenoids
Profibus DP	1xD-Sub9-pin	M12 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
	2xM125-pin	M12 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
CANopen	1xM125-pin	M12 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
AB RIO	2xM125-pin	M12 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32

For parts and assembly instructions of Fieldbus components, consult our technical service.

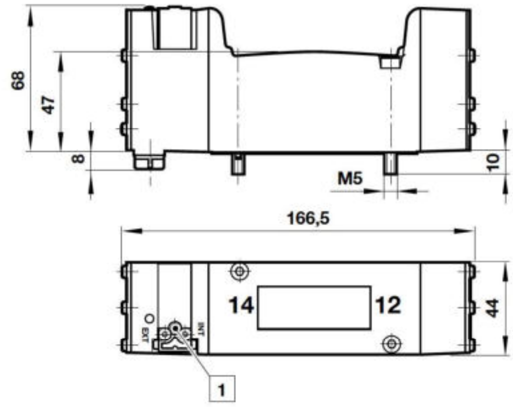
Fieldbus accessories

	Model	Description	Connection	Cable length	Protection class
Fieldbus power connector					
	V11588-E01	Profibus DP (4-pin, female) Interbus-S (4-pin, female) DeviceNet (4-pin, female) CANopen (4-pin, female) AB RIO (4-pin, female)	M12	Wireable	IP65 Required for ATEX
Communication cable and connector					
	V11589-E01	DeviceNet (5-pin, female) CANopen (5-pin, female) AB RIO (5-pin, female)	M12	Wireable	IP65 Required for ATEX
	V11590-E01	Profibus DP, reverse keyway (5-pin, male)	M12	Wireable	IP65 Required for ATEX
	V11591-E01	Profibus DP, reverse keyway (5-pin, female)	M12	Wireable	IP65 Required for ATEX
	V11654-E01	Profibus DP connector (9-pin, male) with terminating resistor	D-Sub	Wireable	IP65 Required for ATEX
	V11592-E01	Profibus DP terminating resistor (male)	M12	–	IP40

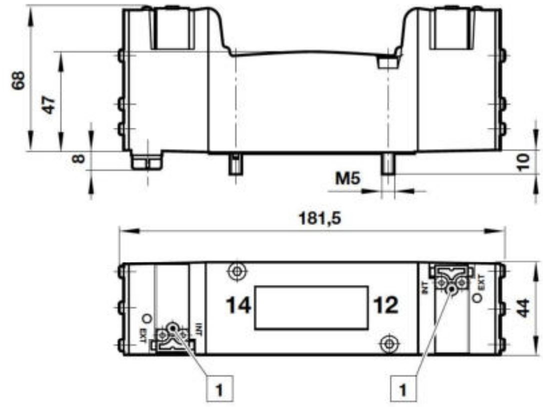
VALVE ISLANDS
VS45 2 x 3/2, 5/2, 5/3, Size 45 mm

● Dimensions - Valve

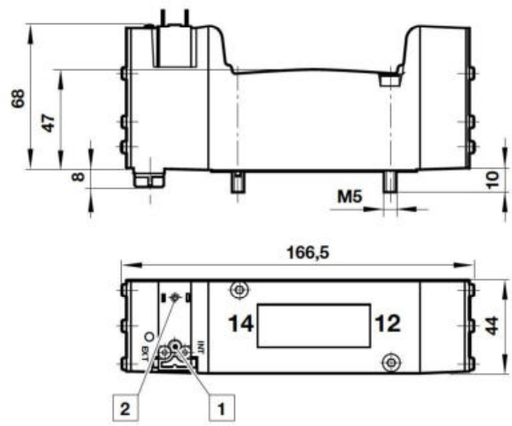
Plug-in connection
VS45*5*7DF*13A models
5/2 Single solenoid valve, spring return



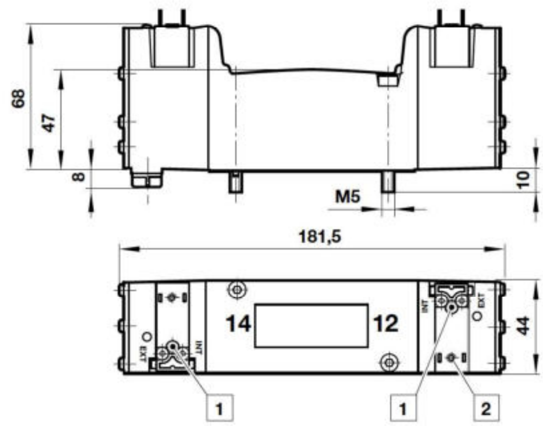
Plug-in connection
VS45****DF*13A models
2x3/2, 5/2 and 5/3 Double solenoid valve



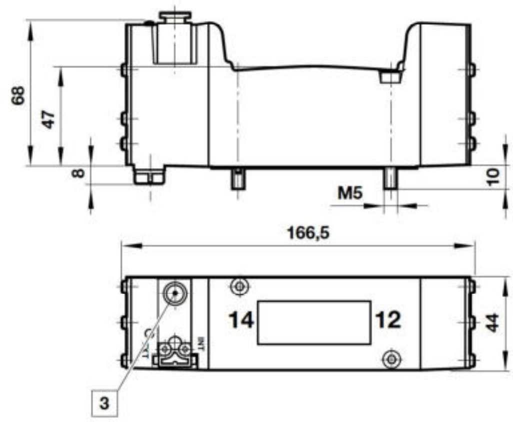
Individually wired connection
VS45*5*7DC*1*A models
5/2 Single solenoid valve, spring return



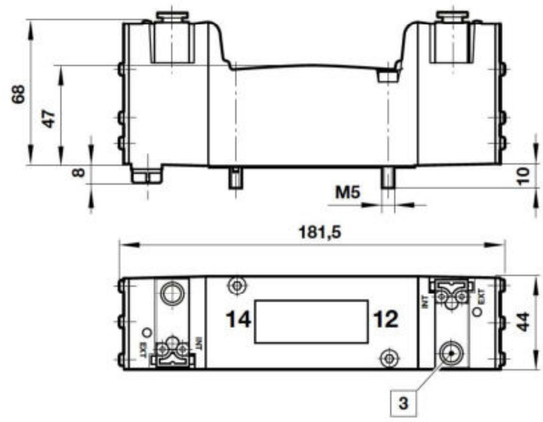
Individually wired connection
VS45****DC*1*A models
2x3/2, 5/2 and 5/3 Double solenoid valve



Air pilot
VS45*5D*AX900A models
5/2 Single air pilot valve, spring return



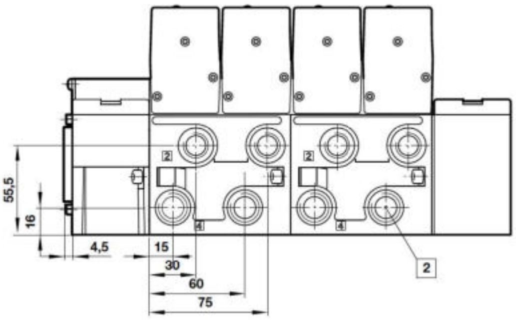
Air pilot
VS45****AX900A models
2x3/2, 5/2 and 5/3 Double air pilot valve

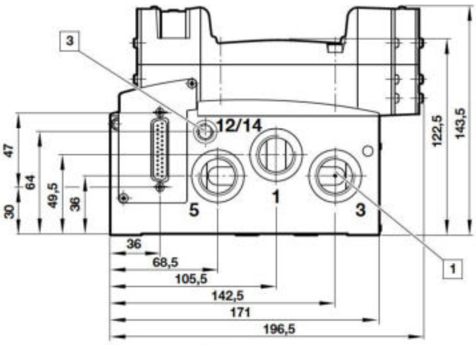


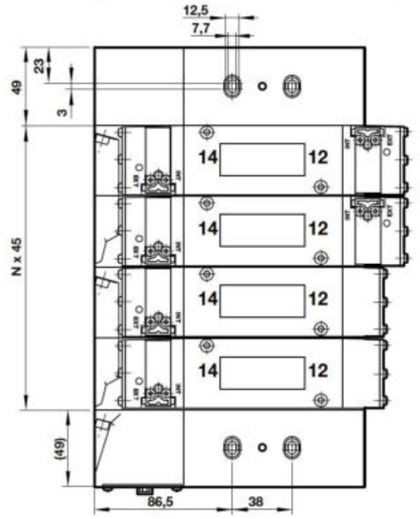
1 Manual override
2 Electrical connection
3 Pilot port Ø 4 mm

Dimensions - Valve island

Multipole/fieldbus connection.
Contact us for sub-base and end plate kit ordering information.





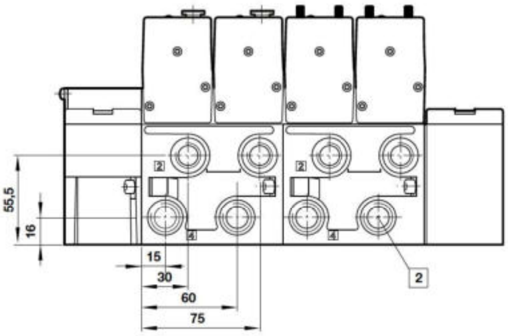


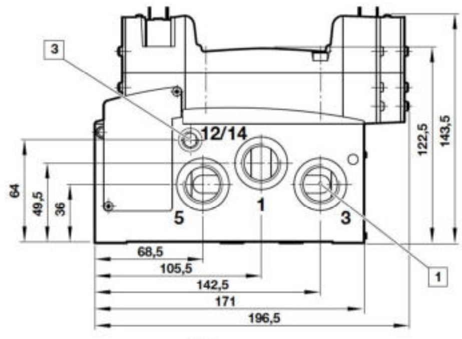
1 Ports 1, 3 and 5 G3/4
2 Ports 2 and 4 G3/8G or G1/2
3 Ports 12/14 G1/8

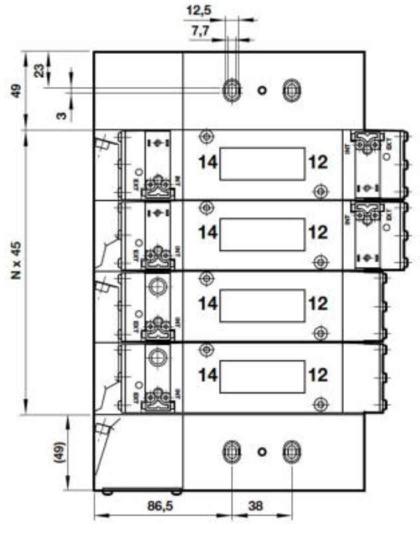
N Number of stations

Electrical connection	Min. no. of valve stations	Max. no. of valve stations
Multipole	2	16
Other Fieldbus protocols	4	16

Individually wired & air pilot.
Contact us for sub-base and end plate kit ordering information.







1 Ports 1, 3 and 5 G3/4
2 Ports 2 and 4 G3/8G or G1/2
3 Ports 12/14 G1/8

N Number of stations

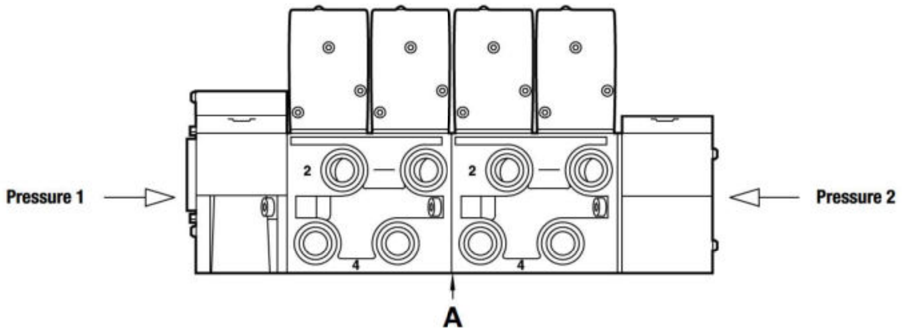
VALVE ISLANDS
VS45 2 x 3/2, 5/2, 5/3, Size 45 mm

Multi pressure configurations

A

Blanking disc	Type
V40414-K00	Suitable for ports 1, 3 and/or 5

Dual pressure

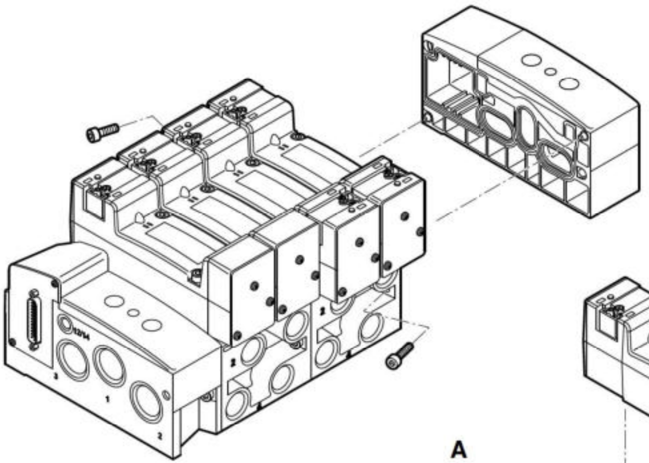


A – Single add-on stations including PCB, sub-base, gasket and screws

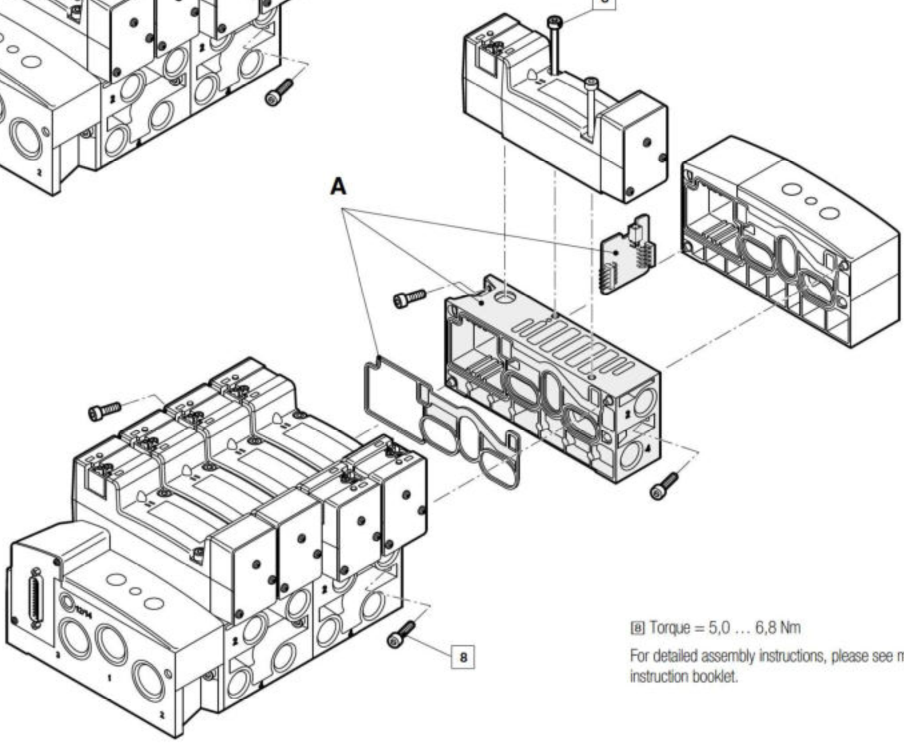
Model	Ports 2 & 4	Description
VS4540400-CGC1	G3/8	Add-on station for D-Sub connectors and Fieldbus
VS4540400-CGC1	G1/2	Add-on station for D-Sub connectors and Fieldbus

Valves and accessories to be ordered separately.

Step 1



Step 2



[8] Torque = 5,0 … 6,8 Nm

For detailed assembly instructions, please see maintenance & instruction booklet.

MINI ISO VALVES

V40/V41 2 x 3/2, 5/2 and 5/3, Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 18 mm

- High performance, compact design
- Flexible sub-base system
- Multipressure system capability
- Wide range of accessories
- Dual spool technology
  - V40 Glandless spool and sleeve (long life)
  - V41 Softseal spool (high flow)
- Valve exchange under pressure

Technical Data

Medium:
Compressed air, filtered to 40 µm, lubricated or non-lubricated

Operation:
V40: Glandless spool valve, solenoid pilot or air pilot actuated
V41: Softseal spool valve, solenoid pilot or air pilot actuated

Flow:
V41 Softseal

Function	l/min
2x3/2	610
5/2	650
5/3	680
V40 Glandless	
5/2	570
5/3	610

Mounting:
Sub-base

Ports 2+4:

Operating pressure:
Maximum pressure
10 bar V41 models and V40 solenoid pilot actuated valves with internal pilot supply
16 bar V40 solenoid pilot actuated valves w. ext. pilot supply and V40 air pilot actuated valves

Details of minimum and maximum pilot pressure see overleaf

Ambient temperature:
-15°C … +50°C
V40/V41 solenoid and V41 air pilot models
-15°C … +80°C
V40 air pilot models

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body:
Die-cast aluminium

Sub-base:
Aluminium alloy

Spool and sleeve:
Hard anodized, PTFE coated, matched aluminium (V40) or aluminium alloy spool (V41) with HNBR seals

Plastic parts:
POM

Static seals:
NBR

End cover & Screws:
Zinc plated

Springs:
Stainless steel

EXPRESS

Models - 2 x 3/2 Solenoid pilot actuated softseal valves

Model	Function 2 x 3/2	Actuation/return	Pilot supply	Pilot exhaust	Operating pressure (bar)	Pilot pressure (bar)	Flow (l/min)
V415A11D-*1)	NC	Solenoid/Spring	Internal	Collected #	2,5 … 10	–	610
V415A22D-*1)	NC	Solenoid/Spring	External	Not collected	0 … 10	1,7 + (0,35 x operating pressure)	610
V415B11D-*1)	NO	Solenoid/Spring	Internal	Collected #	2,5 … 10	–	610
V415B22D-*1)	NO	Solenoid/Spring	External	Not collected	0 … 10	1,7 + (0,35 x operating pressure)	610
V415C11D-*1)	NO/NC	Solenoid/Spring	Internal	Collected #	2,5 … 10	–	610
V415C22D-*1)	NO/NC	Solenoid/Spring	External	Not collected	0 … 10	1,7 + (0,35 x operating pressure)	610

1) Insert voltage code from tables on page 222.
# Pilot exhaust collected and exhausted via port 14.
NO = Normally open, NC = Normally closed.

MINI ISO VALVES

V40/V41 2 x 3/2, 5/2 and 5/3, Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 18 mm

Models - 5/2 Solenoid pilot actuated glandless and softseal valves

Model	Pilot supply	Pilot exhaust	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
V405513D-*1)	Internal	Collected #	Solenoid	Air spring	1 … 10	–	Glandless	570
V415513D-*1)	Internal	Collected #	Solenoid	Air spring	1 … 10	–	Soft seal	650
V405523D-*1)	External	Not collected	Solenoid	Air spring	-0,9 … 16	1 … 10	Glandless	570
V415523D-*1)	External	Not collected	Solenoid	Air spring	-0,9 … 10	1 … 10	Soft seal	650
V405516D-*1)	Internal	Collected #	Solenoid	Spring	1,6 … 10	–	Glandless	570
V415517D-*1)	Internal	Collected #	Solenoid	Spring	2 … 10	–	Soft seal	650
V405526D-*1)	External	Not collected	Solenoid	Spring	-0,9 … 16	1,6 … 10	Glandless	570
V415527D-*1)	External	Not collected	Solenoid	Spring	-0,9 … 10	2 … 10	Soft seal	650
V405511D-*1)	Internal	Collected #	Solenoid	Solenoid	2 … 10	–	Glandless	570
V415511D-*1)	Internal	Collected #	Solenoid	Solenoid	2 … 10	–	Soft seal	650
V405522D-*1)	External	Not collected	Solenoid	Solenoid	-0,9 … 16	2 … 10	Glandless	570
V415522D-*1)	External	Not collected	Solenoid	Solenoid	-0,9 … 10	2 … 10	Soft seal	650
V405591D-*1)	Internal	Collected #	Solenoid (priority)	Solenoid	2 … 10		Glandless	570
V405592D-*1)	External	Not collected	Solenoid (priority)	Solenoid	-0,9 … 16	2 … 10	Glandless	570

Models - 5/3 Solenoid pilot actuated glandless and softseal valves

Model	Function	Pilot supply	Pilot exhaust	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
V405611D-*1)	APB	Internal	Collected #	Solenoid	Solenoid	2 … 10	–	Glandless	610
V415611D-*1)	APB	Internal	Collected #	Solenoid	Solenoid	2 … 10	–	Soft seal	680
V405622D-*1)	APB	External	Not collected	Solenoid	Solenoid	-0,9 … 16	2 … 10	Glandless	610
V415622D-*1)	APB	External	Not collected	Solenoid	Solenoid	-0,9 … 10	2 … 10	Soft seal	680
V405711D-*1)	COE	Internal	Collected #	Solenoid	Solenoid	2 … 10	–	Glandless	610
V415711D-*1)	COE	Internal	Collected #	Solenoid	Solenoid	2,5 … 10	–	Soft seal	680
V405722D-*1)	COE	External	Not collected	Solenoid	Solenoid	-0,9 … 16	2 … 10	Glandless	610
V415722D-*1)	COE	External	Not collected	Solenoid	Solenoid	-0,9 … 10	2,5 … 10	Soft seal	680
V405811D-*1)	COP	Internal	Collected #	Solenoid	Solenoid	2 … 10	–	Glandless	610
V415811D-*1)	COP	Internal	Collected #	Solenoid	Solenoid	2 … 10	–	Soft seal	680
V405822D-*1)	COP	External	Not collected	Solenoid	Solenoid	-0,9 … 16	2 … 10	Glandless	610
V415822D-*1)	COP	External	Not collected	Solenoid	Solenoid	-0,9 … 10	2 … 10	Soft seal	680

*1) Insert voltage code from tables below.
# Pilot exhaust collected and exhausted via port 14.
APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre open pressure.

Electrical details for solenoid operators

Voltage tolerances	-10%/+15%
Rating	100% Continuous duty
Inlet orifice	0,8 mm
Electrical connection	15 mm DIN EN 175301-803 (DIN 43 650) Table C
Manual override	Shrouded push button, spring return Convertible into lockable type with set-up kit, part no. V70532-K00
Protection class	IP 65 with sealed plug (ISO 6952) NEMA 4
Materials	PPS (body), FPM and NBR (seal)

Intrinsically safe version available on request.

Voltage codes & spare pilots

Voltage	Coil code	Current	Spare pilot valve
12 V d.c.	C312A	1 W	VZC7L2C1-C312A
24 V d.c.	C313A	1,2 W	VZC7L2C1-C313A
48 V 50/60 Hz	C316A	2,1/1,5 VA	VZC7L2C1-C316A
110 V d.c.	C317A	1 W	VZC7L2C1-C317A
115 V 50/60 Hz	C318A	2,1/1,5 VA	VZC7L2C1-C318A

Other voltages available on request. Spare pilot valves are delivered with mounting screws.

Models - 2 x 3/2 Air pilot actuated softseal valves

Model	Function 2 x 3/2	Actuation/return 2 x 3/2	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
V415A33A-X0020	NC	Air/Spring	0 … 10	1,7 + (0,35 x operating pressure)	Soft seal	610
V415B33A-X0020	NO	Air/Spring	0 … 10	1,7 + (0,35 x operating pressure)	Soft seal	610
V415C33A-X0020	NO/NC	Air/Spring	0 … 10	1,7 + (0,35 x operating pressure)	Soft seal	610

Models - 5/2 Air pilot actuated glandless and softseal valves

Model	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
V405537A-X0090	Air	Spring	-0,9 … 16	1,6 … 16	Glandless	570
V415537A-X0090	Air	Spring	-0,9 … 10	2 … 10	Soft seal	610
V405533A-X0020	Air	Air	-0,9 … 16	2 … 16	Glandless	570
V415533A-X0020	Air	Air	-0,9 … 10	2 … 10	Soft seal	610
V405533A-X0070	Air (priority)	Air	-0,9 … 16	2 … 16	Glandless	570

Models - 5/3 Air pilot actuated glandless and softseal valves

Model	Function	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
V405633A-X0020	APB	Air	Air	-0,9 … 16	2 … 16	Glandless	610
V415633A-X0020	APB	Air	Air	-0,9 … 10	2 … 10	Soft seal	680
V405733A-X0020	COE	Air	Air	-0,9 … 16	2 … 16	Glandless	610
V415733A-X0020	COE	Air	Air	-0,9 … 10	2,5 … 16	Soft seal	680
V405833A-X0020	COP	Air	Air	-0,9 … 16	2 … 16	Glandless	610
V415833A-X0020	COP	Air	Air	-0,9 … 10	2 … 10	Soft seal	680

Valve function: NO = Normally open, NC = Normally closed.
APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.

MINI ISO VALVES

V40/V41 2 x 3/2, 5/2 and 5/3, Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 18 mm

Accessories

DIN EN 50 022 rail (1 m)	**DIN-rail mounting kit**	**Blanking disc to modular sub-base**	**Manual override set-up kit**	**Blanking plate for unused station**	**Transition plate V40/V41 » V44/V45**
					
V10009-C00 (35 x 7,5 mm)	V70531-KA0	V70422-K50 (Ports 1,3,5)	V70532-K00	V70400-K50	–
V10592-C01 (35 x 15 mm)	–	V70423-K50 (Ports 12 & 14)	–	–	V70436-B00 *1)

*1) With supply and exhaust ports.

Sandwich plates

Intermediate supply/ exhaust manifold	**Single valve shut-off plate**	**Single pressure regulator plate**	**Double pressure regulator plate**	**Flow regulator plate**	**Sandwich plate with additional pressure port 1**
					
V70429-A50 (G1/8)	V70430-K50 (Port 1 blocked)	V70427-K51 (Port 1 reg.)	V70427-K54 (Ports 2+4 reg.)	V70428-K50 (Ports 3+5 reg.)	V70435-A50 (G1/8)
V70429-P50 (1/8NPTF)	–	V70427-K52 (Port 2 reg.)	–	–	V70435-P50 (1/8NPTF)
–	–	V70427-K53 (Port 4 reg.)	–	–	–

Sub-bases and end plates

Single station sub-base	**Double station modular sub-base**	**Single station modular sub-base**	**End plate kit**	**Fixed length sub-base (1/3/5 G1/4, 2/4 G1/8)**
				
V70401-A5B	V70432-Y5F (Ports 2+4 on side)	V70425-X5F (Ports 2+4 on side)	V70424-B5C (End ported, G1/4)	V70402-A50 (2 stations)
–	–	V70426-X5F (Ports 2+4 on side)*	V70431-A5F (Ports 2+4 on side. 1/3/5 G1/4, 2/4 G1/8)	V70404-A50 (4 stations)
–	–	V70425-A5E (Ports 2+4 on bottom)	–	V70406-A50 (6 stations)
–	–	V70426-A5E (Ports 2+4 on bottom)*	–	V70408-A50 (8 stations)
–	–	–	–	V70410-A50 (10 stations)
–	–	–	–	V70412-A50 (12 stations)

* Pilot ports 12+14 on side.

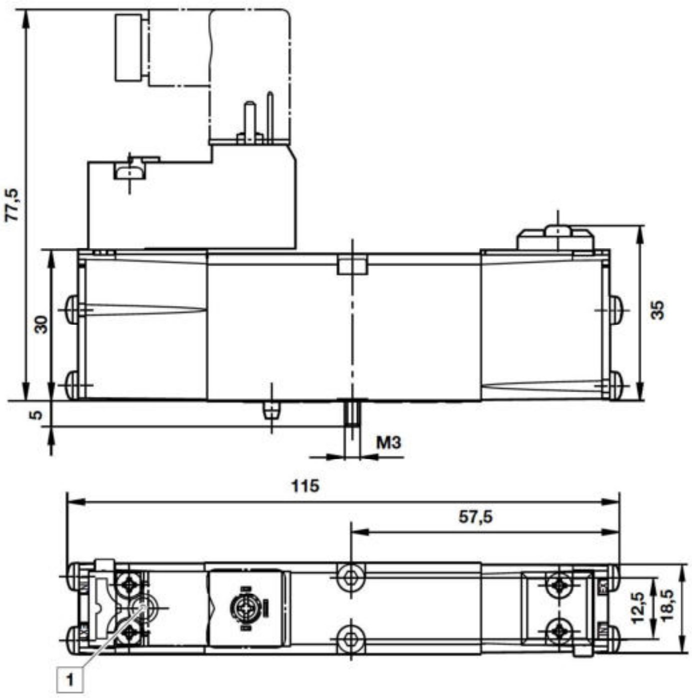
Connector plug - Ordered separately

I15 mm DIN EN 175301-803 (DIN 43 650) Table C

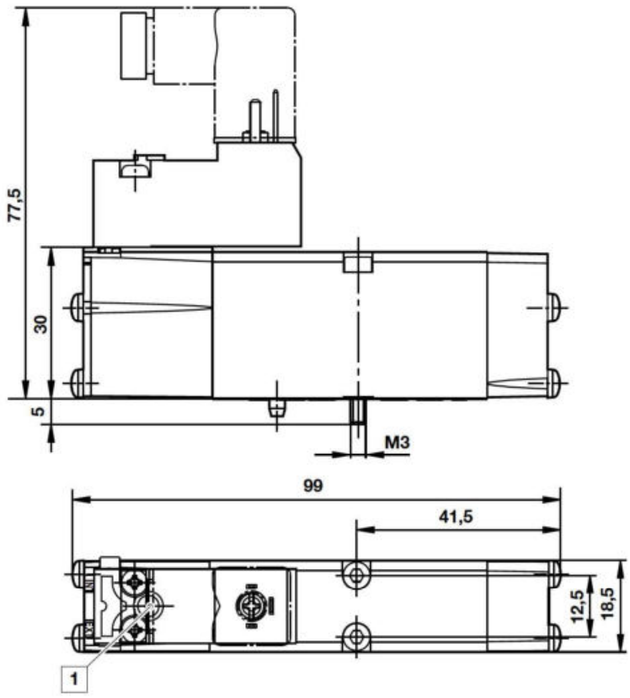
V10027-D00 250 V a.c./300 Vd.c.

Dimensions

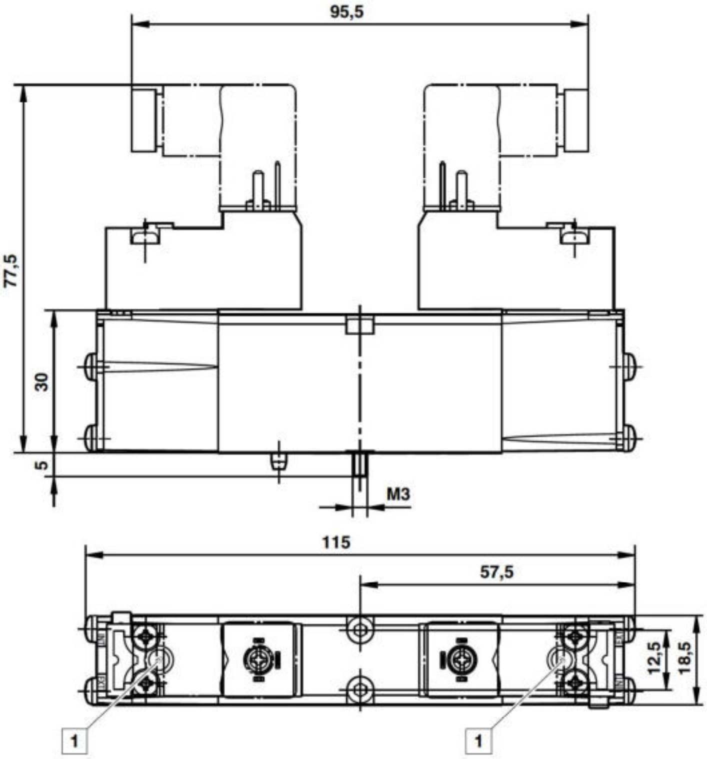
V4155*3D-C3***
5/2 Single solenoid pilot valve
Air spring return



V4055**D-C3***
5/2 Single solenoid pilot valve
Mechanical (& air) spring valve



V4055**D-C3*** & V4155**D-C3***
5/2 Double solenoid pilot valve
V405***D-C3*** & V415***D-C3***
2x3/2 + 5/3 Double solenoid pilot valve

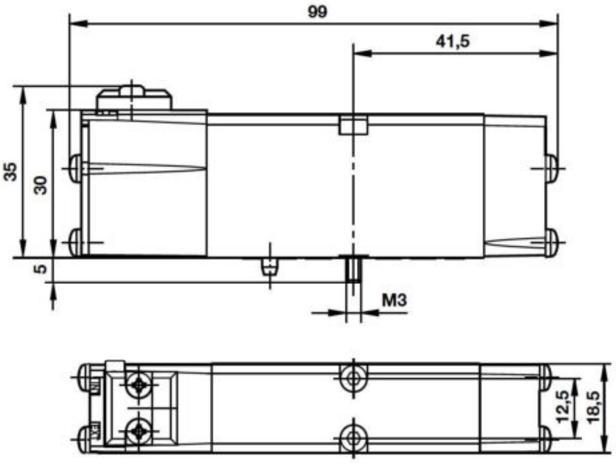


1 Manual override

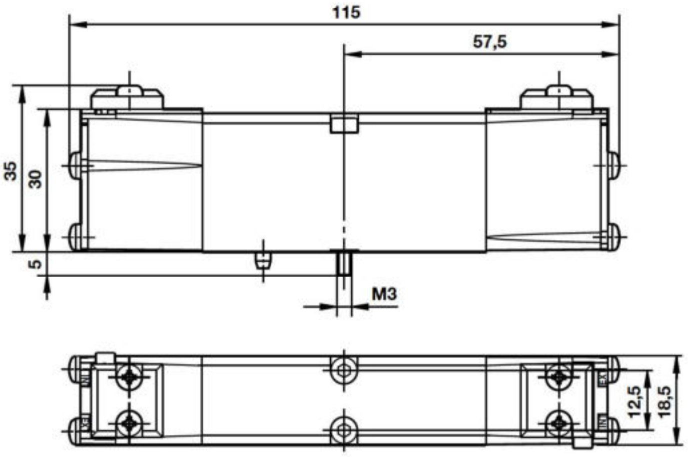
MINI ISO VALVES

V40/V41 2 x 3/2, 5/2 and 5/3, Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 18 mm

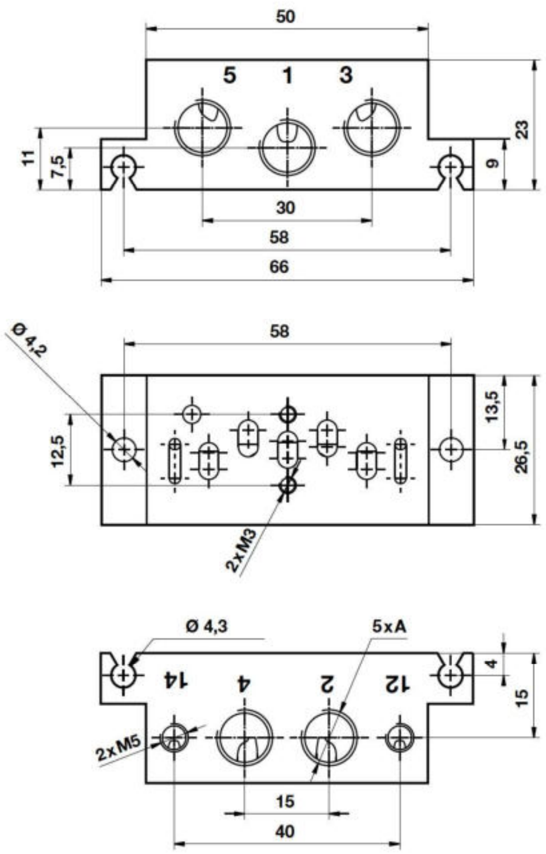
V415537A-X0090
5/2 Single air pilot valve



V405537A-X0090
5/2 Single air pilot valve
V405*33A-X00*0 & V415*33A-X00*0
2x3/2, 5/2 + 5/3 Double air pilot valve



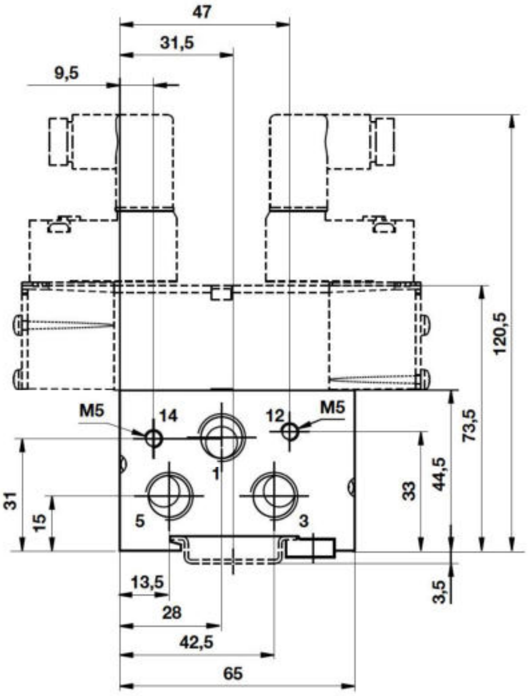
Single station sub-base – Side ported with pilot ports

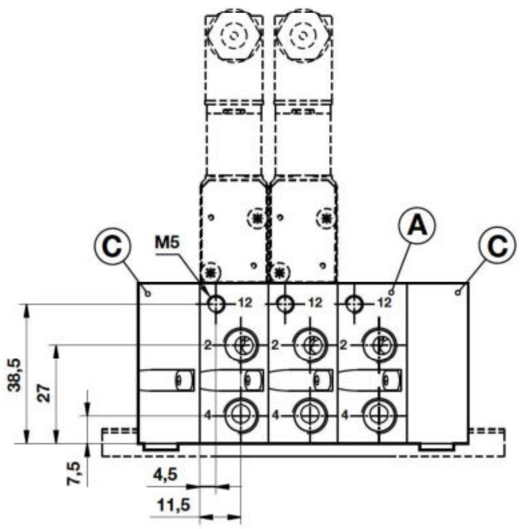


Model	Port size A
V70401-A5B	G1/8 side ported with pilot ports

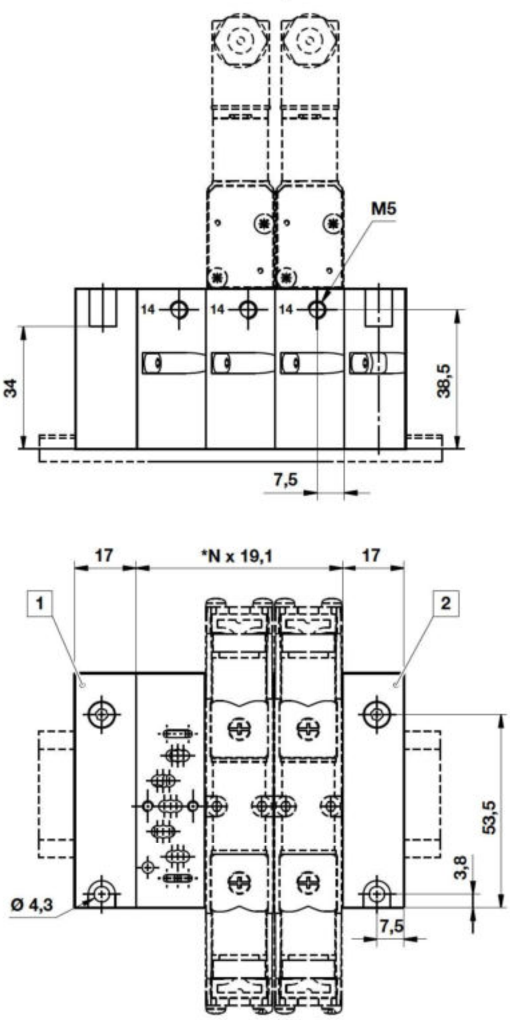
Note: Pilot ports = M5.

Side ported sub-base





Bottom and side ported sub-base



N = number of stations
x/y = Insert port type from table below

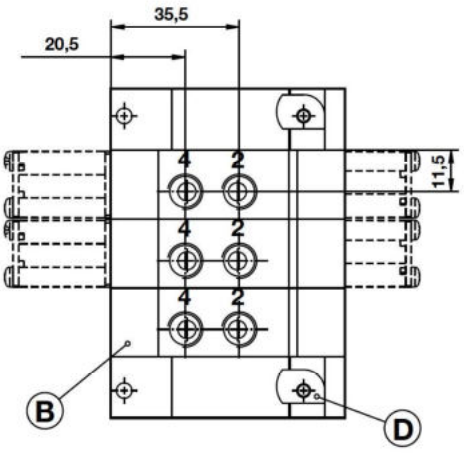
1 Right hand side
2 Left hand side

Code x	Code y	Ports 2 & 4	Ports
A	A	G1/8	M5
8	–	Ø 8 mm PIF	M5
6	–	Ø 6 mm PIF	M5

MINI ISO VALVES

V40/V41 2 x 3/2, 5/2 and 5/3, Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 18 mm

Modular sub-bases parts for DIN rail or surface mounting
Bottom ported sub-base



Note: Port 14 either used for external pilot air supply or for collected pilot air exhaust. Therefore, never plug port 14 when using valves with internal pilot air supply. Port 12 is not used, plugging not necessary.

Individual components

Modular sub-base (A)	Ports 2+4 on side	V70425-x5F		
Double station modular sub-base	Ports 2+4 on side	V70432-y5F		
Modular sub-base (A)	Ports 2+4 on side	Pilot ports 12+14 on side	V70426-x5F	
Modular sub-base (B)	Ports 2+4 on bottom	V70425-A5E		
Modular sub-base (B)	Ports 2+4 on bottom	Pilot ports 12+14 on side	V70426-A5E	
End plate kit (C)	End ported	V70424-B5C (G1/4)		End ported end caps 1 left hand and 1 right hand
End plate kit with valve station	Ports 2+4 on side	V70431-A5F (1/3/5 G1/4, 2/4 G1/8)		End ported end caps 1 left and 1 right

Accessories

DIN EN 50022 rail	35 x 7,5 mm, 1m	V10009-C00
DIN EN 50022 rail	35 x 15 mm, 1m	V10592-C01
DIN rail (D)	Mounting kit	V70531-KA0
Blanking disk to modular sub-base	Ports 1, 3, 5	V70422-K50
	Ports 12+14	V70423-K50

MINI ISO VALVES

V44/V45 Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 26 mm

- High performance, compact design
- Flexible sub-base system
- Multipressure system capability
- Wide range of accessories
- Dual spool technology
  - – V44 Glandless spool and sleeve (long life)
  - – V45 Softseal spool (high flow)
- Valve exchange under pressure

Technical Data

Medium:
Compressed air, filtered to 40 μm, lubricated or non-lubricated

Operation:
V44: Glandless spool valve, solenoid pilot or air pilot actuated
V45: Softseal spool valve, solenoid pilot or air pilot actuated

Flow:
Softseal

Function	l/min
2x3/2 NC	1100
2X3/2 NO	1000
5/2	1200
5/3	1150
Glandless	
5/2	900
5/3	900

Mounting:
Sub-base

Operating pressure:
See tables for individual details

Ambient temperature:
-15°C … +50°C
V44/V45 solenoid and V45 air pilot models
-15°C … +80°C
V44 air pilot models

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body & Sub-base:
Die cast aluminium

Spool & Sleeve:
Hard anodized, PTFE coated, matched aluminium (V44); aluminium alloy spool with HNBR Seals (V45)

Plastic parts:
POM

Static seals:
NBR

End cover & Screws:
Zinc plated

Springs:
Stainless steel

EXPRESS

Models - 2 x 3/2 Solenoid pilot actuated softseal valves

Model	Function 2 x 3/2	Actuation/Return	Pilot supply	Pilot exhaust	Operating pressure (bar)	Pilot pressure (bar)	Flow (l/min)
V45AA11D-*1)	NC	Solenoid/Spring	Internal	Collected #	3 … 10	–	1000
V45AA22D-*1)	NC	Solenoid/Spring	External	Not collected	0 … 10	1,5 + (0,35 x operating pressure)	1000
V45AB11D-*1)	NO	Solenoid/Spring	Internal	Collected #	3 … 10	–	1000
V45AB22D-*1)	NO	Solenoid/Spring	External	Not collected	0 … 10	1,5 + (0,35 x operating pressure)	1000
V45AC11D-*1)	NO/NC	Solenoid/Spring	Internal	Collected #	3 … 10	–	1000/1100
V45AC22D-*1)	NO/NC	Solenoid/Spring	External	Not collected	0 … 10	1,5 + (0,35 x operating pressure)	1000/1100

*1) Insert voltage code from tables on page 230.
# Pilot exhaust collected and exhausted via port 14.
NO = Normally open, NC = Normally closed.

MINI ISO VALVES

V44/V45 Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 26 mm

Models - 5/2 Solenoid pilot actuated glandless and softseal valves

Model	Pilot supply	Pilot exhaust	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
V44A513D-*1)	Internal	Collected #	Solenoid	Air spring	1 … 10	–	Glandless	900
V44A523D-*1)	External	Not collected	Solenoid	Air spring	-0,9 … 16	1 … 10	Glandless	900
V44A517D-*1)	Internal	Collected #	Solenoid	Spring	1,6 … 10	–	Glandless	900
V45A517D-*1)	Internal	Collected #	Solenoid	Spring	2 … 10	–	Soft	1200
V44A527D-*1)	External	Not collected	Solenoid	Spring	-0,9 … 16	1,6 … 10	Glandless	900
V45A527D-*1)	External	Not collected	Solenoid	Spring	-0,9 … 10	2 … 10	Soft	1200
V44A511D-*1)	Internal	Collected #	Solenoid	Solenoid	2 … 10	–	Glandless	900
V45A511D-*1)	Internal	Collected #	Solenoid	Solenoid	2 … 10	–	Soft	1200
V44A522D-*1)	External	Not collected	Solenoid	Solenoid	-0,9 … 16	2 … 10	Glandless	900
V45A522D-*1)	External	Not collected	Solenoid	Solenoid	-0,9 … 10	2 … 10	–	1200
V44A591D-*1)	Internal	Collected #	Solenoid (priority)	Solenoid	2 … 10	–	Glandless	900
V44A592D-*1)	External	Not collected	Solenoid (priority)	Solenoid	-0,9 … 16	2 … 10	Glandless	900

Models - 5/3 Solenoid pilot actuated glandless and softseal valves

Model	Function	Pilot supply	Pilot exhaust	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
V44A611D-*1)	APB	Internal	Collected #	Solenoid	Solenoid	2 … 10	–	Glandless	900
V45A611D-*1)	APB	Internal	Collected #	Solenoid	Solenoid	2,5 … 10	–	Soft	1150
V44A622D-*1)	APB	External	Not collected	Solenoid	Solenoid	-0,9 … 16	2 … 10	Glandless	900
V45A622D-*1)	APB	External	Not collected	Solenoid	Solenoid	-0,9 … 10	2,5 … 10	Soft	1150
V44A711D-*1)	COE	Internal	Collected #	Solenoid	Solenoid	2 … 10	–	Glandless	900
V45A711D-*1)	COE	Internal	Collected#	Solenoid	Solenoid	2,5 … 10	–	Soft	1150
V44A722D-*1)	COE	External	Not collected	Solenoid	Solenoid	-0,9 … 16	2 … 10	Glandless	900
V45A722D-*1)	COE	External	Not collected	Solenoid	Solenoid	-0,9 … 10	2,5 … 10	Soft	1150
V44A811D-*1)	COP	Internal	Collected #	Solenoid	Solenoid	2 … 10	–	Glandless	900
V45A811D-*1)	COP	Internal	Collected #	Solenoid	Solenoid	2,5 … 10	–	Soft	1150
V44A822D-*1)	COP	External	Not collected	Solenoid	Solenoid	-0,9 … 16	2 … 10	Glandless	900
V45A822D-*1)	COP	External	Not collected	Solenoid	Solenoid	-0,9 … 10	2,5 … 10	Soft	1150

*1) Insert voltage code from tables below.
# Pilot exhaust collected and exhausted via port 14.
APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre open pressure.

Electrical details for solenoid operators

Voltage tolerances	-10%/+15%
Rating	100% Continuous duty
Inlet orifice	0,8 mm
Electrical connection	15 mm DIN EN 175301-803 (DIN 43 650) Table C
Manual override	Shrouded push button, spring return Convertible into lockable type with set-up kit, part no. V70532-K00
Protection class	IP 65 with sealed plug (ISO 6952) NEMA 4
Materials	PPS (body), FPM and NBR (seal)

Voltage codes & spare pilots

Voltage	Coil code	Current	Spare pilot valve
12 V d.c.	C312A	1 W	VZC7L2C1-C312A
24 V d.c.	C313A	1,2 W	VZC7L2C1-C313A
48 V 50/60 Hz	C316A	2,1/1,5 VA	VZC7L2C1-C316A
110 V d.c.	C317A	1 W	VZC7L2C1-C317A
115 V 50/60 Hz	C318A	2,1/1,5 VA	VZC7L2C1-C318A

Other voltages available on request. Spare pilot valves are delivered with mounting screws.

Models - 2 x 3/2 Air pilot actuated softseal valves

Model	Function 2 x 3/2	Actuation/return 2 x 3/2	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
V45AA33A-X0020	NC	Air/Spring	0 … 10	1,7 + (0,35 x operating pressure)	Soft	1100
V45AB33A-X0020	NO	Air/Spring	0 … 10	1,7 + (0,35 x operating pressure)	Soft	1000
V45AC33A-X0020	NO/NC	Air/Spring	0 … 10	1,7 + (0,35 x operating pressure)	Soft	1000/1100

Models - 5/2 Air pilot actuated glandless and softseal valves

Model	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
V44A537A-X0090	Air	Spring	-0,9 … 16	1,6 … 16	Glandless	900
V45A537A-X0090	Air	Spring	-0,9 … 10	2 … 10	Soft	1200
V44A533A-X0020	Air	Air	-0,9 … 16	2 … 16	Glandless	900
V45A533A-X0020	Air	Air	-0,9 … 10	2 … 10	Soft	1200
V44A533A-X0070	Air (priority)	Air	-0,9 … 16	2 … 16	Glandless	900

Models - 5/3 Air pilot actuated glandless and softseal valves

Model	Function	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
V44A633A-X0020	APB	Air	Air	-0,9 … 16	2 … 16	Glandless	900
V45A633A-X0020	APB	Air	Air	-0,9 … 10	2,5 … 10	Soft	1150
V44A733A-X0020	COE	Air	Air	-0,9 … 16	2 … 16	Glandless	900
V45A733A-X0020	COE	Air	Air	-0,9 … 10	2,5 … 10	Soft	1150
V44A833A-X0020	COP	Air	Air	-0,9 … 16	2 … 16	Glandless	900
V45A833A-X0020	COP	Air	Air	-0,9 … 10	2,5 … 10	Soft	1150

Valve function: NO = Normally open, NC = Normally closed.
APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.

MINI ISO VALVES

V44/V45 Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 26 mm

Accessories

DIN EN 50 022 rail (1 m)	DIN-rail mounting kit	Blanking disc to modular sub-base	Manual override set-up kit	Blanking plate for unused station	Transition plate V40/V41 » V44/V45
					
V10009-C00 (35 x 7,5 mm)	V70531-KA0	V70522-K00 (Ports 1,3,5)	V70532-K00	V70500-KA0	–
V10592-C01 (35 x 15 mm)	–	V70523-K00 (Ports 12 & 14)	–	–	V70436-B00 *1)

*3) With supply and exhaust ports.

Sandwich plates

Intermediate supply/ exhaust manifold	Single valve shut-off plate	Single pressure regulator plate	Double pressure regulator plate	Flow regulator plate	Sandwich plate with additional pressure port 1
					
V70529-BA0 (G1/4)	V70530-KA0 (Port 1 blocked)	V70527-KA1 (Port 1 reg.)	V70527-KA4 (Ports 2+4 reg.)	V70528-KA0 (Ports 3+5 reg.)	V70535-B50 (G1/4)
–	–	V70527-KA2 (Port 2 reg.)	–	–	–
–	–	V70527-KA3 (Port 4 reg.)	–	–	–

Sub-bases and end plates

Single station sub-base	Single station modular sub-base	End plate kit	Fixed length sub-base
			
V70501-BAB	V70525-X5F (Ports 2+4 on side)	V70524-CAC (Side ported. G3/8, 12 & 14 G1/8)	V70502-BA0 (2 stations)
–	V70526-X5F (Ports 2+4 on side)*	–	V70504-BA0 (4 stations)
–	V70525-BAE (Ports 2+4 on bottom)	–	V70506-BA0 (6 stations)
–	V70526-BAE (Ports 2+4 on bottom)*	–	V70508-BA0 (8 stations)
–	–	–	V70510-BA0 (10 stations)
–	–	–	V70512-BA0 (12 stations)

* Pilot ports 12+14 on side.

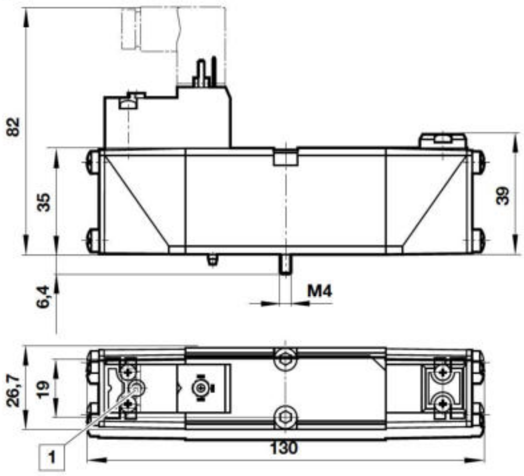
Connector plug - ordered separately

l15 mm DIN EN 175301-803 (DIN 43 650) Table C

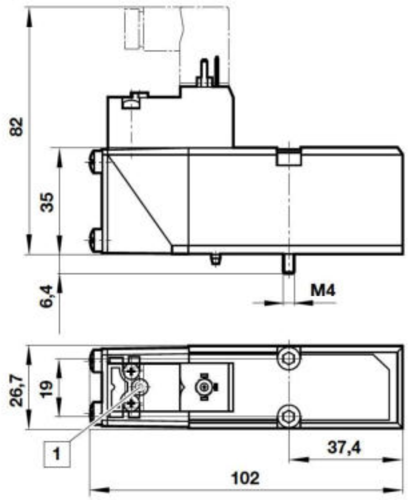
V10027-D00 250 V a.c./300 Vd.c.

Dimensions

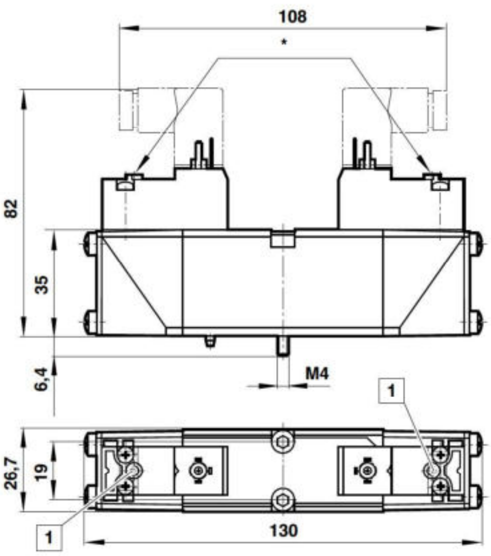
V44A5*3D-C3***
5/2 Single solenoid pilot valve
Air spring return



V44A5*7D-C3*** & V45A5*7D-C3***
5/2 Single solenoid pilot valve
Mechanical spring return

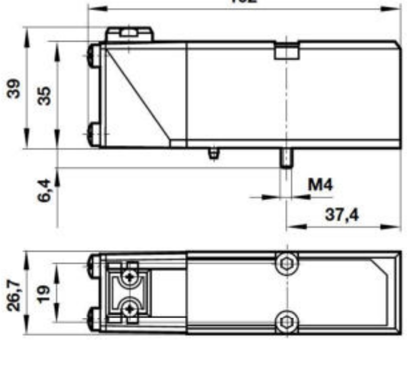


V44A5**D-C3*** & V45A5**D-C3***
5/2 Double solenoid pilot valve
V44A***D-C3*** & V45A***D-C3***
2x3/2 + 5/3 Double solenoid pilot valve

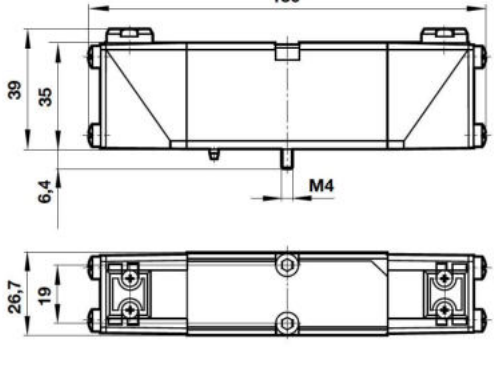


1 Manual override

V44A537A-X00*0 & V45A537A-X00*0
5/2 Single air pilot valve



V44A*33A-X00*0 & V45A*33A-X00*0
2 x 3/2, 5/2 + 5/3 Double air pilot valve

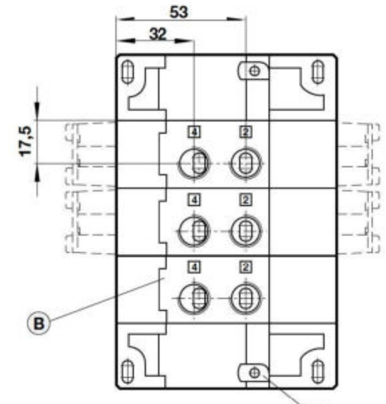


MINI ISO VALVES

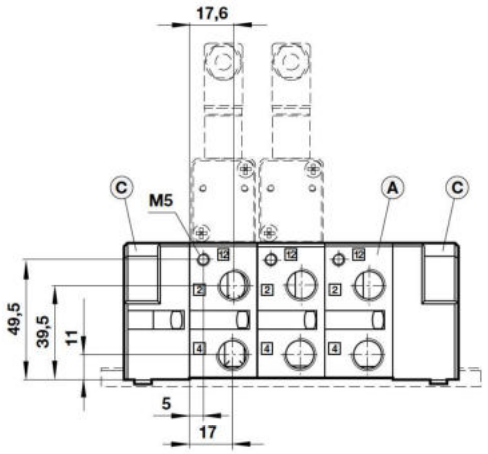
V44/V45 Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 26 mm

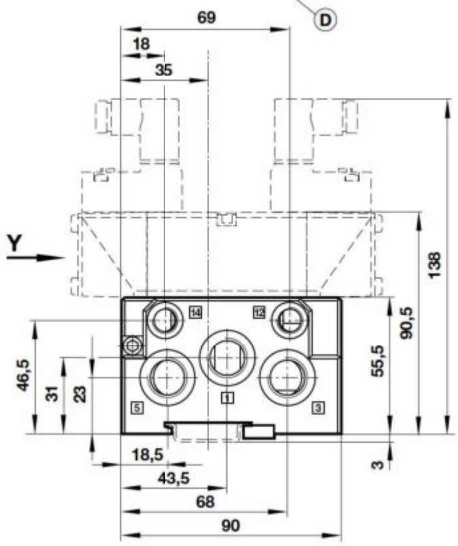
Modular sub-bases parts for DIN rail or surface mounting

Bottom ported sub-base



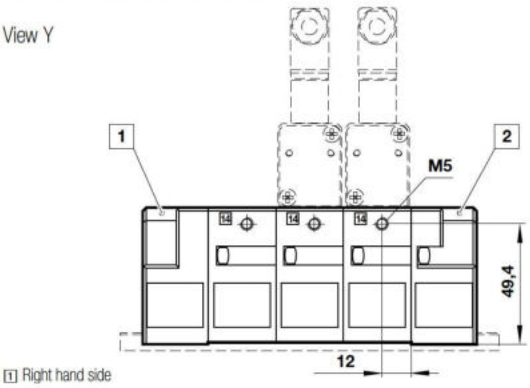
Side ported sub-base

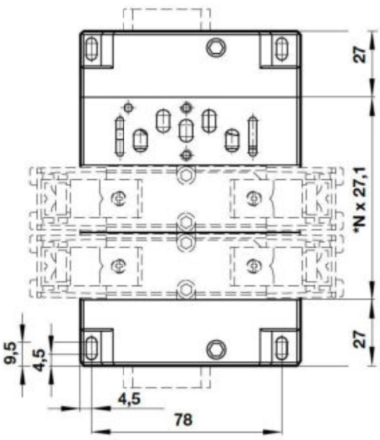




Bottom and side ported sub-base

View Y





1 Right hand side
2 Left hand side

Code	Ports 2 & 4	Ports 12/14
B	G1/4	M5
8	Ø 8 mm PIF	M5
Y	Ø 6 mm PIF	M5

N = number of stations.
x = Insert port type from table below.

Note: Port 14 either used for external pilot air supply or for collected pilot air exhaust.

Therefore, never plug port 14 when using valves with internal pilot air supply.

Port 12 is not used, plugging not necessary.

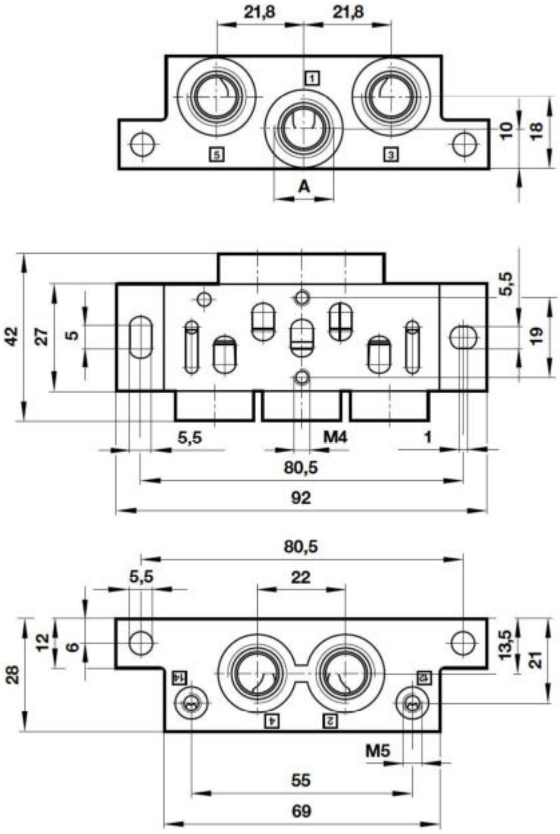
Individual components

Modular sub-base (A)	Ports 2+4 on side	V70525-x5F (0,18 kg)		
Modular sub-base (A)	Ports 2+4 on side	Pilot ports 12+14 on side	V70526-x5F (0,18 kg)	
Modular sub-base (B)	Ports 2+4 on bottom	V70525-BAE (0,18 kg)		
Modular sub-base (B)	Ports 2+4 on bottom	Pilot ports 12+14 on side	V70526-BAE (0,18 kg)	
End plate kit (C)	Side ported	V70524-CAC (0,36 kg) (G3/8, 12 & 14 G1/8)		End ported end caps 1 left hand and 1 right hand

Accessories

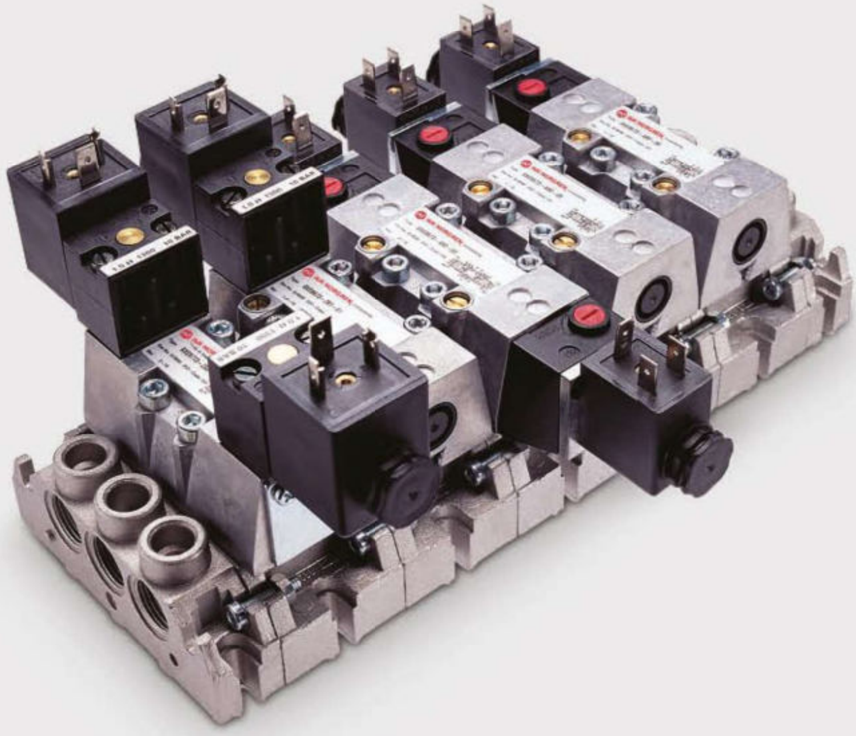
DIN EN 50022 rail	35 x 7,5 mm, 1m	V10009-C00 (0,31 kg)
DIN EN 50022 rail	35 x 15 mm, 1m	V10592-C01 (1,02 kg)
DIN rail (D)	Mounting kit	V70531-KAO (0,01 kg)
Blanking disk to modular sub-base	Ports 1, 3, 5	V70522-K00 (0,01 kg)
Blanking disk to modular sub-base	Ports 12+14	V70523-K00 (0,01 kg)

Single station sub-base – side ported with pilot ports



Model	Port size A
V70501-BAB	G1/4 side ported with pilot ports 0,11 kg

Note: Pilot ports = M5.



ISO★STAR

Glandless valves

SXE series and SXP series

The ISO★STAR range now uses an aluminium spool but is still hugely valued. In many industries, it has effectively replaced Beech products with a more up-to-date, more cost-effective solution. Dimensionally interchangeable with other systems conforming to ISO, IMI Precision Engineering is a pioneer of the low friction, fast-switching, long-life glandless spool.

> Three sizes of valve, with or without integral flow regulators, 5/2 and 5/3 function, with standard or CNOMO solenoids or air pilots and single station or manifold bases

> Hard-anodised, low friction aluminium spool and sleeve offers long life, and constant performance from start-up in all kinds of environments. Copes with many airline contaminants

> Fast switching times coupled with low power solenoids, perfect in high cycling applications

Integral flow regulators

Trouble free life!

Engineering GREAT Solutions

IMI NORGREN

Find out more
www.imi-precision.com

SOLENOID & PILOT ACTUATED SPOOL VALVES

ISO★STAR Sub-base, 5/2 & 5/3, ISO #1 to ISO #3

- Specially coated glandless spool and sleeve for long trouble-free life
- Integral flow regulators available on ISO #1 and #2 sizes
- Low power solenoids feature manual override as standard
- Wide range of sub-bases and accessories
- Conforms to ISO 5599-1

Technical Data

Medium:
Compressed air, filtered, lubricated, non lubricated

Operating pressure:
Maximum 16 bar, see table for individual details

Flow:
ISO #1 1230 l/min
ISO #2 2450 l/min
ISO #3 4400 l/min

Ambient temperature:
-15°C … +50°C solenoid models
-15°C … +80°C pilot models

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body:
Die-cast aluminium

Spool & Sleeve:
Hard anodised aluminium with special teflon coating

Seals:
Nitrile

EXPRESS

Models - Solenoid pilot actuated valves

End solenoid models		CNOMO solenoid models		Size	Function	Mid position	Actuation	Flow regulator
Model	Operating pressure (bar)	Model	Operating pressure (bar)					
SXE 9573-A71-00-***	1,8 … 10	SXE 9573-Z71-81-***	1,8 … 16	ISO #1	5/2	–	Sol/Spring	–
SXE 9573-A81-00-***	1,8 … 10	SXE 9573-Z81-81-***	1,8 … 16	ISO #1	5/2	–	Sol/Spring	Built-in
SXE 9573-A70-00-***	1 … 10	SXE 9573-Z70-60-***	1 … 10	ISO #1	5/2	–	Sol/Air spring	–
SXE 9573-A80-00-***	1 … 10	SXE 9573-Z80-60-***	1 … 10	ISO #1	5/2	–	Sol/Air spring	Built-in
SXE 0573-A50-00-***	2 … 10	SXE 0573-Z50-81-***	2 … 16	ISO #1	5/2	–	Sol/Sol	–
SXE 0573-A60-00-***	2 … 10	SXE 0573-Z60-81-***	2 … 16	ISO #1	5/2	–	Sol/Sol	Built-in
SXE 9673-A60-00-***	2 … 10	SXE 9673-Z60-81-***	2 … 16	ISO #1	5/3	APB	Sol/Sol	Built-in
SXE 9773-A60-00-***	2 … 10	SXE 9773-Z60-81-***	2 … 16	ISO #1	5/3	COE	Sol/Sol	Built-in
SXE 9873-A60-00-***	2 … 10	SXE 9873-Z60-81-***	2 … 16	ISO #1	5/3	COP	Sol/Sol	Built-in
SXE 9574-A71-00-***	1,8 … 10	SXE 9574-Z71-81-***	1,8 … 16	ISO #2	5/2	–	Sol/Spring	–
SXE 9574-A81-00-***	1,8 … 10	SXE 9574-Z81-81-***	1,8 … 16	ISO #2	5/2	–	Sol/Spring	Built-in
SXE 9574-A70-00-***	1 … 10	SXE 9574-Z70-60-***	1 … 10	ISO #2	5/2	–	Sol/Air spring	–
SXE 9574-A80-00-***	1 … 10	SXE 9574-Z80-60-***	1 … 10	ISO #2	5/2	–	Sol/Air spring	Built-in
SXE 0574-A50-00-***	2 … 10	SXE 0574-Z50-81-***	2 … 16	ISO #2	5/2	–	Sol/Sol	–
SXE 0574-A60-00-***	2 … 10	SXE 0574-Z60-81-***	2 … 16	ISO #2	5/2	–	Sol/Sol	Built-in
SXE 9674-A60-00-***	2 … 10	SXE 9674-Z60-81-***	2 … 16	ISO #2	5/3	APB	Sol/Sol	Built-in
SXE 9774-A60-00-***	2 … 10	SXE 9774-Z60-81-***	2 … 16	ISO #2	5/3	COE	Sol/Sol	Built-in
SXE 9874-A60-00-***	2 … 10	SXE 9874-Z60-81-***	2 … 16	ISO #2	5/3	COP	Sol/Sol	Built-in
SXE 9575-A71-00-***	1,8 … 10	SXE 9575-Z71-81-***	1,8 … 16	ISO #3	5/2	–	Sol/Spring	–
SXE 9575-A70-00-***	1 … 10	SXE 9575-Z70-60-***	1 … 10	ISO #3	5/2	–	Sol/Air spring	–
SXE 0575-A50-00-***	2 … 10	SXE 0575-Z50-81-***	2 … 16	ISO #3	5/2	–	Sol/Sol	–
SXE 9675-A50-00-***	2 … 10	SXE 9675-Z50-81-***	2 … 16	ISO #3	5/3	APB	Sol/Sol	–
SXE 9775-A50-00-***	2 … 10	SXE 9775-Z50-81-***	2 … 16	ISO #3	5/3	COE	Sol/Sol	–
SXE 9875-A50-00-***	2 … 10	SXE 9875-Z50-81-***	2 … 16	ISO #3	5/3	COP	Sol/Sol	–

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure. Service kits not available for these valves.
*** Insert voltage codes for standard or CNOMO model from correct table below. Order connector plugs separately.
Manual override on end solenoid models: Push to operate spring return, lockable.
Manual override on CNOMO solenoid models (-60/***): Screwdriver memory type.
Manual override on CNOMO solenoid models (-81/***): Push to operate spring return.
For valve only remove "****" and replace with K after 00.

SOLENOID & PILOT ACTUATED SPOOL VALVES

ISO★STAR Sub-base, 5/2 & 5/3, ISO #1 to ISO #3

● Models - Air pilot actuated valves

Model	Size	Function	Mid position	Actuation	Flow regulator	Operating pressure (bar)	kg
SXP 9573-170-00	ISO #1	5/2	–	Pilot/Spring	–	-0,9 … 16	0,21
SXP 9573-180-00	ISO #1	5/2	–	Pilot/Spring	Built-in	-0,9 … 16	0,26
SXP 0573-170-00	ISO #1	5/2	–	Pilot/Pilot	–	-0,9 … 16	0,30
SXP 0573-180-00	ISO #1	5/2	–	Pilot/Pilot	Built-in	-0,9 … 16	0,30
SXP 9673-180-00	ISO #1	5/3	APB	Pilot/Pilot	Built-in	-0,9 … 16	0,25
SXP 9773-180-00	ISO #1	5/3	COE	Pilot/Pilot	Built-in	-0,9 … 16	0,24
SXP 9873-180-00	ISO #1	5/3	COP	Pilot/Pilot	Built-in	-0,9 … 16	0,25
SXP 9574-170-00	ISO #2	5/2	–	Pilot/Spring	–	-0,9 … 16	0,45
SXP 9574-180-00	ISO #2	5/2	–	Pilot/Spring	Built-in	-0,9 … 16	0,45
SXP 0574-170-00	ISO #2	5/2	–	Pilot/Pilot	–	-0,9 … 16	0,50
SXP 0574-180-00	ISO #2	5/2	–	Pilot/Pilot	Built-in	-0,9 … 16	0,50
SXP 9674-180-00	ISO #2	5/3	APB	Pilot/Pilot	Built-in	-0,9 … 16	0,58
SXP 9774-180-00	ISO #2	5/3	COE	Pilot/Pilot	Built-in	-0,9 … 16	0,58
SXP 9874-180-00	ISO #2	5/3	COP	Pilot/Pilot	Built-in	-0,9 … 16	0,58
SXP 9575-170-00	ISO #3	5/2	–	Pilot/Spring	–	-0,9 … 16	0,72
SXP 0575-170-00	ISO #3	5/2	–	Pilot/Pilot	–	-0,9 … 16	0,72
SXP 9675-170-00	ISO #3	5/3	APB	Pilot/Pilot	–	-0,9 … 16	0,80
SXP 9775-170-00	ISO #3	5/3	COE	Pilot/Pilot	–	-0,9 … 16	0,80
SXP 9875-170-00	ISO #3	5/3	COP	Pilot/Pilot	–	-0,9 … 16	0,80

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure. Service kits not available for these valves.

22 mm Coil with connector interface acc. to Industrial Standard			22 mm Coil with connector interface acc. to DIN 43650 table B			30 mm Coil with connector interface acc. to DIN 43650 table A			
Model	Code	Power inrush/hold	Model	Code	Power inrush/hold	Model	Code	Power inrush/hold	Voltage
QM/48/12J/21	12J	2 W	V10626-A12L	12L	2 W	V10633-A22N	22N	1,5 W	12 V d.c.
QM/48/13J/21	13J	2 W	V10626-A13L	13L	2 W	V10633-A23N	23N	1,5 W	24 V d.c.
QM/48/14J/21	14J	4/2,5 VA	V10626-A14L	14L	4/2,5 VA	V10633-A24N	24N	2 VA	24 V 50/60 Hz
–	–	–	–	–	–	V10633-A26N	26N	2 VA	48 V 50/60 Hz
QM/48/18J/21	18J	4/2,5 VA	V10626-A18L	18L	4/2,5 VA	V10633-A28N	28N	2 VA	110/120 V 50/60 Hz
QM/48/19J/21	19J	6/5 VA	V10626-A19L	19L	6/5 VA	V10633-A29N	29N	3 VA	220/240 V 50/60 Hz

Voltage codes and spare coils for 16 bar models (CNOMO only)

30 mm Coil with connector interface acc. to DIN 43650 table A			
Model	Voltage	Code	Power inrush/hold
V10633-A33N	24 V d.c.	33N	4 W
V10633-A88N	110/120 V a.c.	88N	8 VA
V10633-A89N	230 V a.c.	89N	8 VA

Electrical details for end & CNOMO solenoid operators

Voltage tolerance:	±10%
Rating:	100% E.D.
Inlet orifice:	1,0 mm
Electrical connection:	Corresponding to chosen coil. See voltage code tables
Solenoid coil	May be rotated at 90° intervals
Protection class:	IP 65 with sealed plug (ISO 6952)

● Connector plugs - ordered separately

Industrial standard 22 mm 2-pole + PE	22 mm, EN 175301-803 (DIN 43650 B) Form B 2-pole + PE	30 mm, EN 175301-803 (DIN 43650 B) Form A 2-pole + PE
		
0657868000000000	0680003000000000	0570275000000000

● Options

- ISO #4 models are also available – contact our Technical Service.
- Central M12 x 1 connector External pilot supply versions.

Bases - VDMA 24 345 sub-bases

	Form A Side ported	Form B Bottom ported	Form C Manifold	Form D End plates	Blanking disk
					
ISO#1	M/P19126 (G1/4)	M/P19125 (G1/4)	CQM/22152/3/21	CQM/22152/3/22	FP 8382
ISO#2	M/P19132 (G3/8)	M/P19131 (G3/8)	CQM/22253/3/21	CQM/22253/3/22	FP 8482
ISO#3	M/P19138 (G1/2)	M/P19137 (G1/2)	CQM/22354/3/21	CQM/22354/3/22	FP 8582

Universal base options (side & bottom ported)

	Modular base	Transition plate	Blanking disc (dual supply)	End plates*	End plate, side ports open
					
ISO#1	CQM/22152/3/27 (G1/4)	CQM/22152/3/29 (#1-#2)	M/P43173	CQM/22152/3/28 (G3/8)	CQM/22152/3/31 (G3/8)
ISO#2	CQM/22253/3/27 (G3/8)	–	M/P43174	CQM/22253/3/28 (G1/2)	CQM/22253/3/31 (G1/2)

* All ports supplied blanked for optimum system configuration.

Accessories

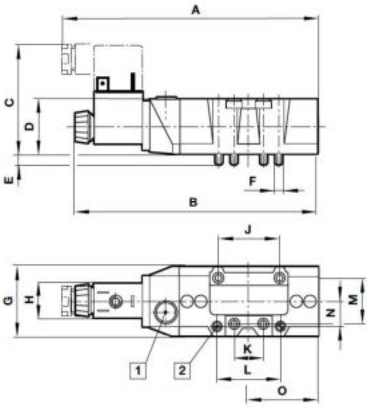
	Single pressure regulator plate		Single pressure regulator plate		Single pressure regulator plate		Double pressure regulator plate	
								
ISO #1	V71010-KB1	Port 1 reg.	V71012-KB2	Port 2 reg.	V71012-KB3	Port 4 reg.	V71012-KB4	Ports 2+4 reg.

SOLENOID & PILOT ACTUATED SPOOL VALVES

ISO★STAR Sub-base, 5/2 & 5/3, ISO #1 to ISO #3

● Dimensions

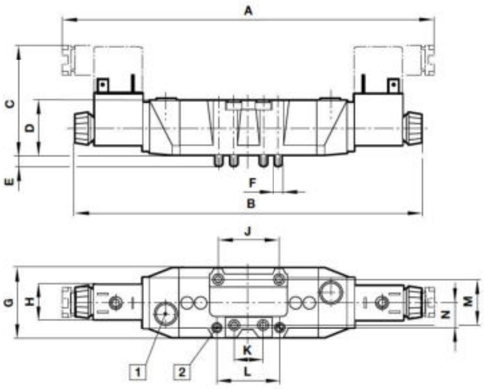
Single end solenoid models



1 Manual override
2 Flow regulators

	ISO 1	ISO 2	ISO 3
A	154	181	207,5
B	146	173	197
C	66	71	72
D	33	42	43
E	7,5	8	11,5
F	M5	M6	M8
G	42	55	62,5
H	22/30	22/30	22/30
J	36	48	64
K	18	24	32
L	38	48	–
M	28	38	48
N	15	20	–
O	42	53	65,4

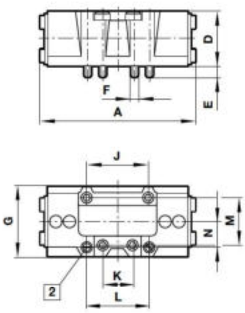
Double end solenoid models



1 Manual override
2 Flow regulators

	ISO 1	ISO 2	ISO 3
A	222	255	284
B	204	239	263
C	65	71	72
D	33	42	43
E	7,5	8	11,5
F	M5	M6	M8
G	42	55	62,5
H	22/30	22/30	22/30
J	36	48	64
K	18	24	32
L	38	48	–
M	28	38	48
N	15	20	–

Single and double pilot models

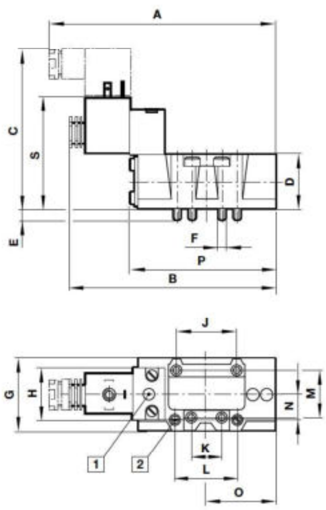


2 Flow regulators

	ISO 1		ISO 2		ISO 3	
	Single	Double	Single	Double	Single	Double
A	88	92,5	112	119	135,5	140 (142)
D	33	33	42	42	43	43
E	7,5	7,5	8	8	11,5	11,5
F	M5	M5	M6	M6	M8	M8
G	42	42	55	55	62,5	62,5
J	36	36	48	48	64	64
K	18	18	24	24	32	32
L	38	38	48	48	–	–
M	28	28	38	38	48	48
N	15	15	20	20	–	–
O	42		53		65,5	

( ) for 5/3 way valves.

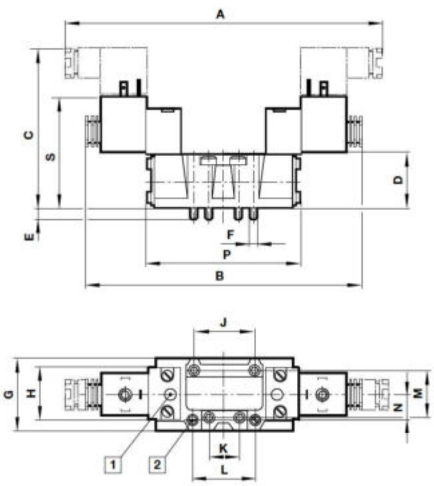
Single CNOMO solenoid valves



	ISO 1	ISO 2	ISO 3
A	137,5	157,5	181
B	128	148	170
C	98	107	108
D	33	42	43
E	7,5	8	11,5
F	M5	M5	M8
G	42	55	62,5
H	32	32	32
J	36	48	64
K	18	24	32
L	38	48	–
M	28	38	48
N	15	20	–
O	42	53	65,5
P	88	112	135,5
S	62	71	78,5

1 Manual override
2 Flow regulators

Double CNOMO solenoid valves



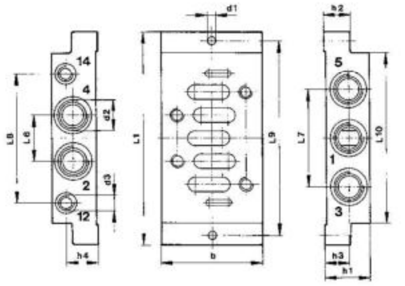
	ISO 1	ISO 2	ISO 3
A	191	208	231
B	171	189	212
C	89	107	108
D	33	42	43
E	7,5	8	11,5
F	M5	M6	M8
G	42	55	62,5
H	32	32	32
J	36	48	64
K	18	24	32
L	38	48	–
M	28	38	48
N*	15	20	–
P	92,5	119	140 (142)
S	62	71	78,5

( ) for 5/3 way valves.

1 Manual override
2 Flow regulators

VDMA 24 345 Sub-bases

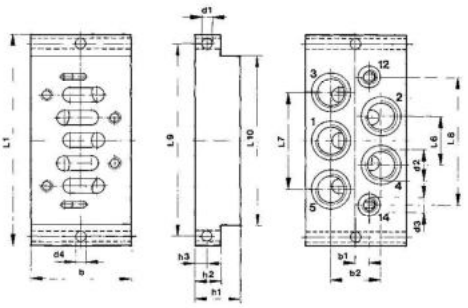
Side ported



ISO		b	d1	d2	d3	h1	h2	h3*	h4	L1	L6	L7	L8	L9	L10
1	M/P19126	48	5,5	G1/4	G1/8	32	10	10,5 (21,5)	23,5	110	24	43	58	98	84
2	M/P19132	57	6,6	G3/8	G1/8	40	13	14 (26)	30	124	30	56	74	112	95
3	M/P19138	71	6,6	G1/2	G1/8	32	18	179	22	149	32	68	90	136	119

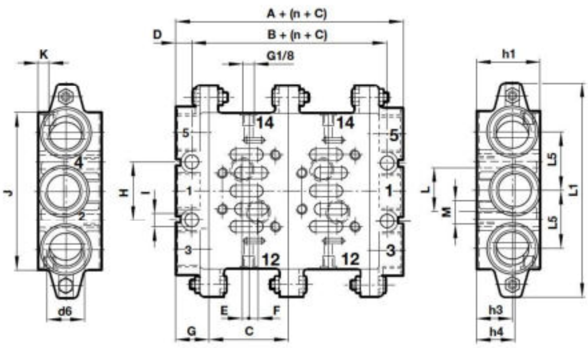
( ) Dimension for ports 3 and 5.

Bottom ported



ISO		b	b1	b2	d1	d2	d3	d4	h1	h2	h3	L1	L6	L7	L8	L9	L10
1	M/P19125	46	7	23	5,5	G1/4	G1/8	5,5	30	10	5	110	23	46	62	98	84
2	M/P19131	56	8	27	6,6	G3/8	G1/8	6,6	35	13	6,5	124	28	56	73	112	95
3	M/P19137	71	10	34	6,6	G1/2	G1/8	6,69	32	18	9	149	34	68	90	136	119

End plates and manifold

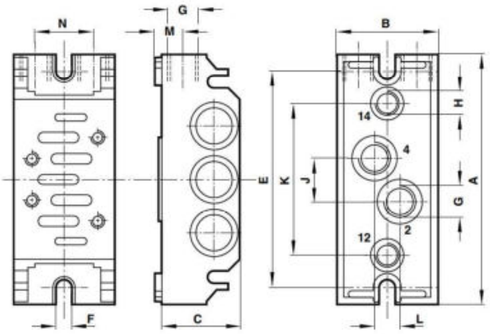


ISO	A	B	C	D	E	F	G	H	I	J	K	L	M	h1	h3	h4	L1	L5	d6
1	44	22	43	11	1,5	7,5	22	28	7	85	8,5	26	G1/4	46	21	24	110	28	3/8"
2	52	26	56	13	5	6	26	35	9	100	9	30	G3/8	47	22	24	135	28	1/2"
3	60	30	71	15	6	8	30	52	12	140	10	38	G1/2	56	31	34	190	52	1"

Maximum 12 stations.

Universal sub-base options

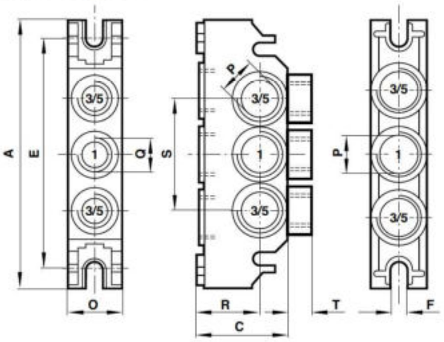
Modular base with side, end and bottom ports open
CQM/22152/3/27, CQM22253/3/27



ISO	A	B	C	E	F	G	H	J	K	L	M	N	kg
1	106	43	36	92	5,5	G1/4	G1/8	18	64	11	12	28	0,16
2	120	56	43	102	6,5	G3/8	G1/8	24	68	19	15	38	0,35

Universal end plate, all ports blocked – CQM/22152/28, CQM/22253/3/28

Universal end plate, side ports open – CQM/22152/3/31, CQM22253/3/31

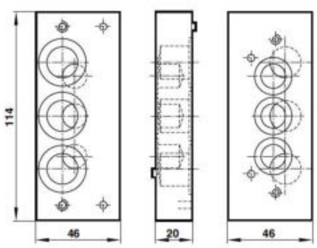


ISO	A	C	E	F	O	P	Q	R	S	T	kg
1	106	36	92	5,5	22	G3/8	G1/4	25	44	9	0,13
2	120	46	102	6,5	29	G1/2	G1/4	31	58	7	0,23

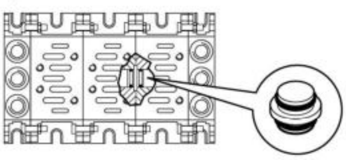
Drill dimensions for opening ports

G1/4	Ø 8
G3/8	Ø 15
G1/2	Ø 15

Transition plate from ISO #1 to ISO #2 universal sub-bases
CQM/22152/3/29



Blanking disk for ISO #1 and ISO #2 universal sub-bases
M/P43173, M/P43174



SOLENOID & PILOT ACTUATED SPOOL VALVES

UM/22000 Sub-base 5/2 and 5/3, ISO #4

- Sub-base mounted, ISO 5599-1
- Steel reinforced main seals
- 16 bar and 10 bar CNOMO solenoid pilots with locking or non-locking manual override
- Low power coils (1,5W)
- Wide range of sub-bases and accessories

Technical Data

Medium:
Compressed air, 40 µm filtered, lubricated or non-lubricated

Operating pressure:
Solenoid pilot actuated valves: 10 bar
Air pilot actuated valves and solenoid pilot actuated valves: 16 bar

Flow:
5660 l/min

Ambient temperature:
-15°C … +50°C solenoid models
-15°C … +80°C pilot models

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body:
Die-cast aluminium

Spool:
Light alloy aluminium

Seals:
NBR

EXPRESS

Models - 5/2 Solenoid pilot actuated valves – 10 bar models

Model	ISO size	Operator/return	Pilot supply	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)
UM/22456/172/6#/*1)	4	Solenoid/spring and air	Internal	5660	2,5 … 10	–
UM/22456/22/6#/*1)	4	Solenoid/spring	External	5660	-0,9 … 16	1,8 *2) … 10
UM/22456/123/6#/*1)	4	Solenoid/ solenoid	Internal	5660	2 … 10	–
UM/22456/23/6#/*1)	4	Solenoid/ solenoid	External	5660	-0,9 … 16	1,5 *2) … 10

Insert code for manual override: 0 = turn to lock, 1 = push only.
*1) Insert voltage code from page 243. Standard are: '13J' for 24 V d.c. or '19J' for 240 V a.c.
*2) Plus (0,1 x supply pressure).

Models - 5/3 Solenoid pilot actuated valves – 10 bar models

Model	ISO size	Function	Operator/return	Pilot supply	Flow (l/min)	Operating pressure (bar)
UM/22456/6123/6#/*1)	4	APB	Solenoid/ solenoid	Internal	5490	2,8 … 10
UM/22466/6123/6#/*1)	4	COE	Solenoid/ solenoid	Internal	5490	2,8 … 10

Insert code for manual override: 0 = turn to lock, 1 = push only.
*1) Insert voltage code from page 243. Standard are: '13J' for 24 V d.c. or '19J' for 240 V a.c.
Function: APB = All Ports Blocked, COE = Centre Open Exhaust.

Models - 5/2 Solenoid pilot actuated valves – 16 bar models

Model	ISO size	Operator/return	Pilot supply	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)
UM/22456/172/8#/*1)	4	Solenoid/spring and air	Internal	5660	2,5 … 16	–
UM/22456/22/8#/*1)	4	Solenoid/spring	External	5660	-0,9 … 16	1,8 *2) … 16
UM/22456/123/8#/*1)	4	Solenoid/ solenoid	Internal	5660	2 … 16	–
UM/22456/23/8#/*1)	4	Solenoid/ solenoid	External	5660	-0,9 … 16	1,5 *2) … 16

Insert code for manual override: 0 = turn to lock, 1 = push only.
*1) Insert voltage code from page 243. Standard are: '33N' for 24 V d.c. or '89N' for 240 V a.c.
*2) Plus (0,1 x supply pressure).

Models - 5/3 Solenoid pilot actuated valves – 16 bar models

Model	ISO size	Function	Operator/return	Pilot supply	Flow (l/min)	Operating pressure (bar)
UM/22456/6123/8#/*1)	4	APB	Solenoid/ solenoid	Internal	5490	2,8 … 16
UM/22466/6123/8#/*1)	4	COE	Solenoid/ solenoid	Internal	5490	2,8 … 16

Insert code for manual override: 0 = turn to lock, 1 = push only.
*1) Insert voltage code from table below. Standard are: '33N' for 24 V d.c. or '89N' for 240 V a.c.
Function: APB = All Ports Blocked, COE = Centre Open Exhaust.

Models - 5/2 Air pilot actuated valves – 16 bar models

Model	ISO size	Operator/return	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	Weight (kg)	Dimensions No.
UM/22456/40	4	Air/spring	5660	-0,9 … 16	1,8 *2) … 16	1,30	6
UM/22456/3	4	Air/air	5660	-0,9 … 16	1,5 *2) … 16	1,20	5

*2) plus (0,1 x supply pressure).

Models - Standard version - 5/3 Air pilot actuated valves – 16 bar models

Model	ISO size	Function	Operator/return	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	Weight (kg)	Dimensions No.
UM/22456/63	4	APB	Air/air	5490	-0,9 … 16	2,8 *2) … 16	1,20	5
UM/22466/63	4	COE	Air/air	5490	-0,9 … 16	2,8 *2) … 16	1,20	5

*2) plus (0,1 x supply pressure).
Function: APB = All Ports Blocked, COE = Centre Open Exhaust.

Voltage codes and spare coils for 10 bar solenoid models

22 mm Coil with connector interface acc. to Industrial Standard			22 mm Coil with connector interface acc. to EN 175 301-803, form B			30 mm Coil with connector interface acc. to EN 175 301-803, form A			
Model	**Code**	**Power inrush/hold**	**Model**	**Code**	**Power inrush/hold**	**Model**	**Code**	**Power inrush/hold**	**Voltage**
QM/48/12J/21	12J	2 W	V10626-A12L	12L	2 W	V10633-A22N	22N	1,5 W	12 V d.c.
QM/48/13J/21	13J	2 W	V10626-A13L	13L	2 W	V10633-A23N	23N	1,5 W	24 V d.c.
QM/48/14J/21	14J	4/2,5 VA	V10626-A14L	14L	4/2,5 VA	V10633-A24N	24N	3/2 VA	24 V 50/60 Hz
QM/48/16J/21	16J	4/2,5 VA	V10626-A16L	16L	4/2,5 VA	V10633-A26N	26N	3/2 VA	48 V 50/60 Hz
QM/48/18J/21	18J	4/2,5 VA	V10626-A18L	18L	4/2,5 VA	V10633-A28N	28N	3/2 VA	110/120 V 50/60 Hz
QM/48/19J/21	19J	6/5 VA	V10626-A19L	19L	6/5 VA	V10633-A29N	29N	3/2 VA	220/240 V 50/60 Hz

Voltage codes and spare coils for 16 bar models

30 mm Coil with connector interface acc. to EN 175 301-803, form A			
Model	**Voltage**	**Code**	**Power inrush/hold**
V10633-A32N	12 V d.c.	32N	4 W
V10633-A33N	24 V d.c.	33N	4 W
V10633-A37N	110 V d.c.	37N	4 W
V10633-A84N	24 V a.c.	84N	10/8 VA
V10633-A88N	110/120 V 50/60 Hz	88N	10/8 VA
V10633-A89N	220/240 V 50/60 Hz	89N	10/8 VA

Other Voltages available on request.

Electrical details for solenoid operators

Voltage tolerance:	±10%
Rating:	100% E.D.
Inlet orifice:	1,0 mm
Electrical connection:	Corresponding to chosen coil: EN 175301-803 - Form A, 30 mm EN 175301-803 - Form B, 22 mm Industrial Standard, 22 mm
Solenoid coil	May be rotated at 90° intervals
Protection class:	IP 65 with sealed plug

Options

- **ISO #1, ISO #2 & ISO #3 models are also available – contact our Technical Service.**

SOLENOID AND PILOT ACTUATED SPOOL VALVES
UM/22000 Sub-base 5/2 and 5/3, ISO #4

Bases - VDMA 24 345 sub-bases

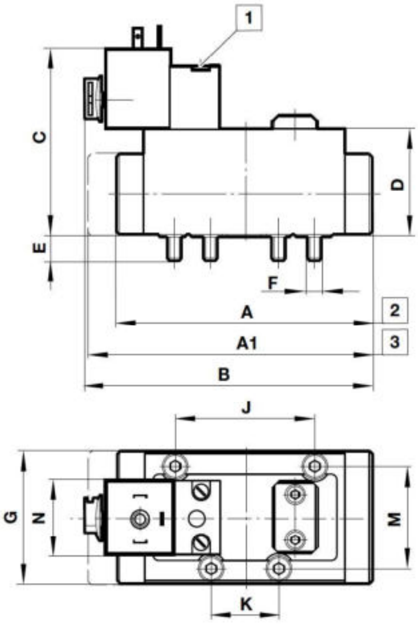
	Form A **Side ported**	**Form B** **Bottom ported**	**Form C** **Manifold**
			
ISO#4	M/P19144 (G3/4)	M/P19143 (G3/4)	CQM/22456/3/21

Accessories

	Blanking plate	**Flow regulator plate**		**Spares kit**
				
ISO #4	CQM/22456/3/23	CQM/22456/3/26	Port 3 and 5 reg.	QM/22456/3/00

Dimensions

5/2 Single solenoid valve

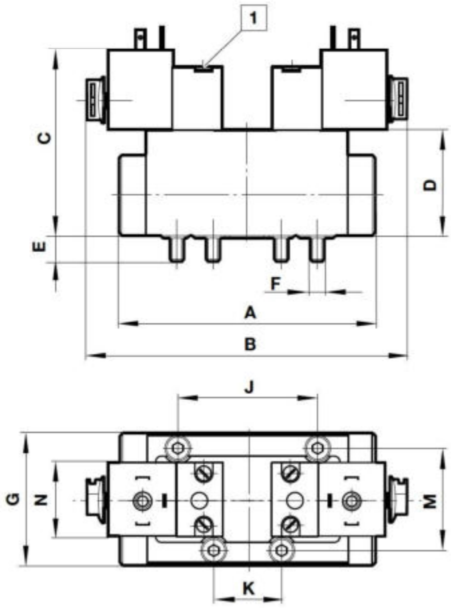


1 Manual override
2 Model …/172
3 Model …/22, …/122

	A	A1	B	C	D	E	F	G	J	K	M	N*
ISO#4	177	187	152	83	45	14	M8	75	80	40	58	22 or 30

* Illustrated with 30 mm coil.

5/2 and 5/3 Double solenoid valves

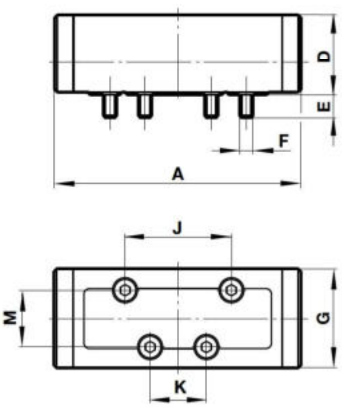


1 Manual override

	A	B	C	D	E	F	G	J	K	M	N*
ISO#4	177	140	83	45	14	M8	75	80	40	58	22 or 30

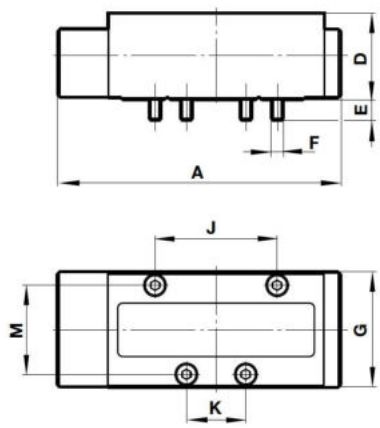
* Illustrated with 30 mm coil.

5/2 and 5/3 Double air pilot valves



	Model	A	D	E	F	G	J	K	M
ISO#4	…/3, …/63	164	45	14	M8	75	80	40	58

5/2 Single air pilot valves



	Model	A	D	E	F	G	J	K	M
ISO#4	…/40	187	45	14	M8	75	80	40	58

V60 series
in-line valves

The IMI Norgren V60 series is one of the industry's largest range of in-line valves, with thousands of product combinations.

Offering high flow together with a compact body size, V60 series valves can flow up to twice the value of older styles of similar spool valves. Not just simple – the series also includes twin 3/2 functions in one body.

> Four sizes of valve, flowing 500 to 4,500 lit/min coupled with compact body size and a number of valve functions, to meet most requirements

> Quickly replaceable solenoid coils, choice of manual override and option of collected exhaust

> Manifold base system allows assembly of valves for more complex applications. Valve types can be mixed on one assembly and piped with multi-pressures

Engineering GREAT Solutions

IMI NORGREN

Find out more
www.imi-precision.com

IN-LINE VALVES

V60 … 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 … G1/2

- 3/2, 5/2, 5/3 and 2 x 3/2 solenoid actuated valves
- G1/8 … G1/2
- Proven sealing system maintenance-free
- Different manual override options available
- Manifold system for easy assembly

Technical Data

Medium:
Compressed air, filtered, lubricated or non-lubricated

Ambient temperature:
-10°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body/sub-base:
Aluminium

Softseal spool:
NBR/stainless steel

Springs:
Stainless steel

EXPRESS

Models - Solenoid actuated

Actuation	G1/8	Operating Pressure (bar)	G1/4	Operating Pressure (bar)	G3/8	Operating Pressure (bar)	G1/2	Operating Pressure (bar)
Flow (l/min)								
3/2 & 5/2	750	–	1300	–	2600	–	4500	–
2x3/2 & 5/3	500	–	950	–	1900	–	2200	–
3/2 Valves								
Sol/Air Spring NC	V60A413A-A2000	2 … 10	V61B413A-A2000	2 … 10	V62C413A-A2000	2 … 10	V63D413A-A2000	3 … 10
Sol / Spring NC	V60A417A-A2000	2 … 10	V61B417A-A2000	2 … 10	V62C417A-A2000	2 … 10	V63D417A-A2000	2 … 10
Sol/Sol	V60A411A-A3000	1,5 … 10	V61B411A-A3000	1,5 … 10	V62C411A-A3000	1,5 … 10	V63D411A-A3000	2 … 10
2 x 3/2 Valves								
Sol/Spring NC	V60AA11A-A2000	2 … 10	V61BA11A-A2000	2 … 10	V62CA11A-A2000	2 … 10	–	–
5/2 Valves								
Sol/Air Spring	V60A513A-A2000	2 … 10	V61B513A-A2000	2 … 10	V62C513A-A2000	2 … 10	V63D513A-A2000	3 … 10
Sol / Spring	V60A517A-A2000	3 … 10	V61B517A-A2000	3 … 10	V62C517A-A2000	3 … 10	V63D517A-A2000	3 … 10
Sol/Sol	V60A511A-A3000	1,5 … 10	V61B511A-A3000	1,5 … 10	V62C511A-A3000	1,5 … 10	V63D511A-A3000	2 … 10
5/3 Valves								
Sol/Sol APB	V60A611A-A3000	3 … 10	V61B611A-A3000	3 … 10	V62C611A-A3000	3 … 10	V63D611A-A2000	3 … 10
Sol/Sol COE	V60A711A-A3000	3 … 10	V61B711A-A3000	3 … 10	V62C711A-A3000	3 … 10	V63D711A-A2000	3 … 10
Sol/Sol COP	V60A811A-A3000	3 … 10	V61B811A-A3000	3 … 10	V62C811A-A3000	3 … 10		
Accessories								
Straight Fitting	C02250618	–	C02250828	–	C02251038	–	C02251248	–
Elbow Fitting	C02470618	–	C02470828	–	C02471038	–	C02471248	–
Silencer	T40C1800	–	T40C2800	–	T40C3800	–	T40C4800	–
Basic Plug	M/P19063	–	M/P19063	–	M/P19063	–	M/P19063	–

Note: For Manual Override Options - Digit 10 is :- 2 - Turn & Lock (Standard - Sol/Spring), 3 Push Only (Standard - Sol/Sol).
Note: The above are for valves without coils - for coils to be included remove 000 and replace with Coil Code from the tables below.
Note: APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure, NC = Normally closed.

Voltage codes and spare coils

Model	Voltage	Coil code	Power inrush/hold
			
22 mm coil for connector interface acc. to industrial standard			
QM/48/12/J/21	12 V d.c.	12J	2 W
QM/48/13J/21	24 V d.c	13J	2 W
QM/48/18J/21	110/120V 50/60Hz	18J	4/2,5 VA
QM/48/19J/21	220/240 V 50/60 Hz	19J	6/5 VA
22 mm coil for connector interface acc. EN 175 301-803, form B			
V10626-A12L	12 V d.c	12L	2 W
V10626-A13L	24 V d.c	13L	2 W
V10626-A18L	110/120 V 50/60 Hz	18L	4/2,5 VA
V10626-A19L	220/240 V 50/60 Hz	19L	6/5 VA

Connector plugs must be ordered separately. Other voltages available, please contact us.

Electrical details for solenoid operators

Voltage tolerance:	± 10%	
Rating:	100% continuous duty	
Inlet orifice:	0,8 mm	
Electrical connection (corresponding to choosen coil):	EN 175301-803 - Form B, 22 mm	
	Industrial Standard, 22 mm	
Solenoid:	4 x 90° rotable	
Manual override:	Without	# =1
	Push and turn to lock	# = 2
	Push only (not lockable)	# = 3
Protection class:	IP 65 (with sealed plug)	

Online at www.imi-precision.com

IN-LINE VALVES

V60 … 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 … G1/2

● Models - Pilot actuated

Actuation	G1/8	Operating pressure (bar)	Pilot pressure external (bar)	G1/4	Operating Pressure (bar)	Pilot pressure external (bar)	G3/8	Operating pressure (bar)	Pilot pressure external (bar)	G1/2	Operating pressure (bar)	Pilot pressure external (bar)
Flow (l/min)												
3/2 & 5/2	750	–	–	1300	–	–	2600	–	–	4500	–	–
2x3/2 & 5/3	500	–	–	950	–	–	1900	–	–	2200	–	–
3/2 Valves												
Air/Spring NC	V60A4D7A-XA090	-0,9 … 10	2,5 … 10	V61B4D7A-XA090	-0,9 … 10	2,5 … 10	V62C4D7A-XA090	-0,9 … 10	2,5 … 10	V63D4D7A-XA090	-0,9 … 16	3 … 16
Air/Spring NO	V60A3D7A-XA090	-0,9 … 10	2,5 … 10	V61B3D7A-XA090	-0,9 … 10	2,5 … 10	V62C3D7A-XA090	-0,9 … 10	2,5 … 10	V63D3D7A-XA090	-0,9 … 16	3 … 16
Air/Air NC	V60A4DDA-XA020	-0,9 … 10	1,5 … 10	V61B4DDA-XA020	-0,9 … 10	1,5 … 10	V62C4DDA-XA020	-0,9 … 10	1,5 … 10	V63D4DDA-XA020	-0,9 … 16	1,5 … 16
2 x 3/2 Valves												
Air/Air NC/NC	V60AADDA-XA020	2 … 10	2 … 10	V61BADDA-XA020	2 … 10	2 … 10	V62CADDA-XA020	2 … 10	2 … 10	–	–	–
Air/Air NO/NO	V60ABDDA-XA020	2 … 10	2 … 10	V61BBDDA-XA020	2 … 10	2 … 10	V62CBDDA-XA020	2 … 10	2 … 10	–	–	–
Air/Air NO/NC	V60ACDDA-XA020	2 … 10	2 … 10	V61BCDDA-XA020	2 … 10	2 … 10	V62CCDDA-XA020	2 … 10	2 … 10	–	–	–
5/2 Valves												
Air/Spring	V60A5D7A-XA090	-0,9 … 10	2,5 … 10	V61B5D7A-XA090	-0,9 … 10	2,5 … 10	V62C5D7A-XA090	-0,9 … 10	2,5 … 10	V63D5D7A-XA090	-0,9 … 16	3 … 16
Air/Air	V60A5DDA-XA020	-0,9 … 10	1,5 … 10	V61B5DDA-XA020	-0,9 … 10	1,5 … 10	V62C5DDA-XA020	-0,9 … 10	1,5 … 10	V63D5DDA-XA020	-0,9 … 16	1,5 … 16
5/3 Valves												
Air/Air APB	V60A6DDA-XA020	-0,9 … 10	3 … 10	V61B6DDA-XA020	0,9 … 10	3 … 10	V62C6DDA-XA020	-0,9 … 10	3 … 10	V63D6DDA-XA020	-0,9 … 10	3 … 10
Air/Air COE	V60A7DDA-XA020	-0,9 … 10	3 … 10	V61B7DDA-XA020	-0,9 … 10	3 … 10	V62C7DDA-XA020	-0,9 … 10	3 … 10	V63D7DDA-XA020	-0,9 … 10	3 … 10
Air/Air COP	V60A8DDA-XA020	-0,9 … 10	3 … 10	V61B8DDA-XA020	-0,9 … 10	3 … 10	V62C8DDA-XA020	-0,9 … 10	3 … 10	–	–	–
Accessories												
Straight Fitting	C02250618	–	–	C02250828	–	–	C02251038	–	–	C02251248	–	–
Elbow Fitting	C02470618	–	–	C02470828	–	–	C02471038	–	–	C02471248	–	–
Silencer	T40C1800	–	–	T40C2800	–	–	T40C3800	–	–	T40C4800	–	–
Straight Fitting - Pilot Port	C02250618	–	–	C02250618	–	–	C02250618	–	–	C02250618	–	–
Elbow Fitting - Pilot Port	C02470618	–	–	C02470618	–	–	C02470618	–	–	C02470618	–	–

Note: APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure, NC = Normally closed, NO = Normally open, NC/NC = Both valves normally closed (port P), NO/NO = Both valves normally open (port P), NO/NC = 1valve normally open, 1 valve normally closed (port P).

● Options

Solenoid actuated:

- NPT port size
- Without manual override
- External pilot supply

Pilot actuated:

- NPT port size

Manifold system for common pressure supply (V60 and V61)

Series	Manifold* 2 to 9 stations	10 and 12 stations	Bracket for manifold	Blanking plug for unused valve station
				
V60	263962 *1)	263963 *2)	0555485	0491586
V61	263942 *1)	263943 *2)	0555484	0491587

* Supplied with bolt and sealing washers.
*1) Insert station code after model numbers: 2, 3, 4, 5, 6, 7 and 8.
*2) Insert station code after model numbers: 9 (for V61 only), 0 for 10 and 2 for 12.

Sub-bases

Series	Valve stations 2	3	4	6	12
					
V60	2221002000000000	2221003000000000	2221004000000000	2221006000000000	2221012000000000
V61	2221102000000000	2221103000000000	2221104000000000	2221106000000000	2221112000000000
V62	2221202000000000	2221203000000000	2221204000000000	2221206000000000	2221212000000000

Accessories for sub-bases

Series	Blanking plate	Blanking plug for 2 station and 3 station manifolds	Pressure shut-off for 4 station op to 12 station manifolds	Pressure shut-off for ports 3 & 5 (R & S)	DIN rail mounting kit
					
V60	0100561000000000	0701208000000000	0100567000000000	0110236000000000	0101796000000000
V61	0100563000000000	0701209000000000	0100569000000000	0110237000000000	0101796000000000
V62	0100565000000000	0701210000000000	0100571000000000	0110238000000000	0101796000000000

Coil accessories

Diffusor for pilot exhaust	Circlip for coil fixing
	
81110800	81021600

Connector plugs - ordered separately

Industrial standard 22 mm 2-pole + PE	22 mm, EN 175301-803 (DIN 43650 B) Form B 2-pole + PE
	
0657868000000000 12 … 250 V a.c./d.c.	0680003000000000 12 … 250 V a.c./d.c.
0680000000000000 15 … 30 V DC; LED, surge surpression	0664811000000000 15 … 30 V DC; LED, surge surpression
M/P24121/3 150 … 250 V a.c.; glim lamp	0664812000000000 150 … 250 V a.c.; glim lamp

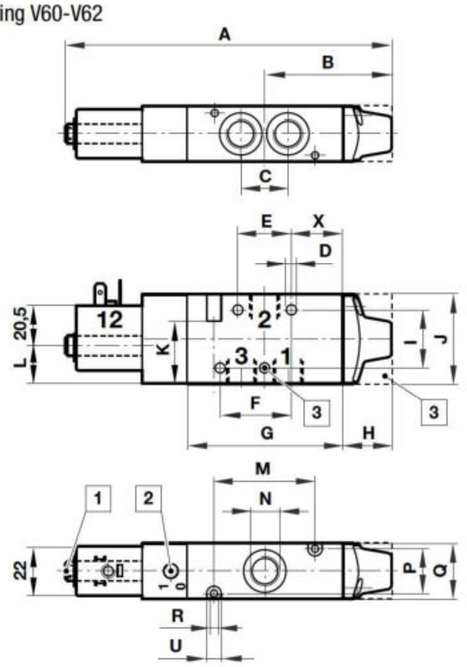
Note: Light emitting gaskets can not be used.

IN-LINE VALVES

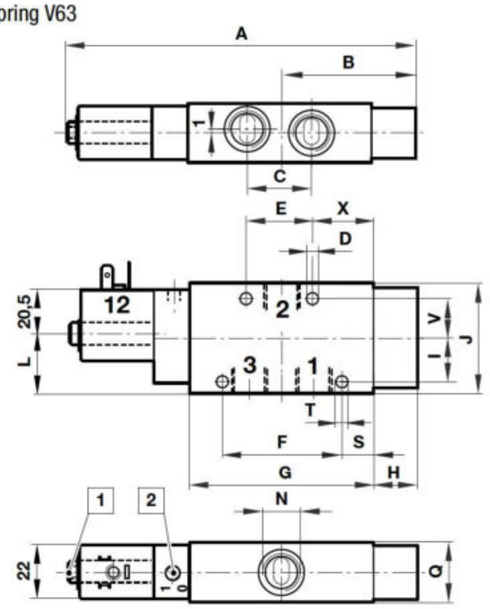
V60 … 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 … G1/2

Dimensions

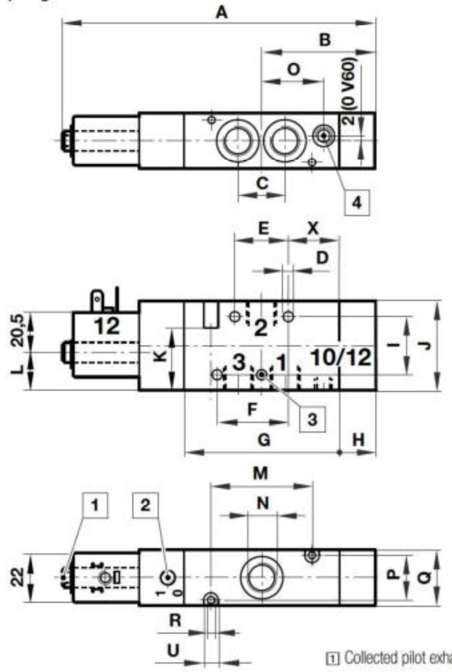
3/2 Sol/Spring V60-V62



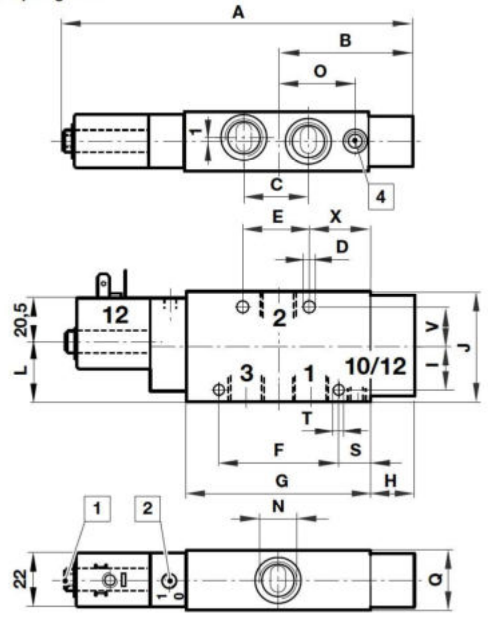
3/2 Sol/Spring V63



3/2 Sol/Air Spring V60-V62



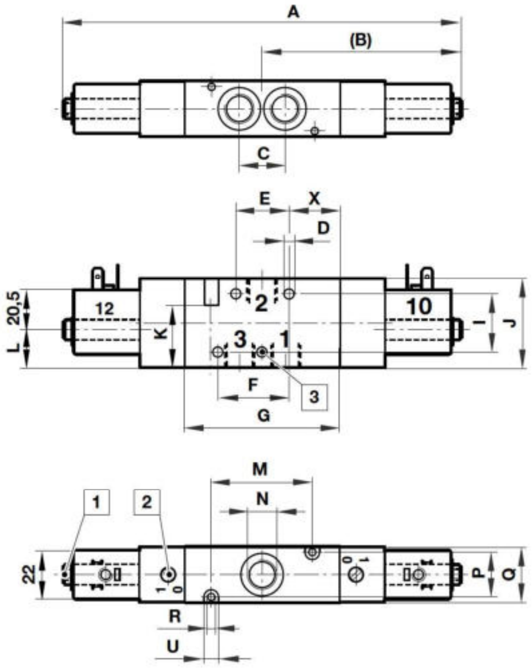
3/2 Sol/Air Spring V63



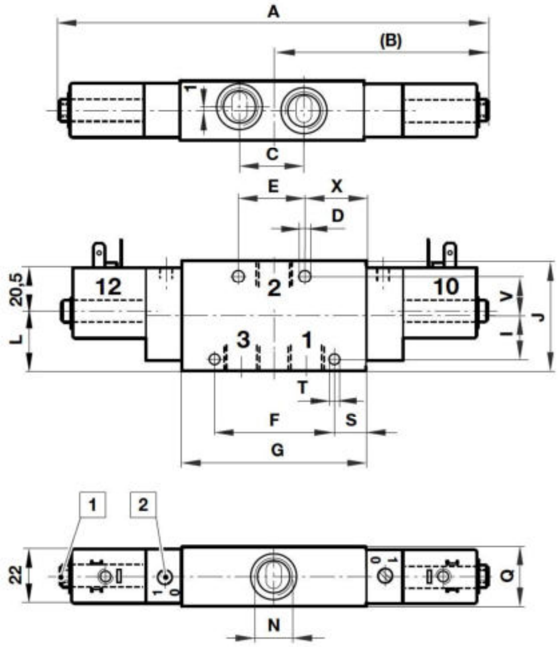
1 Collected pilot exhaust (M5)
2 Manual Override
3 V62: Central mounting hole (left hole is not applicable) and square end cover
4 External pilot port, M5 (V60 & V61), G1/8

Model	A	B	C	ØD	E	F	G	H	I	J	K	L	M	N	O	P	Q	ØR	S	ØT	ØU	V	X
V60A417A—…	125	45	16	4,5	18	25	56	17	26	35	28	12	35	G1/8	–	17	22	3,2	–	–	6,5	–	19
V61B417A—…	147	57,5	21	4,5	24	32	70	22,5	26	40	28	17	46	G1/4	–	20	25	3,2	–	–	6,5	–	23
V62C417A—…	166,5	70	24,5	4,5	26	–	83,5	28	36	55	44	32	54	G3/8	–	28	34	4,5	–	–	8	23	30
V63D417A—…	197	87,5	38	7	46	75	108	33,5	26	65	–	38	–	G1/2	–	–	35	–	18,5	5,5	–	–	36
V60A413A—…	116,5	37	16	4,5	18	25	56	9	26	35	28	12	35	G1/8	–	17	22	3,2	–	–	6,5	–	19
V61B413A—…	132,5	43	21	4,5	24	32	70	8	26	40	28	17	46	G1/4	–	20	25	3,2	–	–	6,5	–	23
V62C413A—…	147	50,5	24,5	4,5	26	–	83,5	9	36	55	44	32	54	G3/8	–	28	34	4,5	–	–	8	–	30
V63D413A—…	190	80	38	7	46	75	108	26	26	65	–	38	–	G1/2	–	–	35	–	18,5	5,5	–	23	36

3/2 Sol/Sol V60-V62



3/2 Sol/Sol V63



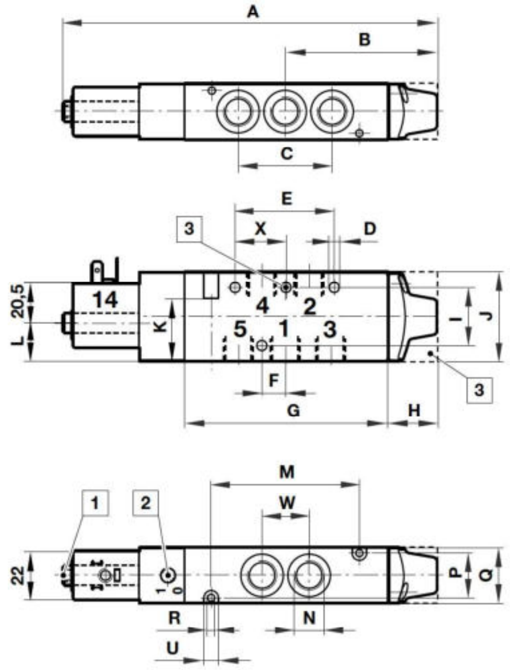
[1] Collected pilot exhaust (M5)
[2] Manual Override
[3] V62: Central mounting hole (left hole is not applicable) and square end cover
[4] External pilot port, M5 V60 & V61), G1/8

Model	A	B	C	ØD	E	F	G	H	I	J	K	L	M	N	P	Q	ØR	S	ØT	ØU	V	X
V60A411A—…	116,5	37	16	4,5	18	25	56	9	26	35	28	12	35	G1/8	–	22	3,2	–	–	6,5	–	19
V61B411A—…	132,5	43	21	4,5	24	32	70	8	26	40	28	17	46	G1/4	–	25	3,2	–	–	6,5	–	23
V62C411A—…	147	50,5	24,5	4,5	26	–	83,5	9	36	55	44	32	54	G3/8	–	34	4,5	–	–	8	–	30
V63D411A—…	190	80	38	7	46	75	108	26	26	65	–	38	–	G1/2	45	35	–	18,5	5,5	–	23	36

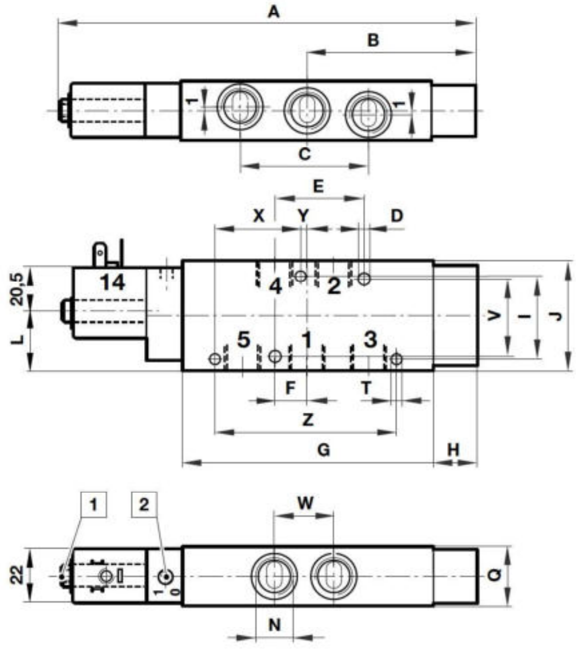
IN-LINE VALVES

V60 … 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 … G1/2

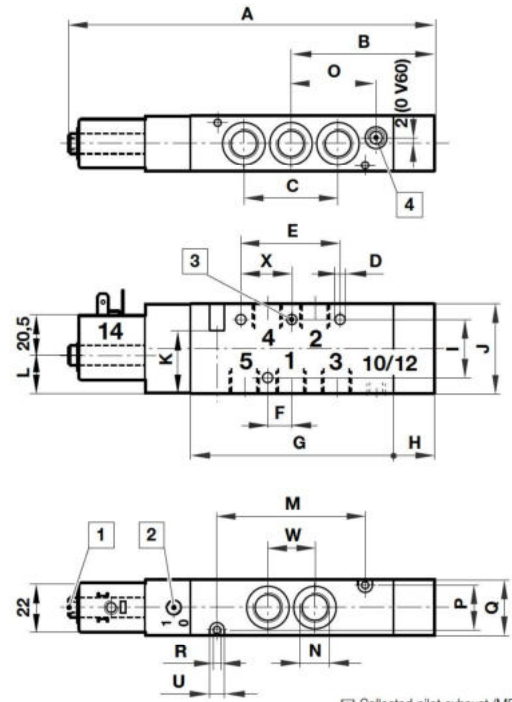
5/2 Sol/Spring V60-V62



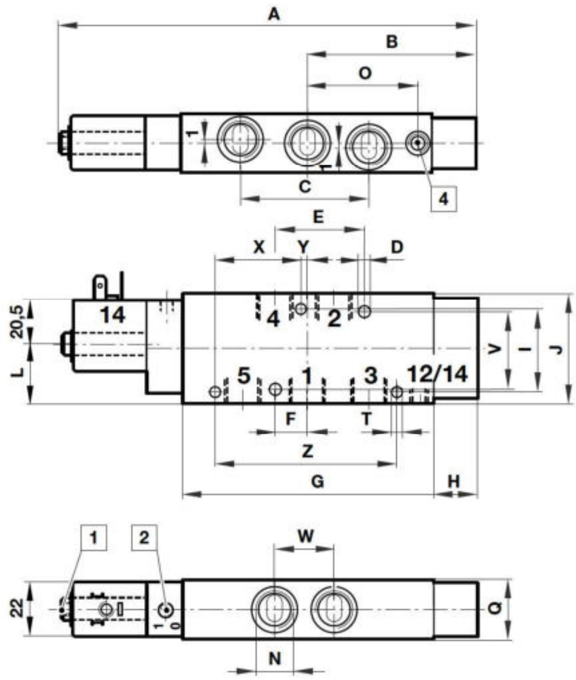
5/2 Sol/Spring V63



5/2 Sol/Air Spring V60-V62



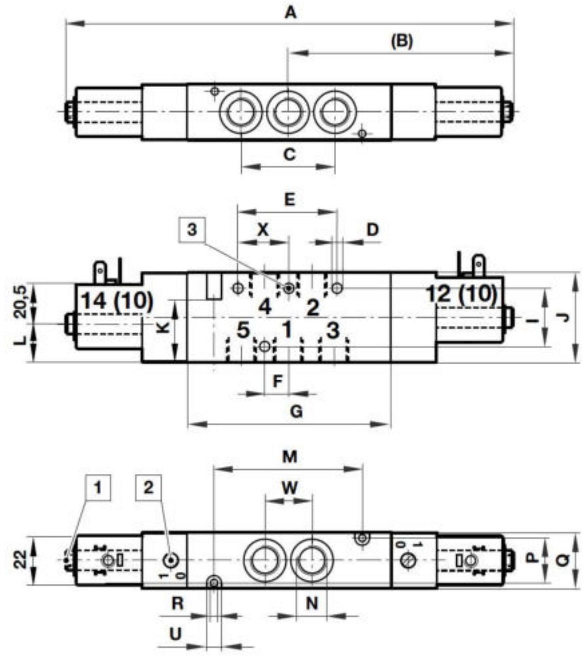
5/2 Sol/Air Spring V63



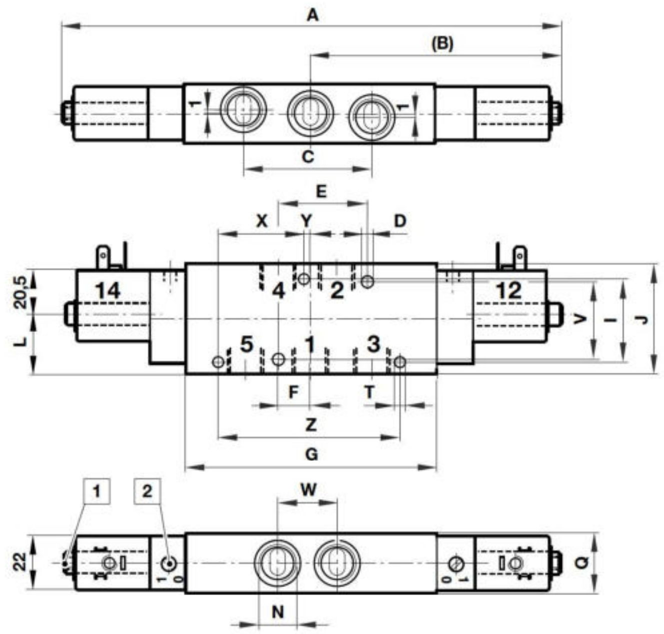
[1] Collected pilot exhaust (M5)
[2] Manual Override
[3] V62: Central mounting hole (left hole is not applicable) and square end cover
[4] External pilot port, M5 (V60 & V61), G1/8

Model	A	B	C	ØD	E	F	G	H	I	J	K	L	M	N	O	P	Q	ØR	ØT	ØU	V	W	X	Y	Z
V60A517A—…	140	52,5	32,5	4,5	33,5	8	71	17	26	35	28	12	50	G1/8	–	17	22	3,2	–	6,5	–	16	17	–	–
V61B517A—…	167	67,5	42	4,5	44	10	90	22,5	26	40	28	17	66	G1/4	–	20	25	3,2	–	6,5	–	21	22	–	–
V62C517A—…	191	82	49	4,5	–	12	108	28	36	55	44	32	78	G3/8	–	28	34	4,5	–	8	–	24,5	26	–	–
V63D517A—…	235	106,5	76	7	60	19	146	33,5	52	65	–	38	–	G1/2	–	–	35	–	5,5	–	46	38	57,5	3	115
V60A513A—…	132	44,5	32,5	4,5	33,5	8	71	9	26	35	28	12	50	G1/8	–	17	22	3,2	–	6,5	–	16	17	–	–
V61B513A—…	153	53	42	4,5	44	10	90	8	26	40	28	17	66	G1/4	–	20	25	3,2	–	6,5	–	21	22	–	–
V62C513A—…	171,5	62,5	49	4,5	–	12	108	8,5	36	55	44	32	78	G3/8	–	28	34	4,5	–	8	–	24,5	26	–	–
V63D513A—…	228	99	76	7	60	19	146	26	52	65	–	38	–	G1/2	–	–	35	–	5,5	–	46	38	57,5	3	115

5/2 & 2x3/2 Sol/Sol V60-V62



5/2 Sol/Sol V63

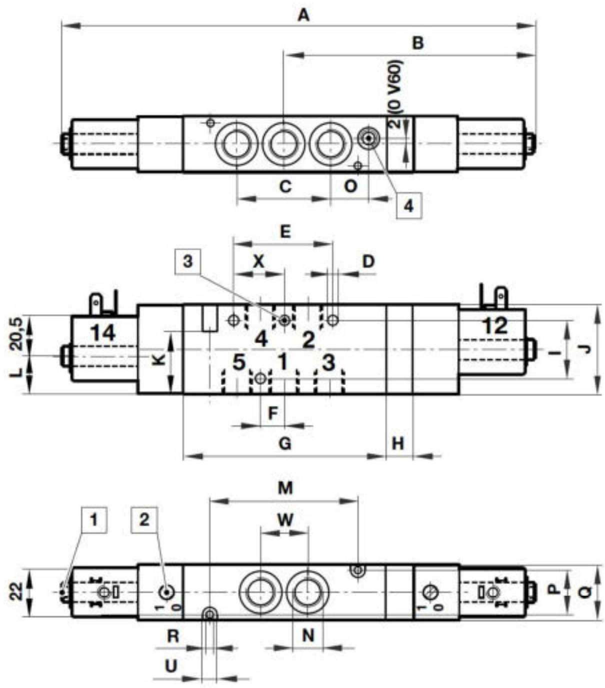


1 Collected pilot exhaust (M5)
2 Manual Override
3 V62: Central mounting hole (left hole is not applicable)

Model	A	B	C	ØD	E	F	G	I	J	K	L	M	N	P	Q	ØR	ØT	ØU	V	W	X	Y	Z
V60A511A—…	174,5	87,5	32,5	4,5	33,5	8	71	26	35	28	12	50	G1/8	17	22	3,2	–	6,5	–	16	17	–	–
V60AA11A—…	174,5	87,5	32,5	4,5	33,5	8	71	26	35	28	12	50	G1/8	17	22	3,2	–	6,5	–	16	17	–	–
V61B511A—…	199	99,5	42	4,5	44	10	90	26	40	28	17	66	G1/4	20	25	3,2	–	6,5	–	21	22	–	–
V61BA11A—…	199	99,5	42	4,5	44	10	90	26	40	28	17	66	G1/4	20	25	3,2	–	6,5	–	21	22	–	–
V62C511A—…	218	109	49	4,5	–	12	108	36	55	44	32	78	G3/8	28	34	4,5	–	8	–	24,5	26	–	–
V62CA11A—…	218	109	49	4,5	–	12	108	36	55	44	32	78	G3/8	28	34	4,5	–	8	–	24,5	26	–	–
V63D511A—…	257	128,5	76	7	60	19	146	52	65	–	38	–	G1/2	–	35	–	5,5	–	46	38	57,5	3	115

IN-LINE VALVES
V60 … 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 … G1/2

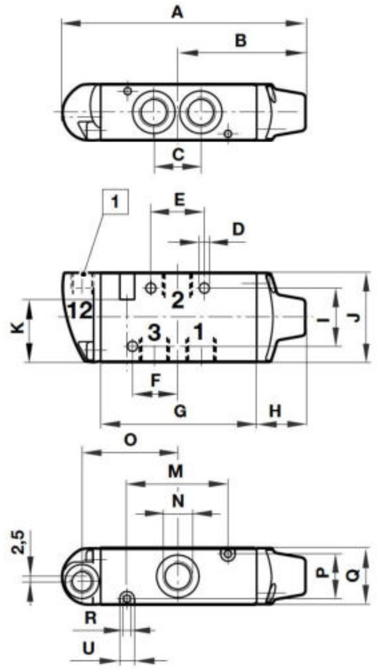
5/3 Sol/Sol V60-V62



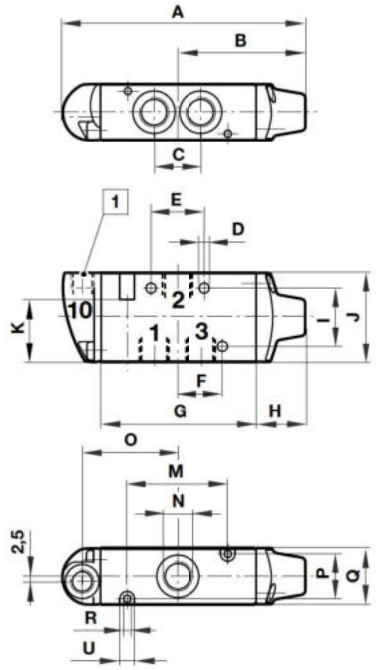
1 Collected pilot exhaust (M5)
2 Manual Override
3 V62: Central mounting hole (left hole is not applicable) and square end cover
4 External pilot port, M5 (V60 & V61), G1/8

Model	A	B	C	Ø D	E	F	G	H	I	J	K	L	M	N	O	P	Q	Ø R	Ø U	W	X
V60A611A—…	188,5	101,5	32,5	4,5	33,5	8	71	14	26	35	28	12	50	G1/8	13	17	22	3,2	6,5	16	17
V60A711A—…	188,5	101,5	32,5	4,5	33,5	8	71	14	26	35	28	12	50	G1/8	13	17	22	3,2	6,5	16	17
V60A811A—…	188,5	101,5	32,5	4,5	33,5	8	71	14	26	35	28	12	50	G1/8	13	17	22	3,2	6,5	16	17
V61B611A—…	217	117,5	42	4,5	44	10	90	18	26	40	28	17	66	G1/4	18	20	25	3,2	6,5	21	22
V61B711A—…	217	117,5	42	4,5	44	10	90	18	26	40	28	17	66	G1/4	18	20	25	3,2	6,5	21	22
V61B811A—…	217	117,5	42	4,5	44	10	90	18	26	40	28	17	66	G1/4	18	20	25	3,2	6,5	21	22
V62C611A—…	240,5	131,5	49	4,5	–	12	108	22,5	36	55	44	32	78	G3/8	23,5	28	34	4,5	8	24,5	26
V62C711A—…	240,5	131,5	49	4,5	–	12	108	22,5	36	55	44	32	78	G3/8	23,5	28	34	4,5	8	24,5	26
V62C811A—…	240,5	131,5	49	4,5	–	12	108	22,5	36	55	44	32	78	G3/8	23,5	28	34	4,5	8	24,5	26
V62C811A—…	240,5	131,5	49	4,5	–	12	108	22,5	36	55	44	32	78	G3/8	23,5	28	34	4,5	8	24,5	26

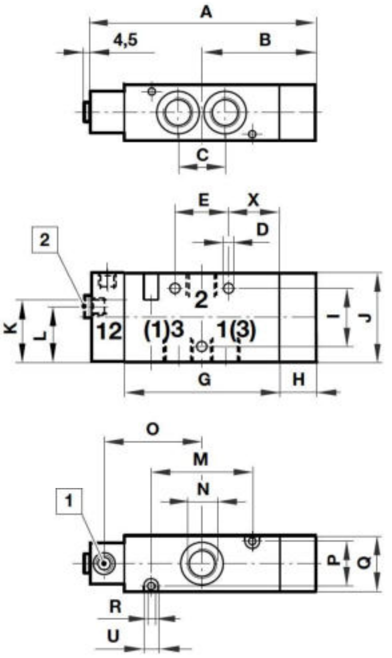
3/2NC Air/Spring V60-V61



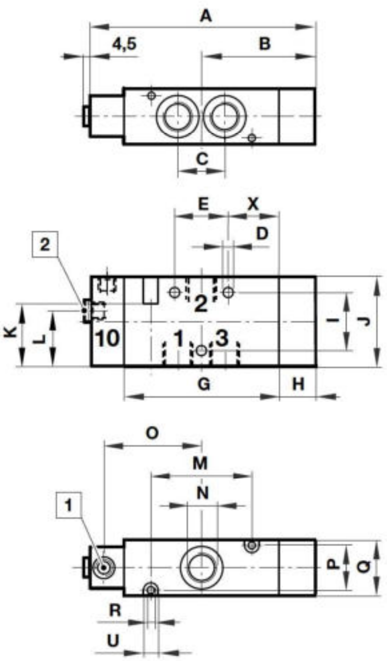
3/2NO Air/Spring V60-V61



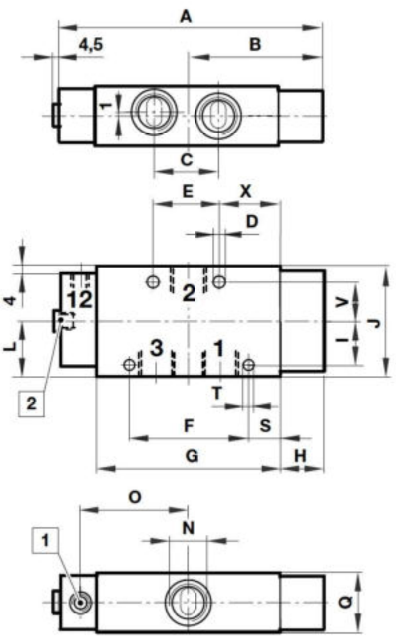
3/2NC Air/Spring V62



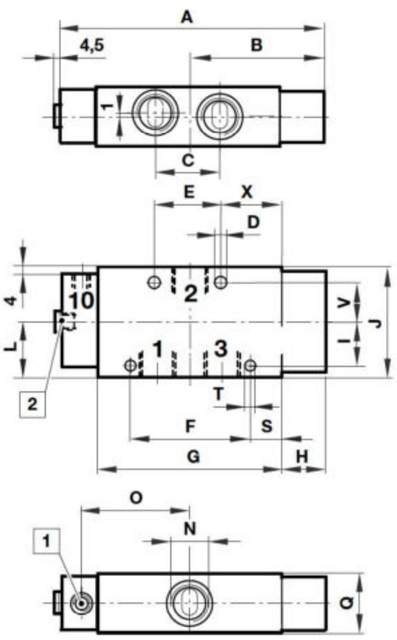
3/2NO Air/Spring V62



3/2NC Air/Spring V63



3/2NO Air/Spring V63

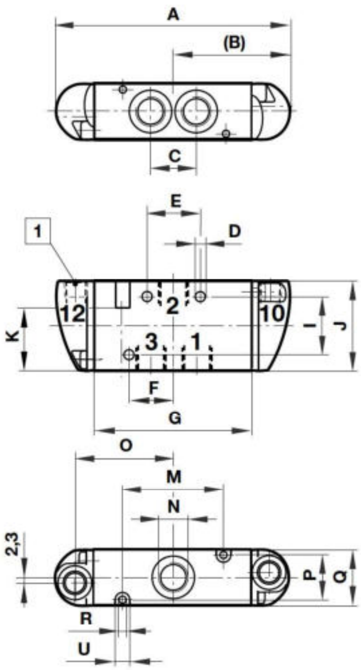


1 Pilot ports G1/8

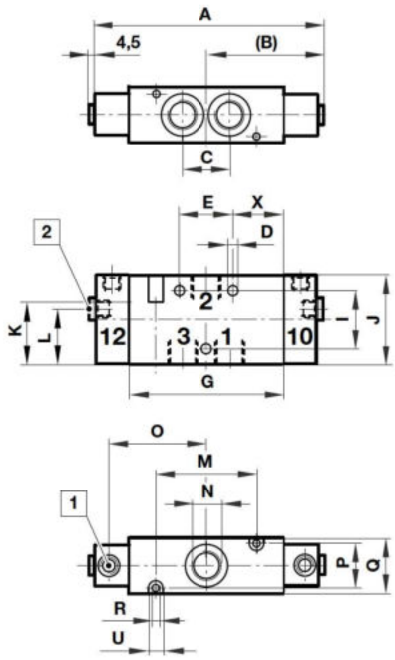
2 Alternative pilot ports G1/8

Model	A	B	C	ØD	E	F	G	H	I	J	K	L	M	N	O	P	Q	ØR	S	ØT	ØU	V	X
V60A313A—…	89,5	45	16	4,5	18	16	56	17	26	35	28	–	35	G1/8	36	17	22	3,2	–	–	6,5	–	–
V61B313A—…	110	57,5	21	4,5	24	20	70	22,5	26	40	28	–	46	G1/4	43	20	25	3,2	–	–	6,5	–	–
V62C313A—…	89,5	45	16	4,5	18	16	56	17	26	35	28	–	35	G1/8	36	17	22	3,2	–	–	6,5	–	–
V63D313A—…	110	57,5	21	4,5	24	20	70	22,5	26	40	28	–	46	G1/4	43	20	25	3,2	–	–	6,5	–	–
V60A411A—…	132	70	24,5	4,5	26	–	83,5	28	36	55	–	33,5	54	G3/8	52	28	34	4,5	–	–	8	–	30
V61B411A—…	132	70	24,5	4,5	26	–	83,5	28	36	55	–	33,5	54	G3/8	52	28	34	4,5	–	–	8	–	28
V62C411A—…	162	87,5	38	7	46	75	108	33,5	26	65	–	39,5	–	G1/2	64	–	35	–	18,5	5,5	–	23	36
V63D411A—…	162	87,5	38	7	46	75	108	33,5	26	65	–	39,5	–	G1/2	64	–	35	–	14,5	5,5	–	23	26

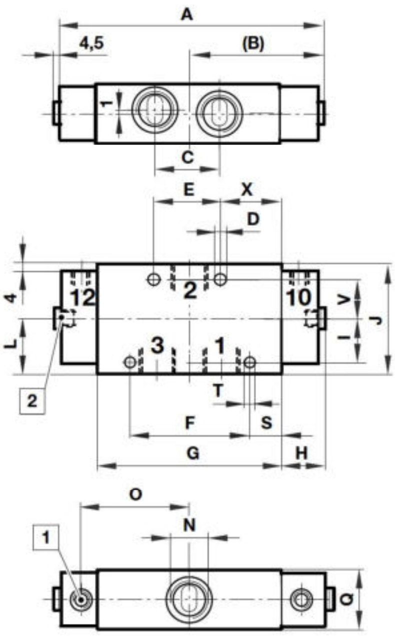
3/2NC Air/Air V60 & V61



3/2NC Air/Air V62



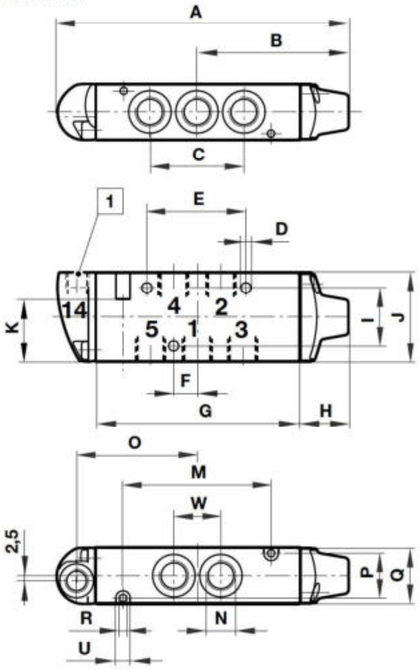
3/2NC Air/Air V63



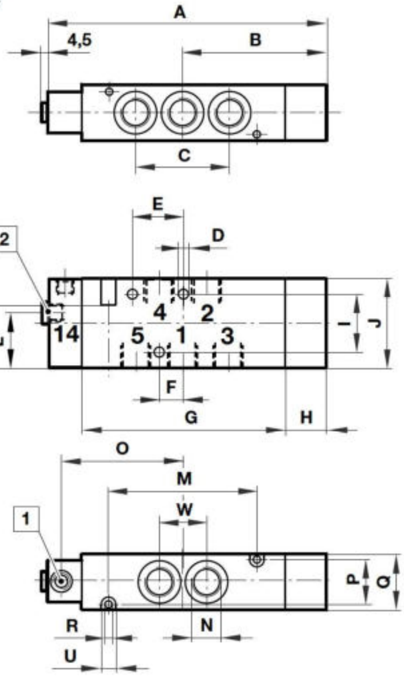
1 Pilot ports G1/8
2 Alternative pilot ports G1/8

Model	A	B	C	D	E	F	G	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	X
V60A4DDA—…	89	44,5	16	4,5	18	16	56	26	35	28	–	35	G1/8	36	17	22	3,2	–	–	6,5	–	–
V61B4DDA—…	104	52	21	4,5	24	20	70	26	40	28	–	46	G1/4	43	20	25	3,2	–	–	6,5	–	–
V62C4DDA—…	124	62	24,5	4,5	26	–	83,5	36	55	44	33,5	54	G3/8	52	28	34	4,5	–	–	8	–	30
V63D4DDA—…	148	74	38	7	46	75	108	26	65	–	39,5	–	G1/2	64	–	35	–	18,5	5,5	–	23	36

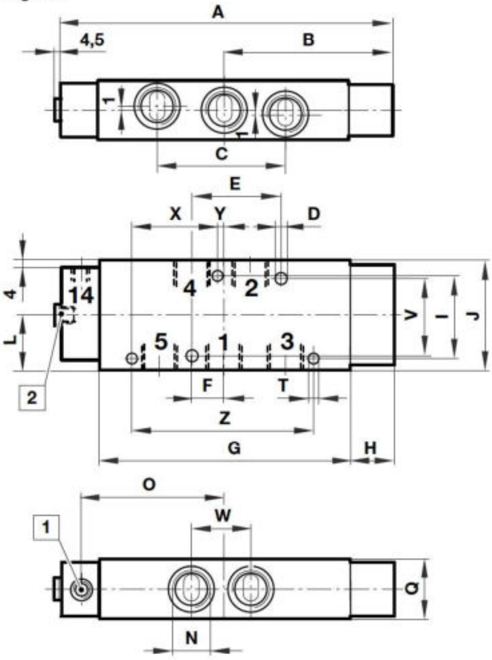
5/2 Air/Spring V60 & V61



5/2 Air/Spring V62



5/2 Air/Spring V63



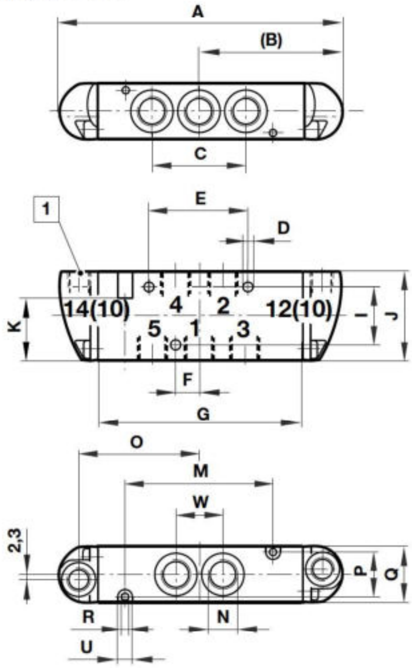
[1] Pilot ports G1/8 or 1/8-27 NPT
[2] Alternative pilot ports G1/8 or 1/8-27 NPT

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	T	U	V	W	X	Y	Z
V60A5D7A—…	105	52,5	32,5	4,5	33,5	8	71	17	26	35	28	–	50	G1/8	43,5	17	22	3,2	–	6,5	–	16	–	–	–
V61B5D7A—…	130	67,5	42	4,5	44	10	90	22,5	26	40	28	–	66	G1/4	53	20	25	3,2	–	6,5	–	21	–	–	–
V62C5D7A—…	156	82	49	4,5	26	12	108	28	36	55	44	33,5	78	G3/8	64	28	34	4,5	–	8	–	24,5	–	–	–
V63D5D7A—…	200	106,5	76	7	60	19	146	33,5	52	65	–	39,5	–	G1/2	83	–	35	–	5,5	–	46	38	57,5	3	115

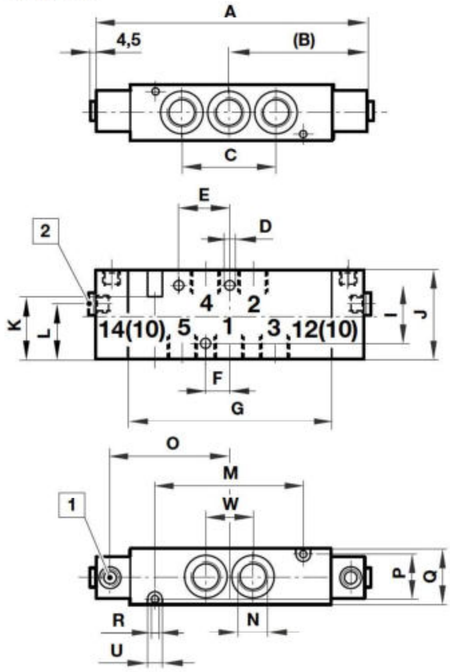
IN-LINE VALVES

V60 … 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 … G1/2

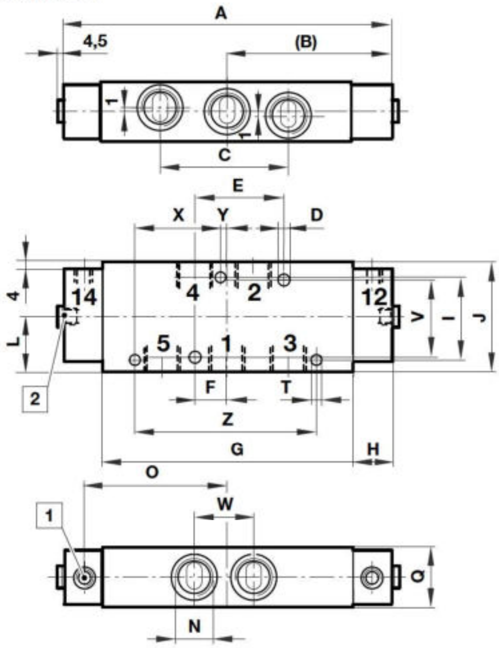
5/2 & 2x3/2 Air/Air V60 & V61



5/2 & 2x3/2 Air/Air V62



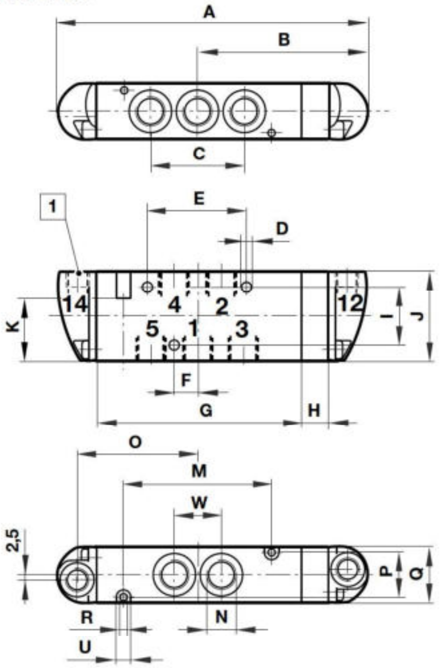
5/2 & 2x3/2 Air/Air V63



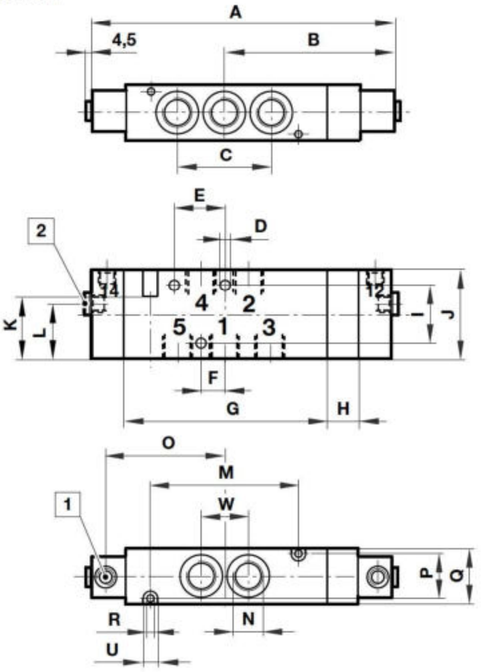
[1] Pilot ports G1/8
[2] Alternative pilot ports G1/8

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	T	U	V	W	X	Z
V60A5DDA—…	104,5	52,5	32,5	4,5	33,5	8	71	–	26	35	28	–	50	G1/8	44	17	22	3,2	–	6,5	–	16	–	–
V60AADDA—…	104,5	52,5	32,5	4,5	33,5	8	71	–	26	35	28	–	50	G1/8	44	17	22	3,2	–	6,5	–	16	–	–
V60ABDDA—…	104,5	52,5	32,5	4,5	33,5	8	71	–	26	35	28	–	50	G1/8	44	17	22	3,2	–	6,5	–	16	–	–
V60ACDDA—…	104,5	52,5	32,5	4,5	33,5	8	71	–	26	35	28	–	50	G1/8	44	17	22	3,2	–	6,5	–	16	–	–
V61B5DDA—…	124	62	42	4,5	44	10	90	–	26	40	28	–	66	G1/4	53	20	25	3,2	–	6,5	–	21	–	–
V61BADDA—…	124	62	42	4,5	44	10	90	–	26	40	28	–	66	G1/4	53	20	25	3,2	–	6,5	–	21	–	–
V61BBDDA—…	124	62	42	4,5	44	10	90	–	26	40	28	–	66	G1/4	53	20	25	3,2	–	6,5	–	21	–	–
V61BCDDA—…	124	62	42	4,5	44	10	90	–	26	40	28	–	66	G1/4	53	20	25	3,2	–	6,5	–	21	–	–
V62C5DDA—…	148	74	49	4,5	26	12	108	–	36	55	44	33,5	78	G3/8	64	28	34	4,5	–	8	–	24,5	–	–
V62CADDA—…	148	74	49	4,5	26	12	108	–	36	55	44	33,5	78	G3/8	64	28	34	4,5	–	8	–	24,5	–	–
V62CBDDA—…	148	74	49	4,5	26	12	108	–	36	55	44	33,5	78	G3/8	64	28	34	4,5	–	8	–	24,5	–	–
V62CCDDA—…	148	74	49	4,5	26	12	108	–	36	55	44	33,5	78	G3/8	64	28	34	4,5	–	8	–	24,5	–	–
V63D5DDA—…	186	93	76	7	60	19	146	–	52	65	–	39,5	–	G1/2	83	–	35	–	5,5	–	46	38	57,5	115

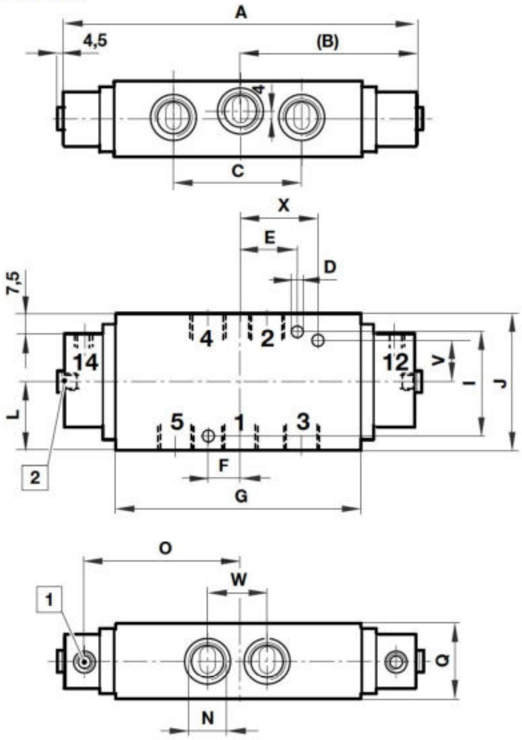
5/3 Pilot/Pilot V60 & V61



5/3 Pilot/Pilot V62

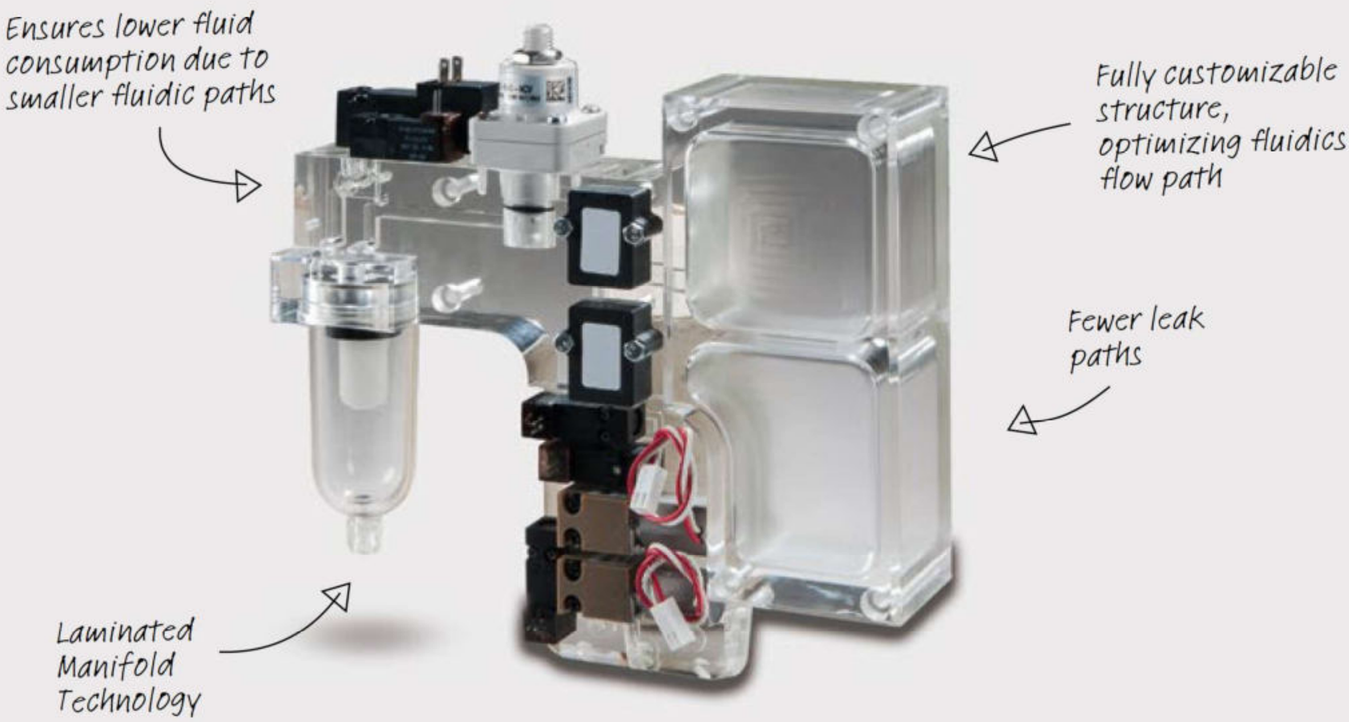


5/3 Pilot/Pilot V63



[1] Pilot ports G1/8
[2] Alternative pilot ports G1/8

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	U	V	W	X
V60A6DDA—…	118,5	66	32,5	4,5	33,5	8	71	14	26	35	28	–	50	G1/8	43,5	17	22	3,2	6,5	–	16	–
V60A7DDA—…	118,5	66	32,5	4,5	33,5	8	71	14	26	35	28	–	50	G1/8	43,5	17	22	3,2	6,5	–	16	–
V60A8DDA—…	118,5	66	32,5	4,5	33,5	8	71	14	26	35	28	–	50	G1/8	43,5	17	22	3,2	6,5	–	16	–
V61B6DDA—…	142	80	42	4,5	44	10	90	18	26	40	28	–	66	G1/4	53	20	25	3,2	6,5	–	21	–
V61B7DDA—…	142	80	42	4,5	44	10	90	18	26	40	28	–	66	G1/4	53	20	25	3,2	6,5	–	21	–
V61B8DDA—…	142	80	42	4,5	44	10	90	18	26	40	28	–	66	G1/4	53	20	25	3,2	6,5	–	21	–
V62C6DDA—…	170,5	96,5	49	4,5	26	12	108	22,5	36	55	44	33,5	78	G3/8	64	28	34	4,5	8	–	24,5	–
V62C7DDA—…	170,5	96,5	49	4,5	26	12	108	22,5	36	55	44	33,5	78	G3/8	64	28	34	4,5	8	–	24,5	–
V62C8DDA—…	170,5	96,5	49	4,5	26	12	108	22,5	36	55	44	33,5	78	G3/8	64	28	34	4,5	8	–	24,5	–
V63D6DDA—…	216	108	66	7	34	16	160	–	50	70	–	41	–	G1/2	98	–	40	–	–	21	33	44
V63D7DDA—…	216	108	66	7	34	16	160	–	50	70	–	41	–	G1/2	98	–	40	–	–	21	33	44



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IN-LINE VALVES

V50 … V53 3/2, 5/2 or 5/3, G1/8 … G1/2

- Solenoid actuated and pilot operated spool valve
- High flow in-line valves
- Compact and robust design
- Low power energy efficient solenoids
- Flexible in-line and manifold mounting options

Technical Data

Medium:
Compressed air, filtered (40 µm) lubricated or non lubricated

Mounting position:
In-line or sub-base

Ambient temperature:
Pilot models: -5°C … +60°C
Solenoid models: -5°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body/sub-base:
Die-cast aluminium alloy or aluminium alloy, white painted

Softseal spool:
NBR/aluminium alloy

Mounting sheets/screws:
Steel

Springs:
Stainless steel

EXPRESS

Models - Solenoid actuated

	G1/8	Operating Pressure (bar)	G1/4	Operating Pressure (bar)	G3/8	Operating Pressure (bar)	G1/2	Operating Pressure (bar)
Flow (l/min)								
3/2 & 5/2	480	–	1020	–	1705	–	2480	–
5/3	270	–	755	–	1190	–	1910	–
Models - 3/2 Valves								
Actuation	–	–	–	–	–	–	–	–
Sol/Air Spring	V50A413A-A2***	2 … 8	–	–	–	–	–	–
Sol/Spring	–	–	V51B417A-A2***	2 … 8	V52C417A-A2***	2 … 8	V53D417A-A2***	2 … 8
Sol/Sol	V50A411A-A2***	2 … 8	V51B411A-A2***	2 … 8	V52C411A-A2***	2 … 8	V53D411A-A2***	2 … 8
Models - 5/2 Valves								
Actuation	–	–	–	–	–	–	–	–
Sol/Air Spring	V50A513A-A2***	2 … 8	–	–	–	–	–	–
Sol / Spring	–	–	V51B517A-A2***	2 … 8	V52C517A-A2***	2 … 8	V53D517A-A2***	2 … 8
Sol/Sol	V50A511A-A2***	2 … 8	V51B511A-A2***	2 … 8	V52C511A-A2***	2 … 8	V53D511A-A2***	2 … 8
Models - 5/3 Valves								
Actuation	–	–	–	–	–	–	–	–
Sol/Sol APB	V50A611A-A2***	3 … 8	V51B611A-A2***	3 … 8	V52C611A-A2***	3 … 8	V53D611A-A2***	3 … 8
Sol/Sol COE	V50A711A-A2***	3 … 8	V51B711A-A2***	3 … 8	V52C711A-A2***	3 … 8	V53D711A-A2***	3 … 8
Sol/Sol COP	V50A811A-A2***	3 … 8	V51B811A-A2***	3 … 8	V52C811A-A2***	3 … 8	V53D811A-A2***	3 … 8
Accessories								
Straight Fitting	C02250618	–	C02250828	–	C02251038	–	C02251248	–
Elbow Fitting	C02470618	–	C02470828	–	C02471038	–	C02471248	–
Silencer	T40C1800	–	T40C2800	–	T40C3800	–	T40C4800	–

Note: APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure, NC = Normally closed.

Voltage codes and spare coils

V50 models only

15 mm coil for connector interface acc. EN 175 301-803, form C			
Model	**Voltage**	**Power Inrush/Hold**	**Code**
			
V12958-A12	12 V d.c.	2,9 W	12A
V12958-A13	24 V d.c.	2,9 W	13A
V12958-A18	110/120 V 50/60 Hz	3,7/3,1 VA	18A
V12958-A19	220/240 V 50/60 Hz	3,7/3,1 VA	19A

V51 … V53 series

22 mm coil for connector interface acc. to industrial standard			
Model	**Voltage**	**Power Inrush/Hold**	**Code**
			
QM/48/12J/21	12 V d.c.	2 W	12J
QM/48/13J/21	24 V d.c	2 W	13J
QM/48/18J/21	110/120 V 50/60 Hz	4/2,5 VA	18J
QM/48/19J/21	220/240 V 50/60 Hz	6/5 VA	19J

Electrical details for solenoid operators

Voltage tolerance	± 10%
Rating	100% continuous duty
Inlet orifice	0,6 mm; V50
	0,8 mm; V51 … V53
Electrical connection (corresponding to choosen coil)	EN 175301-803 - Form C; 15 mm; V50
	Industrial Standard; 22 mm; V51 … V53
Solenoid coil mounting	Four positions x 90°
Manual override	Push and turn to lock (plastic)
Protection class	IP 65 (with sealed plug)

Connector plugs - included in delivery

15 mm, EN 175301-803 (DIN 43650 B) Form C 2-pole + PE	Industrial standard 22 mm 2-pole + PE
	
V10027-D00	0657868000000000

IN-LINE VALVES

V50 … V53 3/2, 5/2 or 5/3, G1/8 … G1/2

Models - Pilot actuated

	G1/8	Operating Pressure (bar)	Pilot Pressure external (bar)	G1/4	Operating Pressure (bar)	Pilot Pressure external (bar)	G3/8	Operating Pressure (bar)	Pilot Pressure external (bar)	G1/2	Operating Pressure (bar)	Pilot pressure external (bar)
Flow (l/min)												
3/2 & 5/2	480	–	–	1020	–	–	1705	–	–	2480	–	–
2x3/2 & 5/3	270	–	–	755	–	–	1190	–	–	1910	–	–
Models - 3/2 Valves												
Actuation	–	–	–	–	–	–	–	–	–	–	–	–
Air/Air Spring NC	V50A4D3A-XA090	0 … 8	1,5 … 8	–	–	–	–	–	–	–	–	–
Air/Spring NC	–	–	–	V51B4D7A-XA090	0 … 8	1,5 … 8	V52C4D7A-XA090	0 … 8	2 … 8	V53D4D7A-XA090	0 … 8	2 … 8
Air/Air NC	V50A4DDA-XA020	0 … 8	1,5 … 8	V51B4DDA-XA020	0 … 8	1,5 … 8	V52C4DDA-XA020	0 … 8	2 … 8	V53D4DDA-XA020	0 … 8	2 … 8
Models - 5/2 Valves												
Actuation	–	–	–	–	–	–	–	–	–	–	–	–
Air/Air Spring	V50A5D3A-XA090	0 … 8	1,5 … 8	–	–	–	–	–	–	–	–	–
Air/Spring				V51B5D7A-XA090	0 … 8	1,5 … 8	V52C5D7A-XA090	0 … 8	2 … 8	V53D5D7A-XA090	0 … 8	2 … 8
Air/Air	V50A5DDA-XA020	0 … 8	1,5 … 8	V51B5DDA-XA020	0 … 8	1,5 … 8	V52C5DDA-XA020	0 … 8	2 … 8	V53D5DDA-XA020	0 … 8	2 … 8
Models - 5/3 Valves												
Actuation	–	–	–	–	–	–	–	–	–	–	–	–
Air/Air APB	V50A6DDA-XA020	0 … 8	1,5 … 8	V51D6DDA-XA020	0 … 8	1,5 … 8	V52C6DDA-XA020	0 … 8	2 … 8	V53D6DDA-XA020	0 … 8	2 … 8
Air/Air COE	V50A7DDA-XA020	0 … 8	1,5 … 8	V51D7DDA-XA020	0 … 8	1,5 … 8	V52C7DDA-XA020	0 … 8	2 … 8	V53D7DDA-XA020	0 … 8	2 … 8
Air/Air COP	V50A8DDA-XA020	0 … 8	1,5 … 8	V51D8DDA-XA020	0 … 8	1,5 … 8	V52C8DDA-XA020	0 … 8	2 … 8	V53D8DDA-XA020	0 … 8	2 … 8
Accessories												
Straight Fitting	C02250618	–	–	C02250828	–	–	C02251038	–	–	C02251248	–	–
Elbow Fitting	C02470618	–	–	C02470828	–	–	C02471038	–	–	C02471248	–	–
Silencer	T40C1800	–	–	T40C2800	–	–	T40C3800	–	–	T40C4800	–	–
Straight Fitting - Pilot Port	C02250618	–	–	C02250618	–	–	C02250618	–	–	C02250618	–	–
Elbow Fitting - Pilot Port	C02470618	–	–	C02470618	–	–	C02470618	–	–	C02470618	–	–

Note: APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure, NC = Normally closed, NO = Normally open.

Manifold system and blanking plates

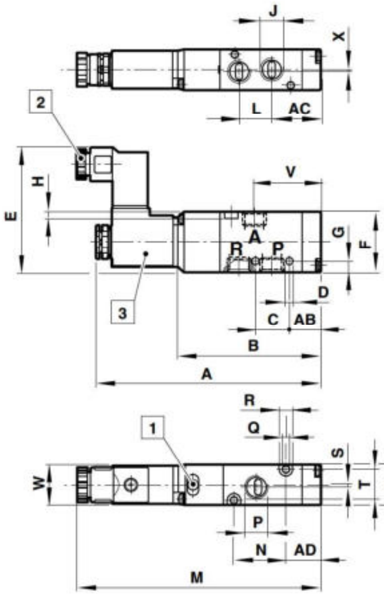
For valve series	Manifold for 3 port valves SO G thread	Blanking plate for 3 port valves	Manifold for 5 port valves ISO G thread	Blanking plate for 5 port valves
				
V50 (1/8")	V50A3 *1)	V500351	V50A5 *1)	V500551
V51 (1/4")	V51B3 *1)	V510351	V51B5 *1)	V510551
V52 (3/8")	V52C3 *1)	V520351	V52C5 *1)	V520551
V53 (1/2")	V53D3 *1)	V530351	V53D5 *1)	V530551

*1) Number of stations 02 … 08 for 2 … 8 stations.

Dimensions

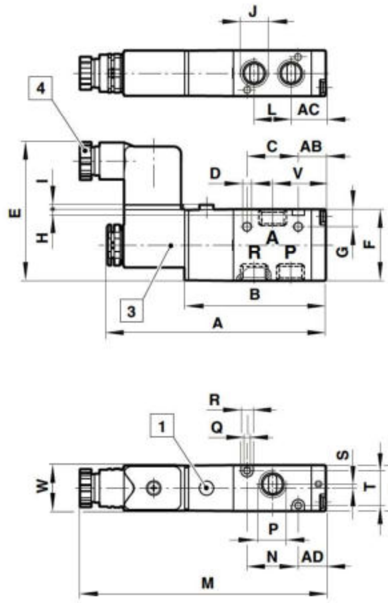
1

3/2 Single solenoid pilot valve, 1/8" port
Air return



2

3/2 Single solenoid pilot valve, 1/4"… 1/2" ports
Spring return



[1] Manual override (Push and Turn)
[2] Gland size Pg 7
[3] Solenoid rotates 2 x 180° (V50), 4 x 90° (V51 … V53)
[4] Gland size Pg 9

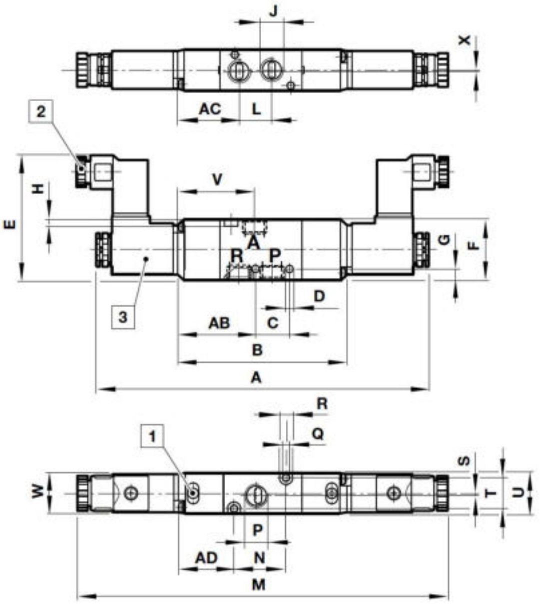
Series	Dimension No.	A	AB	AC	AD	B	C	D	E	F	G	H	I	J	L	M	N	P	Q	R	S	T	U	V	W	X
V50	1	99,5	13,5	21,5	15,5	65	15	3,2	55,5	27	5	3	–	1/8"	14,5	108	23	1/8"	3,2	6	1	13	18	29,5	16	0,5
V51	2	106,5	13,5	17	13,5	69	25	4,2	67	35	8,5	3	3	1/4"	18	120	25	1/4"	3,2	6	2	17	22,5	26	22	–
V52	2	126,5	13	26	15	89	26	4,5	73	46,5	39,5	4	3	3/8"	26	139,5	41	3/8"	4,5	8	–	23	30	41	22	–
V53	2	133	12,5	27	15	96	29	4,5	73	46,5	39,5	4	3	1/2"	29	146	48	1/2"	4,2	8	2,5	23	30	40,5	22	–

IN-LINE VALVES

V50 … V53 3/2, 5/2 or 5/3, G1/8 … G1/2

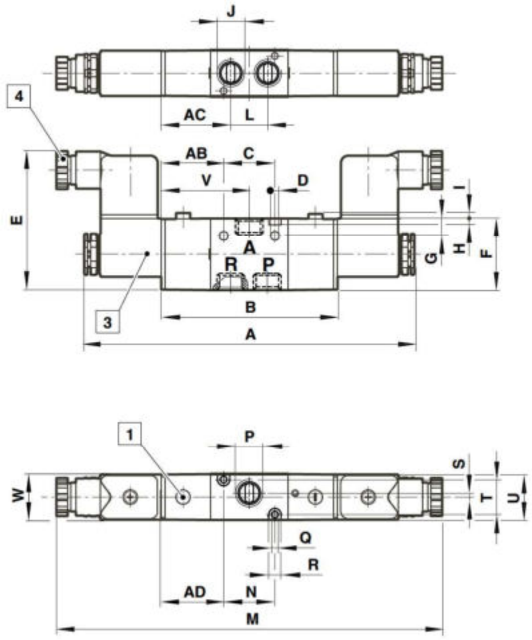
3

3/2 Double solenoid pilot valve, 1/8" port



4

3/2 Double solenoid pilot valve, 1/4"… 1/2" ports



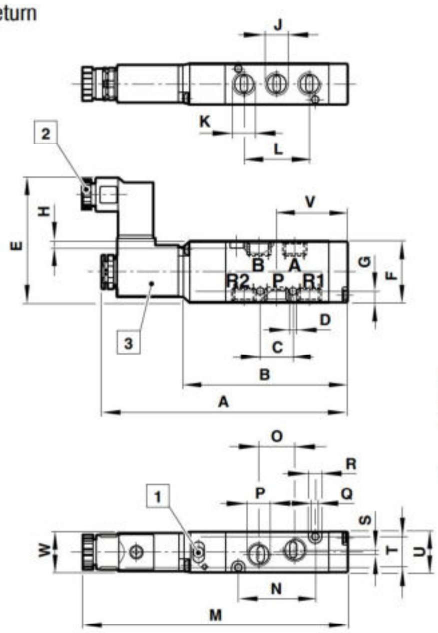
1 Manual override (Push and Turn)
2 Gland size Pg 7
3 Solenoid rotates 2 x 180° (V50), 4 x 90° (V51 … V53)
4 Gland size Pg 9

Series	Dimension No.	A	AB	AC	AD	B	C	D	E	F	G	H	I	J	L	M	N	P	Q	R	S	T	U	V	W	X
V50	3	144,5	36,5	29	27	76,5	15	3,2	55,5	27	5	3	–	1/8"	14,5	161,5	23	1/8"	3,2	6	1	13	18	35,5	16	0,5
V51	4	144,5	30,5	34	30,5	86	25	4,2	67	35	8,5	3	3	1/4"	18	188	25	1/4"	3,2	6	2	17	22,5	43	22	–
V52	4	182	31	44	33	107	26	4,5	73	46,5	39,5	4	3	3/8"	26	208	41	3/8"	4,5	8	—	23	30	59	22	–
V53	4	188	30,5	45	33	114	29	4,5	73	46,5	39,5	4	3	1/2"	29	214	48	1/2"	4,2	8	2,5	23	30	58,5	22	–

5

5/2 Single solenoid pilot valve, 1/8" port

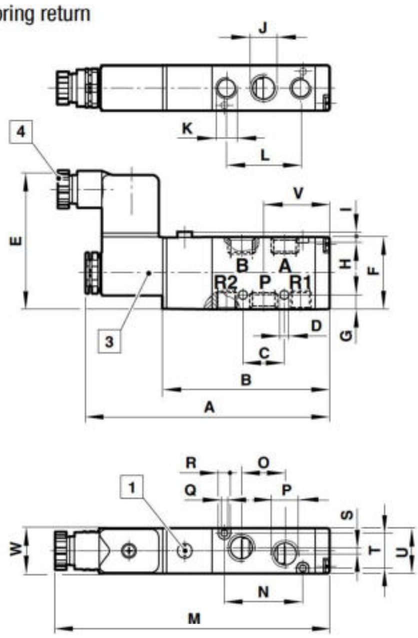
Air return



6

5/2 Single solenoid pilot valve, 1/4"… 1/2" ports

Spring return

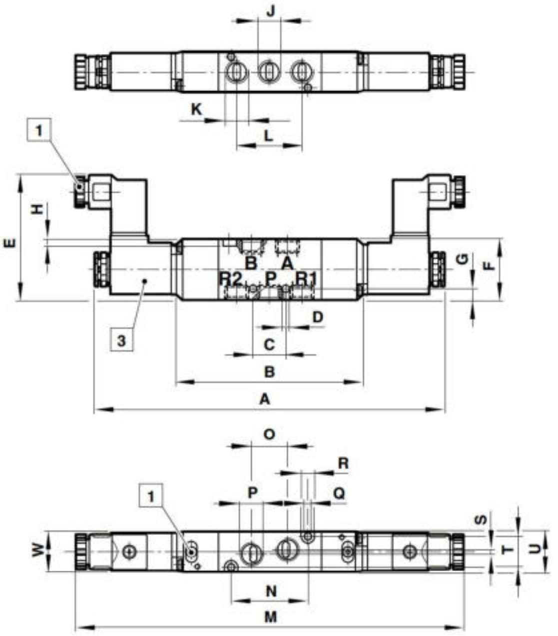


1 Manual override (Push and Turn)
2 Gland size Pg 7
3 Solenoid rotates 2 x 180° (V50), 4 x 90° (V51 … V53)
4 Gland size Pg 9

Series	Dimension No.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
V50	5	110	76	14,5	3,2	54	27	5	3	–	1/8"	1/8"	29	118,5	34	16	1/8"	3,2	6	2	13	18	32,5	16
V51	6	118,5	81	20	4,2	67	35	7	3	3	1/4"	1/8"	36	132	38	21	1/4"	3,2	6	3	17	22,5	32	22
V52	6	145,5	108	26	5,5	73	46,5	4,5	4	3	3/8"	3/8"	52	158,5	13	30	3/8"	4,5	8	–	23	30	45	22
V53	6	157	120	29	4,5	73	46,5	7	4	3	1/2"	1/2"	58	170	72	28	1/2"	4,2	8	4,5	23	30	51	22

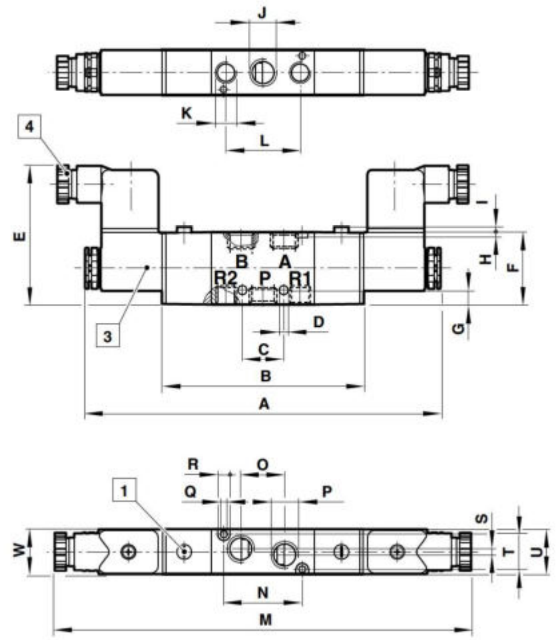
7

5/2 Double solenoid pilot valve, 1/8" port



8

5/2 Double solenoid pilot valve, 1/4"… 1/2" ports



1 Manual override (Push and Turn)
2 Gland size Pg 7
3 Solenoid rotates 2 x 180° (V50), 4 x 90° (V51 … V53)
4 Gland size Pg 9

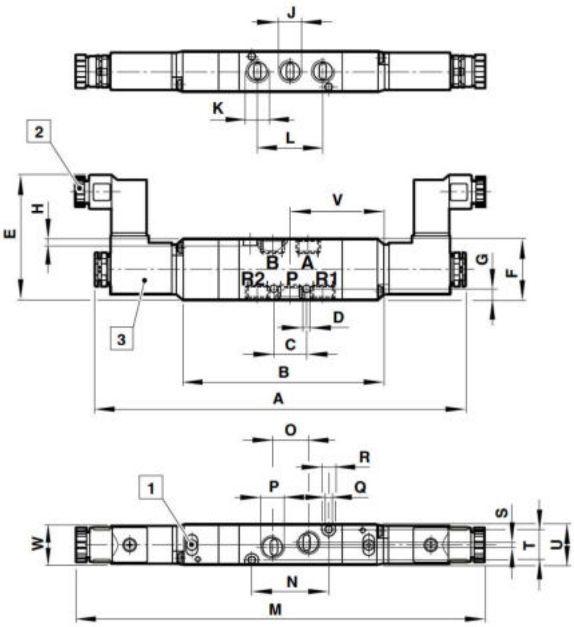
Series	Dimension No.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	W
V50	7	155	87	14,5	3,2	55	27	5	3	–	1/8"	1/8"	29	172	34	16	1/8"	3,2	6	2	13	18	16
V51	8	173	98	20	4,2	67	35	7	3	3	1/4"	1/8"	36	200	38	21	1/4"	3,2	6	3	17	22,5	22
V52	8	201	126	26	5,5	73	46,5	4,5	4	3	3/8"	3/8"	52	228	13	30	3/8"	4,5	8	–	23	30	22
V53	8	212	138	29	4,5	73	46,5	7	4	3	1/2"	1/2"	58	238	72	28	1/2"	4,2	8	4,5	23	30	22

IN-LINE VALVES

V50 … V53 3/2, 5/2 or 5/3, G1/8 … G1/2

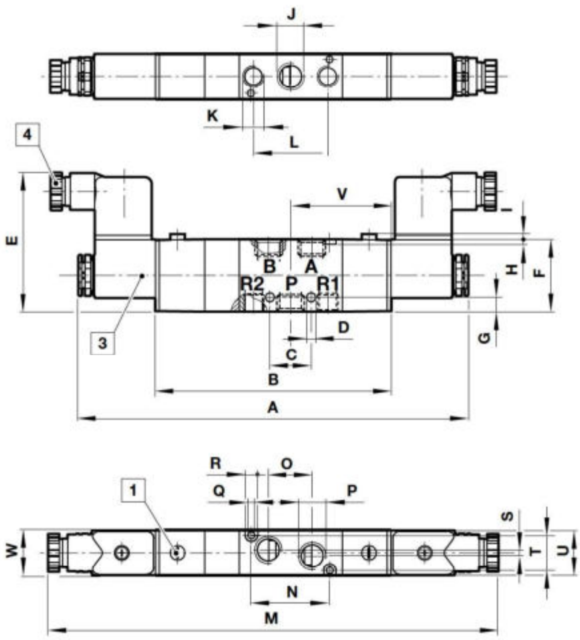
9

5/3 Double solenoid pilot valve, 1/8" port



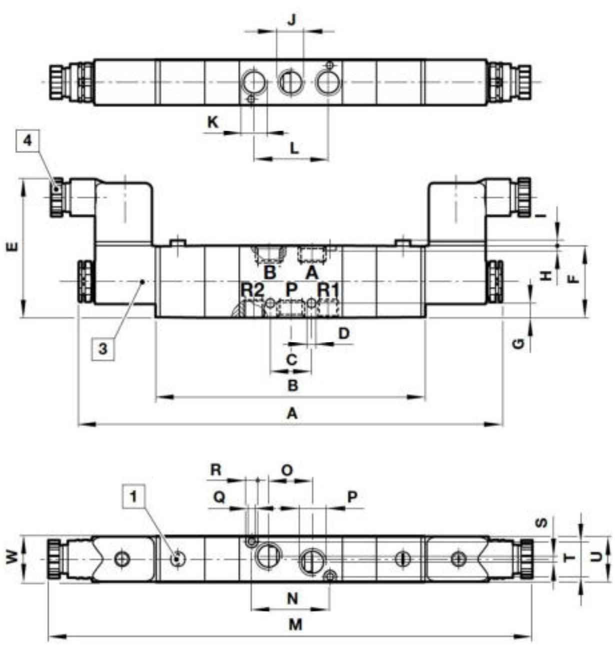
10

5/3 Double solenoid pilot valve, 1/4" port



11

5/3 Double solenoid pilot valve, 3/8"and 1/2" ports

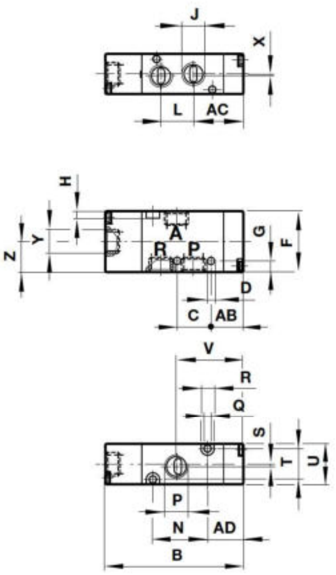


1 Manual override (Push and Turn)
2 Gland size Pg 7
3 Solenoid rotates 2 x 180° (V50), 4 x 90° (V51 … V53)
4 Gland size Pg 9

Series	Dimension No.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
V50	9	164	96	14,5	3,2	55	27	5	3	–	1/8"	1/8"	29	181	34	16	1/8"	3,2	6	2	13	18	43,5	16
V51	10	194	119	20	4,2	67	35	7	3	3	1/4"	1/8"	36	221	38	21	1/4"	3,2	6	3	17	22,5	48,5	22
V52	11	254,5	179,5	26	5,5	73	46,5	4,5	4	3	3/8"	3/8"	52	281,5	13	30	3/8"	4,5	8	–	23	30	–	22
V53	11	265,5	191,5	29	4,5	73	46,5	7	4	3	1/2"	1/2"	58	291,5	72	28	1/2"	4,2	8	4,5	23	30	–	22

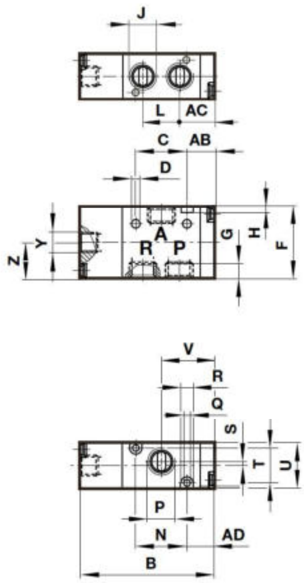
12

3/2 Single air pilot valve, 1/8" port
Air spring return



13

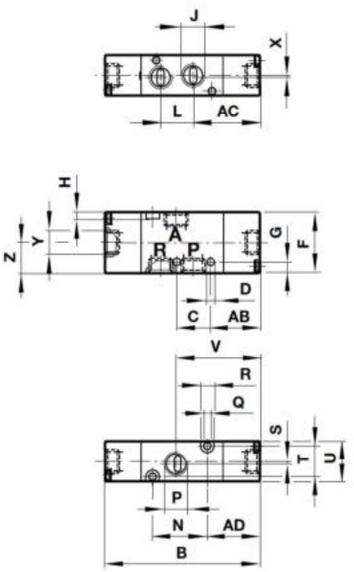
3/2 Single air pilot valve, 1/4"… 1/2" ports
Spring return



Series	Dimension No.	AB	AC	AD	B	C	D	F	G	H	J	L	N	P	Q	R	S	T	U	V	X	Y	Z
V50	12	13,5	21,5	15,5	61,5	15	3,2	27	5	3	1/8"	14,5	23	1/8"	3,2	6	1	13	18	29,5	0,5	1/8"	13,5
V51	13	13,5	17	13,5	65,5	25	4,2	35	8,5	3	1/4"	18	25	1/4"	3,2	6	2	17	22,5	26	–	1/8"	17,5
V52	13	13	26	15	87	26	4,5	46,5	39,5	4	3/8"	26	41	3/8"	4,5	8	–	23	30	41	–	1/8"	17
V53	13	12,5	27	15	94	29	4,5	46,5	39,5	4	1/2"	29	48	1/2"	4,2	8	2,5	23	30	40,5	–	1/8"	17

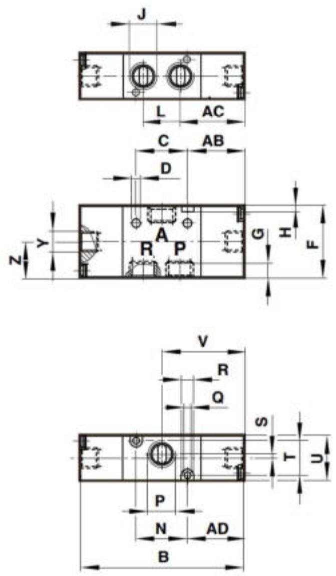
14

3/2 Double air pilot valve, 1/8" port



15

3/2 Double air pilot valve, 1/4"… 1/2" ports



Series	Dimension No.	AB	AC	AD	B	C	D	F	G	H	J	L	N	P	Q	R	S	T	U	V	X	Y	Z
V50	14	13,5	21,5	15,5	69	15	3,2	27	5	3	1/8"	14,5	23	1/8"	3,2	6	1	13	18	29,5	0,5	1/8"	13,5
V51	15	13,5	17	13,5	79	25	4,2	35	8,5	3	1/4"	18	25	1/4"	3,2	6	2	17	22,5	26	–	1/8"	17,5
V52	15	13	26	15	103	26	4,5	46,5	39,5	4	3/8"	26	41	3/8"	4,5	8	–	23	30	41	–	1/8"	17
V53	15	12,5	27	15	110	29	4,5	46,5	39,5	4	1/2"	29	48	1/2"	4,2	8	2,5	23	30	40,5	–	1/8"	17

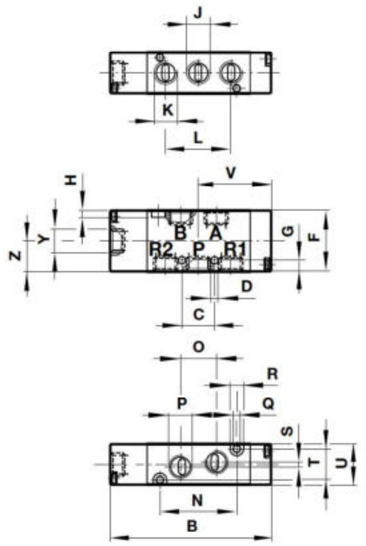
IN-LINE VALVES

V50 … V53 3/2, 5/2 or 5/3, G1/8 … G1/2

16

5/2 Single air pilot valve, 1/8" port

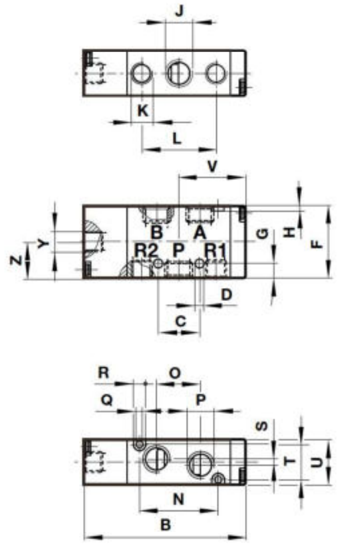
Air spring return



17

5/2 Single air pilot valve, 1/4"… 1/2" ports

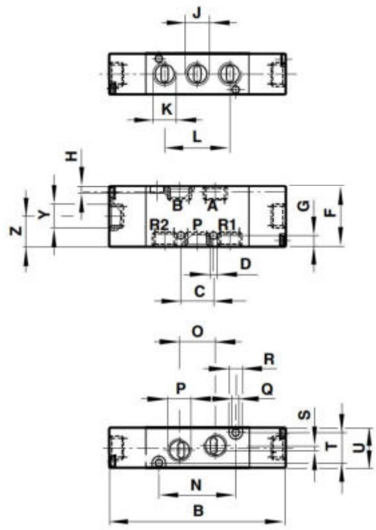
Spring return



Series	Dimension No.	B	C	D	F	G	H	J	K	L	N	L	O	P	Q	R	S	T	U	V	Y	Z	Z
V50	16	72,5	14,5	3,2	27	5	3	1/8"	1/8"	29	34	14,5	16	1/8"	3,2	6	2	13	18	32,5	1/8"	13,5	13,5
V51	17	77,5	20	4,2	35	7	3	1/4"	1/8"	36	38	18	21	1/4"	3,2	6	3	17	22,5	32	1/8"	17,5	17,5
V52	17	106	26	5,5	46,5	4,5	4	3/8"	3/8"	52	13	26	30	3/8"	4,5	8	–	23	30	45	1/8"	17	17
V53	17	118	29	4,5	46,5	7	4	1/2"	1/2"	58	72	29	28	1/2"	4,2	8	4,5	23	30	51	1/8"	17	17

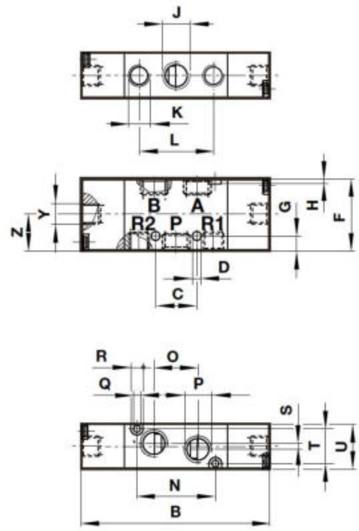
18

5/2 Double air pilot valve, 1/8" port



19

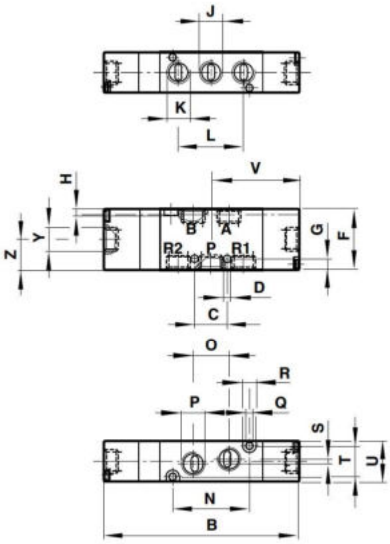
5/2 Double air pilot valve, 1/4"… 1/2" ports



Series	Dimension No.	B	C	D	F	G	H	J	K	L	N	O	P	Q	R	S	T	U	Y	Z
V50	18	80	14,5	3,2	27	5	3	1/8"	1/8"	29	34	16	1/8"	3,2	6	2	13	18	1/8"	13,5
V51	19	91	20	4,2	35	7	3	1/4"	1/8"	36	38	21	1/4"	3,2	6	3	17	22,5	1/8"	17,5
V52	19	122	26	5,5	46,5	4,5	4	3/8"	3/8"	52	13	30	3/8"	4,5	8	–	23	30	1/8"	17
V53	19	134	29	4,5	46,5	7	4	1/2"	1/2"	58	72	28	1/2"	4,2	8	4,5	23	30	1/8"	17

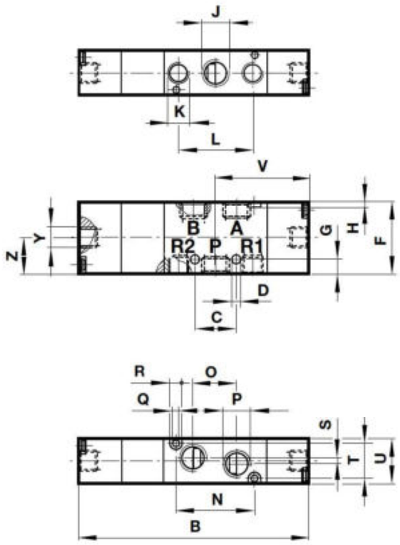
20

5/3 Double air pilot valve, 1/8" port



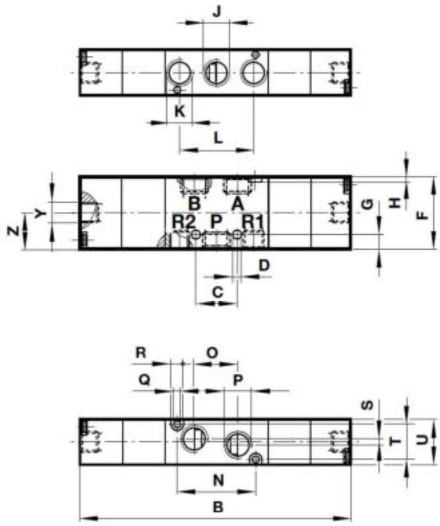
21

5/3 Double air pilot valve, 1/4" port



22

5/3 Double air pilot valve, 3/8"and 1/2" ports



Series	Dimension No.	B	C	D	F	G	H	J	K	L	N	O	P	Q	R	S	T	U	V	Y	Z
V50	20	89	14,5	3,2	27	5	3	1/8	1/8"	29	34	16	1/8"	3,2	6	2	13	18	40	1/8"	13,5
V51	21	112	20	4,2	35	7	3	1/4	1/8"	36	38	21	1/4"	3,2	6	3	17	22,5	45,5	1/8"	17,5
V52	22	175,5	26	5,5	46,5	4,5	4	3/8	3/8"	52	13	30	3/8"	4,5	8	–	23	30	87,5	1/8"	17
V53	22	187,5	29	4,5	46,5	7	4	1/2	1/2"	58	72	28	1/2"	4,2	8	4,5	23	30	93,5	1/8"	17

SOLENOID ACTUATED SPOOL VALVES

VCB22 In-line: M5, 1/8 … 1/2 (ISO G), NAMUR: 1/4, 3/8 (ISO G)

- High flow rate
- Connector with LED light as standard
- Maintenance-free
- Sub-base system for easy assembly
- NAMUR option available

Technical Data

Medium:
Compressed air, filtered to 40 µm lubricated or non lubricated

Operation:
Solenoid

Operating pressure:
1,5 … 8 bar

Flow:
245 … 3350 l/min at inlet pressure 6 bar with 1 bar drop

Mounting position:
Optional, prefered horizontal

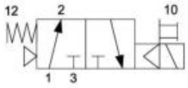
Ambient temperature:
-5°C … +70°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F)

Materials

Housing and sub-bases: Aluminium
Blanking plate: Zinc plated
Spool: Aluminium
Seals: NBR
Screws: Nickel plated steel
Springs: Stainless steel
Manual override:
Metal (M5, G1/8), Plastic (G1/4 … 1/2)

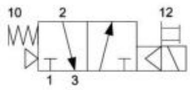
EXPRESS

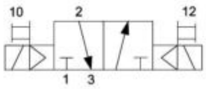
Models - 3/2 directional control valves, Normally Open (NO)



Symbol	Model	Port Size	Actuation	Fluid/Ambient (°C)	Pilot Supply	Flow (l/min)	Operating pressure (bar)	Weight (kg)
	VCB22A317D-C52***	M5	Solenoid/spring	-5 … +70	Internal	245	1,5 … 8	0.13
	VCB22A317D-CA2***	G1/8	Solenoid/spring	-5 … +70	Internal	600	1,5 … 8	0.13
	VCB22B317A-AB2***	G1/4	Solenoid/spring	-5 … +70	Internal	1050	1,5 … 8	0.2
	VCB22C317A-AC2***	G3/8	Solenoid/spring	-5 … +70	Internal	1500	1,5 … 8	0.27

Models - 3/2 directional control valves, Normally Closed (NC)



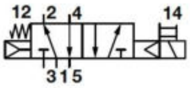
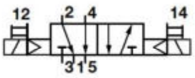


Symbol	Model	Port Size	Actuation	Fluid/Ambient (°C)	Pilot Supply	Flow (l/min)	Operating pressure (bar)	Weight (kg)
	VCB22A417D-C52***	M5	Solenoid/spring	-5 … +70	Internal	245	1,5 … 8	0.13
	VCB22A417D-CA2***	G1/8	Solenoid/spring	-5 … +70	Internal	600	1,5 … 8	0.13
	VCB22B417A-AB2***	G1/4	Solenoid/spring	-5 … +70	Internal	1050	1,5 … 8	0.2
	VCB22C417A-AC2***	G3/8	Solenoid/spring	-5 … +70	Internal	1800	1,5 … 8	0.27
	VCB22A411D-C52***	M5	Solenoid/solenoid	-5 … +70	Internal	245	1,5 … 8	0.18
	VCB22A411D-CA2***	G1/8	Solenoid/solenoid	-5 … +70	Internal	600	1,5 … 8	0.18
	VCB22B411A-AB2***	G1/4	Solenoid/solenoid	-5 … +70	Internal	1050	1,5 … 8	0.3
	VCB22C411A-AC2***	G3/8	Solenoid/solenoid	-5 … +70	Internal	1800	1,5 … 8	0.32

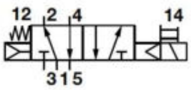
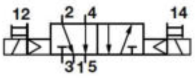
* 3/2 NAMUR function can be achieved by applying conversion plate on 5/2 NAMUR valve.

* NC = Normally Closed, NO = Normally Open

Models - 5/2 directional control valves, in-line version

Symbol	Model	Port Size	Actuation	Fluid/Ambient (°C)	Pilot Supply	Flow (l/min)	Operating pressure (bar)	Weight (kg)
	VCB22A517D-C52***	M5	Solenoid/spring	0 … +70	Internal	245	1,5 … 8	0.13
	VCB22A517D-CA2***	G1/8	Solenoid/spring	0 … +70	Internal	600	1,5 … 8	0.13
	VCB22B517A-AB2***	G1/4	Solenoid/spring	-5 … +70	Internal	1050	1,5 … 8	0.2
	VCB22C517A-AC2***	G3/8	Solenoid/spring	-5 … +70	Internal	1800	1,5 … 8	0.28
	VCB22D517A-AD2***	G1/2	Solenoid/spring	-5 … +70	Internal	3350	1,5 … 8	0.5
	VCB22A511D-C52***	M5	Solenoid/solenoid	0 … +70	Internal	245	1,5 … 8	0.19
	VCB22A511D-CA2***	G1/8	Solenoid/solenoid	0 … +70	Internal	600	1,5 … 8	0.19
	VCB22B511A-AB2***	G1/4	Solenoid/solenoid	-5 … +70	Internal	1050	1,5 … 8	0.31
	VCB22C511A-AC2***	G3/8	Solenoid/solenoid	-5 … +70	Internal	1800	1,5 … 8	0.39
	VCB22D511A-AD2***	G1/2	Solenoid/solenoid	-5 … +70	Internal	3350	1,5 … 8	0.62

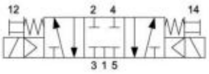
Models - 5/2 directional control valves, NAMUR version

Symbol	Model	Port Size	Actuation	Fluid/Ambient (°C)	Pilot Supply	Flow (l/min)	Operating pressure (bar)	Weight (kg)
	VCB22B517A-AE2***	G1/4	Solenoid/spring	0 … +70	Internal	1050	1,5 … 8	0,29
	VCB22C517A-AF2***	G3/8	Solenoid/spring	0 … +70	Internal	1800	1,5 … 8	0,29
	VCB22B511A-AE2***	G1/4	Solenoid/solenoid	-5 … +70	Internal	1050	1,5 … 8	0,39
	VCB22C511A-AF2***	G3/8	Solenoid/solenoid	-5 … +70	Internal	1800	1,5 … 8	0,39

SOLENOID ACTUATED SPOOL VALVES

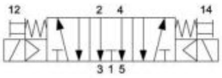
VCB22 In-line: M5, 1/8 … 1/2 (ISO G), NAMUR: 1/4, 3/8 (ISO G)

● Models - 5/3 directional control valves, All Ports Blocked (APB)



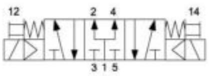
Symbol	Model	Port Size	Actuation	Fluid/Ambient (°C)	Pilot Supply	Flow (l/min)	Operating pressure (bar)	Weight (kg)
	VCB22A611D-C52***	M5	Solenoid/solenoid	-5 … +70	Internal	240	1,5 … 8	0.21
	VCB22A611D-CA2***	G1/8	Solenoid/solenoid	-5 … +70	Internal	470	1,5 … 8	0.21
	VCB22B611A-AB2***	G1/4	Solenoid/solenoid	-5 … +70	Internal	700	1,5 … 8	0.36
	VCB22C611A-AC2***	G3/8	Solenoid/solenoid	-5 … +70	Internal	1200	1,5 … 8	0.46

● Models - 5/3 directional control valves, Centre Open Exhaust (COE)



Symbol	Model	Port Size	Actuation	Fluid/Ambient (°C)	Pilot Supply	Flow (l/min)	Operating pressure (bar)	Weight (kg)
	VCB22A711D-C52***	M5	Solenoid/solenoid	-5 … +70	Internal	240	1,5 … 8	0.21
	VCB22A711D-CA2***	G1/8	Solenoid/solenoid	-5 … +70	Internal	470	1,5 … 8	0.21
	VCB22B711A-AB2***	G1/4	Solenoid/solenoid	-5 … +70	Internal	1050	1,5 … 8	0.36
	VCB22C711A-AC2***	G3/8	Solenoid/solenoid	-5 … +70	Internal	1200	1,5 … 8	0.46

● Models - 5/3 directional control valves, Centre Open Exhaust (COE)



Symbol	Model	Port Size	Actuation	Fluid/Ambient (°C)	Pilot Supply	Flow (l/min)	Operating pressure (bar)	Weight (kg)
	VCB22A811D-C52***	M5	Solenoid/solenoid	-5 … +70	Internal	240	1,5 … 8	0.21
	VCB22A811D-CA2***	G1/8	Solenoid/solenoid	-5 … +70	Internal	470	1,5 … 8	0.21
	VCB22B811A-AB2***	G1/4	Solenoid/solenoid	-5 … +70	Internal	700	1,5 … 8	0.36
	VCB22C811A-AC2***	G3/8	Solenoid/solenoid	-5 … +70	Internal	1200	1,5 … 8	0.46
	VCB22D811A-AD2***	G1/2	Solenoid/solenoid	-5 … +70	Internal	3500	1,5 … 8	0.71

Sub-bases and accessories

Series	Sub-bases for 1 … 17 stations *2)	Blanking plate	Sub-base for 3/2 way valves *2)	Blanking plate 3/2 way subbase	NAMUR conversion plate
					
VCB22A	VCB22A**	VCB22A0551	VCB22A/3**	VCB22A0351	–
VCB22B	VCB22B**	VCB22B0551	VCB22B/3**	VCB22B0351	–
VCB22C	VCB22C**	VCB22C0551	VCB22C/3**	VCB22C0351	VCB22C-Z01
VCB22D	VCB22D**	VCB22D0551	VCB22D/3**	VCB22D0351	–

*2) Insert station code after model numbers**: 01 … 17.

Coil connector

15 mm DIN EN 175301-803 (DIN43650) Form C	22 mm DIN EN 175301-803 (DIN43650) Form B	22 mm industrial standard
		
VCB22-13A 24 V d.c.	VCB22-13L 24 V d.c.	M/P24121/1 24 V a.c./d.c.
–	–	M/P24121/2 90 - 130 V a.c.
VCB22-19A 220 V a.c.	VCB22-19C 220 V a.c.	M/P24121/3 150 - 250 V a.c.

15 mm coil	Voltage	Power Inrush/hold	Code
	24 V.d.c	2,8 W	13A
	220 V a.c.	2,5 VA	19A

22 mm coil	Voltage	Power Inrush/hold	Code
	24 V d.c.	3 W	13L
	24 V d.c.	2 W	13J
	24 V a.c.	4/2.5 VA	14J
	110 V a.c.	4/2.5 VA	18J
	220 V a.c.	3,5 VA	19L
	240 V a.c.	6/5.0 VA	19J

Electrical details for solenoid operators

Voltage tolerance	± 10%
Rating	100% continuous duty
Electrical connection (corresponding to choosen coil)	DIN 43650
Solenoid	2 x 180° for M5 and G1/8, 4 x 90° for G1/4 … 1/2
Manual override	Push and turn to lock
Protection class	IP 65

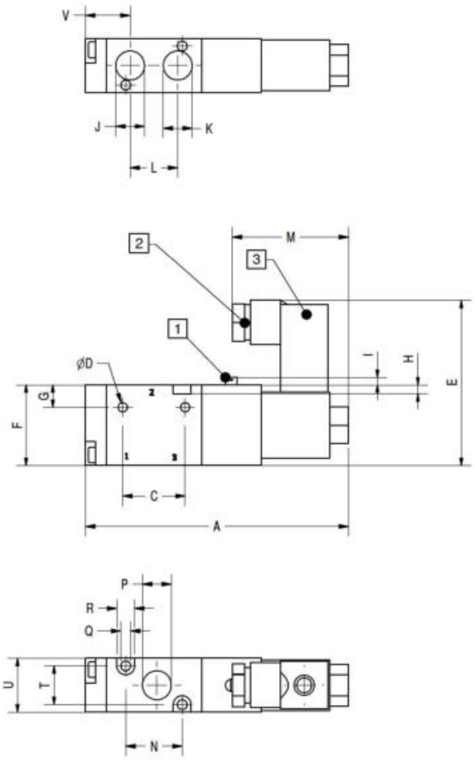
SOLENOID ACTUATED SPOOL VALVES

VCB22 In-line: M5, 1/8 … 1/2 (ISO G), NAMUR: 1/4, 3/8 (ISO G)

Dimensions

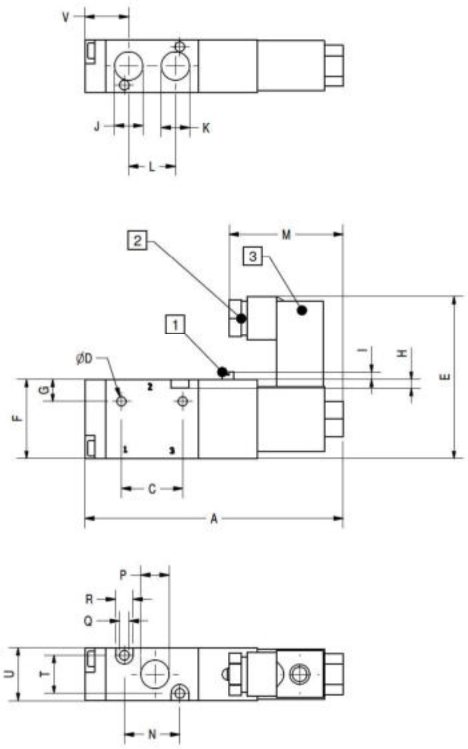
1

3/2 single solenoid valve spring return



2

3/2 double solenoid valve



1 Manual override (Push & turn to lock)
2 Gland Size Pg 9
3 2 x 180° for M5 and G1/8
4 x 90° for G1/4 and 1/2

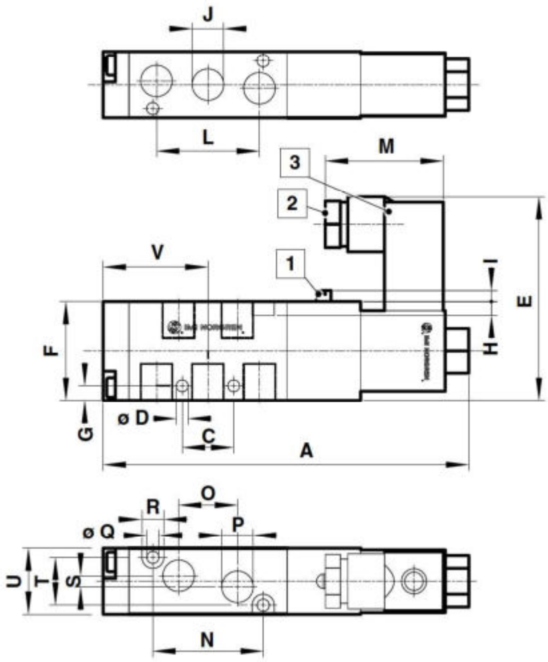
No.	A	C	Ø D	E	F	G	H	I	J	K	L	M	N	O	P	Ø Q	R	S	T	U	V	Model
1	88	21	3.2	54	27	7.5	3	2.5	M5	M5	16	39	19	–	M5	3.3	6	–	13	18	–	VCB22A317D-C52*** VCB22A417D-C52***
1	88	21	3.2	54	27	7.5	3	2.5	G1/8	G1/8	16	39	19	–	G1/8	3.3	6	–	13	18	–	VCB22A317D-CA2*** VCB22A417D-CA2***
1	110	25	4.3	67	35	8.2	3	5	G1/4	G1/4	22.5	55	30	–	G1/4	3.3	6	–	17	22	–	VCB22B317A-AB2*** VCB22B417A-AB2***
1	118	30	4.3	70	40	10.5	3	5	G3/8	G3/8	24	55	35	–	G3/8	4.3	8	–	20	27	–	VCB22C317A-AC2*** VCB22C417A-AC2***
2	131	21	3.2	54	27	7.5	3	2.5	M5	M5	16	39	19	–	M5	3.3	6	–	13	18	–	VCB22A411D-C52***
2	131	21	3.2	54	27	7.5	3	2.5	G1/8	G1/8	16	39	19	–	G1/8	3.3	6	–	13	18	–	VCB22A411D-CA2***
2	165	25	4.3	67	35	8.2	3	5	G1/4	G1/4	22.5	55	30	–	G1/4	3.3	6	–	17	22	–	VCB22B411A-AB2***
2	173	14	4.3	70	40	10,5	4	5	G3/8	G3/8	24	55	35	–	G3/8	4.3	8	–	20	27	–	VCB22C411A-AC2***

SOLENOID ACTUATED SPOOL VALVES

VCB22 In-line: M5, 1/8 … 1/2 (ISO G), NAMUR: 1/4, 3/8 (ISO G)

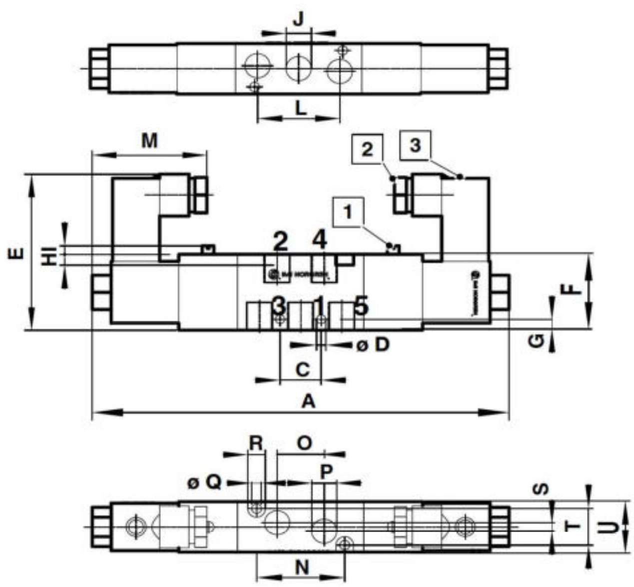
3

5/2 single solenoid valve, spring return



4

5/2 Double solenoid valve



1 Manual override (Push & turn to lock)
2 Gland Size Pg 9
3 2 x 180° for M5 and G1/8
4 x 90° for G1/4 and 1/2

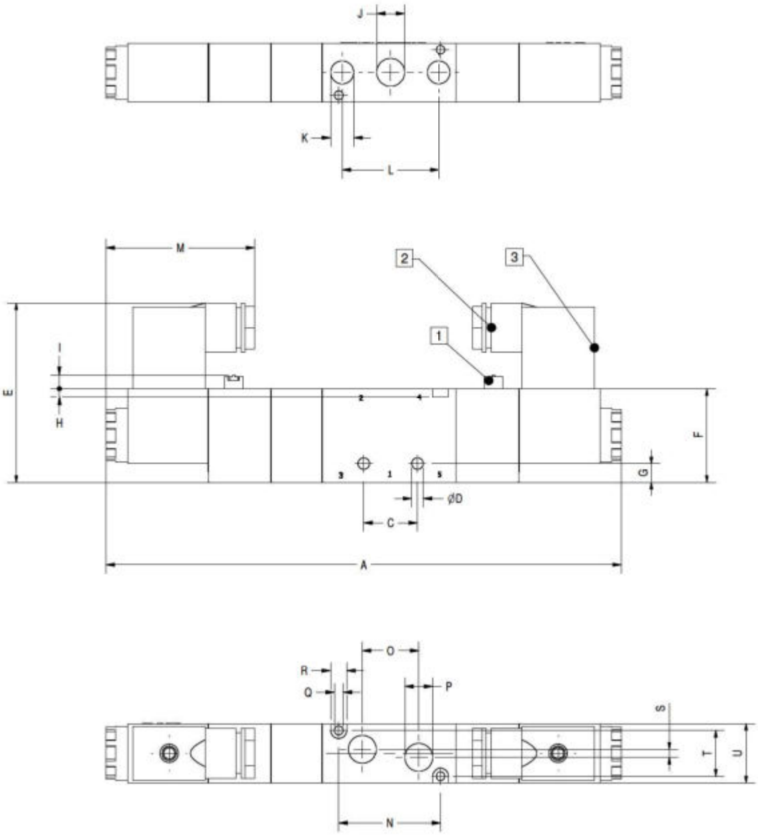
No.	A	C	ØD	E	F	G	H	I	J	K	L	M	N	O	P	ØQ	R	S	T	U	V	Model
3	99	14	3,2	54	27	4	3	2,5	M5	–	27,1	39	30	13,9	M5	3,3	6	–	13	18	28.5	VCB22A517D-C52***
3	99	14	3,2	54	27	4	3	2,5	G1/8	–	28	39	30	16	G1/8	3,3	6	3	13	18	28.5	VCB22A517D-CA2***
3	118	20	4.3	67	35	7	3	5	G1/4	G1/8	36	55	38	21	G1/4	3.3	6	3	17	22	32	VCB22B517A-AB2***
3	135	24	4.3	70	40	6.5	4	5	G3/8	G1/4	45	55	50	24	G3/8	4.3	8	4	20	27	40	VCB22C517A-AC2***
3	170	28	5.5	74	50	7.5	4	5	G1/2	G1/2	63	55	72	36	G1/2	4.3	8	4	27	34	58	VCB22D517A-AD2***
4	142	14	3,2	54	27	4	3	2,5	M5	–	27,1	39	30	13,9	M5	3,3	6	–	13	18	–	VCB22A511D-C52***
4	142	14	3,2	54	27	4	3	2,5	G1/8	–	28	39	30	16	G1/8	3,3	6	3	13	18	–	VCB22A511D-CA2***
4	117	20	4.3	67	35	7	3	5	G1/4	G1/8	36	55	38	21	G1/4	3,3	6	3	17	22	–	VCB22B511A-AB2***
4	190	24	4.3	70	40	6.5	4	5	G3/8	G1/4	45	55	50	24	G3/8	4.3	8	4	20	27	–	VCB22C511A-AC2***
4	225	28	5.5	74	50	7.5	4	5	G1/2	G1/2	63	55	72	36	G1/2	4.3	8	4	27	34	–	VCB22D511A-AD2***

SOLENOID ACTUATED SPOOL VALVES

VCB22 In-line: M5, 1/8 … 1/2 (ISO G), NAMUR: 1/4, 3/8 (ISO G)

5

5/3 Double solenoid valve

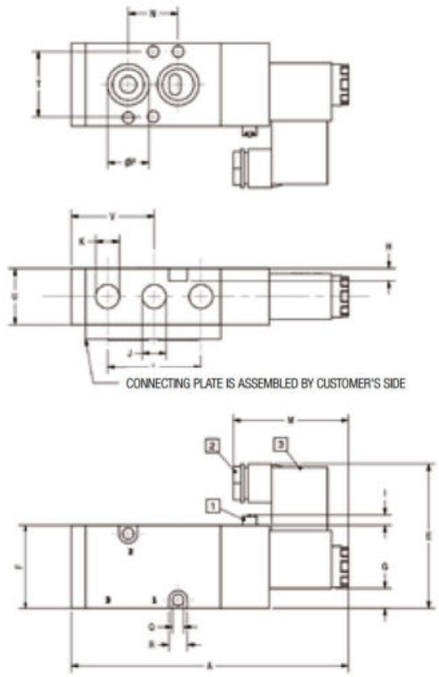


1 Manual override (Push & turn to lock)
2 Gland Size Pg 9
3 2 x 180° for M5 and G1/8
4 x 90° for G1/4 and 1/2

No.	A	C	Ø D	E	F	G	H	I	J	K	L	M	N	O	P	Ø Q	R	S	T	U	V	Model
5	157	14	3.2	54	27	4	3	2.5	M5	M5	27.1	39	30	13.9	M5	3.3	6	–	13	18	–	VCB22A611D-C52*** VCB22A711D-C52*** VCB22A811D-C52***
5	157	14	3.2	54	27	4	3	2.5	G1/8	G1/8	29.1	39	30	13.9	G1/8	3.3	6	–	13	18	–	VCB22A611D-CA2*** VCB22A711D-CA2*** VCB22A811D-CA2***
5	192	20	4.3	67	35	7	3	5	G1/4	G1/4	36	55	38	21	G1/4	3.3	6	3	17	22	–	VCB22B611A-AB2*** VCB22B711A-AB2*** VCB22B811A-AB2***
5	207	24	4.3	70	40	6.5	4	5	G3/8	G3/8	45	55	50	24	G3/8	4.3	8	4	20	27	–	VCB22C611A-AC2*** VCB22C711A-AC2*** VCB22C811A-AC2***
5	248	28	5.5	74	50	7.5	4	5	G1/2	G1/2	63	55	72	36	G1/2	4.3	8	4	27	34	–	VCB22D611A-AD2*** VCB22D711A-AD2*** VCB22D811A-AD2***

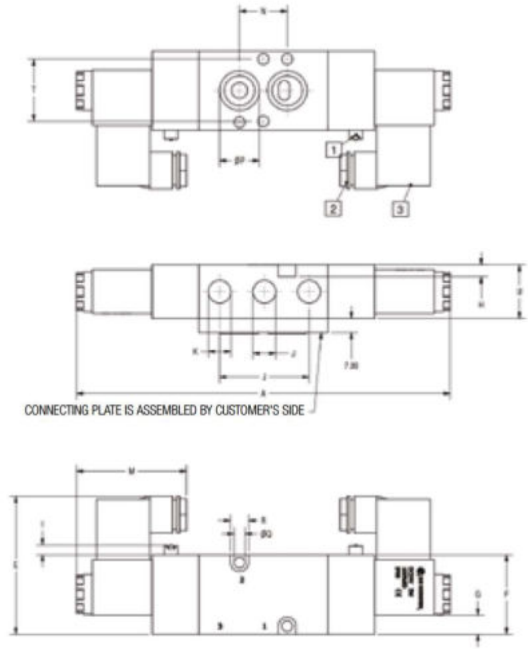
6

5/2 & 3/2 single solenoid valve, NAMUR



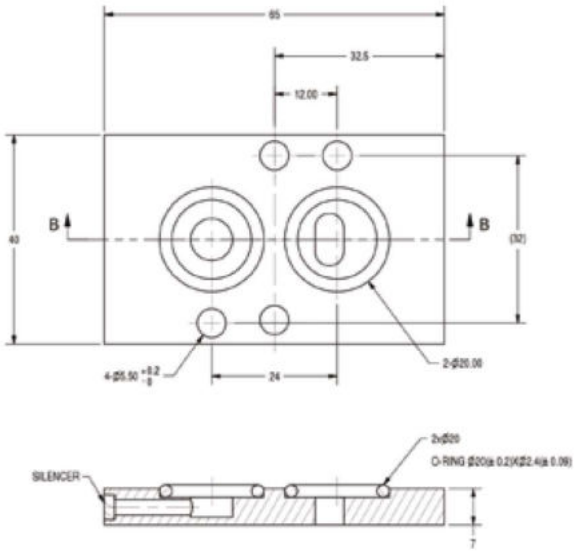
7

5/2 & 3/2 double solenoid valve, NAMUR



8

Conversion plate



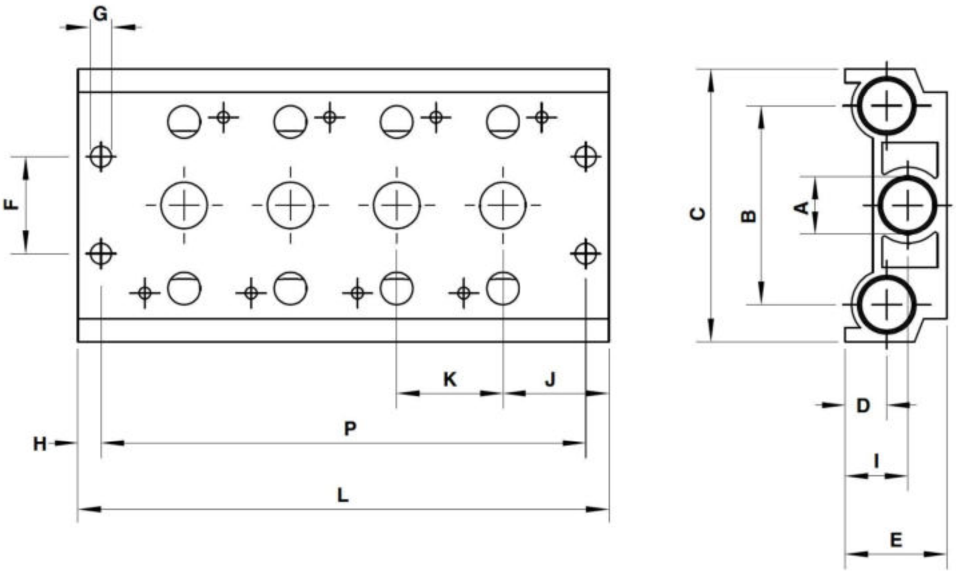
1 Manual override (Push & turn to lock)
2 Gland Size Pg 9
3 2 x 180° for M5 and G1/8
4 x 90° for G1/4 and 1/2

No.	A	C	D	E	F	G	H	I	J	K	L	M	N	O	ØP	ØQ	R	S	T	U	V	Model
6	135	–	–	70	40	9.5	6	5	G1/4	–	45	55	24	–	20	5.5	9	–	32	27	40	VCB22C517A-AE2***
6	135	–	–	70	40	9.5	6	5	G3/8	G1/4	45	55	24	–	20	5.5	9	–	32	27	40	VCB22C517A-AF2***
7	190	–	–	70	40	9.5	6	5	G1/4	–	45	55	24	–	20	5.5	9	–	32	27	–	VCB22C511A-AE2***
7	190	–	–	70	40	9.5	6	5	G3/8	G1/4	45	55	24	–	20	5.5	9	–	32	27	–	VCB22C511A-AF2***

* 3/2 NAMUR function can be achieved by applying conversion plate on 5/2 NAMUR valve. Conversion plate drawing number is 8.

SOLENOID ACTUATED SPOOL VALVES
VCB22 In-line: M5, 1/8 … 1/2 (ISO G), NAMUR: 1/4, 3/8 (ISO G)

9

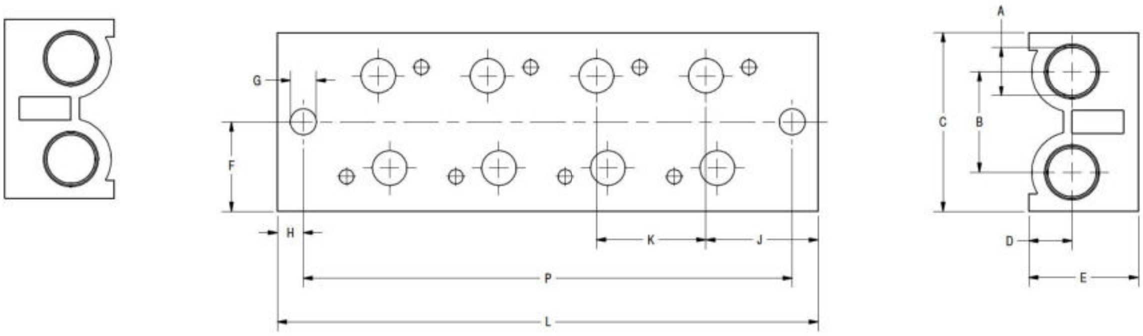


1 Manual override (Push & turn to lock)
2 Gland Size Pg 9
3 2 x 180° for M5 and G1/8
4 x 90° for G1/4 and 1/2

No.	A	B	C	D	E	F	Ø G	H	I	J	K	L	P	Model
9	M5	40	56,5	9	22	20	4,5	5	13,5	19	19	19+(N x 19)	9+(N x 19)	VCB22A**
9	G1/8	40	56,5	9	22	20	4,5	5	13,5	19	19	19+(N x 19)	9+(N x 19)	VCB22A**
9	G1/4	43	59	9	22	21	4,5	6	13,5	23	23	19+(N x 23)	9+(N x 23)	VCB22B**
9	G3/8	53	73	11,7	27	26	4,5	6	17	27	28	19+(N x 28)	9+(N x 28)	VCB22C**
9	G1/2	70	98	16,5	36	32	5,5	7	24	31,5	35	19+(N x 35)	9+(N x 35)	VCB22D**

10

3/2 Sub-base



1 Manual override (Push & turn to lock)
2 Gland Size Pg 9
3 2 x 180° for M5 and G1/8
4 x 90° for G1/4 and 1/2

No.	A	B	C	D	E	F	Ø G	H	J	K	L	P	Model
10	1/8	17.5	31	6	19	15.5	4.5	4.5	19.5	19	18+(N x 19)	9+(N x 19)	VCB22A/3**
10	1/4	23	45	8.5	22.5	22.5	4.5	6	23	23	23+(N x 23)	11+(N x 23)	VCB22B/3**
10	3/8	29	50	12	28	25	4.5	6	27	28	26+(N x 28)	14+(N x 28)	VCB22C/3**
10	1/2	35.5	62.5	16	35	31	5.5	7	31.5	32	28+(N x 35)	14+(N x 35)	VCB22D/3**

SOLENOID ACTUATED SPOOL VALVES

VCB10 In-line: G1/8

- Compact design for industrial automation
- High flow rate
- Connector with LED light as standard
- Robust design
- Sub-base system for easy assembly

Technical Data

Medium:
Compressed air, filtered to 40 µm lubricated or non lubricated

Operation:
Solenoid

Operating pressure:
1,5 … 7 bar

Flow:
>400 l/min at inlet pressure 6 bar (87 psi) with 1 bar (14,5 psi)

Response time:
20 m/s

Mounting:
Sub-base, through holes, threaded holes

Mounting position:
Optional, prefered horizontal

Ambient temperature:
-5°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F)

Materials

Body: Aluminium alloy
Spool: Aluminium
Seals: NBR, HNBR
Manual override: Plastic
Cap: Plastic

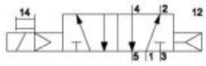
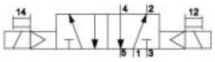
EXPRESS

Electrical details for solenoid operators

Supply voltage	24 V d.c.
Voltage tolerance	+/- 10%
Power consumption	1 W +/- 10%
Electrical connection	non-standard
Manual override	Push only
Rating	100% E.D.
Indication	LED
Protection class	IP40

SOLENOID ACTUATED SPOOL VALVES
VCB10 In-line: G1/8

Models - 5/2 directional control valves, in-line version

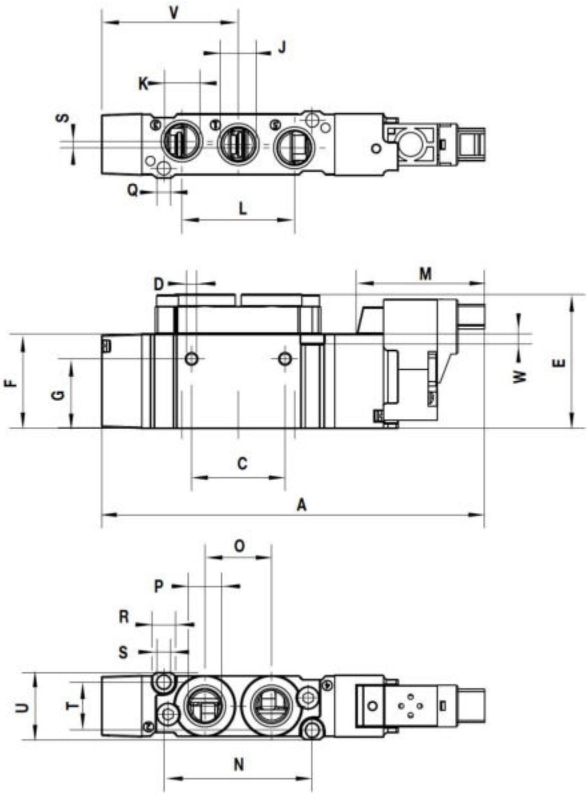
Symbol	Model	Port Size	Actuation	Ambient (°C)	Pilot Supply	Flow (l/min)	Operating pressure (bar)	Weight (kg)	Voltage
	VCB10B513A-AA313A	G1/8	Solenoid/Air Spring	-5 … +50	Built-in	>400 l/min	1.5 … 7	0.064	24 V d.c.
	VCB10B511A-AA313A	G1/8	Solenoid/Solenoid	-5 … +50	Built-in	>400 l/min	1.5 … 7	0.078	24 V d.c.

Sub-bases and accessories

Series	Subbase For 1 … 20 stations *1)	Blanking plate
		
VCB10B	VCB10B5**	VCB10B0551

*1) Insert station code after model numbers**: 01 … 20.

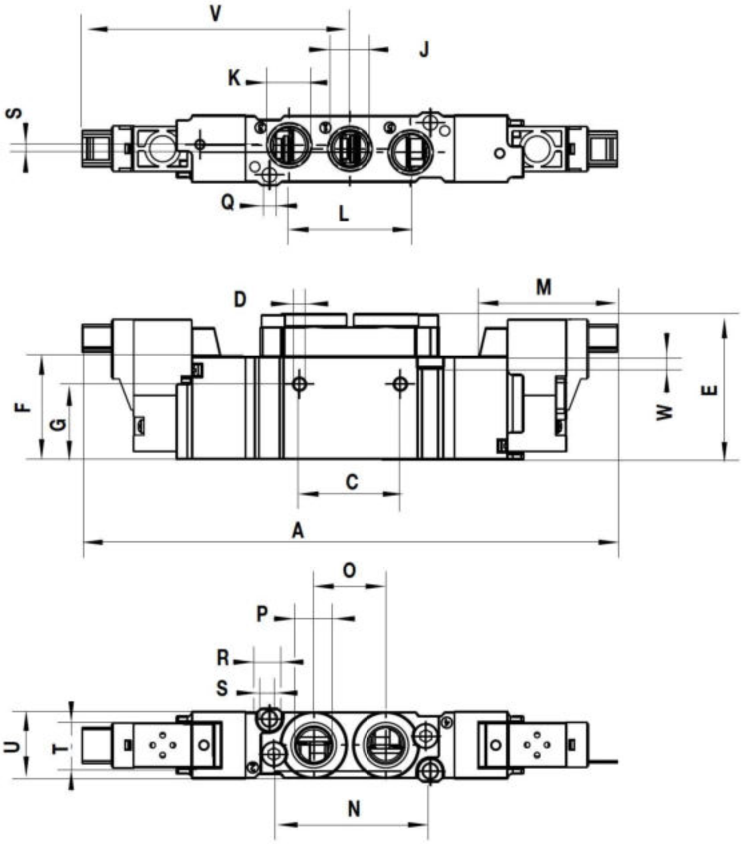
Dimensions



A	C	D	E	F	G	J	K	L	M	N	O	P	ΦQ	R	S	T	U	V	W	Model
93	22,6	M3	32,6	23	16,7	G1/8"	G1/8"	27,2	31	36	16,2	G1/8"	3,2	5,7	1,6	11,6	16,3	33	2,5	VCB10B513A-AA313A

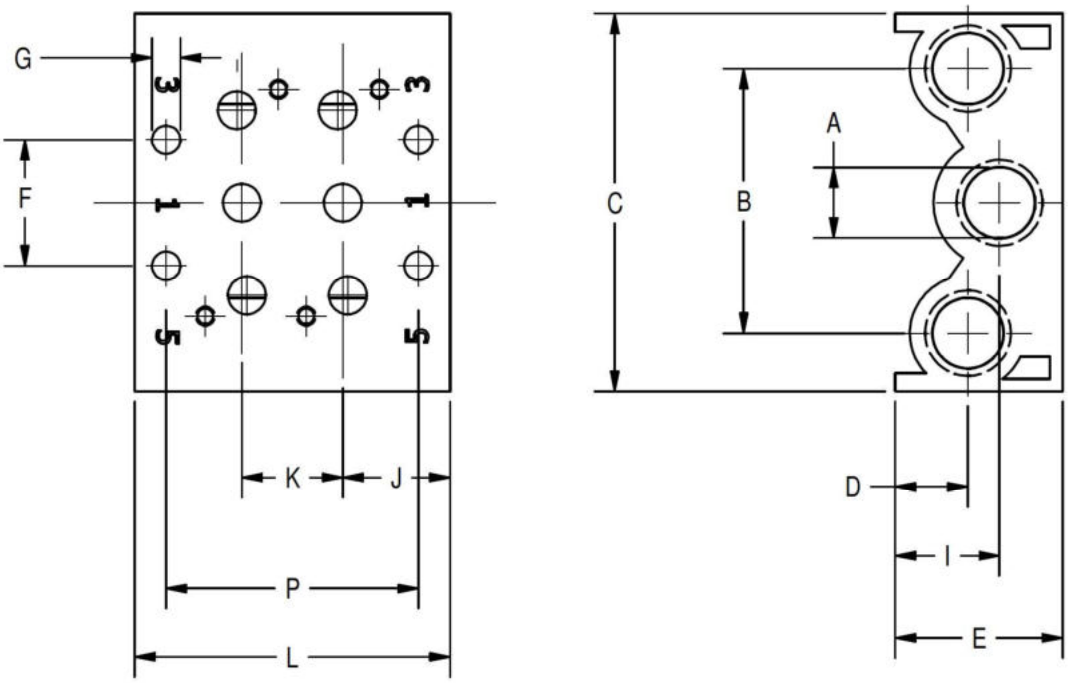
SOLENOID ACTUATED SPOOL VALVES
VCB10 In-line: G1/8

Dimensions



A	C	D	E	F	G	J	K	L	M	N	O	P	ΦQ	R	S	T	U	V	W	Model
119	22,6	M3	32,6	23	16,7	G1/8"	G1/8"	27,2	31	36	16,2	G1/8"	3,2	5,7	1,6	11,6	16,3	60	2,5	VCB10B511A-AA313A

Dimensions



A	B	C	D	E	F	Ø G	H	J	K	L	P	Model
G1/4	42	60	11.5	26.5	11.5	6.5	20	17	16	18+NX16	8+NX16	VCB10B5**

* N is number of stations (between 1 … 20).

SOLENOID ACTUATED 22 MM POPPET VALVES

Excel 22, M/49 3/2, NC, G1/8

- **In-line and sub-base mounted – compact and convenient**
- **Manual override as standard**

Technical Data

Medium:
Compressed air, filtered, lubricated or non-lubricated

Operating pressure:
0 … 10 bar

Ambient temperature:
-20°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Coil:
Glass reinforced thermo plastic

Manual override base:
Glass reinforced PA

Armature:
Stainless iron

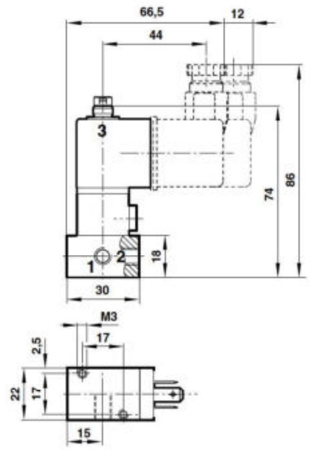
Sub-base:
Aluminium

Seals:
NBR

Tube & spring:
Stainless steel

EXPRESS

Dimensions



Models

Accessories

1mm Orifice low power Model	Actuation	Port size	Flow (l/min)	Operating pressure (bar)	Mounting	Straight fitting	Elbow fitting	Basic plug
								
M/49/MAZ***	3/2 NC	G1/8	30	0 … 10	Single	C02250618	C02470618	M/P19063

*** Insert voltage codes from table below.
Order connector plugs separately.

Voltage codes and spare coils

Voltage	1,0 mm orifice (low power)		
	Code	Power	Coil
12 V d.c.	12J	2 W	QM/48/12J/21
24 V d.c.	13J	2 W	QM/48/13J/21
24 V 50/60 Hz	14J	4/2,5 VA	QM/48/14J/21
110/120 V 50/60 Hz	18J	4/2,5 VA	QM/48/18J/21
220/240 V 50/60 Hz	19J	6/5 VA	QM/48/19J/21

SOLENOID ACTUATED 32 MM POPPET VALVES

Excel 32, V04 & V05 2/2 and 3/2, NO/NC G1/8, G1/4

- In-line and sub-base mounted
- Extensive range of power and orifice size options
- Compact installation
- Removeable coil
- Standard exhaust diffuser

Technical Data

Medium:
Compressed air, filtered, lubricated and non-lubricated

Operating pressure:
Maximum 16 bar. See individual details

Ambient temperature:
-20°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Coil:
Glass reinforced PA

Armature:
Stainless iron

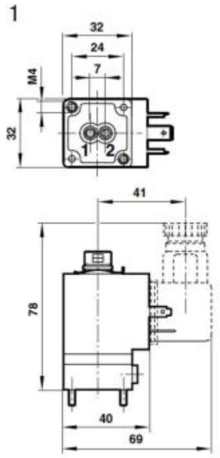
Tube & spring:
Stainless steel

Base:
Zinc alloy (G1/8) brass (G1/4), glass reinforced polyester (interface)

Seals:
NBR (FPM)

Dimensions

1



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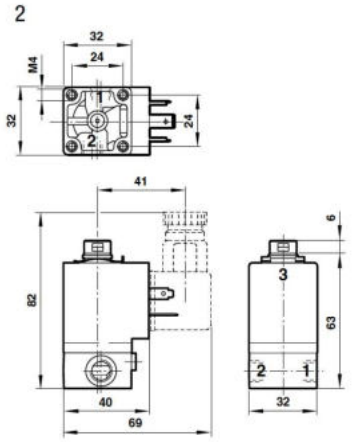

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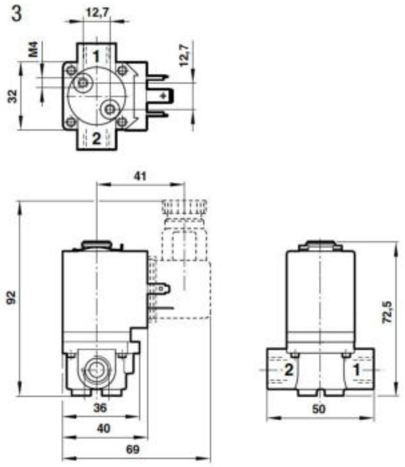


Models

Accessories

Model	Actuation	Port size	Flow (l/min)	Operating pressure (bar)	Dimension No.	Straight fitting	Elbow fitting	Basic plug
								
V05X286M-B63*A	2/2 NC	Interface	150	0 … 16	1	–	–	M/P15737
V04A286M-B62*A	2/2 NC	G1/8	190	0 … 10	2	C02250618	C02470618	M/P15737
V04B286M-B42*A	2/2 NC	G1/4	190	0 … 10	3	C02250828	C02470828	M/P15737
V05B286N-B43*A	2/2 NC	G1/4	260	0 … 13	3	C02250828	C02470828	M/P15737
V04X386L-B62*A	3/2 NO	Interface	95	0 … 10	1	–	–	M/P15737
V04A386L-B62*A	3/2 NO	G1/8	120	0 … 10	2	C02250618	C02470618	M/P15737
V04X486L-B62*A	3/2 NC	Interface	95	0 … 10	1	–	–	M/P15737
V05X486M-B63*A	3/2 NC	Interface	150	0 … 10	1	–	–	M/P15737
V04A486L-B62*A	3/2 NC	G1/8	120	0 … 10	2	C02250618	C02470618	M/P15737
V05A486M-B63*A	3/2 NC	G1/8	190	0 … 10	2	C02250618	C02470618	M/P15737

* Insert voltage codes from table below. Order connector plugs separately.

For interface valves use manifold M/P35598/#. # = number of stations from 1 … 6.
For more details, see full datasheet.

Voltage codes and spare coils

Voltage	Code	Coil	
		V04	V05
12 V d.c.	2	V04X286A-Q1222	–
24 V d.c.	3	V04X286A-Q1223	V05X286A-Q1233
110 … 120 V 50/60 Hz	8	V04X286A-Q1228	V05X286A-Q1238
220 … 240 V 50/60 Hz	9	V04X286A-Q1229	V05X286A-Q1239

INDIRECT SOLENOID ACTUATED POPPET VALVES

70300 2/2, G1/2 … G1

- High flow rate
- Variable valve solenoid combination
- Standard manual override with normally closed valves

Technical Data

Medium:
Compressed air, filtered, lubricated or non-lubricated

Operation:
Indirect solenoid operated poppet valve
(versions with external pilot port available)

Flow direction:
Fixed

Mounting position:
Any, but preferably with solenoid vertical

Ambient temperature:
-10°C … +60°C

Depending on solenoid system.

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body:
Aluminium

Inner parts:
POM

Seals:
PUR

Models - Standard version

Model *1)	Function	Port size	Orifice (mm)	Actuation/return	Pilot supply	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	Switching time (ms)
7030117	NC	G1/2	12	Solenoid/spring	Internal	3000	1 … 16	–	20
7032130	NC	G3/4	20	Solenoid/spring	Internal	8500	1 … 16	–	25
7032230	NC	G1	25	Solenoid/spring	Internal	8500	1 … 16	–	25
7032630	NO	G3/4	20	Solenoid/spring	Internal	8500	1 … 15	–	25
7032730	NO	G1	25	Solenoid/spring	Internal	8500	1 … 15	–	25
7032131	NC	G3/4	20	Solenoid/spring	External	8500	0 … 15	1 … 16	25
7032231	NC	G1	25	Solenoid/spring	External	8500	0 … 15	1 … 16	25
7032631	NO	G3/4	20	Solenoid/spring	External	8500	0 … 14	1 … 15	25
7032731	NO	G1	25	Solenoid/spring	External	8500	0 … 14	1 … 15	25

*1) When ordering please indicate solenoid, voltage and current type (frequency).

Vacuum version

Model *1)	Function	Port size	Orifice (mm)	Actuation/return	Pilot supply	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	Switching time (ms)
7030118	NC	G1/2	12	Solenoid/spring	External	3000	-1 … +6	4 … 10	20
7032132	NC	G3/4	20	Solenoid/spring	External	8500	-1 … +6	4 … 10	25
7032232	NC	G1	25	Solenoid/spring	External	8500	-1 … +6	4 … 10	25
7030709	NO	G1/2	12	Solenoid/spring	External	3000	-1 … +6	4 … 10	20
7032632	NO	G3/4	20	Solenoid/spring	External	8500	-1 … +6	4 … 10	25
7032732	NO	G1	25	Solenoid/spring	External	8500	-1 … +6	4 … 10	25

*1) When ordering please indicate solenoid, voltage and current type (frequency).

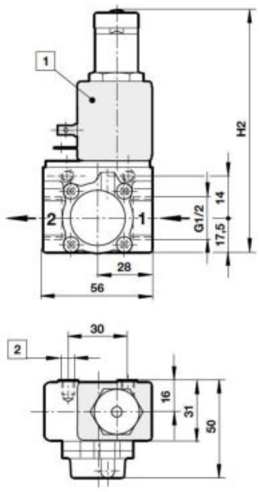
Solenoids group, standard voltages

Model	Power consumption 24 V d.c. (W)	230 V a.c. (VA)	Rated current 24 V d.c. (m A)	230 V a.c. (m A)	Protection class IP/NEMA	Ex-Protection (ATEX-Category)	Temperature Ambient/Media (°C)	Electrical connection
								
0200	12,1	15	504	63	IP65 (with connector)	–	-25 … +60 Media: +80 max	Connector DIN EN 175301-803, form A *1)

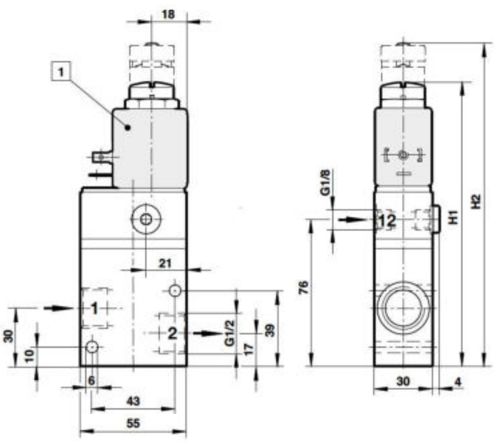
Standard voltages (±10%) 24 V d.c., 230 V a.c., other voltages on request. Design according to VDE 0580, EN 50014/50028. 100% duty cycle.
*1) Connector/cable gland is not scope of delivery, see table »Accessories«.

Dimensions

7030117



7030118, 7030709



1 Solenoid rotate 4 x 90°
2 M6 x 7,5 deep

H2 *2)	Model
121	7030117

*2) With manual override.

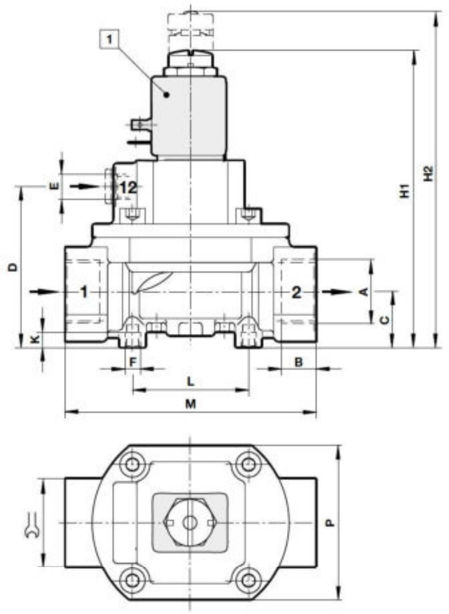
H1 *1)	H2 *2)	Model
–	167	7030118
147	–	7030709

*1) Without manual override.
*2) With manual override.

INDIRECT SOLENOID ACTUATED POPPET VALVES

70300 2/2, G1/2 ... G1

703213, 703263, 703223, 703273



[1] Solenoid rotate 4 x 90°

Model	A	B	C	D	E	H1 *1)	H2 *2)	F	K	L	M	P	⚿
703213	G3/4	20	29	83,5	G1/4	–	174	M8	8	60	130	80	46
703263	G3/4	20	29	83,5	G1/4	154	–	M8	8	60	130	80	46
703223	G1	18	29	83,5	G1/4	–	174	M8	8	60	130	80	46
703273	G1	18	29	83,5	G1/4	154	–	M8	8	60	130	80	46

*1) Without manual override.
*2) With manual override.

Options

- Alternative Solenoids

INDIRECT SOLENOID ACTUATED POPPET VALVES

80200 3/2, G1/2 … G2

- High flow rate
- Optionally pilot-operated by external pilot source
- High repeatability of switching time
- Easily interchangeable solenoid system

Technical Data

Medium:
Compressed air, filtered, lubricated or non-lubricated

Mounting position:
Optional, preferaby vertical with strong vibration vertical to axis of vibration

Operating pressure:
-1 … 10 bar

Ambient temperature:
-10°C … +60°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Housing:
Aluminium

Seals:
PUR

Inner parts:
POM

Standard Models

Model *1)	Function	Port size 1	2	3	Orifice (mm)	Pilot supply	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)
8026570	NC	G1/2	G1/2	G3/4	15	Internal	5500	2 … 10	–
8026670	NC	G3/4	G3/4	G1	20	Internal	8000	2 … 10	–
8026770	NC	G1	G1	G1	25	Internal	9000	2 … 10	–
8026870	NC	G1	G1 1/4	G1 1/4	32	Internal	14000	2 … 10	–
8026970	NC	G1 1/2	G1 1/2	G1 1/2	40	Internal	21000	2 … 10	–
8027070	NC	G 2	G 2	G 2	50	Internal	31000	2 … 10	–
8028570	NO	G1/2	G1/2	G3/4	15	Internal	5500	2 … 10	–
8028670	NO	G3/4	G3/4	G1	20	Internal	8000	2 … 10	–
8028770	NO	G1	G1	1	25	Internal	9000	2 … 10	–
8028870	NO	G1	G1 1/4	G1 1/4	32	Internal	14000	2 … 10	–
8028970	NO	G1 1/2	G1 1/2	G1 1/2	40	Internal	21000	2 … 10	–
8029070	NO	G2	G2	G2	50	Internal	31000	2 … 10	–
8026571	NC	G1/2	G1/2	G3/4	15	External	5500	0 … 10	2 … 10
8026671	NC	G3/4	G3/4	G1	20	External	8000	0 … 10	2 … 10
8026771	NC	G1	G1	G1	25	External	9000	0 … 10	2 … 10
8026871	NC	G1	G1 1/4	G1 1/4	32	External	14000	0 … 10	2 … 10
8026971	NC	G1 1/2	G1 1/2	G1 1/2	40	External	21000	0 … 10	2 … 10
8027071	NC	G2	G2	G2	50	External	31000	0 … 10	2 … 10
8028571	NO	G1/2	G1/2	G3/4	15	External	5500	2 … 10	2 … 10
8028671	NO	G3/4	G3/4	G1	20	External	8000	2 … 10	2 … 10
8028771	NO	G1	G1	G1	25	External	9000	2 … 10	2 … 10
8028871	NO	G1	G1 1/4	G1 1/4	32	External	14000	2 … 10	2 … 10
8028971	NO	G1 1/2	G1 1/2	G1 1/2	40	External	21000	2 … 10	2 … 10
8029071	NO	G2	G2	G2	50	External	31000	2 … 10	2 … 10

*1) When ordering please indicate solenoid, voltage, current type (frequency).

Models for vacuum

Model *1)	Function	Port size 1	2	3	Orifice (mm)	Pilot supply	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)
8026572	NC	G1/2	G1/2	G3/4	15	External	5500	-1 … 6	4 … 10
8026672	NC	G3/4	G3/4	G1	20	External	8000	-1 … 6	4 … 10
8026772	NC	G1	G1	G1	25	External	9000	-1 … 6	4 … 10
8026872	NC	G1	G1 1/4	G1 1/4	32	External	14000	-1 … 6	4 … 10
8026972	NC	G1 1/2	G1 1/2	G1 1/2	40	External	21000	-1 … 6	4 … 10
8027072	NC	G 2	G 2	G 2	50	External	31000	-1 … 6	4 … 10

*1) When ordering please indicate solenoid, voltage, current type (frequency).

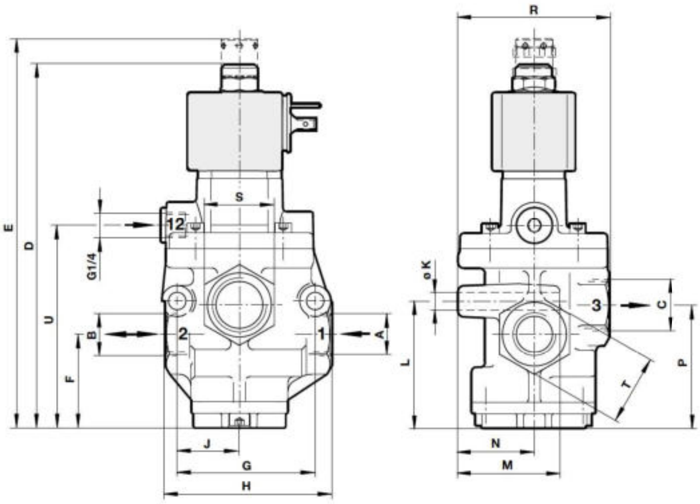
INDIRECT SOLENOID ACTUATED POPPET VALVES
80200 3/2, G1/2 … G2

Solenoids group 16D, standard voltages

Model *1)	Power consumption 24 V d.c. (W)	Power consumption 230 V a.c. (VA)	Rated current 24 V d.c. (m A)	Rated current 230 V a.c. (m A)	Protection class IP/NEMA	Temperature Ambient/Media (°C)	Electrical connection
							
0800	16,9	–	703	–	IP65 (with connector)	-25 … +60 Media: +80 max	Connector DIN EN 175301-803, form A *1)
3803	–	17,3	–	75	IP65 (with connector)	-25 … +60 Media: +80 max	Connector DIN EN 175301-803, form A *1)

Standard voltages (±10%) 24 V d.c., 230 V a.c., other voltages on request. Design according to VDE 0580, EN 50014/50028. 100% duty cycle.
*1) Connector/cable gland is not scope of delivery, see table »Accessories«.
Attention: The protection class for coil series 46xx and 48xx is determined by the choice of cable gland.
Example: if an ATEX-certified cable gland is used that has Ex d type of protection, the solenoid will have the protection class Ex d mb; if a cable gland with Ex e type of proteciton is used, the solenoid will have protection class Ex e mb.

Dimensions



1 Solenoid can be indexed by 4 x 90°

Model	A	B	C	D	E	F	G	H	J	ØK	L	M	P	R	S	T	U
802657	G1/2	G1/2	G3/4	187,5	–	48	71	86	32	9	65,5	52	63,5	78	36	36	104,5
802667	G3/4	G3/4	G1	197,5	–	51,5	82,5	112	39	9	74,5	54	73	92	46	46	114,5
802677	G1	G1	G1	197,5	–	51,5	82,5	112	39	9	74,5	54	73	92	46	46	114,5
802687	G1	G1 1/4	G1 1/4	239	–	70	104	142	48	11	108	64	98	108	60	60	148
802697	G1 1/2	G1 1/2	G1 1/2	265	–	85	118	164	50,5	14	121,5	70	115,5	123	60	68	168
802707	G2	G2	G2	304	–	98	148	200	66	18	144	85	137	153	90	90	204
802857	G1/2	G1/2	G3/4	–	200,5	48	71	86	32	9	65,5	52	63,5	78	36	36	104,5
802867	G3/4	G3/4	G1	–	210,5	51,5	82,5	112	39	9	74,5	54	73	92	46	46	114,5
802877	G1	G1	G1	–	210,5	51,5	82,5	112	39	9	74,5	54	73	92	46	46	114,5
802887	G1	G1 1/4	G1 1/4	–	252	70	104	142	48	11	108	64	98	108	60	60	148
802897	G1 1/2	G1 1/2	G1 1/2	–	279	85	118	164	50,5	14	121,5	70	115,5	123	60	68	168
802907	G2	G2	G2	–	317	98	148	200	66	18	144	85	137	153	90	90	204

SOLENOID AND PILOT ACTUATED POPPET VALVES

Prospector® 2/2 & 3/2, G3/8 … G1

- Exceptionally high flow
- High reliability
- Durable, robust construction

Technical Data*

* Basic valve without solenoid operator

Medium:
Filtered and lubricated or non lubricated compressed air

Operating pressure:
Pilot actuated: 2 … 10 bar
Solenoid actuated: 0 … 20 bar

Pilot port size:
G1/4 for ISO G version only

Mounting:
Through-holes in valve body

Ambient temperature:
Solenoid pilot: -20°C … +50°C
Air pilot: -20°C … +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body, piston, poppets and sub-base:
Aluminium alloy

Operators:
Zinc or alumnium solenoid pilot operators, stainless steel or steel, reinforced polyester, brass or polyurethane, acetal, copper wire

Elastomers:
NBR

Models

Solenoid pilot operated

Model	Function	Port size	Valve size (inch)	Flow (l/min)	Dimension No.
AA013C-00-CE***	2/2 NC	G3/8	1/2	3,351	1
AA014C-00-CE***	2/2 NC	G1/2	1/2	5,224	1
AA015C-00-CE***	2/2 NC	G3/4	1/2	6,407	1
AA026C-00-CE***	2/2 NC	G1	1	13,307	2
BA013C-00-CE***	2/2 NO	G3/8	1/2	3,746	1
BA014C-00-CE***	2/2 NO	G1/2	1/2	5,323	1
BA015C-00-CE***	2/2 NO	G3/4	1/2	6,210	1
BA026C-00-CE***	2/2 NO	G1	1	15,180	2
DA023C-00-CE***	3/2 NC	G3/8	1/2	4,830	3
DA024C-00-CE***	3/2 NC	G1/2	1/2	5,717	3
DA025C-00-CE***	3/2 NC	G3/4	1/2	6,111	3
DA036C-00-CE***	3/2 NC	G1	1	14,391	4
EA023C-00-CE***	3/2 NO	G3/8	1/2	4,534	3
EA024C-00-CE***	3/2 NO	G1/2	1/2	5,421	3
EA025C-00-CE***	3/2 NO	G3/4	1/2	5,717	3
EA036C-00-CE***	3/2 NO	G1	1	13,602	4

*** Insert voltage code.

Air pilot operated

Model	Function	Port size	Valve size (inch)	Pilot port size	Flow (l/min)	Dimension No.
AA013H-AA	2/2 NC	G3/8	1/2	G1/4	3,351	5
AA014H-AA	2/2 NC	G1/2	1/2	G1/4	5,224	5
AA015H-AA	2/2 NC	G3/4	1/2	G1/4	6,407	5
AA026H-AA	2/2 NC	G1	1	G1/4	13,307	6
BA013H-AA	2/2 NO	G3/8	1/2	G1/4	3,746	5
BA014H-AA	2/2 NO	G1/2	1/2	G1/4	5,323	5
BA015H-AA	2/2 NO	G3/4	1/2	G1/4	6,210	5
BA026H-AA	2/2 NO	G1	1	G1/4	15,180	6
DA023H-AA	3/2 NC	G3/8	1/2	G1/4	4,830	7
DA024H-AA	3/2 NC	G1/2	1/2	G1/4	5,717	7
DA025H-AA	3/2 NC	G3/4	1/2	G1/4	6,111	7
DA036H-AA	3/2 NC	G1	1	G1/4	14,391	8
EA023H-AA	3/2 NO	G3/8	1/2	G1/4	4,534	7
EA024H-AA	3/2 NO	G1/2	1/2	G1/4	5,421	7
EA025H-AA	3/2 NO	G3/4	1/2	G1/4	5,717	7
EA036H-AA	3/2 NO	G1	1	G1/4	13,602	8

Technical data – Solenoid operators

Type	22 mm solenoid valve with sub base inlet and outlet connections
Circuit function	3/2 Normally closed
Orifice	1,6 mm
Seal material	Flourine rubber
Body & coil material	Glass reinforced nylon
Port connection	Exhaust port M5 plugged with diffusor
Voltage tolerance	±10% of nominal
Electrical connection	3 pin industrial standard

Manual override	Turn and lock
Pressure range	2 …10 bar
Fluid temperature range	-20 … +90°C *1)
Ambient temperature range	-20 … +50°C *1)
Duty cycle	100% ED
Opening/closing time	10 … 20/5 … 10 ms
Protection class	IP65 with connector

*1) -40°C is available upon request.

Solenoid pilot valves – Voltage codes and part numbering

Voltage	Power		Voltage code – solenoid pilot valve with manual override	Spare – replacement coil part number with manual override
		Inrush/hold		
24 V d.c.	7,5 W	–	83J	QM/48/83J/21
110 V a.c.	–	8 VA	88J	QM/48/88J/21
230 V a.c.	–	8 VA	89J	QM/48/89J/21

Note: Solenoid pilot valve without manual override also available – contact our Technical service.

Accessories

Connector

0657868000000000

3
VALVES

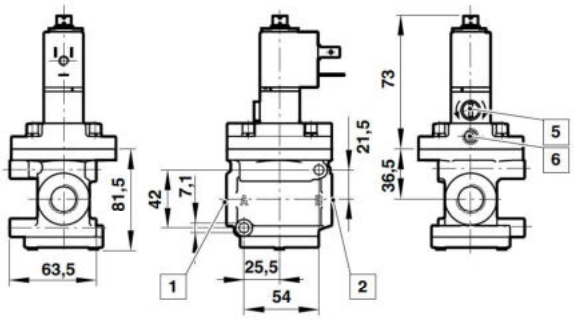
SOLENOID AND PILOT ACTUATED POPPET VALVES

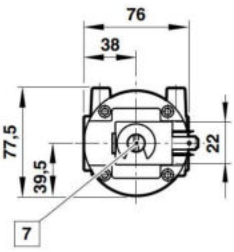
Prospector® 2/2 & 3/2, G3/8 … G1

Dimensions

1

1/2" valve size, solenoid valve
Port size: 3/8" 1/2 or 3/4"

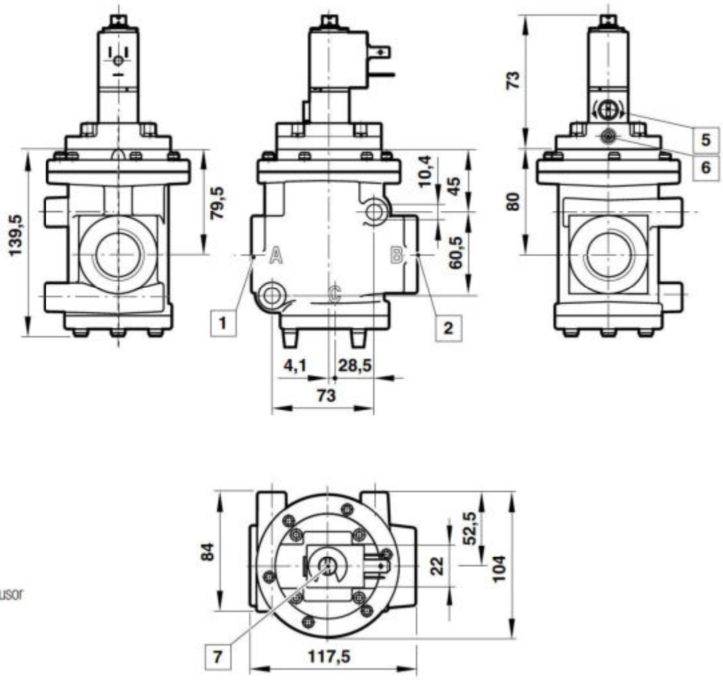




1 Inlet port
2 Outlet port
5 Manual override
6 1/8 PTF exhaust port
7 Pilot valve exhaust with diffusor

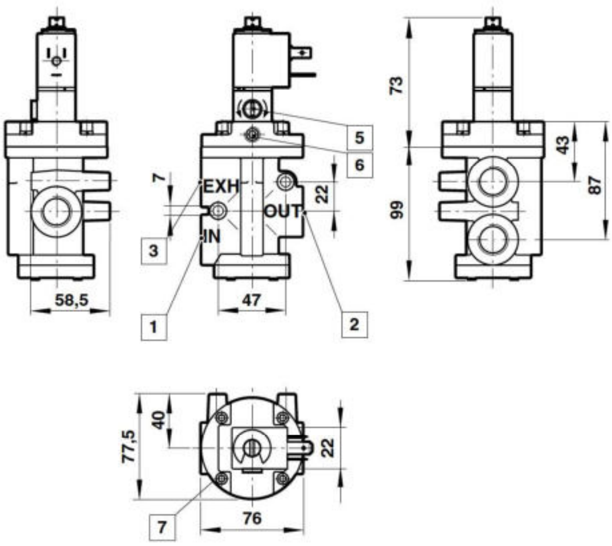
2

1" valve size, solenoid valve
Port size: 1"



3

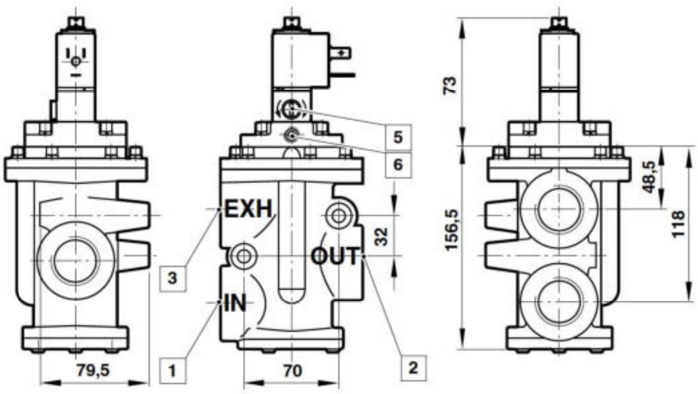
1/2" valve size, solenoid valve
Port size: 3/8" 1/2 or 3/4"

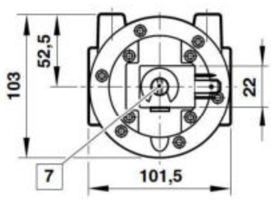


1 Manual override

4

1" valve size, solenoid valve
Port size: 1"

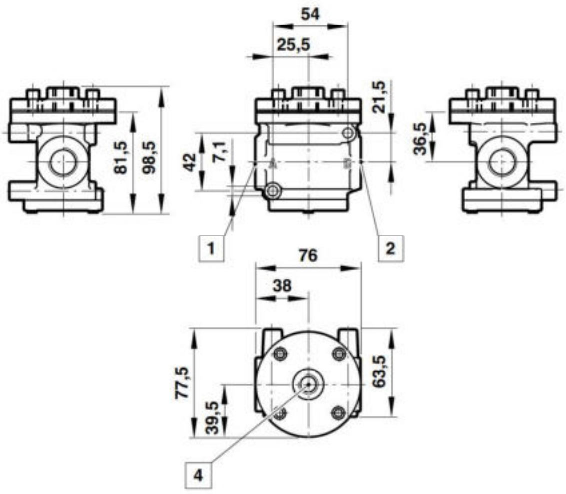




1 Inlet port
2 Outlet port
3 Exhaust port
5 Manual override
6 1/8 PTF exhaust port
7 Pilot valve exhaust with diffusor

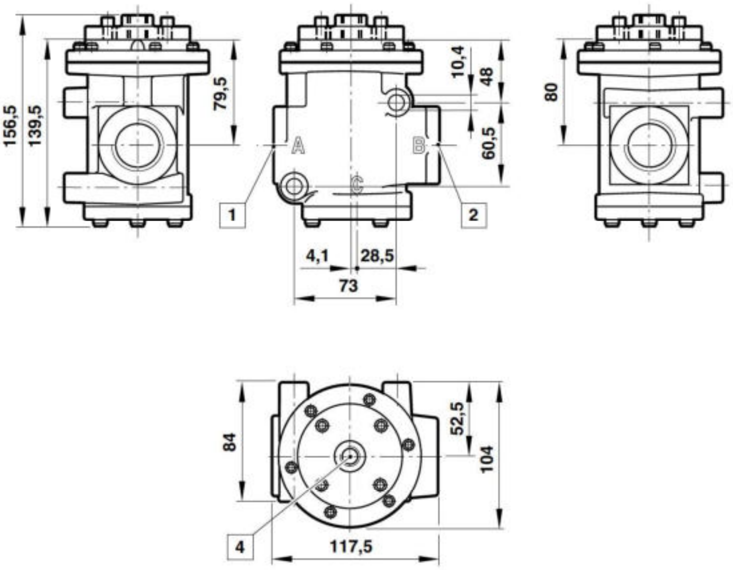
5

1/2" valve size, air pilot valve
Port size: 3/8" 1/2 or 3/4"



6

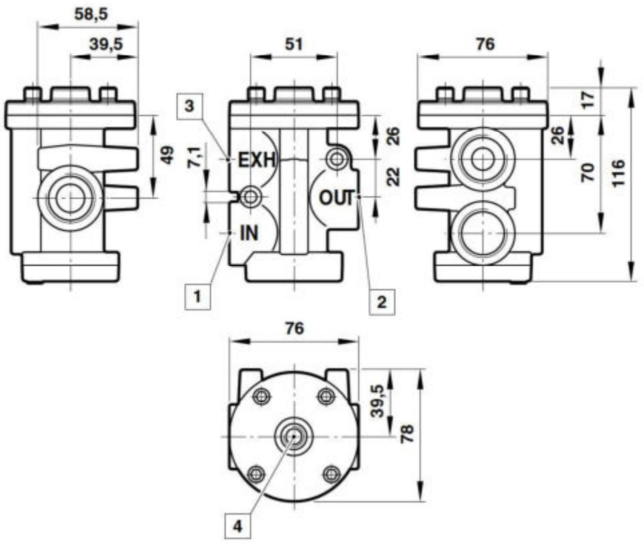
1" valve size, air pilot valve
Port size: 1"



1 Inlet port
2 Outlet port
4 Pilot port G1/8

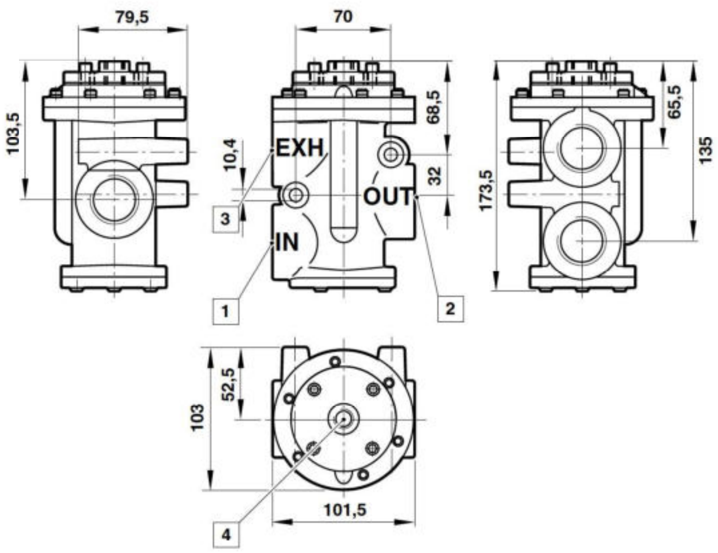
7

1/2" valve size, air pilot valve
Port size: 3/8" 1/2 or 3/4"



8

1" valve size, air pilot valve
Port size: 1"



1 Inlet port
2 Outlet port
3 Exhaust port
4 Pilot port G1/8

IN-LINE SOLENOID VALVE

26360, 80207 3/2, 5/2, G1/4 & G1/2

- For single and double operated actuators
- Manual override with and without detent
- Simple design of soft seal spool
- Easily interchangeable solenoid
- Maintenance-free
- All valves available with Ex protected coils (ATEX or other international approvals)

Technical Data

Medium:
Compressed air, filtered, lubricated or non-lubricated

Operating pressure:
1 … 10 bar (see table below)

Orifice:
6 and 12 mm

Flow direction:
Fixed

Mounting:
Optional, preferably with solenoid on top

Ambient temperature:
-10°C … +60°C
-20°C upon request
Depending on solenoid system
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Housing:
Aluminium anodized

Pilot flange:
Plastic (POM)

Seals:
NBR

Models - 3/2 way NC

Model *1)	Actuation/return	Port size	Operating pressure (bar) min.	max.	Flow (l/min)	Switching time (ms)	Manual override with/ without detent	Dimension No.
								
8020766	Sol / air	G1/4	1	10	1200	35	–	1
8020767	Sol / air	G1/4	1	10	1200	35	without	1
8020867	Sol / air	G1/2	1,5	10	3000	35	without	1
8020765	Sol / air	G1/4	1	10	1200	35	with	1
8020865	Sol / air	G1/2	1,5	10	3000	35	with	1

Models - 5/2 way

Model *1)	Actuation/return	Port size	Operating pressure (bar) min.	max.	Flow (l/min)	Switching time (ms)	Manual override with/ without detent	Dimension No.
								
2636066	Sol / air	G1/4	1	10	1200	35	–	2
2636067	Sol / air	G1/4	1	10	1200	35	without	3
2636065	Sol / air	G1/4	1	10	1200	35	with	3
2637065	Sol / air	G1/2	2	10	3000	40	with	4
2636265	Sol / sol	G1/4	1	10	1200	30	with	5
2637265	Sol / sol	G1/2	2	10	3000	35	with	6

*1) When ordering, please indicate solenoid, voltage and current (frequency).

Solenoid operators

	Model	Power consumption		Rated current		Protection class IP/NEMA	Ex-Protection (ATEX-Category)	Temperature Ambient/Media (°C)	Electrical connection
		24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (m A)	230 V a.c. (m A)				
	0242	2,7	–	113	–	IP65 (with connector)	–	-25 … +60 Fluid: max. +80	Connector DIN EN 175301-803 Form A *1)
	0245	–	4,2	–	18	IP65 (with connector)	–	-25 … +60 Fluid: max. +80	Connector DIN EN 175301-803 Form A *1)
	3215	2,7	–	113	–	IP65 (with connector)	II 3 G Ex nA II T4 II 3 D Ex tD A22 T 90°C	-20 … +60	Special connector DIN EN 175301-803 Form A included
	0298	3,6	–	150	–	IP66	II 2 G Ex mb IIC T4 Gb II 2 D Ex mb IIIC T110°C Db	-20 … +70	Cable length 3 m
	0299	–	4,6	–	18	IP66	II 2 G Ex mb IIC T4 Gb II 2 D Ex mb IIIC T110°C Db	-20 … +70	Cable length 3 m

Standard voltages (±10%) 24 V d.c., 230 V a.c., other voltages on request. Design according to VDE 0580, EN 50014/50028. 100% duty cycle.
*1) Connector is not scope of delivery, see table »Accessories«.

Approvals

Model	Approvals	
	ATEX	FM
029x	KEMA 02 ATEX 1347 X	–
321x, 381x	EC-Declaration of Conformity	–

Accessories

Cable gland Protection class Ex e, Ex d (ATEX), Nickel plated brass					Silencer *1)	Exhaust guard *2)	Connector, form A
							
Model	Thread	Cable Ø	Material	Protection class (ATEX)			
0588819000000000	M 20x1,5	5,0 … 8,0 mm	Nickel plated brass	II2GD Ex e	M/S2 (G1/4)	0613422000000000 (G1/4)	0570275000000000
0588851000000000	M 20x1,5	10 … 14 mm	Nickel plated brass	II2GD Ex d	M/S4 (G1/2)	0613423000000000 (G1/2)	–
0588925000000000	1/2-14-NPT	7,5 … 11,9 mm	Nickel plated brass	II2GD Ex d	–	–	–

*1) For indoors use only.
*2) For outdoors use.

Options

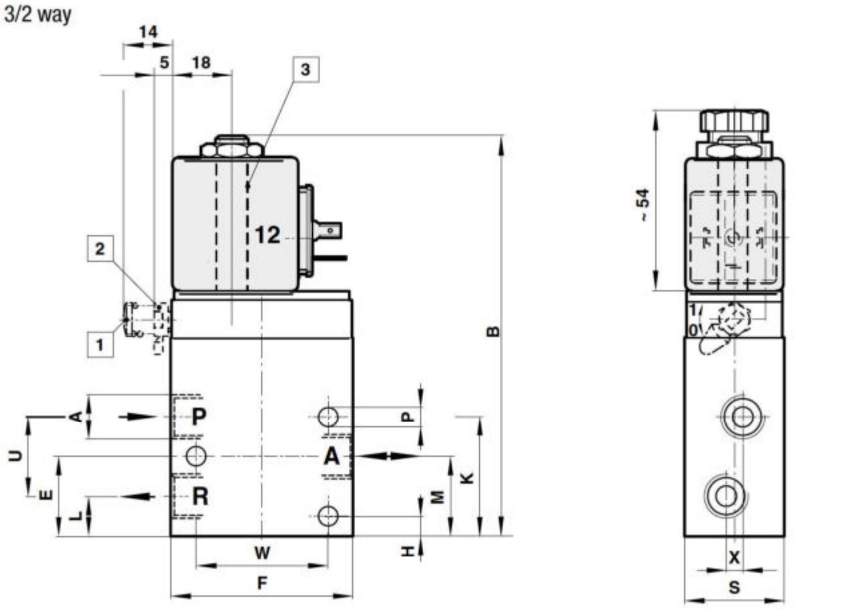
- Alternative solenoid coils

IN-LINE SOLENOID VALVE
26360, 80207 3/2, 5/2, G1/4 & G1/2

Dimensions - Valves

1

3/2 way



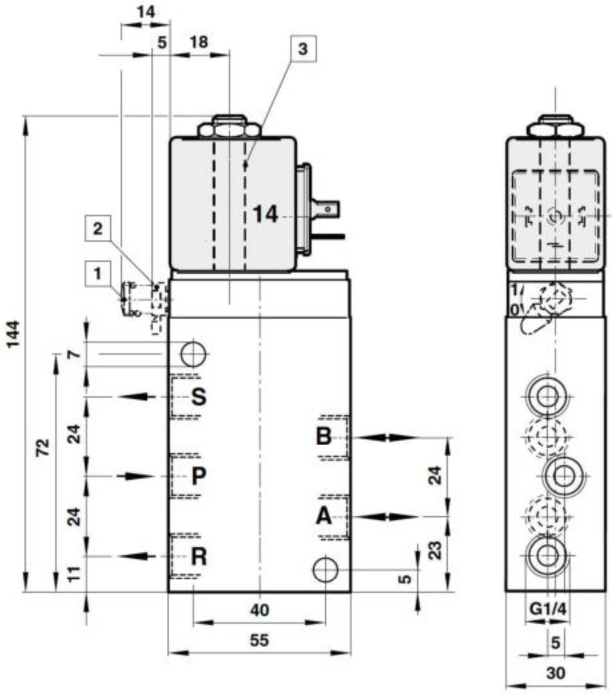
1 Manual override without detent
2 Manual override with detent
3 Solenoid 4 x 90° turnable

A	B	E	F	H	K	L	M	P	S	T	U	W	X	Model
G1/4	120	24,5	55	7,5	34,5	11	23	5,5	30	18,5	24	41	5	8020766
G1/4	127	24,5	55	7,5	34,5	11	23	5,5	30	18,5	24	41	5	8020767
G1/4	127	24,5	55	7,5	34,5	11	23	5,5	30	18,5	24	41	5	8020765
G1/2	157	77,5	65	31,5	–	29	50	7	35	23,5	33	46	–	8020867
G1/2	148	77,5	65	31,5	–	29	50	7	35	23,5	33	46	–	8020865

2

5/2 way

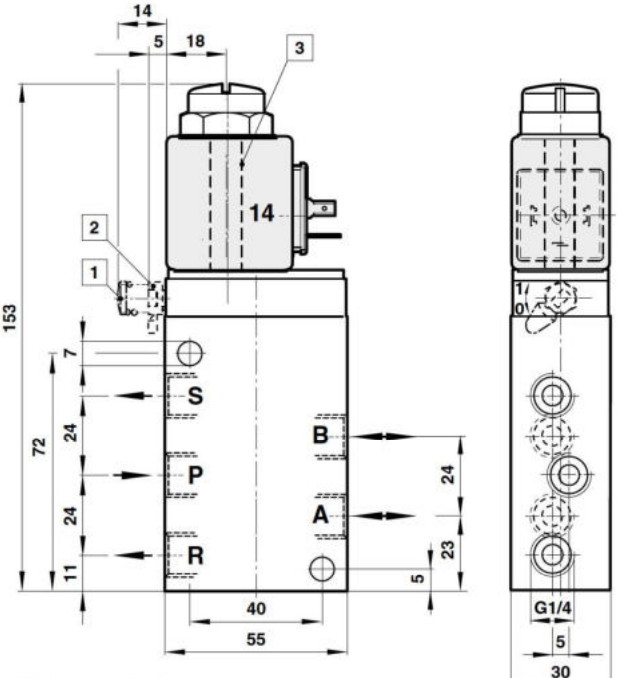
2636066



3

5/2 way

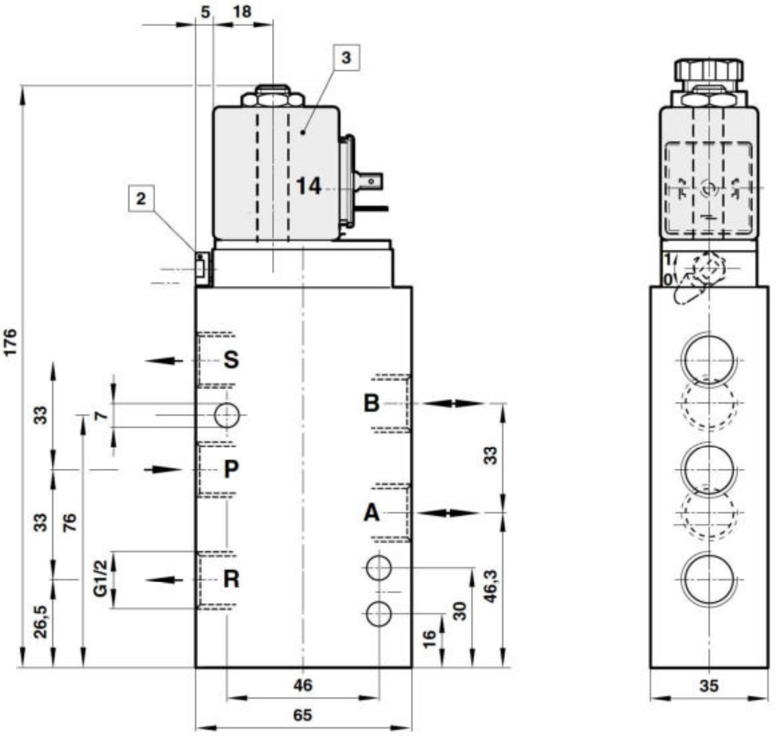
2636067, 2636065



1 Manual override without detent
2 Manual override with detent
3 Solenoid 4 x 90° turnable

4

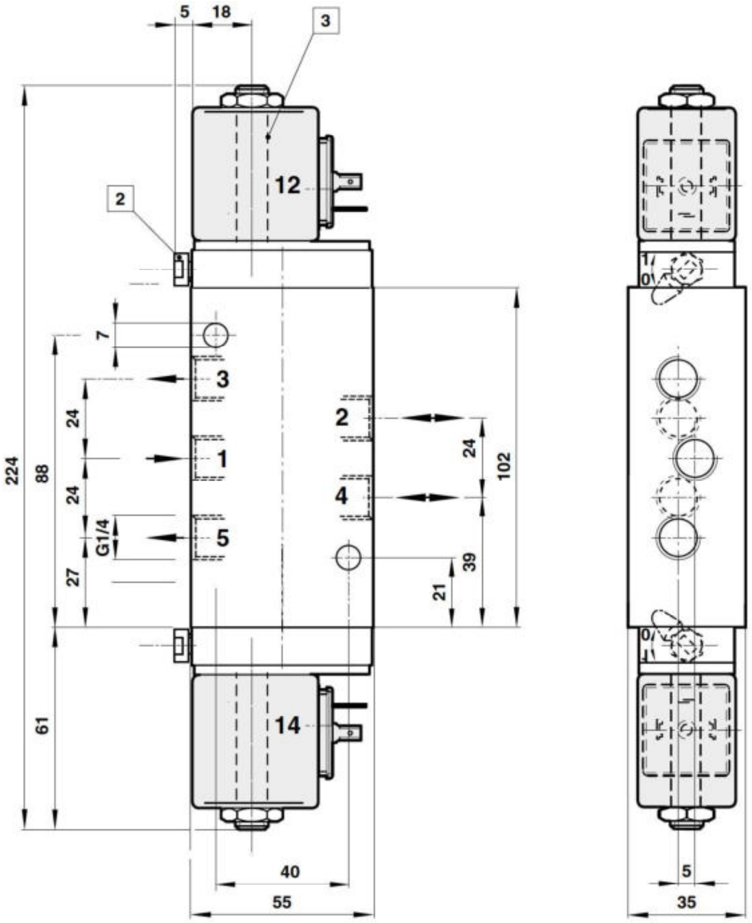
5/2 way
2637065



1 Manual override without detent
2 Manual override with detent
3 Solenoid 4 x 90° turnable

5

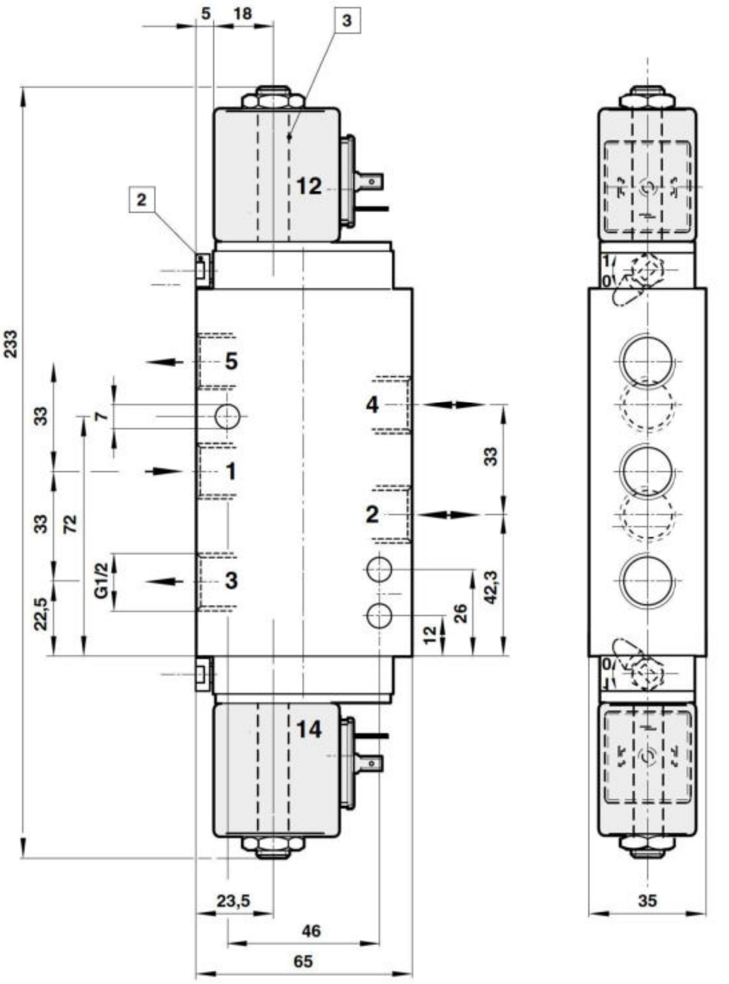
5/2 way
2636265



1 Manual override without detent
2 Manual override with detent
3 Solenoid 4 x 90° turnable

IN-LINE SOLENOID VALVE
26360, 80207 3/2, 5/2, G1/4 & G1/2

6
5/2 way
2637265



[2] Manual override with detent
[3] Solenoid 4 x 90° turnable

IN-LINE SOLENOID VALVE

26230, 80107 3/2, 5/2 & 5/3, G1/4 & G1/2

- Straight-through flow, high Cv-factor
- Standard manual override
- Compact design
- Easily interchangeable solenoid system
- Maintenance-free, easy to service
- The valves and solenoids (see solenoid table) are ATEX approved

Technical Data

Medium:
Compressed air filtered, lubricated or non-lubricated

Operation:
Solenoid, indirectly controlled

Operating pressure:
1 … 10 bar (see table below)

Nominal size:
6 and 12 mm

Flow direction:
Fixed

Mounting position:
Optional, preferably vertical

Ambient temperature:
-10°C … +50°C
Depending on solenoid system
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Housing:
Aluminium

Pilot flange:
Plastic

Seat seal:
NBR

Models

Model *	Port size	Function	Operation/return	Nominal size (mm)	Operating pressure min. (bar)	max. (bar)	Flow (l/min)	Power consumption (W)	Dimensions No.
									
8010750 *2)	G1/4	3/2 NC	Solenoid/air	6	1,0	10 *3)	1200	< 5	1
8010850 *2)	G1/2	3/2 NC	Solenoid/air	12	1,5	10 *3)	3000	< 5	2
8012750 *2)	G1/4	3/2 NO	Solenoid/air	6	1,0	10 *3)	1200	< 5	1
8012850 *2)	G1/2	3/2 NO	Solenoid/air	12	1,5	10 *3)	3000	< 5	2
8011750	G1/4	3/2 NC	Solenoid/solenoid	6	1,0	10	1200	< 5	3
2623000 *2)	G1/4	5/2	Solenoid/air	6	1	10 *3)	1200	< 5	5
2623500 *2)	G1/2	5/2	Solenoid/air	12	2	10 *3)	3000	< 5	6
2623100	G1/4	5/2	Solenoid/solenoid	6	1	10	1200	< 5	7
2623600	G1/2	5/2	Solenoid/solenoid	12	2	10	3000	< 5	8
2623200	G1/4	5/3 COE	Solenoid/solenoid	6	3	10	900	< 5	9
2623700	G1/2	5/3 COE	Solenoid/solenoid	12	2,5	10	2200	< 5	10
2623300	G1/4	5/3 APB	Solenoid/solenoid	6	3	10	900	< 5	9
2623800	G1/2	5/3 APB	Solenoid/solenoid	12	2,5	10	2200	< 5	10
2623400	G1/4	5/3 COP	Solenoid/solenoid	6	3	10	900	< 5	9

* When ordering please indicate solenoid, voltage and current type (frequency).
*2) Port 3 is not throttleable.
*3) Stagnation pressure at 3 ≤ operating pressure -1 bar.
APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.

IN-LINE SOLENOID VALVE

26230, 80107 3/2, 5/2 & 5/3, G1/4 & G1/2

Solenoid actuators

	Model	Power consumption 24 V d.c. (W)	Power consumption 230 V a.c. (VA)	Rated current 24 V d.c. (m A)	Rated current 230 V a.c. (m A)	Protection class IP/NEMA	Ex-Protection (ATEX-Category)	Temperature Ambient/Media (°C)	Electrical connection
	3052	4,8	8,5	70	–	IP65 (with connector)	–	-15 … +50	Connector DIN EN 175301-803, form B *1)
	3030	4,4	8,0	190	–	IP65 (with connector)	–	-15 … +50	Connector DIN EN 175301-803, form B *1)
	3060	5,0	–	210	–	IP65 (with connector)	II 2 G Ex mb IIC T4/T5 Gb II 2 G Ex mb IIC T4 Gb II 2 D Ex mb tb T130°C Db	-20 … +50	Cable length 3 m
	3061	–	5	–	22	IP65 (with connector)	II 2 G Ex mb IIC T4 Gb II 2 D Ex mb tb T130°C Db	-20 … +50 *2)	Cable length 3 m

Standard voltages (±10%) 24 V d.c., 230 V a.c., other voltages on request.
*1) Connector is not scope of delivery, see table »Accessories«Valves and solenoids can only be combined if their electrical ratings correspond with each other (see table »Technical Data«).
For valve with power consumption < 5 watt please use 4,8 or 4,5 watt solenoids.

Approvals

Model	Approvals ATEX
306x	PTB 03 ATEX 2015

Accessories

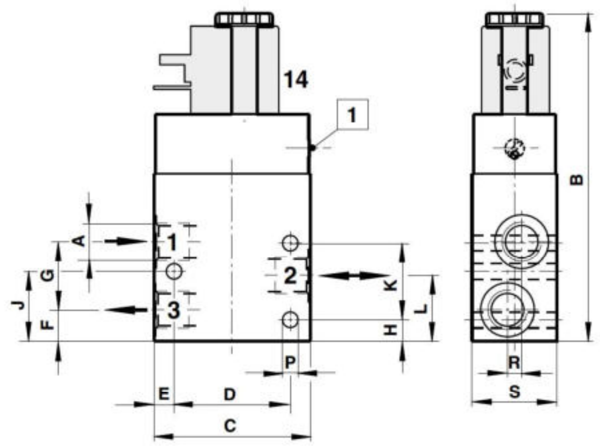
Connector DIN EN 175301-803	Silencer *1)	Exhaust guard *2)
		
0570275000000000 (Form A)	M/S2 (G1/4)	0613422000000000 (G1/4)
0680003000000000 (Form B)	M/S4 (G1/2)	0613423000000000 (G1/2)

*1) For indoors use only.
*2) For outdoors use.

Dimensions - Valves

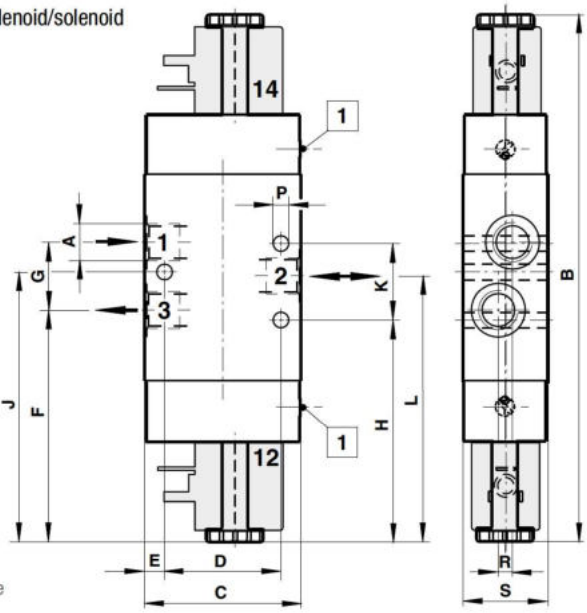
1 2

3/2 - Solenoid/air



3 4

3/2 - Solenoid/solenoid



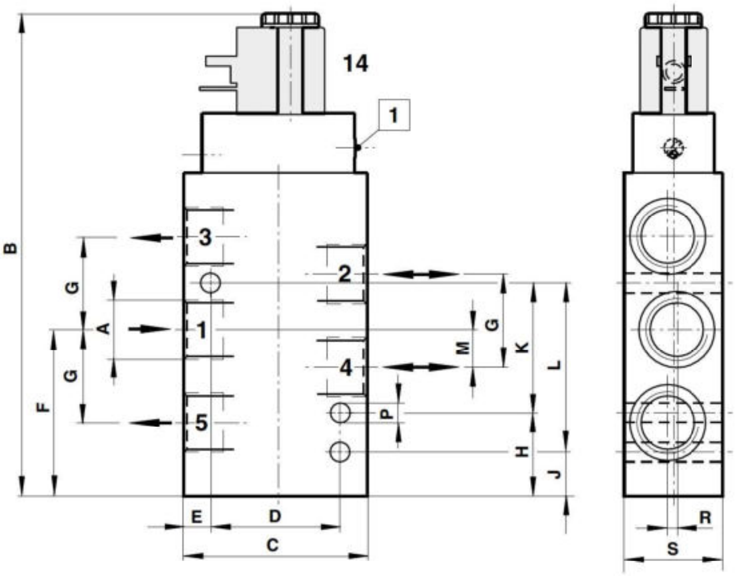
1 Manual override

No.	A	B	C	D	E	F	G	H	J	K	L	ØP	R	S
1	G1/4	115,5	55	41	7	11	24	7,5	24,5	27	23	5,5	5	30
2	G1/2	143,5	65	46	9,5	29	33	31,5	–	46	50	7	2,5	35

No.	A	B	C	D	E	F	G	H	J	K	L	ØP	R	S
3	G1/4	186,5	55	41	7	81,5	24	78	95	27	93,5	5,5	5	30
4	G1/2	195,5	65	46	9,5	81	33	81	–	46	100,5	7	2,5	35

5 6

5/2 - Solenoid/air

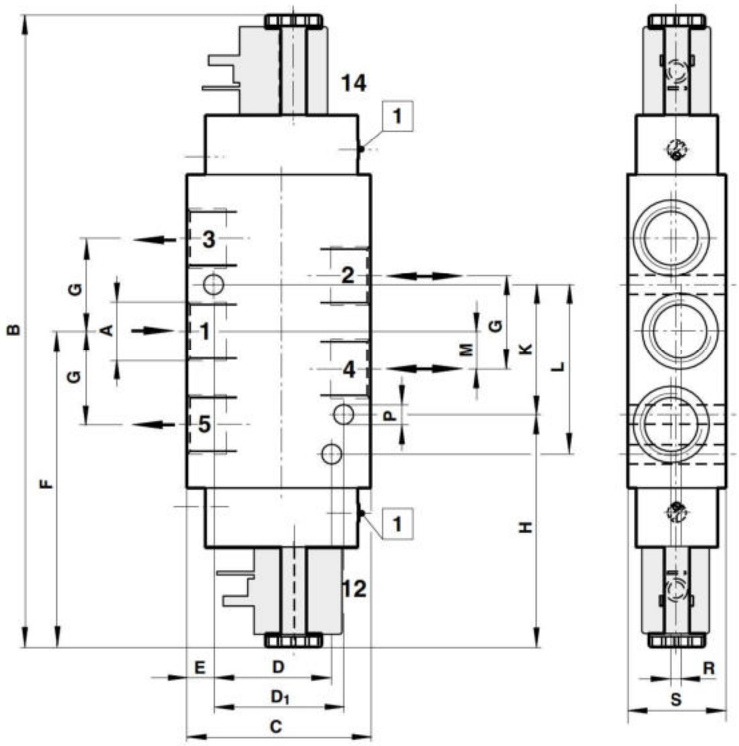


1 Manual override

No.	A	B	C	D	E	F	G	H	J	K	L	M	ØP	R	S
5	G1/4	139,5	55	40	7,5	35	24	–	5	–	67	12	7	5	30
6	G1/2	171,5	65	46	9,5	59,5	33	30	16	46	60	13	7	3	35

7 … 10

5/2 - Solenoid/air



1 Manual override

No.	A	B	C	D	D1	E	F	G	H	K	L	M	ØP	R	S
7	G1/4	214,5	55	40	40	7,5	107,5	24	77,5	67	–	12	7	5	30
8	G1/2	223,5	65	46	46	9,5	112	33	82,5	46	60	13	7	3	35
9	G1/4	232,5	55	40	40	7,5	118	24	88	67	–	12	7	5	30
10	G1/2	289	70	46	50	10	144,5	33	–	50	60	16,5	7	4	40

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The IMI FAS miniature solenoid valves deliver unrivalled performance to power ratio, reliability, and modularity. Providing industry leading products in on/off, proportional, and media isolated functionalities in order to deliver unprecedented flexibility to meet specific industry requirements.

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DIRECT ACTING 2-WAY AND 3-WAY VALVES

FLEXISOL 6,5 mm

- Flow of a 8 mm valve in a 6,5 mm footprint, without usual manufacturing constraints
- One-screw mount
- Solder free / direct connection on PCB
- Captive seals
- Operation
- Direct acting
- 2-way and 3-way valves. Normally closed, normally open

Technical Data

Medium:
Air, oxygen, neutral gases, 40 µm filtered

Operating pressure:
0 … 2,5 bar

Leakage:
Internal leakage: 10-2 mbar l/s
External leakage: 10-2 mbar l/s

Mounting:
Manifold with M3 mounting screw

Response time:
Pneumatic response time (ON): 5 ms
Pneumatic response time (OFF): 10 ms
Response time measured according to ISO 12238

Life expectancy:
50'000'000 cycles

Ambient temperature:
0°C … +50°C

Materials

Body:
PPS

Seals:
NBR, FPM

Internal parts:
stainless steel, HNBR, FPM

Electrical details

Voltage:	24 V d.c.
Rating:	100 % E.D.
Voltage tolerance:	± 5 %
Power consumption:	0,8 W
Electrical isolation	See Installation Instructions
Protection class:	IP 51
Insulation class:	E180
Electrical connection:	PAD (0.4 µm galvanic gold over nickel)

Options

- Pneumatic connection
- Electrical connection
- Mounting screw
- Coil orientation

Models

Accessories

Model	Operation	Orifice (mm) 1 to 2	Orifice (mm) 2 to 3	kv *1) (l/min) 1 to 2	kv *1) (l/min) 2 to 3	Pmax (bar)	Pneumatic connection	Electrical connection	"Voltage (V d.c.)"	"Power consumption (W)"	Seal	Dimension No.	Test manifold with Molex
15-311N-009HH+1326010+AYO	3/2 NC	0,9	0,8	0,24	0,24	1,0	Barb fittings x 1.15mm	Flying leads x 300mm	24	0,8	NBR, FPM	1	-
15-311N-009H1+1326010+AYO	3/2 NC	0,9	0,8	0,24	0,24	1,0	Barb fittings x 1.15mm	Flying leads x 300mm	24	0,8	FPM	1	-
15-311N-009HH+1326010+AWI	3/2 NC	0,9	0,8	0,24	0,24	1,0	Barb fittings x 1.15mm	Flying leads x 300mm	12	0,8	NBR, FPM	1	-
15-311N-009H1+1326010+AWI	3/2 NC	0,9	0,8	0,24	0,24	1,0	Barb fittings x 1.15mm	Flying leads x 300mm	12	0,8	FPM	1	-

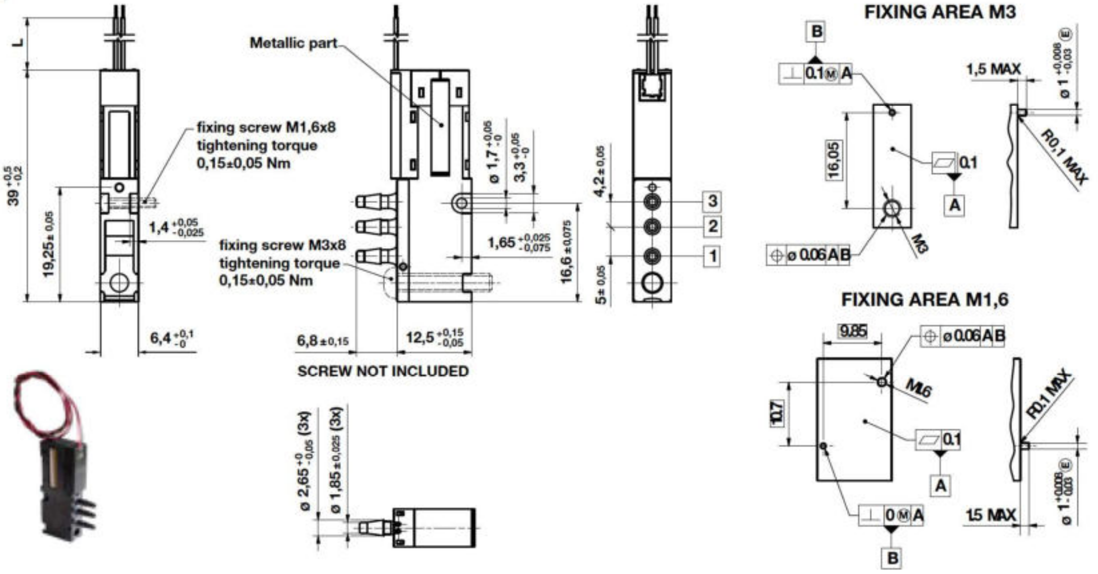
Models Available on Request

Model	Operation	Orifice (mm) 1 to 2	Orifice (mm) 2 to 3	kv *1) (l/min) 1 to 2	kv *1) (l/min) 2 to 3	Pmax (bar)	Pneumatic connection	Electrical connection	"Voltage (V d.c.)"	"Power consumption (W)"	Seal	Dimension No.	Test manifold with Molex
15-211P1009HH+1300010+AYO	2/2 NC	0,9	-	0,26	-	2,5	Manifold mount	PAD	24	0,8	NBR; FPM	2	S151.0013
15-211P1009H1+1300010+AYO	2/2 NC	0,9	-	0,26	-	2,5	Manifold mount	PAD	24	0,8	FPM	2	S151.0013
15-211P1009HH+1300010+AWI	2/2 NC	0,9	-	0,26	-	2,5	Manifold mount	PAD	12	0,8	NBR; FPM	2	S151.0013
15-211P1009H1+1300010+AWI	2/2 NC	0,9	-	0,26	-	2,5	Manifold mount	PAD	12	0,8	FPM	2	S151.0013
15-211P1009HH+1126010+AYO	2/2 NC	0,9	-	0,26	-	2,5	Manifold mount	Flying leads x 300mm	24	0,8	NBR; FPM	3	-
15-211P1009H1+1126010+AYO	2/2 NC	0,9	-	0,26	-	2,5	Manifold mount	Flying leads x 300mm	24	0,8	FPM	3	-
15-211P1009HH+1126010+AWI	2/2 NC	0,9	-	0,26	-	2,5	Manifold mount	Flying leads x 300mm	12	0,8	NBR; FPM	3	-
15-211P1009H1+1126010+AWI	2/2 NC	0,9	-	0,26	-	2,5	Manifold mount	Flying leads x 300mm	12	0,8	FPM	3	-
15-311P1009HH+1300010+AYO	3/2 NC	0,9	0,8	0,26	0,26	2,5	Manifold mount	PAD	24	0,8	NBR; FPM	2	S151.0013
15-311P1009H1+1300010+AYO	3/2 NC	0,9	0,8	0,26	0,26	2,5	Manifold mount	PAD	24	0,8	FPM	2	S151.0013
15-311P1009HH+1300010+AWI	3/2 NC	0,9	0,8	0,26	0,26	2,5	Manifold mount	PAD	12	0,8	NBR; FPM	2	S151.0013
15-311P1009H1+1300010+AWI	3/2 NC	0,9	0,8	0,26	0,26	2,5	Manifold mount	PAD	12	0,8	FPM	2	S151.0013
15-311P1009HH+1126010+AYO	3/2 NC	0,9	0,8	0,26	0,26	2,5	Manifold mount	Flying leads x 300mm	24	0,8	NBR; FPM	3	-
15-311P1009H1+1126010+AYO	3/2 NC	0,9	0,8	0,26	0,26	2,5	Manifold mount	Flying leads x 300mm	24	0,8	FPM	3	-
15-311P1009HH+1126010+AWI	3/2 NC	0,9	0,8	0,26	0,26	2,5	Manifold mount	Flying leads x 300mm	12	0,8	NBR; FPM	3	-
15-311P1009H1+1126010+AWI	3/2 NC	0,9	0,8	0,26	0,26	2,5	Manifold mount	Flying leads x 300mm	12	0,8	FPM	3	-

*1) Cv = 0.07 kv

Dimensions

1



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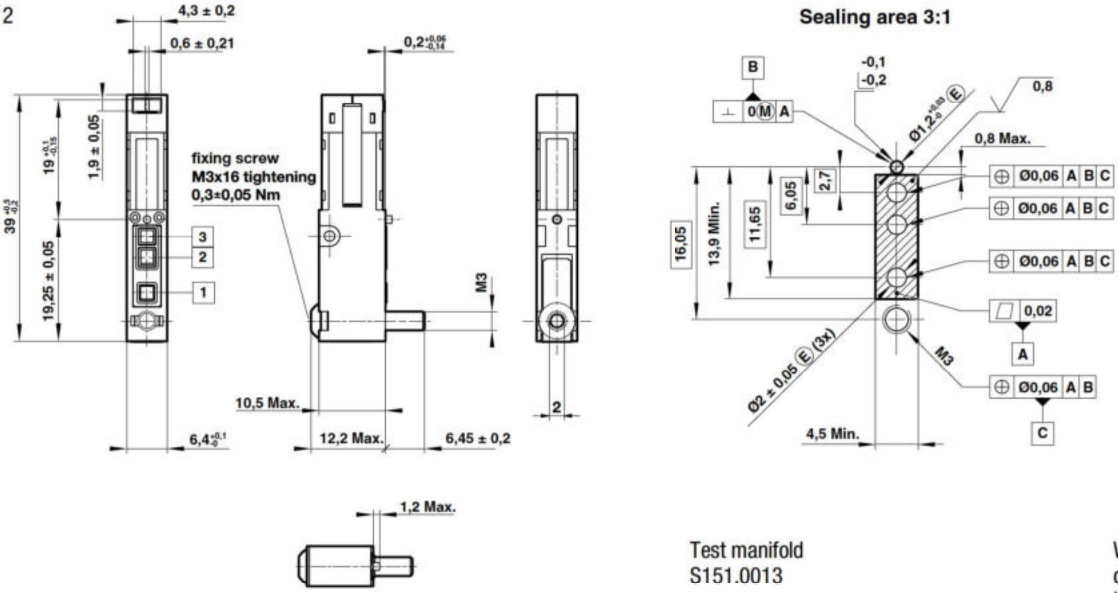

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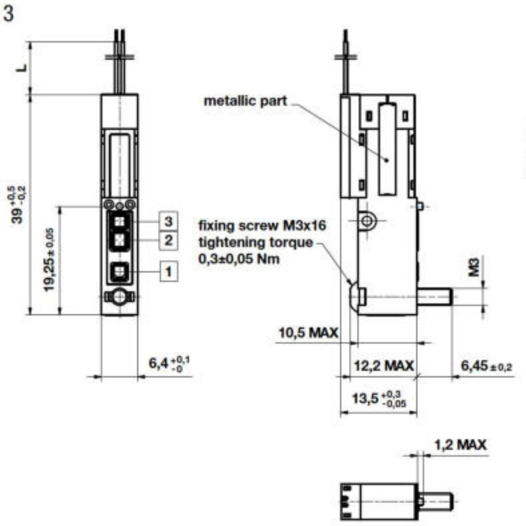
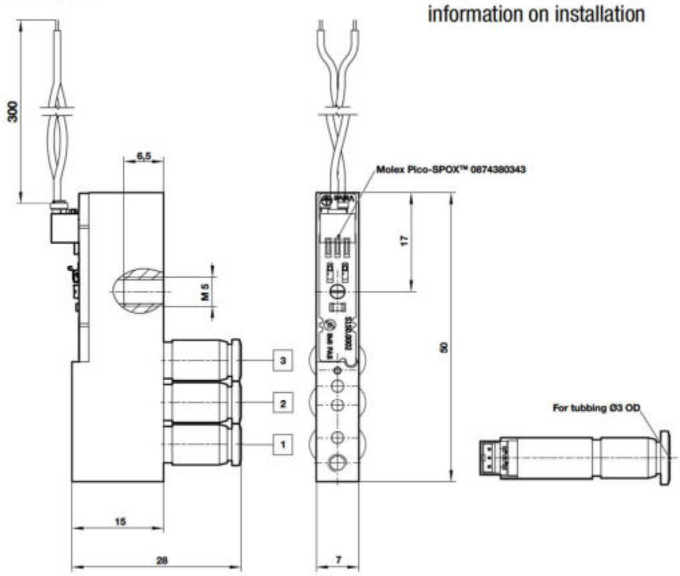


Test manifold
S151.0013

Warning: Please consult document K15M.0001 for information on installation



DIRECT ACTING SOLENOID VALVE

CHIPSOL 2/2, 3/2 NC/NO; Cartridge mounting - 8 mm

- Very compact design (Ø 8 x 19 mm)
- Low power consumption (0,5 W) Long life up to 100 million cycles
- High flow to size ratio

Technical Data

Medium:
Air, oxygen, neutral gases (10 % … 95 % humidity, non condensing), 40 µm filtered

Operating pressure:
0 … 8 bar

Flow (kv factor):
kv: 0.6 l/min; flow: 24 l/min (orifice 1.2 mm, at Δp = 2 bar, 20°C)
kv: 0.8 l/min; flow: 33 l/min (orifice 1.6 mm, at Δp = 2 bar, 20°C)

Orifice:
0,5 … 1 mm

Response time:
5 … 10 ms
Response time measured according to ISO 12238

Life expectancy:
≥100 Mio. cycles

Mounting instruction:
The valve must be assembled in its housing with a lubricant that is compatible with the seals. Max axial force supported by the valve: 75 (N).

Ambient/Media temperature:
-10°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body:
PPS

Seat seals:
HNBR

Internal parts:
Stainless steel

Pulse width modulation (PWM) control

A PWM can be used to control the valve and should be set as follows:

	Definition	Value to be applied
Hit voltage	Voltage used for the valve to commute	Valve nominal voltage
Holding voltage	Voltage applied to the valve after commutation	Set duty cycle to guarantee specified holding voltage. 50% of nominal voltage can be used if no value specified.
Hit time	Maximum time required to ensure full valve commutation	25 ms *1)
PWM frequency		20 kHz

*1) Note: There is no temperature restriction in the case of CHIPSOL

Electrical details

Voltage:	24 V d.c.
Rating:	100 % E.D.
Voltage tolerance	± 10%
Power consumption:	0,5 W
Electrical insulation	500 V a.c.
Insulation class	F (155°C)

Models

Accessories

Model	Operation	Function	Orifice	kv factor *1)	Operating pressure (bar)	Drawing No.	Test manifold with M3 ports, 1 position	Barbs mounting interface for Ø 2,5 mm ID tubing (up to 1 bar)	300 mm flying leads mounted with 4 mm (or 2 x 2 mm) pitch SIL socket housing (Harwin M22-3010300)
									
14-311CA00-HH++AYJ	3/2	NC	0,5	0,11	0 … 8	3	S141.0387	S140.0226	S141.0466
Models Available on Request									
14-211CA00-HH++AYJ	2/2	NC	0,5	0,11	0 … 8	1	S141.0387	S140.0369	S141.0466
14-211CA01-HH++AYJ	2/2	NC	0,8	0,2	0 … 5	1	S141.0387	S140.0369	S141.0466
14-211CA010HH++AYJ	2/2	NC	1	0,3	0 … 1.5	1	S141.0387	S140.0369	S141.0466
14-221CA060HH++AYJ	2/2	NO	0,6	0,11	0 … 8	2	S141.0387	S140.0370	S141.0466
14-221CA070HH++AYJ	2/2	NO	0,7	0,2	0 … 5	2	S141.0387	S140.0370	S141.0466
14-311CA01-HH++AYJ	3/2	NC	0,8	0,22	0 … 3	3	S141.0387	S140.0226	S141.0466
14-321CA060HH++AYJ	3/2	NO	0,6	0,12	0 … 4	4	S141.0387	S140.0226	S141.0466

*1) Cv = 0,07 kv

*1) Two valve mounting screws are in scope of delivery

Options

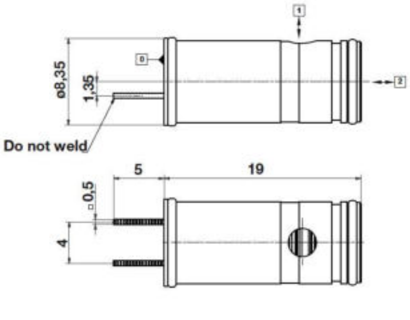
- kv
- Operating pressure
- Medium temperature
- Ambient temperature
- Power consumption
- Body
- Seal
- Electric connection
- Voltage (3, 5, 6 or 12 V d.c.)
- Degreased for oxygen use

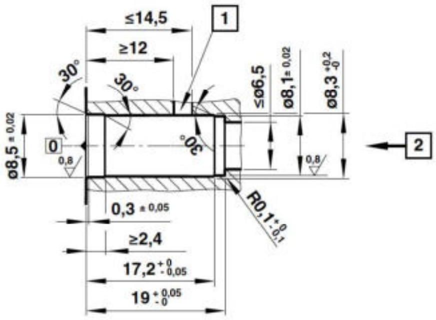
DIRECT ACTING SOLENOID VALVE

CHIPSOL 2/2, 3/2 NC/NO; Cartridge mounting - 8 mm

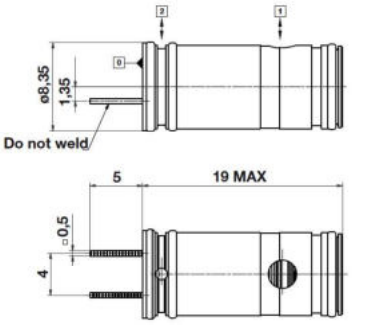
Dimensions

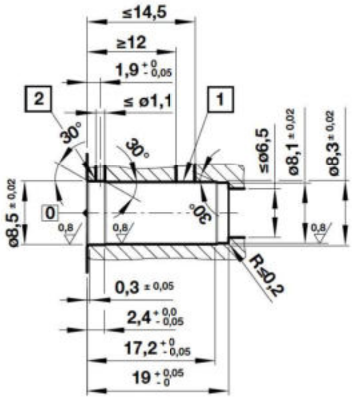
1 CHIPSOL 2/2 NC



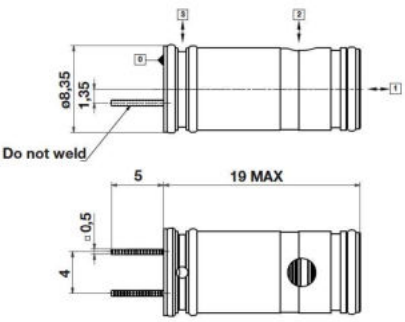


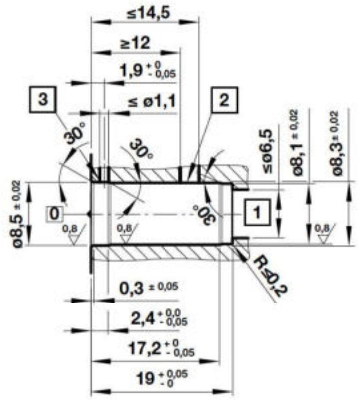
2 CHIPSOL 2/2 NO



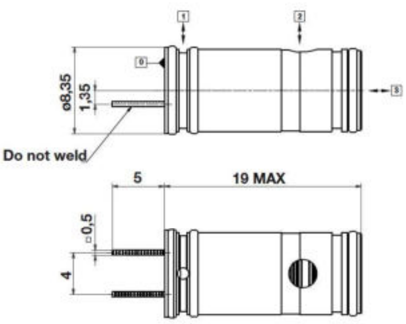


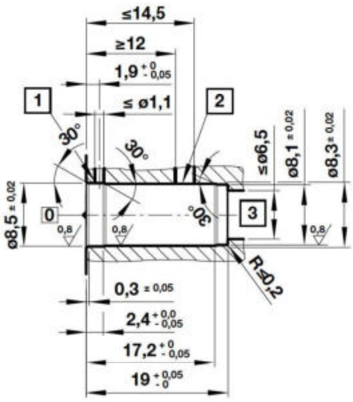
3 CHIPSOL 3/2 NC





4 CHIPSOL 3/2 NO





0 Faces to be aligned by retaining means
1 Inlet port
2 Outlet port
3 Exhaust port
4 Do not weld

DIRECT ACTING SOLENOID VALVE

PICOSOL 2/2, 3/2 - 10 mm

- Manifold mounting
- Compact Design
- Long life – 100 million cycles
- Low power consumption

Technical Data

Medium:
Air, oxygen, neutral gases (10% … 95% humidity, non condensing), 40 µm filtered

Operation:
Direct acting 2-way and 3-way valves, normally closed and normally opened

Operating pressure:
0 … 10 bar

Flow:
5 … 32 l/min at 2 bar at +20°C

Orifice:
0,6 … 2 mm

Response time:
10 … 15 ms
Response time measured according to ISO 12238

Life expectancy:
≥100 Mio. cycles for 1 W valves

Weight:
10,5 g

Ambient temperature:
-10°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body:
PPS

Seat seals:
FPM, NBR, EPDM

Internal parts:
Stainless steel, PAA

Models

Accessories

Model	Operation	Orifice (mm)	Operating pressure (bar)	kv *1) (l/min)	Power consumption (W) *2)	Voltage (V d.c.)	Manual override *3)	Seal material	Dimension No.	Mounting plate with barbed fittings for 3 mm ØID tubing (up to 2 bar)	Mounting manifold with M3 threads — 1 position	Electrical connector Molex 50-57-9402 with 300 mm flying leads
												
11-311PI01-H0+1111+AYV	3/2 NC	0,8	2 … 8	0,19	1	24	With	NBR	1	S111.1772	S110.1277	S110.1032
Models Available on Request												
11-221PI060H0+1111+AYV	2/2 NC (3/2 mounting pattern)	0,6	0 … 10	0,12	1	24	With	NBR	1	S111.1772	S110.1277	S110.1032
11-221PI011H0+1111+AYV		1,1	0 … 4	0,3	1	24	With	NBR	1	S111.1772	S110.1277	S110.1032
11-211PI060H0+1111+AYV	2/2 NO (3/2 mounting pattern)	0,6	0 … 8	0,12	1	24	With	NBR	1	S111.1772	S110.1277	S110.1032
11-211PI01-H0+1111+AYV		0,8	2 … 8	0,19	1	24	With	NBR	1	S111.1772	S110.1277	S110.1032
11-211PI011H0+1111+AYV		1,1	0.5 … 2.1	0,3	1	24	With	NBR	1	S111.1772	S110.1277	S110.1032
11-211P601-H0+1311+AYV	2/2 NC	0,8	0 … 8	0,2	1	24	Without	NBR	2	-	-	S110.1032
11-211P602-H0+1311+AYV		1,2	0 … 4	0,39	1	24	Without	NBR	2	-	-	S110.1032
11-211P603-H0+6311+AZU		1,6	0 … 8	0,54	4/0.4	24	Without	NBR	2	-	-	S110.1032
11-311PI060H0+1111+AYV	3/2 NC	0,6	0 … 8	0,12	1	24	With	NBR	1	S111.1772	S110.1277	S110.1032
11-311PI01-H0+1111+AYV		0,8	2 … 8	0,19	1	24	With	NBR	1	S111.1772	S110.1277	S110.1032
11-311PI011H0+6111+AZR		1,1	2 … 8	0,37	3/0.3	24	With	NBR	1	S111.1772	S110.1277	S110.1032
11-311PI013H0+6111+AZR		1,3	2 … 6.5	0,44	3/0.3	24	With	NBR	1	S111.1772	S110.1277	S110.1032
11-321PI01-H0+1111+AYV	3/2 NO	0,8	0 … 6	0,19	1	24	With	NBR	1	S111.1772	S110.1277	S110.1032
11-331PI01-H0+1111+AYV	3/2 UNI	0,8	0 … 2	0,18	1	24	With	NBR	1	S111.1772	S110.1277	S110.1032

*1) Cv = 0,07 kv.
*2) Valve models with 2 power consumption values are equipped with Hit & Hold' power saving electronic.
*3) Push only.

3/2 Intrinsically safe solenoid valve - PICOSOL IS

Accessories

Models Available on Request	Operation	Orifice (mm)	Operating pressure (bar)	kv *1) (l/min)	Power consumption (W)	Voltage (V d.c.)	Manual override *2)	Seal material	Dimension No.	Lead length (mm)	"Mounting plate with barbed fittings for 3mm ØID tubing (up to 2 bar)	Electrical connector Molex 50-57-9402 with 300 mm flying leads
11-311PI060H0+H110002+AWF	3/2 NC	0,6	0 … 8	0,08	0,5	12	with	NBR	3	300	S111.1772	S110.1277
11-311PI060H0+H110003+AYJ	3/2 NC	0,6	0 … 8	0,08	0,5	24	with	NBR	3	300	S111.1772	S110.1277

*1) Cv = 0,07 kv.
*2) Power consumption: "boosting power during ca. 50 ms"/ "holding power".

Pulse width modulation (PWM) control

A PWM can be used to control the valve and should be set as follows:

	Definition	Value to be applied
Hit voltage	Voltage used for the valve to commute	Valve nominal voltage
Holding voltage	Voltage applied to the valve after commutation	Set duty cycle to guarantee specified holding voltage. / 50% of nominal voltage can be used if no value specified.
Hit time	Maximum time required to ensure full valve commutation	40 ms at T > 20°C *1)
PWM frequency		20 … 30 kHz

*1) Please contact us for application outside of those conditions.

DIRECT ACTING SOLENOID VALVE

PICOSOL 2/2, 3/2 - 10 mm

Electrical details

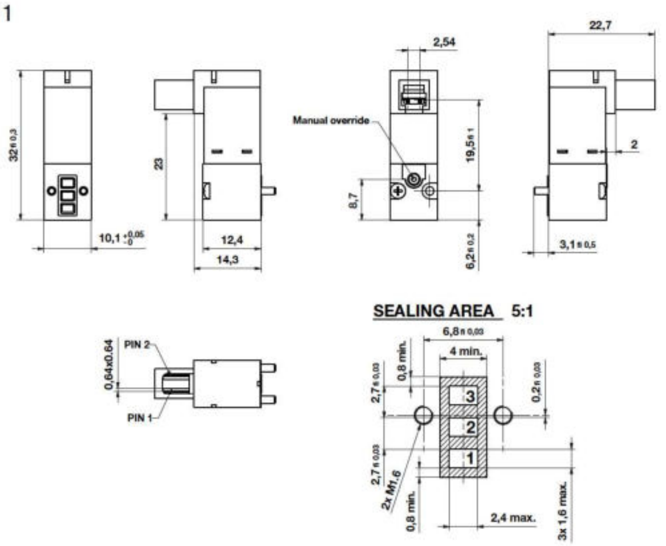
Voltage:	24 V d.c.
Rating:	100 % E.D.
Voltage tolerance	± 10%
Power consumption:	1[W] (3/0,3 W)*
Electrical insulation	1000 V a.c.
Protection class	IP 51
Insulation class	F (155°C)

* With optional PWM control.

Embedded electronics options

Integrated pulse width modulation (PWM)
Enhanced opening time repeatability
Larger input voltage tolerances
Improved boosting by plunger movement detection
Improved boosting by plunger movement detection with power adaptation
Faster valve closing
Current control for improved performances over temperature range
Reverse polarity protection
Led signalization

1



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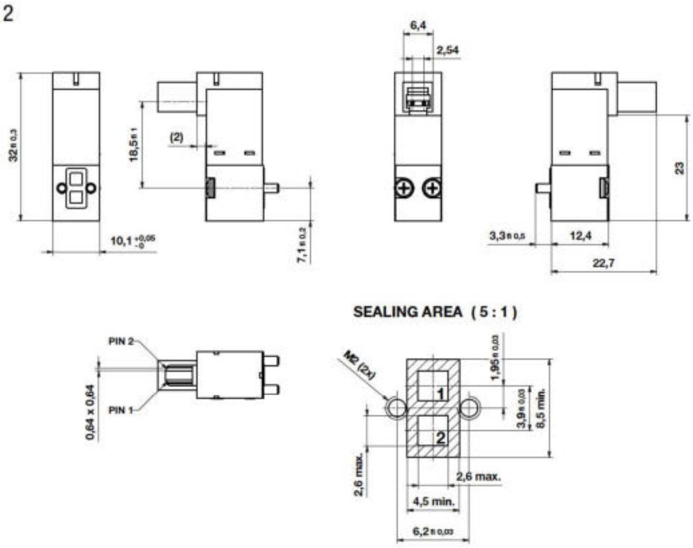

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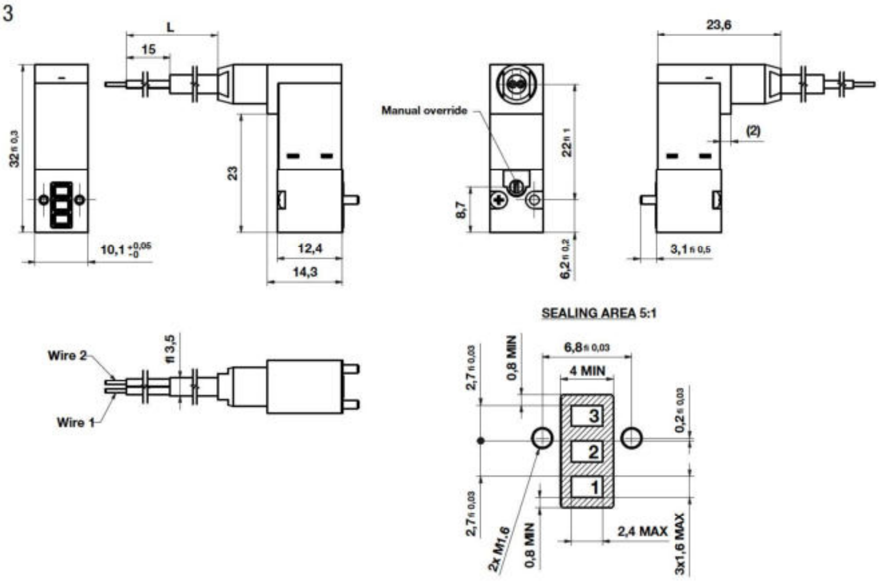


Options

- Operating pressure (vacuum)
- Medium temperature
- Ambient temperature
- Response time
- Power consumption
- Materials
- Coils
- Protection class
- Degreased for oxygen use
- Manual override

DIRECT ACTING SOLENOID VALVE

MICROSOL 2/2, 3/2 - 15 mm

- Manifold mounting
- Compact design
- High flow rate
- In excess of 100 – Mio. cycle rate
- Up to 3,6 mm orifice

Technical Data

Medium:
Air, oxygen, neutral gases (10% to 95% humidity, non condensing), 40 µm filtered

Operation:
Direct acting 2-way and 3-way valves, normally closed and normally opened

Operating pressure:
see table

Flow:
6 … 120 l/min at 2 bar at +20°C

kv factor:
0,15 … 3 (Cv: 0,01 … 0,2)

Orifice:
2/2 way valves: 0,5 … 3,6 mm
3/2 way valves: 0,5 … 1,5 mm

Response time:
10 … 15 ms
Response time measured according to ISO 12238

Life expectancy:
≥100 million cycles
(except Hit & Hold valves)

Ambient temperature:
-10°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body:
PPS

Seat seals:
NBR, FPM

Internal parts:
Stainless steel, PA 6/6

Models

Accessories

Model	Operation	Orifice (mm)	Operating pressure (bar)	kv *1) (l/min)	Power consumption (W) *2)	Voltage (V d.c.)	Manual override	Seal material	Dimension No.	Mounting plate with M5 thread — 1 position for 2 ways valve up to 2 mm orifice and 3 ways valve	Electrical connector MPM 9,4 mm industry standard (C192) to mate AMP spade 2,8 x 0,5 mm
											
01-211P-036H0+63111+AZN	2/2 NC (Flow direction from 2 » 1)	3,6	0 … 6	3	12/0.5	24	Without	NBR	1	S050.1010	N050.1456
01-311P1011H0+63111+AYZ	3/2 NC	1,1	0 … 10	0,42	2	24	Without	NBR	2	S050.1010	N050.1456
Models Available on Request											
01-211P200-H0+13111+AYV	2/2 NC	0,5	0 … 15	0,15	1	24	Without	NBR	3	S050.1010	N050.1456
01-211P201-H0+13111+AYV	2/2 NC	0,8	0 … 10	0,4	1	24	Without	NBR	3	S050.1010	N050.1456
01-211P202-H0+63111+AYZ	2/2 NC	1,2	0 … 10	0,75	2	24	Without	NBR	3	S050.1010	N050.1456
01-211P204-H0+63111+AYZ	2/2 NC	2	0 … 4	1,3	2	24	Without	NBR	3	S050.1010	N050.1456
01-221P200-H0+631A1+AYZ	2/2 NO	0,5	0 … 16	0,15	2	24	Without	NBR	4	S050.1010	N050.1456
01-221P202-H0+631A1+AYZ	2/2 NO	1,2	0 … 10	0,75	2	24	Without	NBR	4	S050.1010	N050.1456
01-221P204-H0+631A1+AYZ	2/2 NO	2	0 … 6	1,4	2	24	Without	NBR	4	S050.1010	N050.1456
01-311P101-H0+13111+AYV	3/2 NC	0,8	0 … 8	0,28	1	24	Without	NBR	2	S050.1010	N050.1456
01-311P1015H0+63111+AYZ	3/2 NC	1,5	0 … 6	0,55	2	24	Without	NBR	2	S050.1010	N050.1456
01-321P101-H0+631A1+AYZ	3/2 NO	0,8	0 … 10	0,28	2	24	Without	NBR	5	S050.1010	N050.1456
01-321P1011H0+631A1+AYZ	3/2 NO	1,1	0 … 6	0,42	2	24	Without	NBR	5	S050.1010	N050.1456
01-321P1015H0+631A1+AYZ	3/2 NO	1,5	0 … 3	0,55	2	24	Without	NBR	5	S050.1010	N050.1456
01-331P1070H0+63111+AYZ	3/2 UNI	0,7	0 … 6	0,24	2	24	Without	NBR	2	S050.1010	N050.1456
01-331P1010H0+63111+AYZ	3/2 UNI	1	0 … 3.5	0,36	2	24	Without	NBR	2	S050.1010	N050.1456
01-331P1015H0+63111+AYZ	3/2 UNI	1,5	0 … 2	0,55	2	24	Without	NBR	2	S050.1010	N050.1456

*1) Cv - Value in [gal/min] = kv x 0,07; kv for 3/2 way valves represents flow value between ports 2 and 3.
*2) Valve models with 2 power consumption values are equipped with ‚Hit & Hold' power saving electronic.

3/2 Intrinsically safe solenoid valve - MICROSOL IS

Accessories

Model	Operation	Orifice (mm)	Operating pressure (bar)	kv *1) (l/min)	Power consumption (W) *2)	Voltage (V d.c.)	Manual override	Seal material	Dimension No.	Mounting plate with M5 thread — 1 position for 2 ways valve up to 2 mm orifice and 3 ways valve	Electrical connector MPM 9,4 mm industry standard (C192) to mate AMP spade 2,8 x 0,5 mm
01-311P-00-H0+H012003+BCC	3/2 NC	0,5	0 … 7	0,12	0,55	12	With	NBR	6	S050.1010	N050.1456
01-311P-00-H0+H012004+BDH	3/2 NC	0,5	0 … 7	0,12	0,70	24	With	NBR	6	S050.1010	N050.1456
01-311P-00-H0+H010014+AWD	3/2 NC	0,5	4 … 7	0,07	0,10	12	With	NBR	7	S050.1010	N050.1456
01-311P-00-H0+H010016+AYG	3/2 NC	0,5	4 … 7	0,07	0,10	24	With	NBR	7	S050.1010	N050.1456

*1) Cv - Value in [gal/min] = kv x 0,07; kv for 3/2 way valves represents flow value between ports 2 and 3
*2) Push only.

DIRECT ACTING SOLENOID VALVE
MICROSOL 2/2, 3/2 - 15 mm

Electrical details

Voltage:	24 V d.c.
Voltage range:	-10 % … +15 % @ 100 % duty cycle
Electrical insulation:	1500 V a.c.
Insulation class:	F (155°C)
Protection class according to EN 60529:	IP 51 with connector

Embedded electronics options

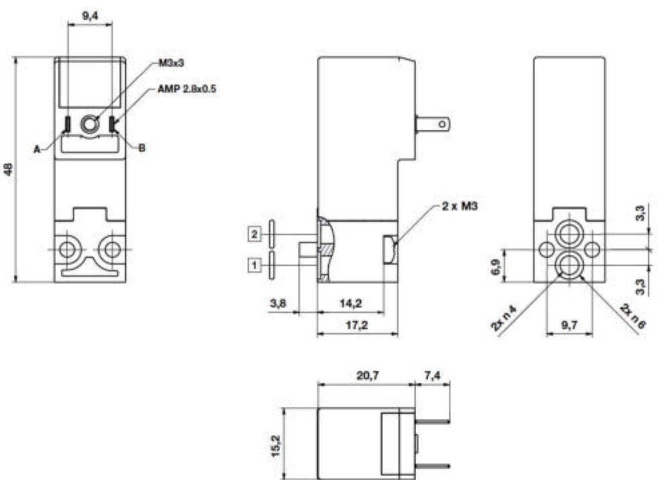
Integrated pulse width modulation (PWM)
Reverse polarity protection
Led signalization

Options

- Pneumatic configuration (latching)
- Operating pressure (also vacuum)
- Materials
- Voltage
- Pneumatic port allocation
- Power consumption
- Electrical connections (300 mm flying leads, connector types)
- Coil orientation
- Protection class
- M5 ported mounting plate - 2 … 8 positions

Dimensions

1



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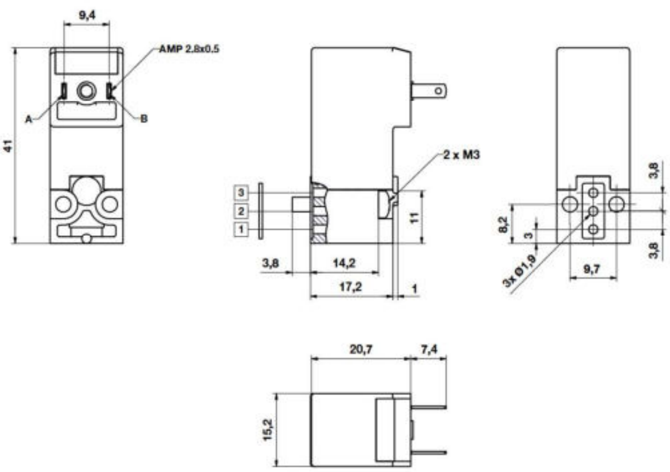

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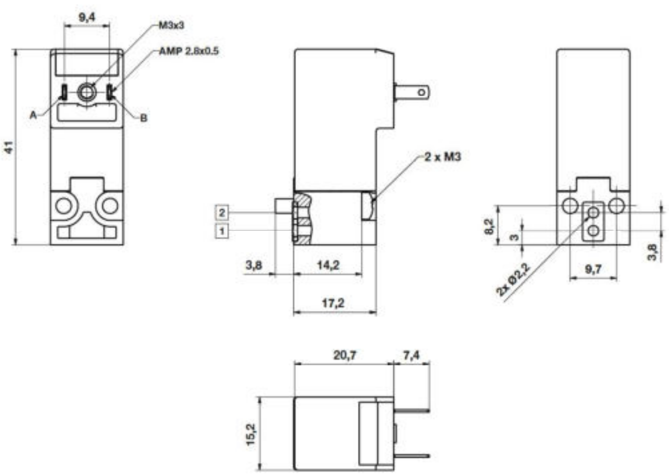

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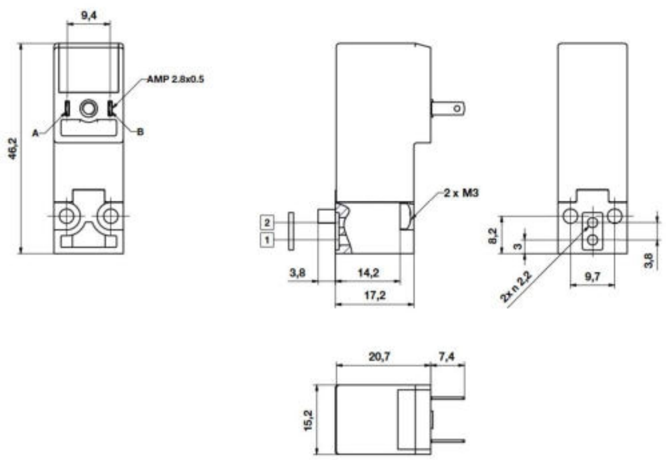

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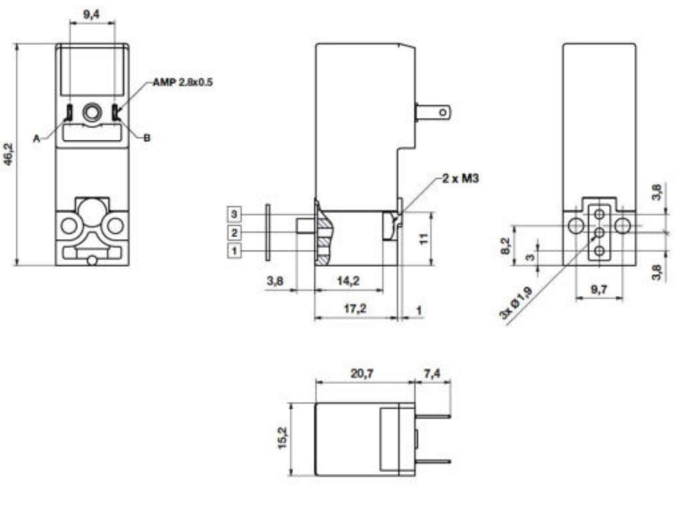
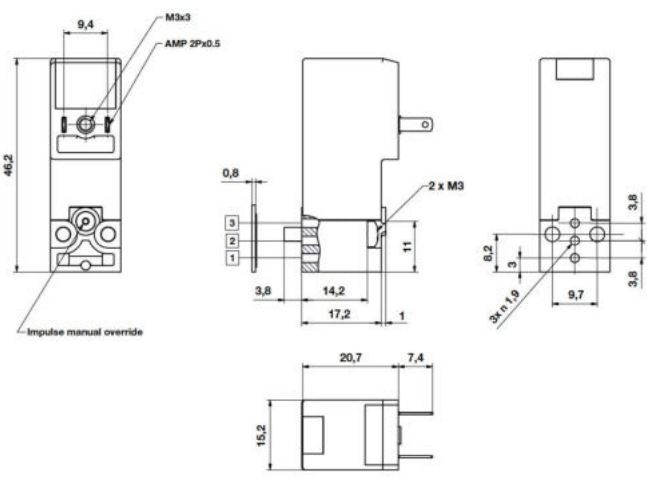


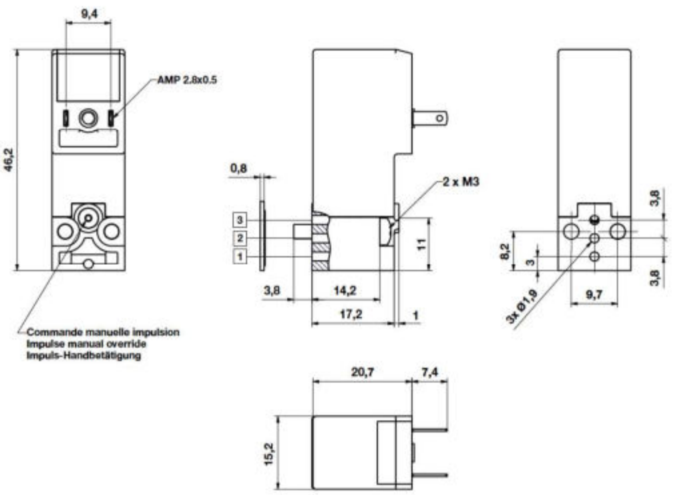
9,4
AMP 2.8x0.5
A
B
46,2
2 x M3
3
2
1
3,8
14,2
17,2
1
11
3,8
8,2
3
3,8
3x Ø1,9
9,7
20,7
7,4
15,2

6



9,4
M3x3
AMP 2Px0.5
46,2
Impulse manual override
0,8
2 x M3
3
2
1
3,8
14,2
17,2
1
11
3,8
8,2
3
3,8
9,7
20,7
7,4
15,2

7



9,4
AMP 2.8x0.5
46,2
Commande manuelle impulsion
Impulse manual override
Impuls-Handbetätigung
0,8
2 x M3
3
2
1
3,8
14,2
17,2
1
11
3,8
8,2
3
3,8
3x Ø1,9
9,7
20,7
7,4
15,2

MEDIA SEPARATED SOLENOID VALVE

MICROSOL 2/2 MS - 15 mm

- Low internal volume
- Compact design
- High flow to size ratio
- High pressure capability

Technical Data

Medium:
Neutral or aggressive gases and liquids

Operation:
Direct acting 2-way media separated valves, normally closed

Operating pressure:
0 … 10 bar
Details below

Flow (kv factor):
kv: 0,25 … 0,8 l/min
10 … 33 l/min at Δp = 2 bar at +20°C

Mounting:
Manifold

Orifice:
0,8 … 2 mm

Ambient/Media temperature:
+5°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body in contact with media:
PVDF, PEEK

Seal and diaphragm material in contact with media:
FPM, FFPM, EPDM

Electrical details

Voltage:	24 V d.c.
Voltage range:	-10 % … +15 %
Power consumption:	2 W
Electrical insulation:	1500 V a.c.
Duty cycle	100% ED
Insulation class:	F (155 °C)
Protection class according to EN 60529:	IP51 with connector

Options

- Pneumatic configuration (latching
- Operating pressure (also vacuum)
- Materials
- Temperature range
- Voltage
- Pneumatic port allocation
- Power consumption
- Electrical connections (300 mm flying leads, connector types)
- Coil orientation
- Protection class
- Embedded electronics options: Integrated pulse width modulation (PWM) Reverse polarity protection

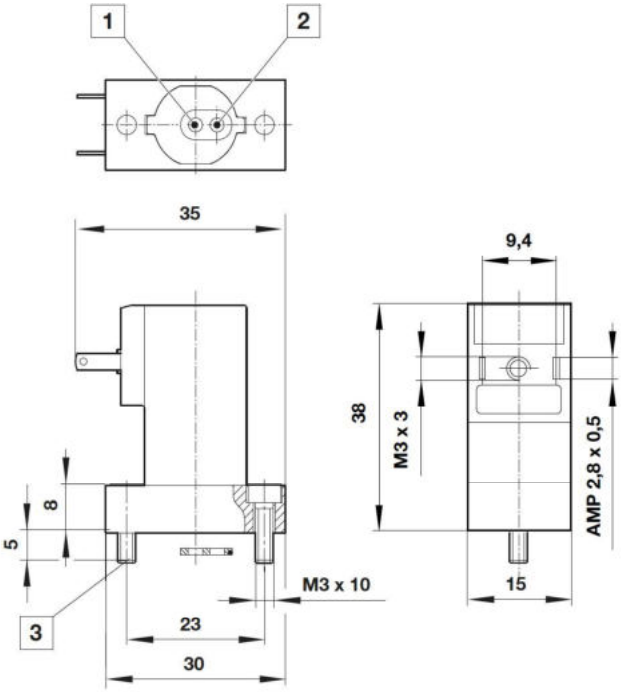
Models

Accessories

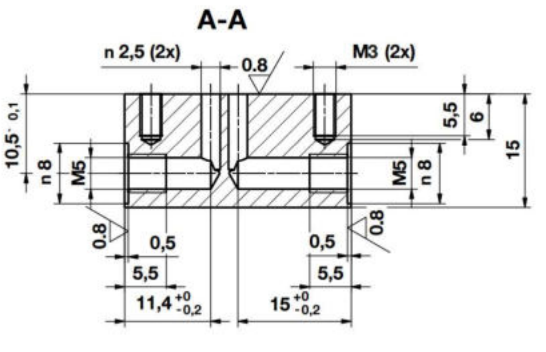
Model	Operation	Orifice (mm)	Operating pressure (bar)	Back pressure (bar)	kv *1) (l/min)	Seal Material	Mounting plate with M5 thread PVDF — 1 position	Electrical connector MPM 9,4 mm industry standard (C192) to mate AMP spade 2,8 x 0,5 mm
								
01-213E-01-51+EHP+AYZ	2/2 NC	0,8	0 … 10	1,8	0,25	PVDF/FPM	S010.1998	N050.1456
Models Available on Request								
01-213E-01-55+EHP+AYZ	2/2 NC	0,8	0 … 10	1,8	0,25	PVDF/EPDM	S010.1998	N050.1456
01-213E-01-B6++AYZ	2/2 NC	0,8	0 … 6	0,5	0,25	PEEK/FFPM	S010.1998	N050.1456
01-213E-02-51+EHP+AYZ	2/2 NC	1,2	0 … 6	1,6	0,55	PVDF/FPM	S010.1998	N050.1456
01-213E-02-55+EHP+AYZ	2/2 NC	1,2	0 … 6	1,6	0,55	PVDF/EPDM	S010.1998	N050.1456
01-213E-02-B6++AYZ	2/2 NC	1,2	0 … 2.5	0,5	0,55	PEEK/FFPM	S010.1998	N050.1456
01-213E-03-51+EHP+AYZ	2/2 NC	1,6	0 … 4.5	1,6	0,65	PVDF/FPM	S010.1998	N050.1456
01-213E-03-55+EHP+AYZ	2/2 NC	1,6	0 … 4.5	1,6	0,65	PVDF/EPDM	S010.1998	N050.1456
01-213E-03-B6++AYZ	2/2 NC	1,6	0 … 1.8	0,5	0,65	PEEK/FFPM	S010.1998	N050.1456
01-213E-04-51+EHP+AYZ	2/2 NC	2,0	0 … 3.5	1,6	0,80	PVDF/FPM	S010.1998	N050.1456
01-213E-04-55+EHP+AYZ	2/2 NC	2,0	0 … 3.5	1,6	0,80	PVDF/EPDM	S010.1998	N050.1456
01-213E-04-B6++AYZ	2/2 NC	2,0	0 … 1.0	0	0,80	PEEK/FFPM	S010.1998	N050.1456

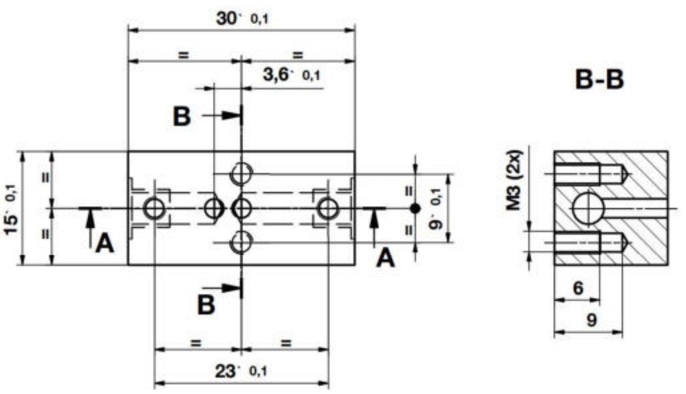
*1) Cv - Value in [gal/min] = kv x 0.07

Dimensions



1 Inlet Ø 2 mm
2 Outlet Ø 2,4 mm
3 Mounting screw
All solenoids are supplied with mounting screws and gasket.





MEDIA SEPARATED SOLENOID VALVE

MICROSOL 3/2 MS - 15 mm

- Low internal volume, virtually no unswept volume
- Large pressure rang
- Long life - in excess of 10 Mio. cycles
- Very compact design
- Low power consumption 4/0,4 W

Technical Data

Medium:
Neutral or aggressive gases and liquids

Operation:
Direct acting 3-way media separated valves.

Operating pressure:
Orifice 1.2 mm: -0.95 … 4.5 bar
Orifice 1.6 mm: -0.95 … 2.2.bar

Flow (kv factor):
kv: 0.6 l/min; flow: 24 l/min (orifice 1.2 mm, at Δp = 2 bar, 20°C)
kv: 0.8 l/min; flow: 33 l/min (orifice 1.6 mm, at Δp = 2 bar, 20°C)

Orifice:
1,2 and 1,6 mm

Life expectancy:
≥10 Mio. cycles
(depends on the application)

Ambient/Media temperature:
0°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body in contact with media:
PEEK

Seal and diaphragm material in contact with media:
FPM, FFPM, EPDM

Options

- Operating pressure
- Materials
- Temperature range
- Manual override
- Coil orientation
- Voltage
- Electrical connection (leads)
- Embedded electronics options: Without integrated pulse width modulation

Models

Accessories

Model	Operation	Orifice (mm)	Operating pressure (bar)	Back pressure max. *1) (bar)	kv *2) (l/min)	Voltage [V d.c.]	Power consumption *3) [W]	Seal / Diaphragm Material	Mounting manifold with M5 threads - 1 position, PEEK	Electrical connector MPM 9,4 mm industry standard (C192) to mate AMP spade 2,8 x 0,5 mm
										
01-333EF02-B5+23112+AZU	3/2 UNI	1,2	-0,95 … 4,5	2,2	0,6	24	4/0.4	EPDM	S010.2259	N050.1456
01-333EF03-B5+23112+AZU	3/2 UNI	1,6	-0.95 … 2.2	1,10	0,8	24	4/0.4	EPDM	S010.2259	N050.1456
Models Available on Request										
01-333EF02-B1+23112+AZU	3/2 UNI	1,2	-0,95 … 4,5	2,2	0,6	24	4/0.4	FPM	S010.2259	N050.1456
01-333EF02-B6+23112+AZU	3/2 UNI	1,2	-0,95 … 4,5	2,2	0,6	24	4/0.4	FFPM	S010.2259	N050.1456
01-333EF03-B1+23112+AZU	3/2 UNI	1,6	-0.95 … 2.2	1,10	0,8	24	4/0.4	FPM	S010.2259	N050.1456
01-333EF03-B6+23112+AZU	3/2 UNI	1,6	-0.95 … 2.2	1,10	0,8	24	4/0.4	FFPM	S010.2259	N050.1456

*1) Maximum back pressure during commutation: 50% of operating pressure
*2) Cv = 0,07 kv

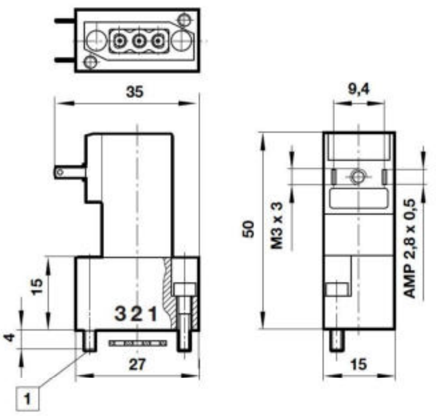
*3) Power consumption: "boosting power during approx 50 ms" / "holding power"

Electrical details

Voltage tolerance:	±5%
Voltage:	12 and 24 V.d.c (>60ms)
Power consumption:	4/0,4W
Electrical connection	AMP 2P
Electrical insulation:	1500 V.a.c.
Insulation class:	F (155°C)
Protection class:	IP51
Cycle rate:	< 4Hz

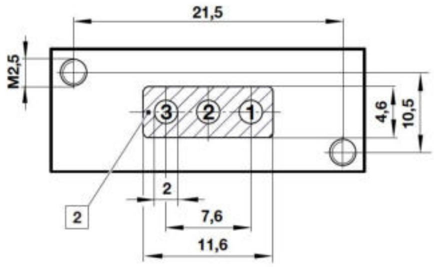
Integrated pulse width modulation (PWM)
Revert polarity detection

Dimensions



1 Mounting screw
2 Sealing area
All solenoids are supplied with mounting screws and gasket.

Connecting area



DIRECT ACTING SOLENOID VALVE

INTERSOL 2/2, 3/2 - 22 mm

- Manifold mounting
- Compact design
- Easy integration
- Up to 2000 cycles per minute
- Up to 1,8 mm orifice

Technical Data

Medium:
Air, neutral gases and liquids

Operation:
Direct acting 2-way and 3-way valves, normally closed and normally opened, universal, with manual override

Operating pressure:
0 … 15 bar

Flow (kv factor):
0,6 … 1,0 (Cv: 0.04 … 0.06)

Mounting:
Flange mount

Orifice:
1,2 …. 1,8 mm (0.05 … 0.07")

Response time:
8 … 15 ms
Response time measured according to ISO 12238

Life time:
25 million cycles

Ambient/Media temperature:
-15°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body:
Brass, PA

Seal:
NBR, FPM, EDPM

Electrical details

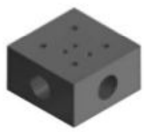
Voltage tolerances:	-10 % … +15 %
Duty cycle	100% ED
Insulation class:	F (155 °C)
Protection class according to EN 60529:	IP 65 with connector
Electrical connection	Interface according to DIN EN 175301-803, Form B
Coil orientation	Rotable 360°
Coil mounting	M8 x 0.75 mm nut

Options

- Pneumatic configuration
- Voltage
- Power consumption
- Electrical connections (type of connector & coil orientation)
- Operating pressure (also vacuum)
- Materials

Models

Accessories

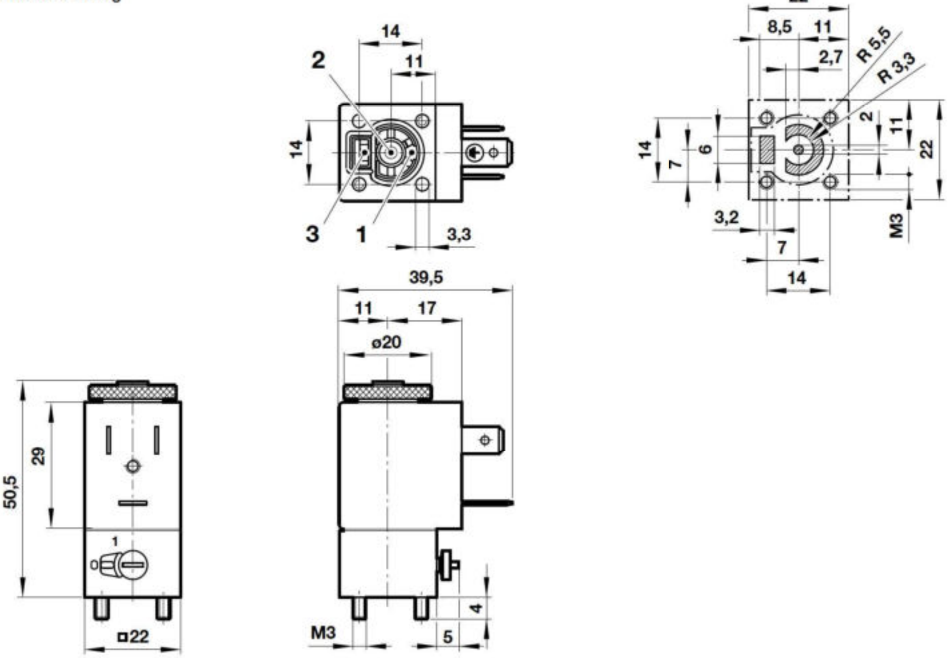
Model	Function	Orifice (mm)	Operating pressure (bar)	kv *1) (l/min)	Voltage (V d.c.)	Power consumption (W)	Material Body	Material Seal	G1/8 ported mounting plate - 1 position for 3/2 ways valve	22 mm Industrial standard 2-pole + PE
										
09-311I-02-30+EDC+AQF	3/2 NC	1,2	0 … 15	0,60	24	3,8	PA	NBR	S090.3146	N060.1075
Models Available on Request										
09-211I-02-30+EDC+AQF	2/2 NC	1,2	0 … 15	0,60	24	3,8	PA	NBR	S090.3146	N060.1075
09-211I-03-30+EDC+AQF	2/2 NC	1,6	0 … 10	0,80	24	3,8	PA	NBR	S090.3146	N060.1075
09-211I-01830+EDC+AQF	2/2 NC	1,8	0 … 8	1,00	24	3,8	PA	NBR	S090.3146	N060.1075
09-221I-01830+EDC+AQF	2/2 NO	1,8	0 … 12	0,75	24	3,8	PA	NBR	S090.3146	N060.1075
09-311I-01430+EDC+AQF	3/2 NC	1,4	0 … 12	0,70	24	3,8	PA	NBR	S090.3146	N060.1075
09-311I-03-30+EDC+AQF	3/2 NC	1,6	0 … 10	0,80	24	3,8	PA	NBR	S090.3146	N060.1075
09-311I-01830+EDC+AQF	3/2 NC	1,8	0 … 8	1,00	24	3,8	PA	NBR	S090.3146	N060.1075
09-321I-02-30+EDC+AQF	3/2 NO	1,2	0 … 10	0,60	24	3,8	PA	NBR	S090.3146	N060.1075
09-321I-01430+EDC+AQF	3/2 NO	1,4	0 … 7	0,75	24	3,8	PA	NBR	S090.3146	N060.1075
09-321I-01830+EDC+AQF	3/2 NO	1,8	0 … 6	0,85	24	3,8	PA	NBR	S090.3146	N060.1075
09-331I-02-30+EDC+AQF	3/2 NC	1,2	0 … 8	0,60	24	3,8	PA	NBR	S090.3146	N060.1075
09-331I-01830+EDC+AQF	3/2 NC	1,8	0 … 4	0,85	24	3,8	PA	NBR	S090.3146	N060.1075

*1) Cv - Value in [gal/min] = kv x 0.07

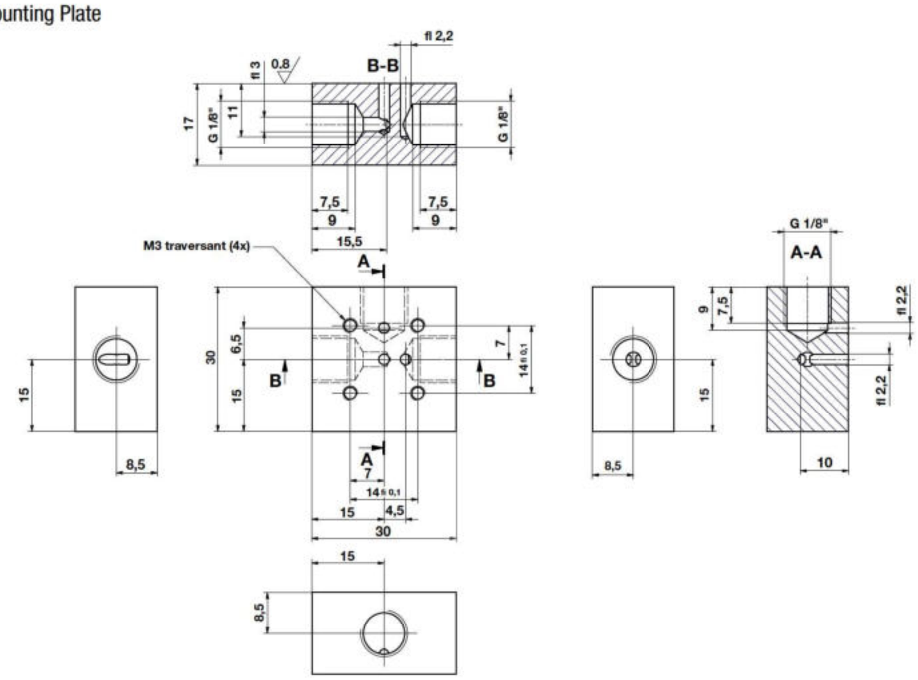
DIRECT ACTING SOLENOID VALVE
INTERSOL 2/2, 3/2 - 22 mm

Dimensions

Manifold fitting



Mounting Plate



Port identification

	Ports 1	2	3
2/2 NC	A	P	–
2/2 NO	P	–	A
3/2 NC	A	P	R
3/2 NO	A	R	P
3/2 UNI (SEL)	P	A_1	A_2
3/2 UNI (MIX)	A	P_1	P_2

P, P1, P2 = Inlet; A, A1, A2 = Outlet; R = Exhaust
Please refer to marking on the valve body for flow direction or port identification.
All solenoids are supplied with mounting screws and gasket.

DIRECT ACTING SOLENOID VALVE

MINISOL 2/2, 3/2 - 22 mm

- Compact design
- High cycle rate of up to 2000 cycles per minute
- Up to 2,4 mm orifice (kv 2.00)

Technical Data

Medium:
Air, neutral gases and liquids

Operation:
Direct acting 2-way and 3-way valves, normally closed and normally opened, bi-directional

Operating pressure:
0 … 40 bar

Flow (kv factor):
0,5 … 2.0 (Cv: 0.03 … 0,14)

Mounting:
Inline

Orifice:
1,0 … 2,4 mm (0.04 … 0.09")

Standard port size:
G1/8

Response time:
8 … 15 ms
Response time measured according to ISO 12238

Life time:
25 million cycles

Ambient temperature:
-15°C … +50°C

Media temperature:
-15°C … +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body:
Stainless steel, brass, PA

Seal:
NBR, FPM, EDPM, FFPM

Electrical details

Voltage tolerances:	-10 % … +15 %
Duty cycle	100% ED
Insulation class:	F (155 °C)
Protection class according to EN 60529:	IP 65 with connector
Electrical connection	Interface according to DIN EN 175301-803, Form B
Coil orientation	Rotable 360°
Coil mounting	M8 x 0,75 mm nut

Options

- Alternative configuration for manifold mounting
- Pneumatic connection
- Voltage
- Coil
- Power consumption
- Temperature range
- Operating pressure (also vacuum)
- Materials
- Electrical connections (type of connector & coil orientation)

Models

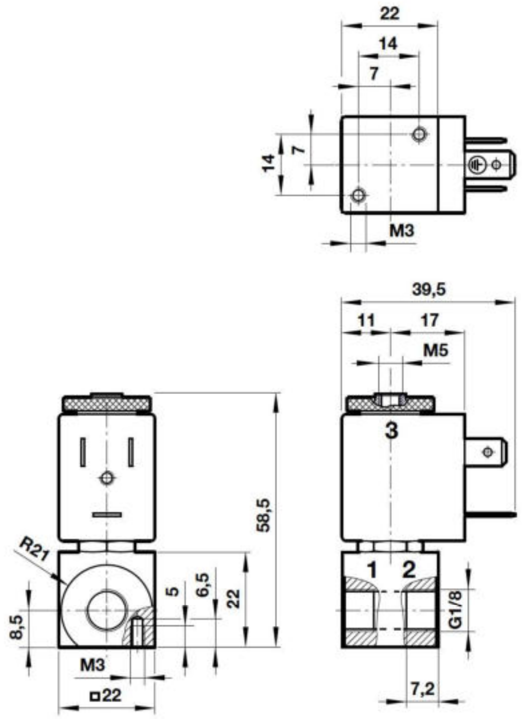
Accessories

Model	Function	Orifice (mm)	Operating pressure (bar)	kv *1) (l/min)	Voltage (V d.c.)	Power consumption (W)	Material Body	Seal	22 mm Industrial standard 2-pole + PE
									
09-211-101020+EDC+AQF	2/2 NC	1,0	0 … 40	0,50	24	3,8	Brass	NBR	N060.1075
Models Available on Request									
09-211-102-20+EDC+AQF	2/2 NC	1,2	0 … 25	0,65	24	3,8	Brass	NBR	N060.1075
09-211-103-20+EDC+AQF	2/2 NC	1,6	0 … 11	1,20	24	3,8	Brass	NBR	N060.1075
09-211-104-20+EDC+AQF	2/2 NC	2,0	0 … 8	1,60	24	3,8	Brass	NBR	N060.1075
09-211-105-20+EDC+AQF	2/2 NC	2,4	0 … 6	2,00	24	3,8	Brass	NBR	N060.1075
09-211E-05-41+VDC+AQF	2/2 NC	2,4	0.033 to 1 *2)	1,60	24	3,8	Stainless Steel	FPM	N060.1075
09-311-102-20+EDC+AQF	3/2 NC	1,2	0 … 7	0,65	24	3,8	Brass	NBR	N060.1075
09-311-103-20+EDC+AQF	3/2 NC	1,6	0 … 5	1	24	3,8	Brass	NBR	N060.1075
09-321-103-20+EDC+AQF	3/2 NO	1,6	0 … 5	0,7	24	3,8	Brass	NBR	N060.1075

*1) Cv - Value in [gal/min] = kv x 0.07
*2) Absolute pressure range

DIRECT ACTING SOLENOID VALVE
MINISOL 2/2, 3/2 - 22 mm

Dimensions



All solenoids are supplied with mounting screws and gasket.

Port identification

	Ports 1	2	3
2/2 NC	A	P	–
3/2 NC	P	A	R
3/2 NO	R	A	P

P = Inlet; A = Outlet; R = Exhaust
Please refer to marking on the valve body for flow direction or port identification.

DIRECT ACTING SOLENOID VALVE

BACOSOL 2/2, 3/2 - 32 mm

- Manifold mounting
- Compact design
- High flow rate
- High cycle rate of up to 1200 cycles per minute
- Up to kv 14 (orifice 8 mm)

Technical Data

Medium:
Air, neutral gases and liquids

Operating pressure:
0 … 100 bar

Flow (kv factor):
0,15 … 14 (Cv: 0.01 … 1)

Orifice:
2/2: 0,5 … 8 mm (0.02 … 0.31")
3/2: 0,8 … 3 mm (0.02 … 0.12")

Standard port size:
G1/4

Response time:
10 … 15 ms
Response time measured according to ISO 12238

Ambient temperature:
-15°C … +50°C

Media temperature:
-15°C … +130°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body in contact with media:
Stainless steel, brass, PA

Seal in contact with media:
NBR, FPM, EDPM

Options

- Mounting and port sizes
- Flow rate, orifice size, kv
- Materials
- Pneumatic connection
- Override
- Operating pressure (On request incl. vacuum (10-3 torr)
- Voltage
- Power consumption
- Electrical connection

Models

Accessories

Model	Port size	Function	Orifice (mm)	Operating pressure (bar)	(psi)	kv *1) (l/min)	Voltage (V d.c.)	Power consumption (W)	Seal/Body Material	Drawing No.	Electrical connector DIN EN 175301-803, Form A
											
04-311-205-20+ACC	G1/4	3/2 NC	2,4	0 … 8	0 … 116	2.80	24	10	NBR/Brass	1	N040.1001
Models Available on Request											
04-211-200-20+ACC	G1/4	2/2 NC	0,5	0 … 100	0 … 1450	0.15	24	10	NBR/Brass	1	N040.1001
04-211-201-20+ACC	G1/4	2/2 NC	0,8	0 … 60	0 … 870	0.40	24	10	NBR/Brass	1	N040.1001
04-211-202-20+ACC	G1/4	2/2 NC	1,2	0 … 50	0 … 725	0.80	24	10	NBR/Brass	1	N040.1001
04-211-203-20+ACC	G1/4	2/2 NC	1,6	0 … 25	0 … 362	1.60	24	10	NBR/Brass	1	N040.1001
04-211-204-20+ACC	G1/4	2/2 NC	2,0	0 … 20	0 … 290	2.30	24	10	NBR/Brass	1	N040.1001
04-211-205-20+ACC	G1/4	2/2 NC	2,4	0 … 15	0 … 217	3.00	24	10	NBR/Brass	1	N040.1001
04-211-206-20+ACC	G1/4	2/2 NC	3,0	0 … 10	0 … 145	4.20	24	10	NBR/Brass	1	N040.1001
04-241-206-20+AFX	G1/4	2/2 NC (latching)	3,0	0 … 6	0 … 87	4.00	24	10	NBR/Brass	1	N040.1001
04-211-207-20+ACC	G1/4	2/2 NC	4,0	0 … 3	0 … 43	7.00	24	10	NBR/Brass	1	N040.1001
04-211-208-20+ACC	G1/4	2/2 NC	5,0	0 … 2	0 … 29	9.00	24	10	NBR/Brass	1	N040.1001
04-211-209-20+ACC	G1/4	2/2 NC	6,0	0 … 1.5	0 … 21	10.00	24	10	NBR/Brass	1	N040.1001
04-211-210-20+ACC	G1/4	2/2 NC	8,0	0 … 0.6	0 … 8.7	14.00	24	10	NBR/Brass	1	N040.1001
04-221-201-20+ACC	G1/4	2/2 NO	0,8	0 … 40	0 … 520	0.40	24	10	NBR/Brass	1	N040.1001
04-221-203-20+ACC	G1/4	2/2 NO	1,6	0 … 30	0 … 425	1.40	24	10	NBR/Brass	1	N040.1001
04-221-205-20+ACC	G1/4	2/2 NO	2,4	0 … 13	0 … 188	2.60	24	10	NBR/Brass	1	N040.1001
04-221-206-20+ACC	G1/4	2/2 NO	3,0	0 … 7	0 … 101	3.20	24	10	NBR/Brass	1	N040.1001
04-311-201-20+ACC	G1/4	3/2 NC	0,8	0 … 23	0 … 333	0.40	24	10	NBR/Brass	1	N040.1001
04-311-202-20+ACC	G1/4	3/2 NC	1,2	0 … 17	0 … 246	0.80	24	10	NBR/Brass	1	N040.1001
04-311-203-20+ACC	G1/4	3/2 NC	1,6	0 … 14	0 … 203	1.40	24	10	NBR/Brass	1	N040.1001
04-311-204-20+ACC	G1/4	3/2 NC	2,0	0 … 10	0 … 145	2.20	24	10	NBR/Brass	1	N040.1001
04-311-206-20+ACC	G1/4	3/2 NC	3,0	0 … 5.5	0 … 79	4.00	24	10	NBR/Brass	1	N040.1001
04-341-206-20+AFX	G1/4	3/2 NC (latching)	3,0	0 … 5.5	0 … 79	4.00	24	10	NBR/Brass	1	N040.1001
04-321-201-20+ACC	G1/4	3/2 NO	0,8	0 … 25	0 … 362	0.40	24	10	NBR/Brass	1	N040.1001
04-321-203-20+ACC	G1/4	3/2 NO	1,6	0 … 6	0 … 87	1.20	24	10	NBR/Brass	1	N040.1001
04-321-205-20+ACC	G1/4	3/2 NO	2,4	0 … 3	0 … 43	2.00	24	10	NBR/Brass	1	N040.1001
04-321-206-20+ACC	G1/4	3/2 NO	3,0	0 … 2.5	0 … 36	2.80	24	10	NBR/Brass	1	N040.1001

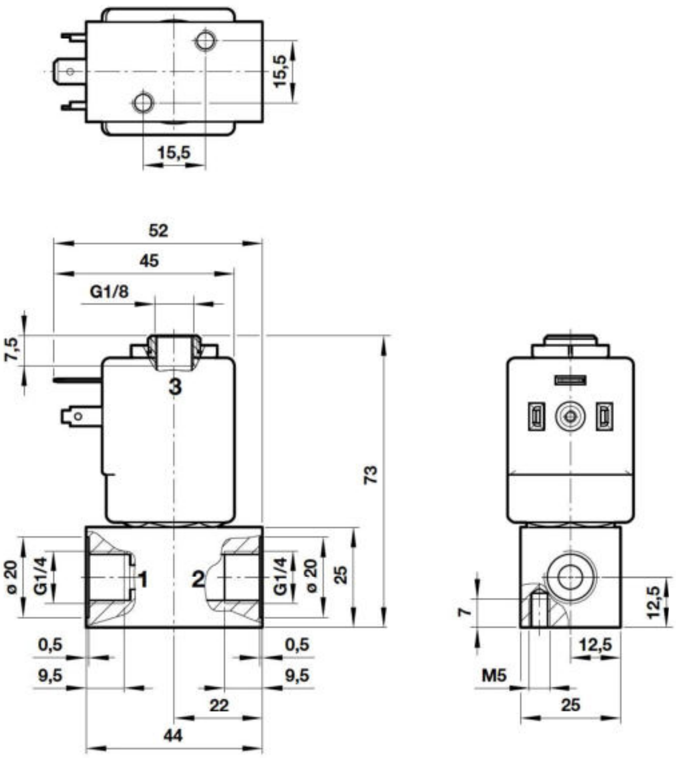
*1) Cv - Value in [gal/min] = kv x 0.07; kv for 3/2 way valves represents flow value between ports 2 and 3

DIRECT ACTING SOLENOID VALVE
BACOSOL 2/2, 3/2 - 32 mm

Electrical details

Voltage:	24 V d.c.
Voltage tolerances:	-10 % … +15 %
Electrical insulation:	2000 V a.c.
Power consumption (nominal at 20°C)	10 W
Insulation class:	H (180 °C)
Duty cycle:	100% ED
Protection class according to EN 60529:	IP 65 with connector
Electrical connection	Interface according to DIN EN 175301-803, Form A
Coil orientation	Rotatable 360°
Coil mounting	M8 x 0,75 mm nut

Dimensions



Port identification

	Ports 1	2	3
2/2 NC	A	P	–
2/2 NC latching	A	P	–
2/2 NO	–	P	A
3/2 NC	P	A	R
3/2 NC latching	P	A	R
3/2 NO	R	A	P

P = Inlet; A = Outlet; R = Exhaust
Please refer to marking on the valve body for flow direction or port identification.

TWO-HAND CONTROL UNIT

XSHC04 PIF 4 mm

- Meets the requirements of EN574 Class IIIB *1)
- Certificate of Conformity supplied with every unit
- Both hands must be engaged simultaneously
- Single fault tolerant
- Protection against accidental operation
- No setting or adjustment required

Technical Data

Medium:
Compressed air filtered to 40 µm, lubricated or non-lubricated operation

Operating pressure:
3 … 8 bar

Ambient temperature:
-5°C … +40°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

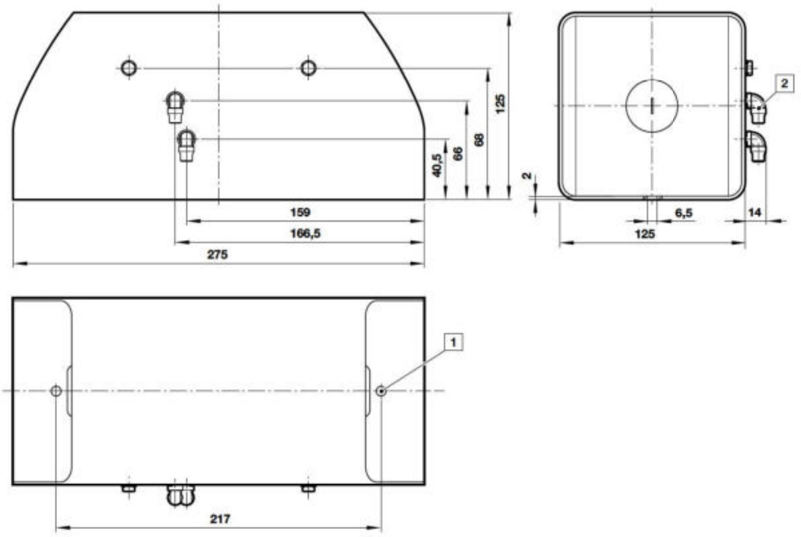
Outer cover and end plates:
Steel

Buttons:
Co-polymer

Seals:
NBR

*1) "The scope of the Machinery Directive encompasses safety components as well as machinery, and since two-hand control units are classed as safety components this requires the XSHC04 to satisfy the essential health and safety requirements of the Directive. One method of ensuring this is to conform with published European Norm (EN) Standards. In the case of the XSHC04 the main standard is EN574 Safety of Machinery – Two Hand Control Devices, Functional Aspects – Principles for Design. This standard classifies two- hand controls into various types, each requiring minimum performance and safety characteristics, such as simultaneous operation, fault tolerance, prevention of accidental operation etc.

EXPRESS

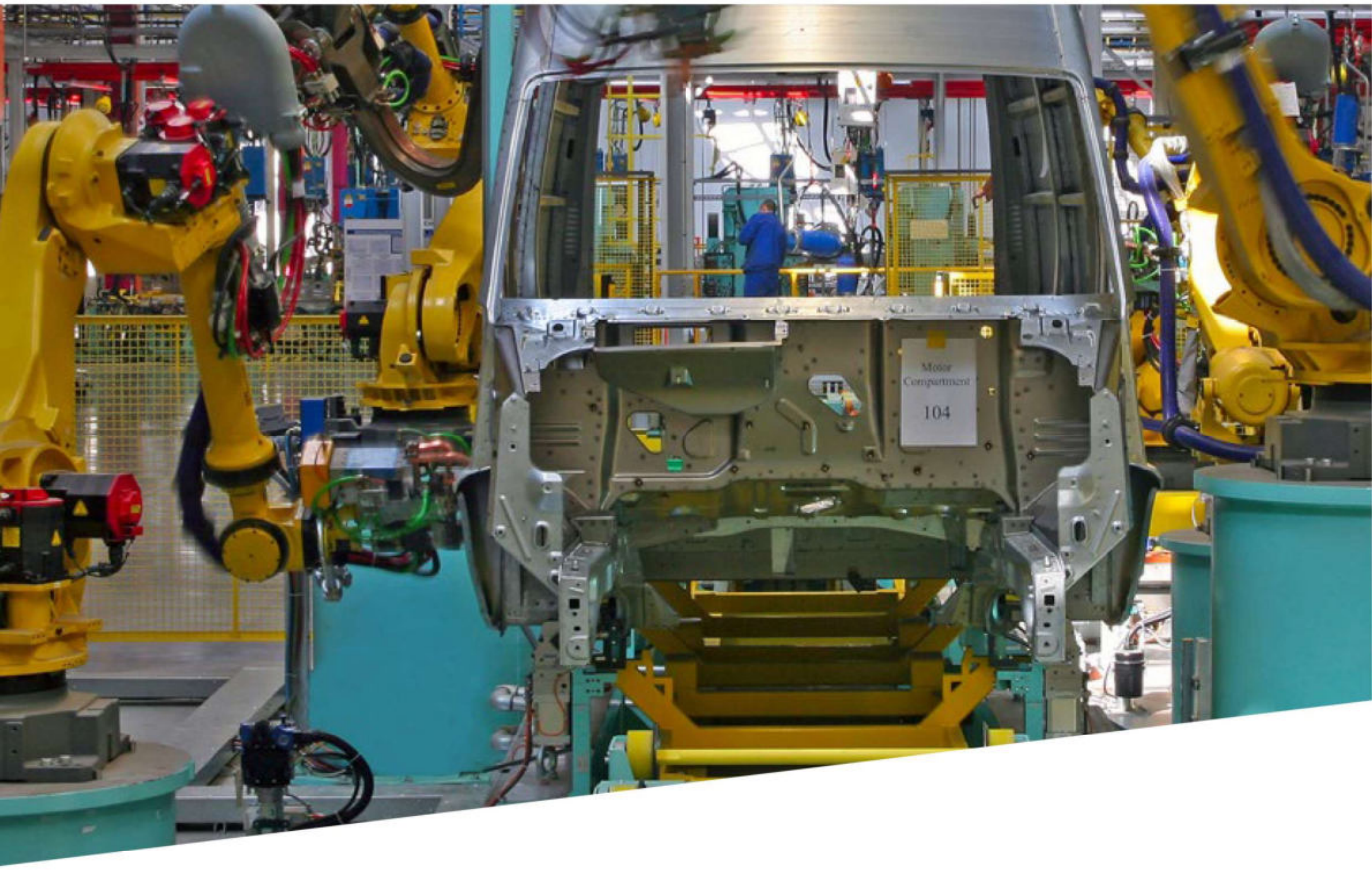


1 Mounting hole
2 Pneufit fitting turnable

Models

Model	O/D tube	Return	Operation
XSHC04	4 mm	0,6 s max.	Both buttons must be operated within 0,5 secs

Online at **www.imi-precision.com**



Solutions for
Safety Technology

- Over 50 years experience in safety applications
- Safety applications DIN EN ISO 13849
- Competent and professional consulting and system design of safety controls
- Very high B10
- DGUV certified self-monitored safety valves
- Important safety features such as:
  - Safe exhaust
  - Safe position
  - Safe stop
  - Reliable reversing
  - Safely limited speed and more

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SOLENOID ACTUATED SAFETY VALVES

SCVA08, SCVA20 & SCVA32 3/2 – G1/4, G3/4, G1

- Redundant valve assembly, pneumatic self-monitoring with integrated safety silencer
- Ensures safe loading and venting
- Requires no cyclical monitoring or evaluation system
- A complete range in sizes - DN 8, 20 and 32
- With the appropriate application, performance level "e" (cat. 4) of DIN EN ISO 13849-1 is achieved for the safety function "Pressure building up from '1' to '2' and pressure dropping from '2' to '3' "- DGUV approval

Technical Data

Medium:
Compressed air, filtered ≤ 50 μm, lubricated or non-lubricated

Operating Pressure:
See table below

Mounting:
Preferably upright with solenoids on top

Press control:
Valves are not approved for press clutch and brake applications

Ambient temperature:
-10°C … +60°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Housing:
Aluminium

Seals:
PUR or NBR

Models

Accessories

Model	Port size	Orifice (mm)	Power at 24 V d.c. (W)	Pressure range (bar)	Flow 1 » 2 (l/min)	Flow 2 » 3 (l/min)	Port sizes 1	Port sizes 2	Port sizes 3	Plug	Pressure switch - flange/face mounted direct onto valve *2)
											
SCVA081BB0A02400	G1/4	8	4,8	3 … 10	1280	1550	G1/4	G1/4	G1/4	0680003000000000, EN 175301-803 - form B	0881400000000000
SCVA201EF0B02400	G3/4	20	11	2 … 10	3900	14000	G3/4	G3/4	G 1	0570275000000000, EN 175301-803 - form A	0881400000000000
SCVA321FH0C02400	G1	32	16	2 … 10	8250	30000	G 1	–	–	0570275000000000, EN 175301-803 - form A	0881400000000000

*2) The pressure switch is not required as part of the safe functioning system within the valve, its is offered as a means of indicating that the valve taken up a safe condition ie. no pressure at the output port 2.

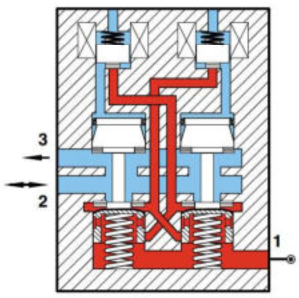
Technical data – Solenoids

Standard voltages	24 V d.c.
Duty cycle	100% ED
Protection class	IP65

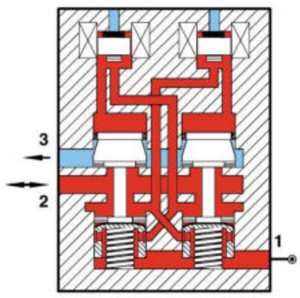
Other voltages on request!

Functional diagram

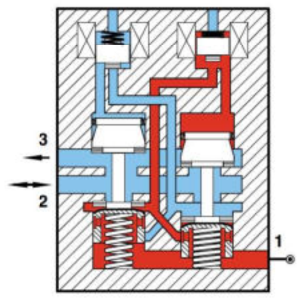
Basic position
Channel "2" onto "3"
Safety silencer relieved



Working position
Both solenoids energized
Channel „1" onto „2" turned on



Safety position
For unbalanced control, faulty solenoid, dirty valve, etc.



SOLENOID ACTUATED SAFETY VALVES
SCVA08, SCVA20 & SCVA32 3/2 – G1/4, G3/4, G1

Time to vent residual pressure to 0,5 bar

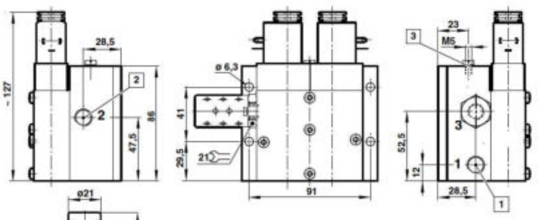
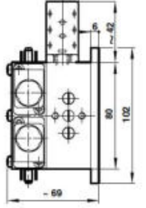
Model	Volume (dm³)	Operating pressure (bar)	Exhaust time (ms)
SCVA081…	1	5	200
		8	250
		10	290
	3	5	560
		8	730
		10	820

Model	Volume (dm³)	Operating pressure (bar)	Exhaust time (ms)
SCVA321…	20	5	310
		8	400
		10	420
	50	5	730
		8	930
		10	1100

Model	Volume (dm³)	Operating pressure (bar)	Exhaust time (ms)
SCVA201…	8	5	230
		8	290
		10	330
	20	5	520
		8	700
		10	800

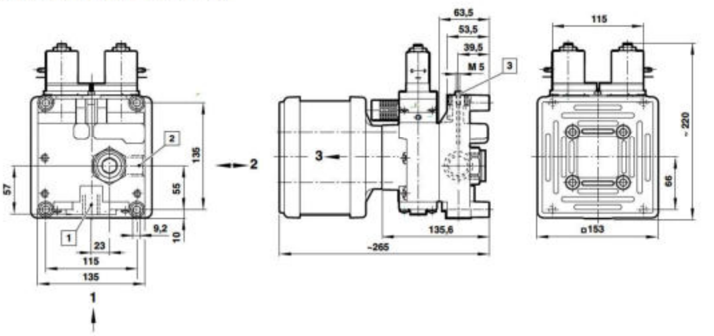
Dimensions

SCVA081BB0A02400 (G1/4)

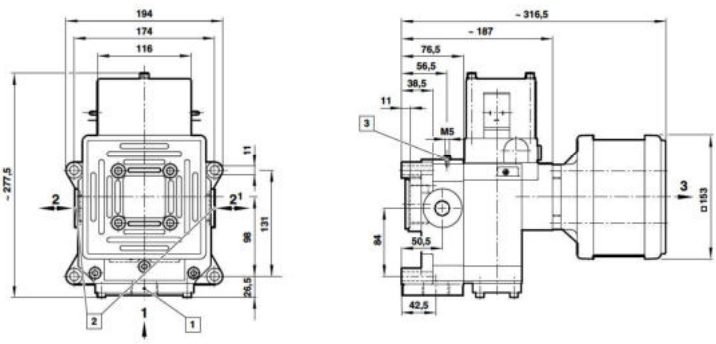
1 Port 1 (G1/4)
2 Port 2 (G1/4)
3 Interface for pressure switch

SCVA201EF0B02400 (G3/4)



1 Port 1 (G3/4)
2 Port 2 (G3/4)
3 Interface for pressure switch

SCVA321FH0C02400 (G1)



1 Port 1 (G1)
2 Alternative ports (G1), two plugs are in scope of delivery
3 Interface for pressure switch

SOLENOID ACTUATED SAFETY VALVES

SCVA10 3/2 – G1/2

- Redundant valve assembly, pneumatic selfmonitoring with integrated safety silencer
- Ensures safe loading and venting
- Requires no cyclical monitoring or evaluation system
- With the appropriate application, performance level "e" (cat. 4) of DIN EN ISO 13849-1 is achieved for the safety function "Pressure building up from '1' to '2' and pressure dropping from '2' to '3' "- DGUV approval
- Valve interface enables direct mount to the Excelon 73/74 series air preparation products

Technical Data

Medium:
Compressed air, filtered ≤ 50 µm, lubricated or non-lubricated

Operating pressure:
See table below

Mounting:
Preferably upright with solenoids

Press control:
Valves are not approved for press clutch and brake applications

Ambient temperature:
-10°C … +60°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Housing:
Aluminium

Seals:
PUR or NBR

EXPRESS

Models / Accessories

Model	Orifice (mm)	Power at 24 V d.c. (W)	Pressure range (bar)	Flow 1 » 2 (l/min)	Flow 2 » 3 (l/min)	Port sizes 1	Port sizes 2	Port sizes 3	Connector form A, DIN EN 175301-803	Quikclamp® with wall bracket *1)	Quikmount pipe adaptor	Pressure switch - flange/face mounted direct onto valve *2)
												
SCVA101DE1A02400	10	4,8	2 … 10	3400	6500	G1/2	G1/2	G3/4	06800030000000000	4314-52	4315-11 (G1/2)	08814000000000000

*1) Quikmount pipe adaptor please order separately.
*2) The pressure switch is not required as part of the safe functioning system within the valve, its is offered as a means of indicating that the valve taken up a safe condition ie. no pressure at the output port 2.

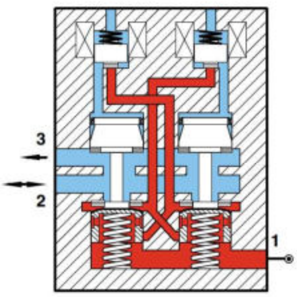
Technical data – Solenoids

Standard voltages	24 V d.c.
Duty cycle	100% ED
Protection class	IP65

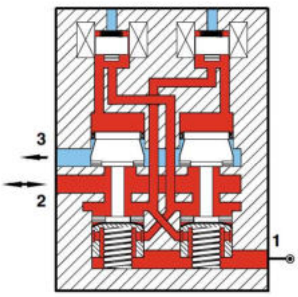
Other voltages on request!

Functional diagram

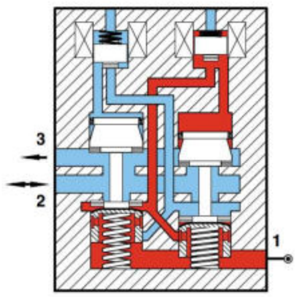
Basic position
Channel "2" onto "3"
Safety silencer relieved



Working position
Both solenoids energized
Channel „1" onto „2" turned on



Safety position
For unbalanced control, faulty solenoid, dirty valve, etc.

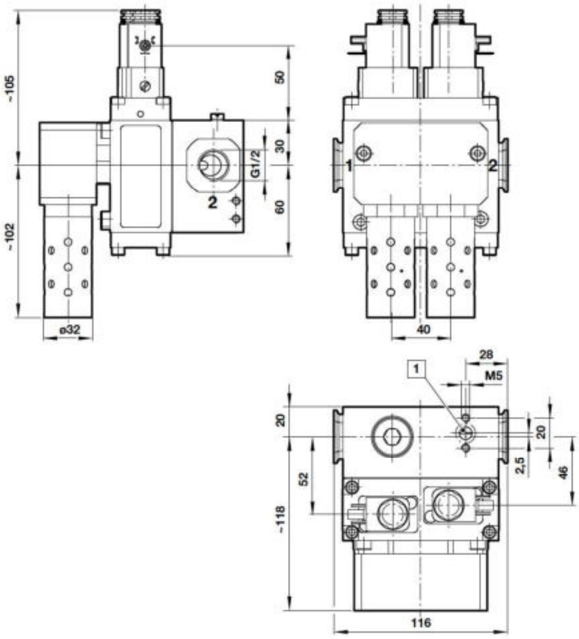


SOLENOID ACTUATED SAFETY VALVES
SCVA10 3/2 – G1/2

Time to vent residual pressure to 0,5 bar

Model	Volume (dm³)	Operating pressure (bar)	Exhaust time (ms)
SCVA101...	3	5	200
		8	250
		10	280
	8	5	450
		8	580
		10	640

Dimensions



SAFETY VALVES WITH INTEGRATED SOFT START FUNCTION

SCSQ 3/2, G1/2

- Redundant valve assembly, pneumatic self-monitoring with integrated safety silencer
- Requires no cyclical monitoring or evaluation system
- With the appropriate application, performance level "e" (cat. 4) of DIN EN ISO 13849-1 is achieved for the safety function "Pressure building up from '1' to '2' and pressure dropping from '2' to '3' "- DGUV approval
- Valve interface enables direct mount to the Excelon 73/74 series air preparation products

Technical Data

Medium:
Compressed air, filtered ≤ 50 µm, lubricated or non-lubricated

Operating pressure:
See table below

Mounting:
Preferably upright with solenoids on top

Press control:
Valves are not approved for press clutch and brake applications

Ambient temperature:
-10°C … +60°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Housing:
Aluminium

Seals:
PUR, NBR

Models

Accessories

Model	Orifice (mm)	Power at 24 V d.c. (W)	Pressure range (bar)	Flow 1 » 2 (l/min)	Flow 2 » 3 (l/min)	Port sizes 1	Port sizes 2	Port sizes 3	Connector form A, DIN EN 175301-803	Quikclamp® with wall bracket *1)	Quikmount pipe adaptor	Pressure switch - flange/face mounted direct onto valve *2)
												
SCSQ101D01D02400	10	4,5	3,5 … 10	3000	5700	G1/2	G1/2	G3/4	0570275000000000	4314-52	4315-11 (G1/2)	0881400000000000

*1) Quikmount pipe adaptor please order separately.
*2) The pressure switch is not required as part of the safe functioning system within the valve, its is offered as a means of indicating that the valve taken up a safe condition ie. no pressure at the output port 2.

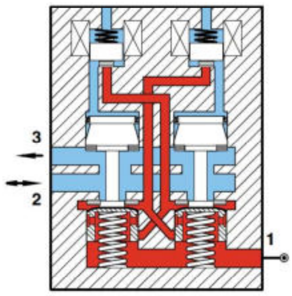
Technical data – Solenoids

Standard voltages	24 V d.c.
Duty cycle	100% ED
Protection class	IP65

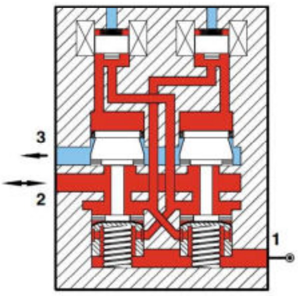
Other voltages on request!

Functional diagram

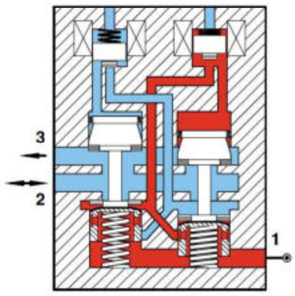
Basic position
Channel "2" onto "3"
Safety silencer relieved



Working position
Both solenoids energized
Channel „1" onto „2" turned on



Safety position
For unbalanced control, faulty solenoid, dirty valve, etc.



Soft start function

The safety valve with soft start function provides for a controlled build-up of pressure at the valve output in two stages:

Stage 1 – The pressure builds up slowly depending on the setting of the throttle valve and the volume of the system to be filled.

Stage 2 – At a certain pressure level (ps) an internal pilot valve operates bypassing the throttle allowing full operating pressure at the valve outlet. This pressure level (ps) will be dependant on the operating pressure (po) of the system and can be estimated to be greater than 60% of the operating pressure (ps > = 0,6 x po)

SAFETY VALVES WITH INTEGRATED SOFT START FUNCTION

SCSQ 3/2, G1/2

Filling time depending on throttle position of soft start valve

From switching signal ON to pressure build-up 90% of rated pressure

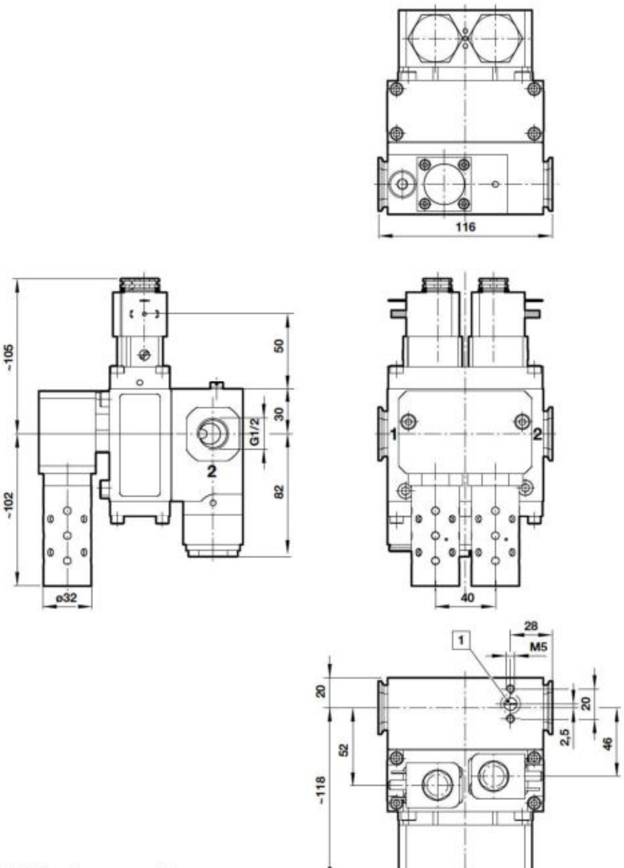
Operating pressure (bar)	Volume (dm³)	Filling time approx. (ms) Numbers of needle turn		
		4	6	12
5	3	3200	2600	1700
	8	8300	7000	4300
6	3	3000	2400	1500
	8	7800	6500	3900
8	3	2700	2200	1400
	8	7300	5700	3700

Exhausting time

From switching signal OFF to pressure reduction to 10% of rated pressure

Operating pressure (bar)	Volume (dm³)	Exhaust time (ms)
5	3	190
	8	440
6	3	200
	8	460
8	3	210
	8	480

Dimensions



1 Interface for pressure switch

SOLENOID ACTUATED PRESS SAFETY VALVES

XSz 8 … XSz 50 3/2, G1/4 … G2

- Inherently fail-safe without residual pressure
- Dynamic self monitoring
- For use with pneumatic clutch and brake systems and other 3-way safety functions
- Conforms to DIN ISO13849-1 (perf level 'e', cat IV) OSHA, BG, CSA and other approvals
- Improves safety and reduces downtime
- No additional electrical monitoring required
- Easily fitted into existing systems

Technical Data

Medium:
Compressed air, filtered (≤50µm), lubricated and non-lubricated

Suitable oils:
Shell Tellus S2 MA 32, ExxonMobil Febis K 32 or comparable oil with DVI values < 8 (DIN ISO 1817) and ISO viscosity class 32-46 (DIN 51519)

Operating Pressure:
2 … 10 bar
For more details please see table

Mounting position:
Preferably upright with solenoids on top

Ambient temperature:
-10°C … +60°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body:
Aluminium

Seals:
PUR, NBR

Models

Model *	Series	Pressure range (bar)	Flow 1 (P) »2 (A) 2 (A) » 3 (R)		Port sizes				Dimension No.
			(m³/h)	(m³/h)	1 (P)	2 (A)	2_1 (A_1)	3 (R)	
24928063052	XSz 8 *1)	3 … 10	77	93	G1/4	G1/4	–	G1/4	1
24928083052	XSz 8 *1)	3 … 10	77	98	G1/4	G1/4	–	G3/8	1
24929323052	XSz 10 *2)	2 … 10	190	390	G1/2	G1/2	(G1/2)	–	2
24929303052	XSz 10 *4)	2 … 10	190	390	G1/2	G1/2	(G1/2)	G3/4	2
24930320200	XSz 20 *2)	2 … 8	230	840	G3/4	G3/4	G1	–	3
24930300200	XSz 20 *4)	2 … 8	230	840	G3/4	G3/4	G1	G1	3
24931050800	XSz 32 *2)	2 … 8	495	1800	G1	G1	G1 1/2	–	4
24931060800 *3)	XSz 32 *2)	2 … 8	495	1800	G1	G1	G1 1/2	–	4
24931300800	XSz 32 *4)	2 … 8	495	1800	G1	G1	G1 1/2	G1 1/2	4
24931310800 *3)	XSz 32 *4)	2 … 8	495	1800	G1	G1	G1 1/2	G1 1/2	4
24932300800	XSz 50 *4)	2 … 8	1100	3300	G1 1/2	G2	–	G2	5
24932310800 *3)	XSz 50 *4)	2 … 8	1100	3300	G1 1/2	G2	–	G2	5

Port sizes in brackets are plugged.
* To order please insert voltage requested for each valve. All solenoids are delivered without plugs.
*1) XSz 8 valves are delivered with silencer.
*2) Valves delivered with integrated silencer and without flange (R ports).
*3) With pressure balance Model 1028100.
*4) Valves delivered without silencer and with flange.

Technical data – Solenoids

Model	0200, 0800, and 3052
Standard voltages	24 V d.c. and 230 V a.c., other on request
Duty cycle	100% ED
Protection class	IP65
Electrical connection	DIN EN 175301-803 (DIN 43650), form A

Model	Power consumption V d.c. (W)	Current V a.c.	
		Inrush (VA)	Hold (VA)
0200	11	22	15
0800	16	50	27
3052	4,8	12	8,5

SOLENOID ACTUATED PRESS SAFETY VALVES

XSz 8 … XSz 50 3/2, G1/4 … G2

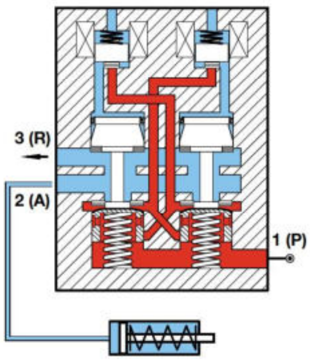
Accessories

Series	Connector DIN EN 175301-803	Silencer	Integrated silencer	Integrated silencer	High efficiency silencer
					
XSz 8	0680003000000000	MB002B (G1/4), MB003B (G3/8)	–	–	–
XSz 10	0680003000000000	–	0016422000000000	–	0016420000000000
XSz 20	0570275000000000	–	–	0016622000000000	0016520000000000
XSz 32	0570275000000000	–	–	0016622000000000	0016620000000000
XSz 50	0570275000000000	–	–	–	0016720000000000

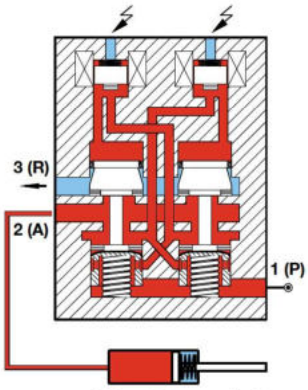
Caution: the safety is related to the quality of the silencer, use only IMI Norgren original silencers.

Series	Connector DIN EN 175301-803
	
XSz 50	0545005000000000 (port A, G2, and pressure switches port G1/4)

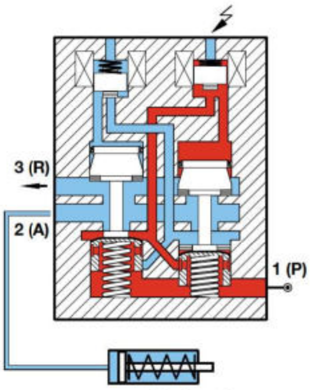
Functional diagram



Solenoids de-energized
A port is exhausted. P port is closed, no connection from P to A. No residual pressure on port A as port A is freely exhausted through port R. No acting pressure on port A.



Solenoids energized
Pilots are synchronously energised. Connection from port P to A. Working pressure on A. No passage from P to R. Dynamic self monitoring of both pilot systems, checking each other at each cycle for proper functioning.

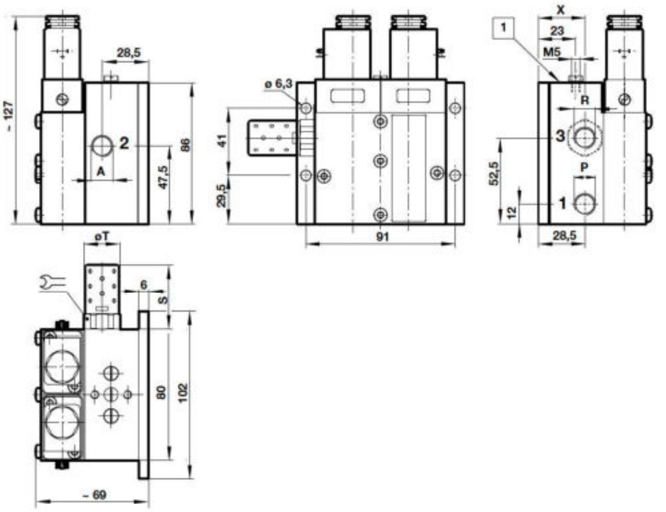


Malfunction
Pilots non-synchronously energised. Dynamic monitor notices failure operation and prevents the pistons from giving connection from P to A. Synchronously port A exhausts through R. No residual pressure remains in the system since P and A are not connected. The pilot line has lost the pressure and is locked.

1 (P) = Air pressure port, 2 (A) = Power port (clutch / brake), 3 (R) = Exhaust.
IMI Norgren XSz Safety valves comply with the Category IV of DIN EN ISO 13849-1, if the operating system has been designed and realised according to Category IV.

Dimensions

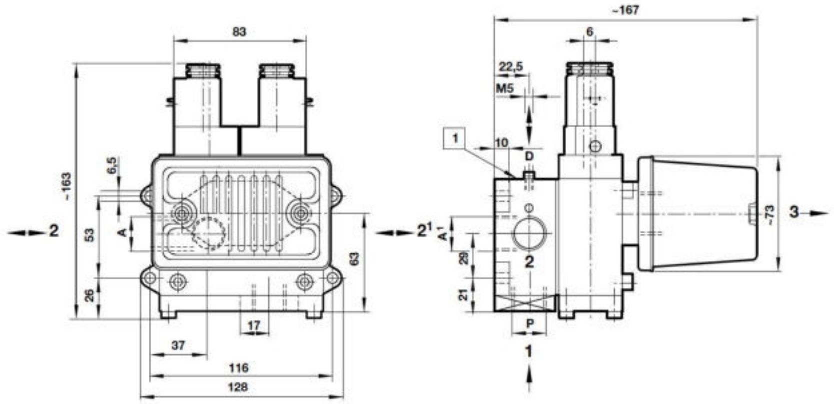
1 - XSz 8 - with silencer



Model	1 (P)	2 (A)	3 (R)	S	ØT	X	
24928063052	G1/4	G1/4	G1/4	42	21	–	21
24928083052	G1/4	G1/4	G3/8	75	32	26,5	32

1 Flange surface for pressure switch and failure indicator unit

2 - XSz 10 - with silencer

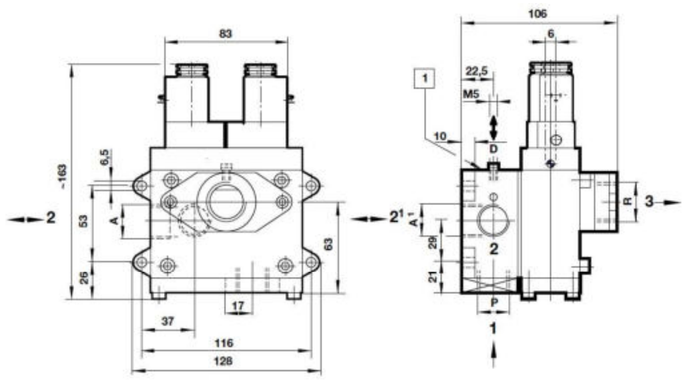


Model	1 (P)	2 (A)	2¹ (A¹)	3 (R)
24929323052	G1/2	G1/2	G1/2 *	–
24929303052	G1/2	G1/2	G1/2 *	G3/4

* closed

1 Flange surface for pressure switch and failure indicator unit

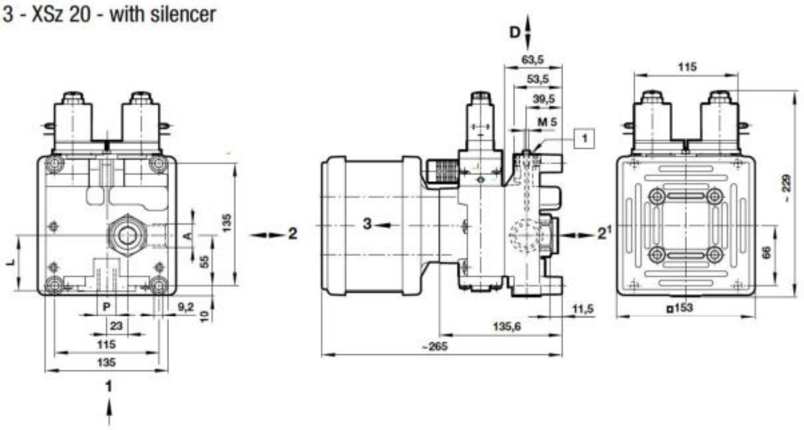
2 - XSz 10 - without silencer



SOLENOID ACTUATED PRESS SAFETY VALVES

XSz 8 … XSz 50 3/2, G1/4 … G2

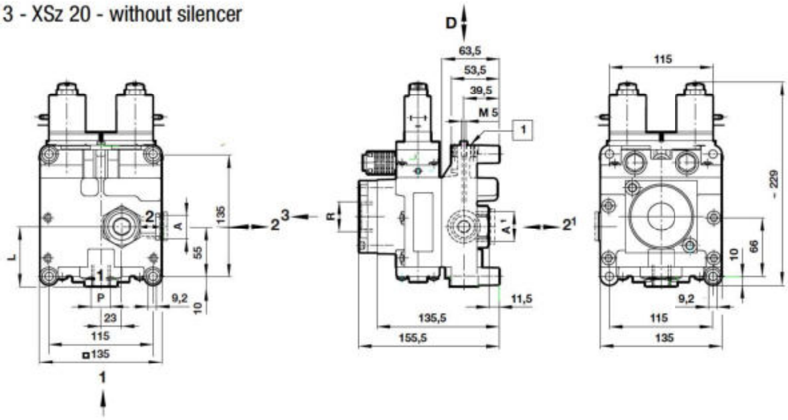
3 - XSz 20 - with silencer



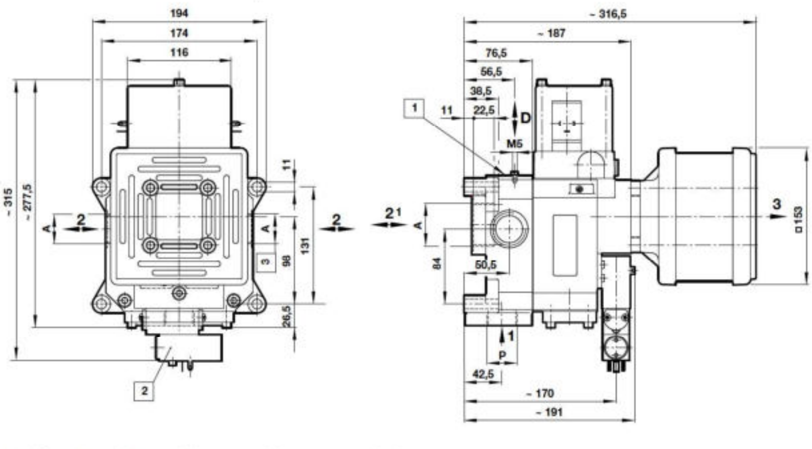
Model	1 (P)	2 (A)	2^1 (A^1)	3 (R)	L
24930320200	G3/4	G3/4	G 1	–	66,5 (57)
24930300200	G3/4	G3/4	G 1	G 1	66,5 (57)

[1] Flange surface for pressure switch and failure indicator unit

3 - XSz 20 - without silencer



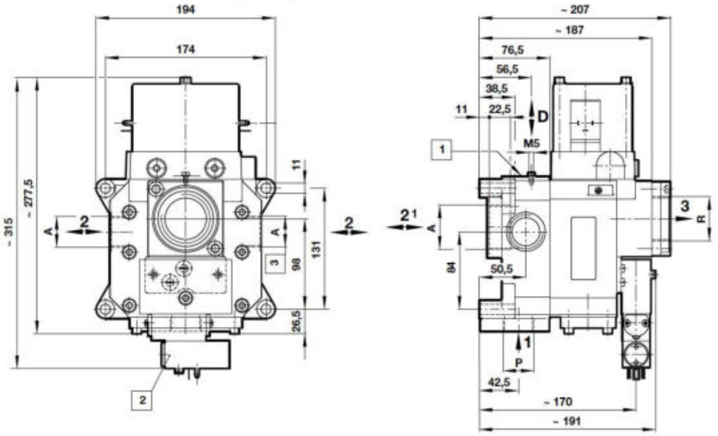
4 - XSz 32 - with silencer and pressure balance



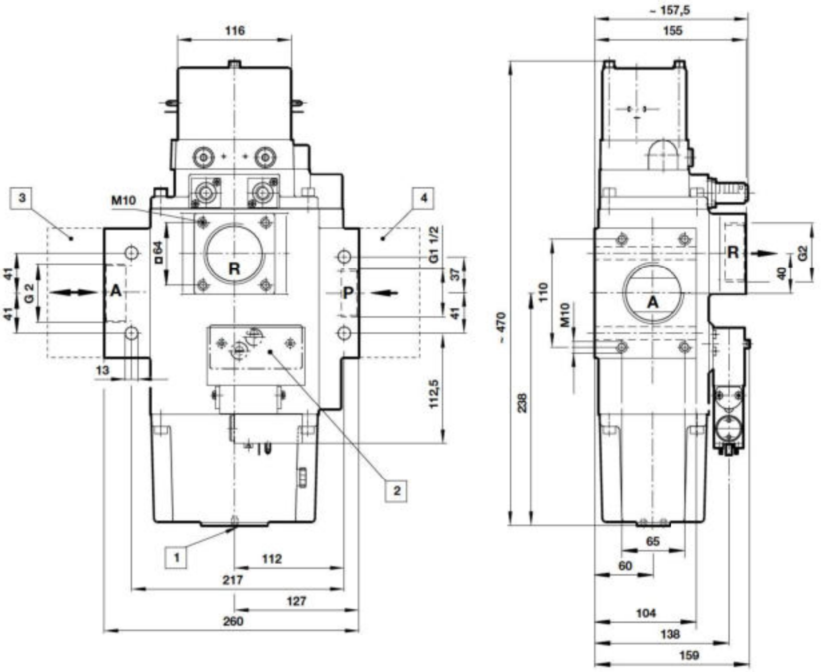
Model	1 (P)	2 (A)	2^1 (A^1)	3 (R)
24931060800	G1	G1	G1 1/2	–
24931310800	G1	G1	G1 1/2	G1 1/2
24931300800	G1	G1	G1 1/2	G1 1/2
24931050800	G1	G1	G1 1/2	–

[1] Flange surface for pressure switch and failure indicator unit
[2] Pressure balance

4 - XSz 32 - without silencer, with pressure balance



5 - XSz 50 - without silencer, with pressure balance



1 Flange surface for pressure switch and failure indicator unit
2 Pressure balance
3 Flange surface for 18D pressure switch

INLINE LOCKOUT VALVE

CR04 & C002 3/2, G1/2, G3/4, G1 and 1/2", 3/4", 1" PTF

- Lockable only in the "off" position
- Clear visual indication when in the "on" position
- High exhaust flow
- Helps you to comply to OSHA regulation 29 CFR 1910.147 - The control of hazardous energy (lockout/tagout)

Technical Data

Medium:
Compressed air

Operating Pressure:
0 … 20 bar

Mounting:
Optional

Ambient temperature:
-30°C … +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Valve body:
Aluminum

Silencer base:
Zinc

Spool, T-Handle, silencer shell:
Aluminum

Spring detent:
Stainless steel

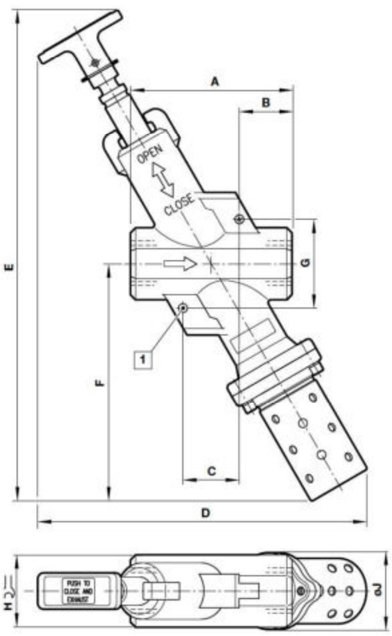
Elastomers:
NBR and PUR

Models

Accessories

Model	Basic size	Port size	Flow 1 » 2 (l/min)	Flow 2 » 3 (l/min)	Handle colour	Weight (kg)	Replacement silencer	Padlock with two keys	Repair kits
									
CR043C	1/2"	G1/2	8200	6970	Red	0,95	ML004F	0613633000000000 (brass)	53474-43 (NBR - 1/2" base size)
C0023C	1/2"	1/2" PTF	8200	6970	Black	0,95	ML004F	0613633000000000 (brass)	53474-43 (NBR - 1/2" base size)
CR043D	1/2"	G3/4	11120	7590	Red	0,92	ML004F	0613633000000000 (brass)	53474-43 (NBR - 1/2" base size)
C0023D	1/2"	3/4" PTF	11120	7590	Black	0,92	ML004F	0613633000000000 (brass)	53474-43 (NBR - 1/2" base size)
CR044B	1"	G1	14300	8120	Red	1,88	ML008F	–	53475-34 (NBR - 1" base size)
C0024B	1"	1" PTF	14300	8120	Black	1,88	ML008F	–	53475-34 (NBR - 1" base size)

Dimensions



1 Hole dia 7 mm

Basic size	A	B	C	D	E	F	G	H	ØJ
1/2"	102	35	32	202	299	136	57	48	48
1"	127 (131)	41 (43)	44	266	399	198	77	57	54

( ) = values for PTF version.

Super X series
Manual and mechanical valve

Strong, robust and reliable, they employ a mixture of custom-made and electrical style operating heads on a modular body system covering 3/2, 5/2 and 5/3 functions. Newer options now include many 3/2 versions with a moulded body having either threaded ports or integral push-in fittings.

For heavier applications, traditional die-cast bodies are still available. In addition to the standard catalogued series, IMI Precision Engineering also produces many special options covering more diverse applications.

> Compact, high flow for body size with electrical style operators – complete integration with other control systems and aesthetically pleasing

> Wide range of operators in all functions, able to meet most control requirements – best use of standard product with total flexibility and minimum spares holding and inventory count

> Moulded body available with integral PIFs

Recyclable material

Engineering GREAT Solutions

Find out more
www.imi-precision.com

IMI NORGREN

For further information, visit **www.imi-precision.com** and use the new improved search function. If you cannot see the option you require please contact us.

IMI Precision Engineering

MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4 and 6 mm PIF

- Suitable for multi-directional flow and dual supply applications
- High flow rate
- Electrical style manual operators offer ease of use, and include several special use versions which can be used to comply with health and safety requirements

Technical Data

Medium:
Compressed air, filtered, lubricated and non-lubricated

Operating pressure:
Maximum 10 bar

Flow:
1/8" 335 l/min
1/4" 965 l/min

Ambient temperature:
0°C … +70°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

3/2 way PA body valves
Metal versions are available on request

Port assembly torque:
Use recommended torque for fittings. This should not exceed 10 Nm, otherwise damage may occur to body.

PIF Ports:
The PIF fittings are suitable for PA 11 or 12, PU (92 to 98 shore) and other plasticised or unplasticised tubing which conforms to the tolerances specified in BS5409, Part 1, 1976, light and normal duty, DIN 73378, DIN74234, NFE 49-100. Tube is to be cut square and free of burrs.

Materials

Plastic version for 3/2 way valves only

Body and end cover:
PA6

Operators:
Aluminium, steel, plastic etc.

Seals:
NBR

Metal version

Body:
Diecast zinc

End cover:
Aluminium or glass-filled nylon

Operators:
Aluminium, steel, plastic etc.

Seals:
NBR

EXPRESS

● Models – 3/2 mechanical valves

Accessories

	Model	Port size	Actuation	Body	Operating pressure (bar)	Operating force (N)	Dimension No.	Spares kit
	03040002	G1/8	Plunger/spring	PA6	- 0,9 … 10	31	1	03840802
	03040032	Ø 6 mm	Plunger/spring	PA6	- 0,9 … 10	31	1	03840802
	03060002	G1/4	Plunger/spring	Zinc	- 0,9 … 10	53	23	03860202
	03041702	G1/8	Plunger/pilot	Zinc	- 0,9 … 10 *1)	18	2	03840802
	03040202	G1/8	Roller/spring	PA6	- 0,9 … 10	31	3	03840802
	03040232	Ø 6 mm	Roller/spring	PA6	- 0,9 … 10	31	3	03840802
	03060202	G1/4	Roller/spring	Zinc	- 0,9 … 10	61	24	03860202
	03040902	G1/8	Roller/pilot	Zinc	- 0,9 … 10	18 *1)	4	03840802
	03042702	G1/8	Roller lever/pilot	Zinc	- 0,9 … 10	9 *1)	6	03840802
	03062402	G1/4	Roller lever/pilot	Zinc	- 0,9 … 10	9 *1)	27	03861202
	03041102	G1/8	Roller lever/spring	PA6	- 0,9 … 10	31	5	03840802
	03041132	Ø 6 mm	Roller lever/spring	PA6	- 0,9 … 10	31	5	03840802
	03061102	G1/4	Roller lever/spring	Zinc	- 0,9 … 10	45	26	03860202
	03029302	G1/8	Roller lever (heavy duty) /spring	PA6	- 0,9 … 10	31	7	03840802
	03029332	Ø 6 mm	Roller lever (heavy duty)/spring	PA6	- 0,9 … 10	31	7	03840802
	03041002	G1/8	One way trip lever/spring	PA6	- 0,9 … 10	31	9	03840802
	03029402	G1/8	One way trip lever (heavy duty)/spring	PA6	- 0,9 … 10	31	10	03840802
	03043202	G1/8	Antenna/spring	PA6	- 0,9 … 10	0,3 at tip	11	03843202
	03043232	Ø 6 mm	Antenna/spring	PA6	- 0,9 … 10	0,3 at tip	11	03843202
	03042302	G1/8	Sensitive roller/spring	Zinc	- 0,9 … 10	1	8	03847302

*1) At zero bar, reset pressure 2 bar minimum.
Pressure for pilot function is the minimum pressure to operate the valve. The valve may switch below this pressure.

MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4 and 6 mm PIF

● Models – 3/2 manual valves

Accessories

	Model	Port size	Actuation	Body	Colour	Operating pressure (bar)	Operating force (N)	Dimension No.	Spares kit
	03040402	G1/8	Button/spring	PA6	Black	- 0,9 … 10	31	33	03840802
	03040432	Ø 6 mm	Button/spring	PA6	Black	- 0,9 … 10	31	33	03840802
	03040502	G1/8	Button/spring	PA6	Green	- 0,9 … 10	31	33	03840802
	03040532	Ø 6 mm	Button/spring	PA6	Green	- 0,9 … 10	31	33	03840802
	03040602	G1/8	Button/spring	PA6	Red	- 0,9 … 10	31	33	03840802
	03040632	Ø 6 mm	Button/spring	PA6	Red	- 0,9 … 10	31	33	03840802
	03060402	G1/4	Knob/spring	Zinc	Black	- 0,9 … 10	53	67	03861202
	03034502	G1/8	Knob/spring	PA6	Black	- 0,9 … 10	18	44	03840802
	03034532	Ø 6 mm	Knob/spring	PA6	Black	- 0,9 … 10	18	44	03840802
	03036602	G1/8	Button (palm)/spring	PA6	Red	- 0,9 … 10	31	35	03840802
	03036632	Ø 6 mm	Button (palm)/spring	PA6	Red	- 0,9 … 10	31	35	03840802
	03036702	G1/8	Button (palm)/spring	PA6	Green	- 0,9 … 10	31	35	03840802
	03036732	Ø 6 mm	Button (palm)/spring	PA6	Green	- 0,9 … 10	31	35	03840802
	03036802	G1/8	Button (palm)/spring	PA6	Black	- 0,9 … 10	31	35	03840802
	03036832	Ø 6 mm	Button (palm)/spring	PA6	Black	- 0,9 … 10	31	35	03840802
	03040802	G1/8	Button/pilot	Zinc	Black	- 0,9 … 10 *1)	18	34	03840802
	03042002	G1/8	Button/pilot	Zinc	Green	- 0,9 … 10 *1)	18	34	03840802
	03042102	G1/8	Button/pilot	Zinc	Red	- 0,9 … 10 *1)	18	34	03840802
	03060802	G1/4	Button/pilot	Zinc	Black	- 0,9 … 10 *1)	13	68	03861202
	03041402	G1/8	Button (shrouded)/spring	PA6	Black	- 0,9 … 10	31	36	03840802
	03041432	Ø 6 mm	Button (shrouded)/spring	PA6	Black	- 0,9 … 10	31	36	03840802
	03041502	G1/8	Button (shrouded)/spring	PA6	Green	- 0,9 … 10	31	36	03840802
	03041532	Ø 6 mm	Button (shrouded)/spring	PA6	Green	- 0,9 … 10	31	36	03840802
	03041602	G1/8	Button (shrouded)/spring	PA6	Red	- 0,9 … 10	31	36	03840802
	03041632	Ø 6 mm	Button (shrouded)/spring	PA6	Red	- 0,9 … 10	31	36	03840802
	03042802	G1/8	Emergency stop/twist reset	PA6	Red	- 0,9 … 10	18	37	03840802
	03042832	Ø 6 mm	Emergency stop/twist reset	PA6	Red	- 0,9 … 10	18	37	03840802
	03041902	G1/8	Rotary knob/set reset	PA6	Black	- 0,9 … 10	–	46	03840802
	03041932	Ø 6 mm	Rotary knob/set reset	PA6	Black	- 0,9 … 10	–	46	03840802
	03033502801	G1/8	Button (Palm)/key	PA6	Red	- 0,9 … 10	31	39	03840802
	03033532801	Ø 6 mm	Button (Palm)/key	PA6	Red	- 0,9 … 10	31	39	03840802
	03041802801	G1/8	Key/key	PA6	Red	- 0,9 … 10	–	48	03840802
	03041832801	Ø 6 mm	Key/key	PA6	Red	- 0,9 … 10	–	48	03840802
	03042502	G1/8	Knob/knob	PA6	Black	- 0,9 … 10	18	44	03840802
	03042532	Ø 6 mm	Knob/knob	PA6	Black	- 0,9 … 10	18	44	03840802
	03062502	G1/4	Knob/knob	Zinc	Black	- 0,9 … 10	13	69	03860202
	03042402	G1/8	Knob/knob or pilot	Zinc	Black	- 0,9 … 10	18	45	03840802
	03062702	G1/4	Knob/knob or pilot	Zinc	Black	- 0,9 … 10 *3)	13	70	03861202
	03042602	G1/8	Knob lever/spring	PA6	Black	- 0,9 … 10	18	43	03840802
	03043802	G1/8	Lever/spring	Zinc	Black	- 0,9 … 10	9	42	03840802
	03063802	G1/4	Lever/spring	Zinc	Black	- 0,9 … 10	15	71	03860202
	03040302	G1/8	Toggle/toggle	PA6	Black	- 0,9 … 10	28	41	03840802
	03040332	Ø 6 mm	Toggle/toggle	PA6	Black	- 0,9 … 10	28	41	03840802
	03043702	G1/8	Lever/lever	PA6	Black	- 0,9 … 10	9	42	03840802
	03029602	G1/8	Lever toggle/spring	Zinc	Black	- 0,9 … 10	13	40	03840802
	03063702	G1/4	Lever/lever	Zinc	Black	- 0,9 … 10	13	71	03860202
	03048102	G1/8	Pedal/spring	Zinc	Black	- 0,9 … 10	22	49	03840802
	03068102	G1/4	Pedal/spring	Zinc	Black	- 0,9 … 10	22	66	03860202
	03048302	G1/8	Pedal/pedal	Zinc	Black	- 0,9 … 10	22	49	03840802
	03068302	G1/4	Pedal/pedal	Zinc	Black	- 0,9 … 10	22	66	03860202

*1) At zero bar, reset pressure 2 bar minimum. *3) Reset pressure: 4 bar minimum.
Pressure for pilot function is the minimum pressure to operate the valve. The valve may switch below this pressure.

Online at **www.imi-precision.com**

MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4 and 6 mm PIF

Models – 3/2 adaptor valves for Klöckner Möller actuators

Accessories

Model	Port size	Actuation	Body	Operating pressure (bar)	Operating force (N)	Dimension No.	Spares kit
03029502	G1/8	Plunger/spring	PA6	- 0,9 … 10	31	78	03840802
03029532	Ø 6 mm	Plunger/spring	PA6	- 0,9 … 10	31	78	03840802

Models – 5/2 mechanical valves

Accessories

	Model	Port size	Actuation	Operating pressure (bar)	Operating force (N)	Dimension No.	Spares kit
	X3044002	G1/8	Plunger/spring	- 0,9 … 10	54	12	03840802
	X3064002	G1/4	Plunger/spring	- 0,9 … 10	62	28	03860202
	X3045702	G1/8	Plunger/pilot	- 0,9 … 10	22 *1)	13	03840802
	X3044202	G1/8	Roller/spring	- 0,9 … 10	54	14	03840802
	X3064202	G1/4	Roller/spring	- 0,9 … 10	67	29	03860202
	X3044902	G1/8	Roller/pilot	- 0,9 … 10	22 *1)	15	03840802
	X3064902	G1/4	Roller/pilot	- 0,9 … 10	13 *1)	30	03861202
	X3045102	G1/8	Roller lever/spring	- 0,9 … 10	31	16	03840802
	X3065102	G1/4	Roller lever/spring	- 0,9 … 10	45	31	03860202
	X3039302	G1/8	Roller lever (heavy duty)/spring	- 0,9 … 10	31	18	03840802
	X3045002	G1/8	One-way trip/spring	- 0,9 … 10	31	20	03840802
	X3039402	G1/8	One-way trip (heavy duty)/spring	- 0,9 … 10	31	21	03840802
	X3046702	G1/8	Roller lever/pilot	- 0,9 … 10	9 *1)	17	03840802
	X3066402	G1/4	Roller lever/pilot	- 0,9 … 10	9 *1)	32	03861202
	X3047202	G1/8	Antennar/spring	- 0,9 … 10 *2)	0,3	22	N/A
	X3046302	G1/8	Sensitive roller/spring	- 0,9 … 10 *2)	1	19	N/A

*1) At zero bar, reset pressure 2 bar minimum.
*2) Constant pilot pressure supply: 3 bar minimum.
The operating pressure for pilot function is the minimum pressure to operate the valve. The valve may switch below this pressure.

MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4 and 6 mm PIF

● Models – 5/2 manual valves

Accessories

	Model	Port size	Actuation	Colour	Operating pressure (bar)	Operating force (N)	Dimension No.	Spares kit
	X3044402	G1/8	Button (palm)/spring	Black	- 0,9 … 10	54	50	03840802
	X3044502	G1/8	Button (palm)/spring	Green	- 0,9 … 10	54	50	03840802
	X3044602	G1/8	Button (palm)/spring	Red	- 0,9 … 10	54	50	03840802
	X3064402	G1/4	Button/spring	Black	- 0,9 … 10	62	72	03860202
	X3038602	G1/8	Button (palm)/spring	Red	- 0,9 … 10	31	51	03840802
	X3038702	G1/8	Button (palm)/spring	Green	- 0,9 … 10	31	51	03840802
	X3038802	G1/8	Button (palm)/spring	Black	- 0,9 … 10	31	51	03840802
	X3044802	G1/8	Button (palm)/pilot	Black	- 0,9 … 10 *1)	22	53	03840802
	X3046002	G1/8	Button (palm)/pilot	Green	- 0,9 … 10 *1)	22	53	03840802
	X3046102	G1/8	Button (palm)/pilot	Red	- 0,9 … 10 *1)	22	53	03840802
	X3045402	G1/8	Button (shrouded)/spring	Black	- 0,9 … 10	54	52	03840802
	X3045502	G1/8	Button (shrouded)/spring	Green	- 0,9 … 10	54	52	03840802
	X3045602	G1/8	Button (shrouded)/spring	Red	- 0,9 … 10	54	52	03840802
	X3046802	G1/8	Emergency stop/twist reset	Red	- 0,9 … 10	18	51	03847302
	X3037502	G1/8	Button (palm)/key		- 0,9 … 10	–	55	03840802
	X3045802801	G1/8	Key/key		- 0,9 … 10	–	64	03840802
	X3045902	G1/8	Rotary knob/knob reset		- 0,9 … 10	–	54	03840802
	X3046502	G1/8	Knob/knob	Black	- 0,9 … 10	22	61	03840802
	X3066502	G1/4	Knob/knob	Black	- 0,9 … 10	13	74	03860202
	X3046402	G1/8	Knob, push/knob, pull or pilot	Black	- 0,9 … 10 *1)	22	62	03860202
	X3064802	G1/4	Knob, push/knob, pull or pilot	Black	- 0,9 … 10 *1)	13	73	03861202
	X3046602	G1/8	Knob lever/spring		- 0,9 … 10	31	58	03840802
	X3047802	G1/8	Lever/spring	Black	- 0,9 … 10	16	59	03840802
	X3067802	G1/4	Lever/spring	Black	- 0,9 … 10	15	75	03860202
	X3029602	G1/8	Toggle/toggle	Black	- 0,9 … 10	13	56	03840802
	X3044302	G1/8	Toggle/spring	Black	- 0,9 … 10	48	57	03840802
	X3047702	G1/8	Toggle/lever	Black	- 0,9 … 10	13	59	03840802
	X3067702	G1/4	Toggle/lever	Black	- 0,9 … 10	13	75	03860202
	X3048202	G1/8	Pedal/spring	Black	- 0,9 … 10	22	65	03840802
	X3068202	G1/4	Pedal/spring	Black	- 0,9 … 10	22	77	03860202
	X3048402	G1/8	Pedal/pedal	Black	- 0,9 … 10	22	65	03840802
	X3068402	G1/4	Pedal/pedal	Black	- 0,9 … 10	22	77	03860202

The operating pressure for pilot function is the minimum pressure to operate the valve. The valve may switch below this pressure.

● Models – 5/2 adaptor valves for Klöckner Möller actuators

Accessories

Model	Port size	Actuation	Operating pressure (bar)	Operating force (N)	Dimension No.	Spares kit
X0039502	G1/8	Plunger/spring	- 0,9 … 10	54	79	03840802

Models – 5/3 manual valves

Accessories

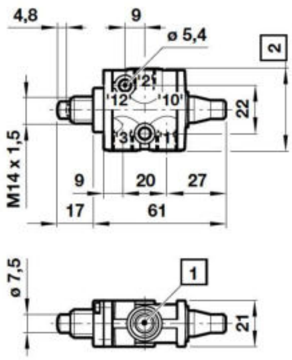
	Model	Port size	Actuation	Colour	Function	Operating pressure (bar)	Operating force (N)	Dimension No.	Spares kit
	X3343802	G1/8	Lever/spring/lever	Black	APB	- 0,9 … 10	15	60	03840802
	X3363802	G1/4	Lever/spring/lever	Black	APB	- 0,9 … 10	15	76	03860202
	X3347802	G1/8	Lever/spring/lever	Black	COE	- 0,9 … 10	15	60	03840802
	X3367802	G1/4	Lever/spring/lever	Black	COE	- 0,9 … 10	15	76	03860202
	X3343702	G1/8	Lever/lever/lever	Black	APB	- 0,9 … 10	12	76	03840802
	X3363702	G1/4	Lever/lever/lever	Black	APB	- 0,9 … 10	12	76	03860202
	X3347702	G1/8	Lever/lever/lever	Black	COE	- 0,9 … 10	12	60	03840802
	X3367702	G1/4	Lever/lever/lever	Black	COE	- 0,9 … 10	12	76	03860202

APB = All Ports Blocked, COE = Centre Open Exhaust.

Dimensions

1

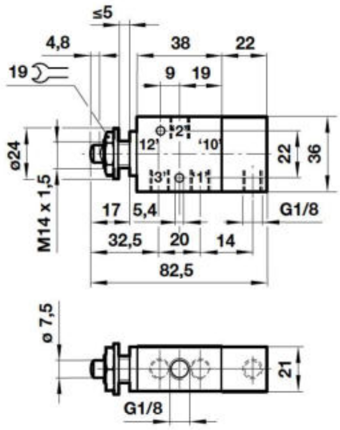
03040002, 03040032
3/2 Plunger actuated spring return valve



The plunger on this valve is designed for axial loading only. Nut and mounting washer kit supplied as optional extra part number 03 0430 00

2

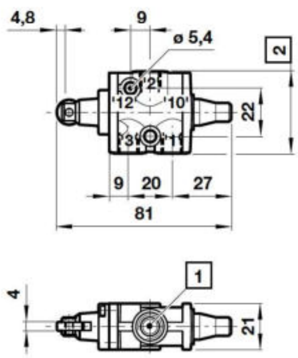
03041702
3/2 Plunger actuated pilot return valve



Full movement: 4,8 mm
Panel hole: Ø 15 mm
The plunger on this valve is designed for axial loading only. This valve can be panel mounted.

3

03040202, 03040232
3/2 Roller actuated spring return valve



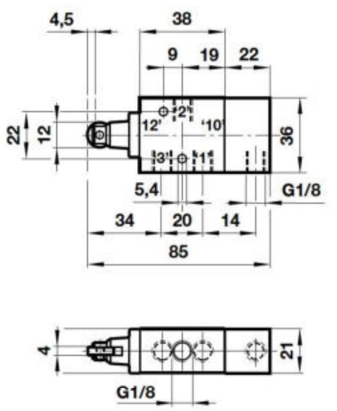
Maximum recommended cam rise: 4,5 mm
Cam angle of approach: 30° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

1 Port size G1/8 or Ø 6 mm
2 37 mm for G1/8 and 45 mm for Ø 6 mm

4

03040902

3/2 Roller actuated pilot return valve

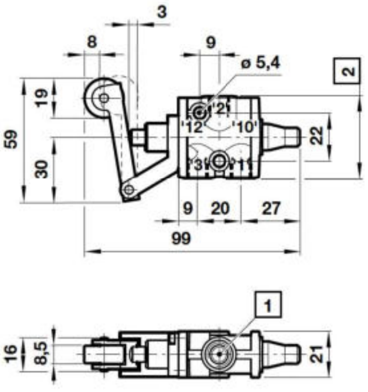


Maximum recommended cam rise: 4,5 mm
Cam angle of approach: 30° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

5

03041102, 03041132

3/2 Roller lever actuated spring return valve

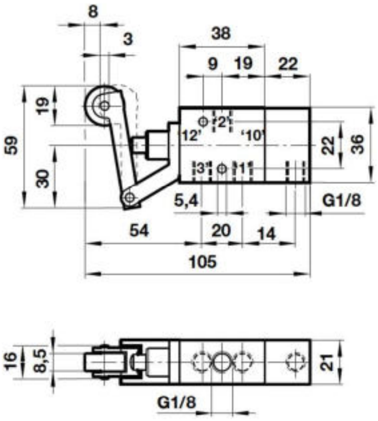


Operating travel: 8 mm
Over-travel: 3 mm
Cam angle of approach: 45° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

6

03042702

3/2 Roller lever actuated pilot return valve

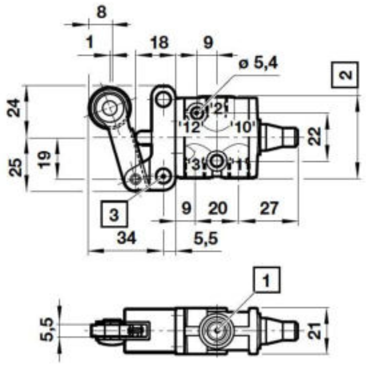


Operating travel: 8 mm
Over-travel: 3 mm
Cam angle of approach: 45° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

7

03029302, 03029332

3/2 Heavy duty roller lever actuated spring return valve

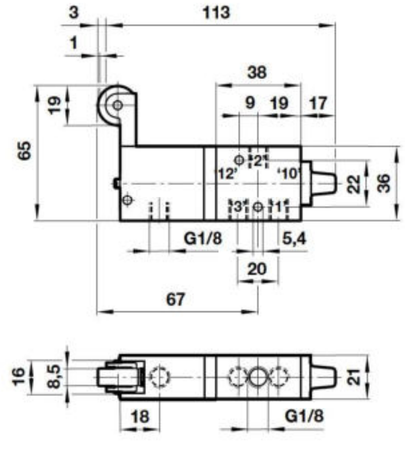


Operating Travel: 8 mm
Over-travel: 1 mm
Cam angle of approach: 45° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

8

03042302

3/2 Sensitive roller lever actuated spring return valve

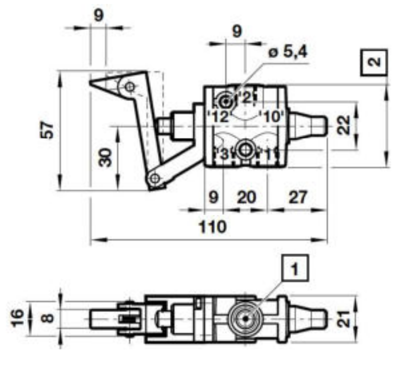


Pre-travel: 1 mm; Over-travel: 3 mm
Cam angle of approach: 45° maximum
Cam speed: 6,5 m/min. maximum

9

03041002

3/2 One-way trip actuated spring return valve



Cam rise: 9 mm
Cam angle of approach: 90° maximum
Cam speed: 2 m/min. maximum
Operating speed: 120 cpm

1 Port size G1/8 or Ø 6 mm
2 37 mm for G1/8 and 45 mm for Ø 6 mm
3 0,7 mm thick spacing washer must be used if additional mounting holes are used.

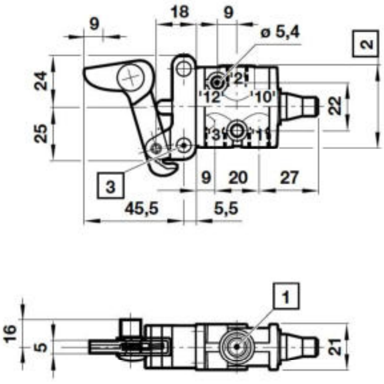
MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4 and 6 mm PIF

10

03029402

3/2 Heavy duty one-way trip actuated spring return valve

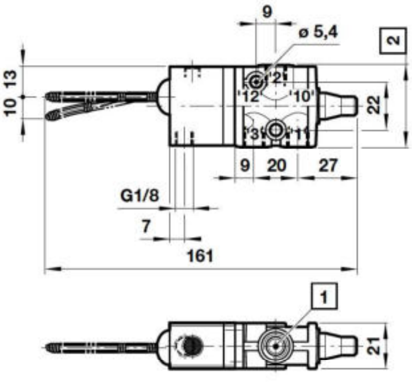


Cam rise: 9 mm
Cam angle of approach: 90° maximum
Cam speed: 2 m/min. maximum
Operating speed: 120 cpm

11

03043202, 03043232

3/2 Antenna actuated spring return valve

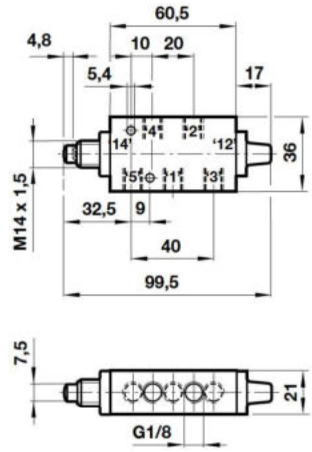


Operating movement:
10 mm minimum in any direction.

12

X3044002

5/2 Plunger actuated spring return valve

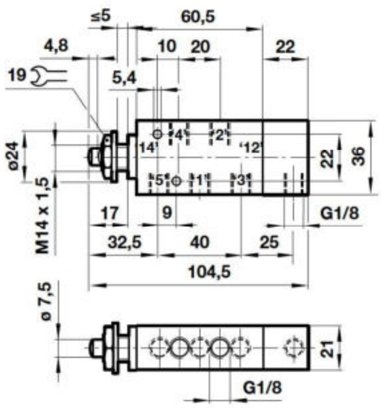


Full movement: 4,8 mm
The plunger on this valve is designed for axial loading only.
Nut and mounting washer kit supplied as optional extra part number 03 0430 00

13

X3045702

5/2 Plunger actuated pilot return valve

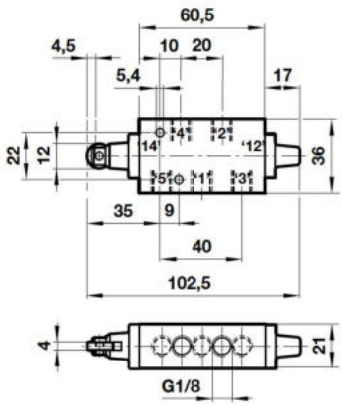


Full movement: 4,8 mm
Panel hole: Ø 15 mm
The plunger on this valve is designed for axial mounting only. This valve can be panel mounted.

14

X3044202

5/2 Roller actuated spring return valve

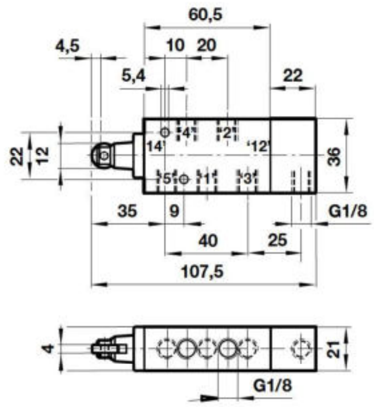


Maximum recommended can rise: 4,5 mm
Cam angle of approach: 30° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

15

X3044902

5/2 Roller actuated pilot return valve



Maximum recommended cam rise: 4,5 mm
Cam angle of approach: 30° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

1 Port size G1/8 or Ø 6 mm
2 37 mm for G1/8 and 45 mm for Ø 6 mm
3 0,7 mm thick spacing washer must be used if additional mounting holes are used.

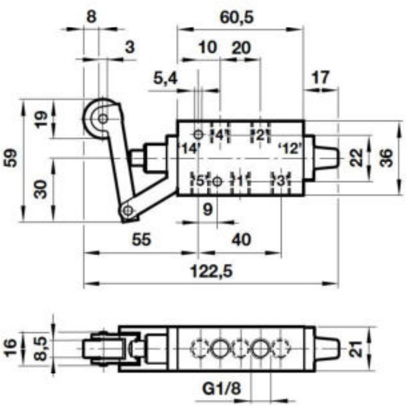
MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4 and 6 mm PIF

16

X3045102

5/2 Roller lever actuated spring return valve

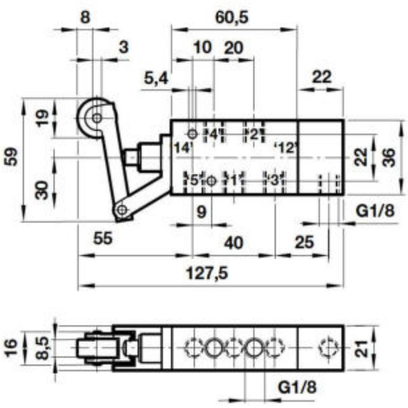


Operating travel: 8 mm
Over-travel: 3 mm
Cam angle of approach: 45° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

17

X3046702

5/2 Roller lever actuated pilot return valve

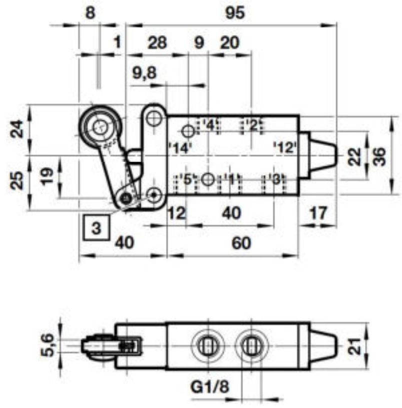


Operating travel: 8 mm; Over-travel: 3 mm
Cam angle of approach: 45° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

18

X3039302

5/2 Heavy duty roller lever actuated spring return valve

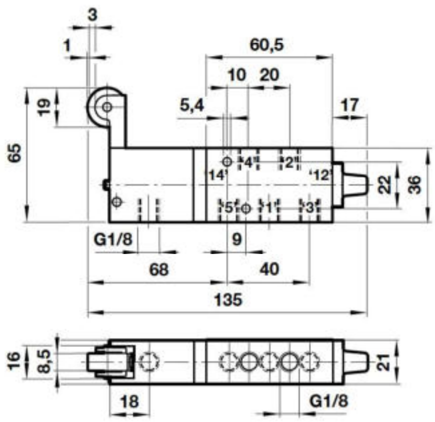


Operating travel: 8 mm
Over-travel: 1 mm
Cam angle of approach: 45° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

19

X3046302

5/2 Sensitive roller lever actuated spring return valve

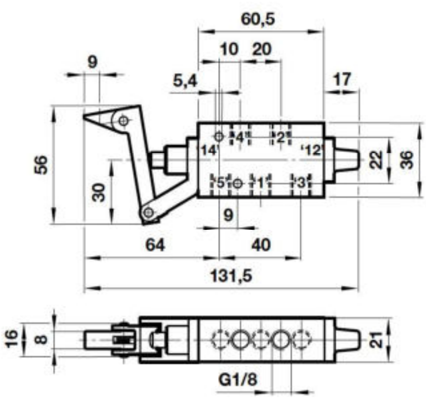


Pre-travel: 1 mm
Over-travel: 3 mm
Cam angle of approach: 45° maximum
Cam speed: 6,5 m/min. maximum

20

X3045002

5/2 One-way trip actuated spring return valve

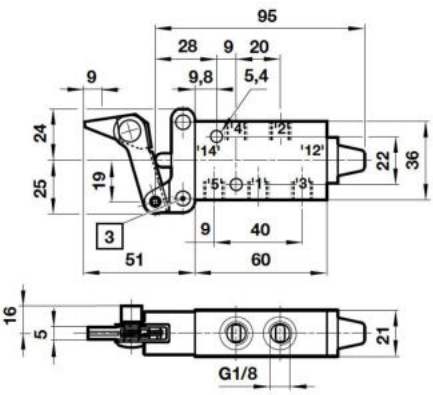


Cam rise: 9 mm
Cam angle of approach: 90° maximum
Cam speed: 2 m/min. maximum
Operating speed: 120 cpm

21

X3039402

5/2 Heavy duty one-way trip actuated spring return valve



Cam rise: 9 mm
Cam angle of approach: 90° maximum
Cam speed: 2 m/min. maximum
Operating speed: 120 cpm

3 0,7 mm thick spacing washer must be used if additional mounting holes are used.

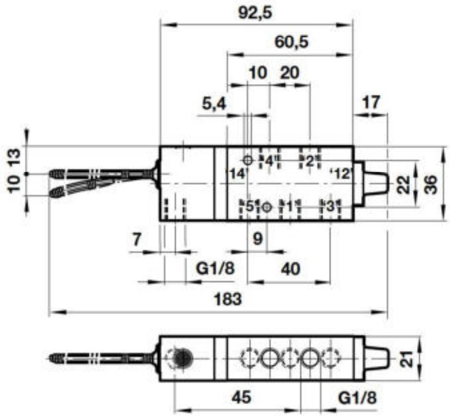
MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4 and 6 mm PIF

22

X3047202

5/2 Antenna actuated spring return valve

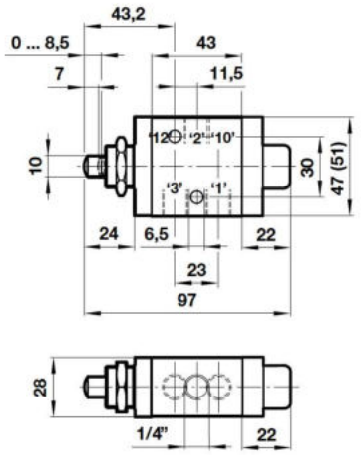


Operating movement: 10 mm minimum in any direction.

23

03060002

3/2 Plunger actuated spring return valve

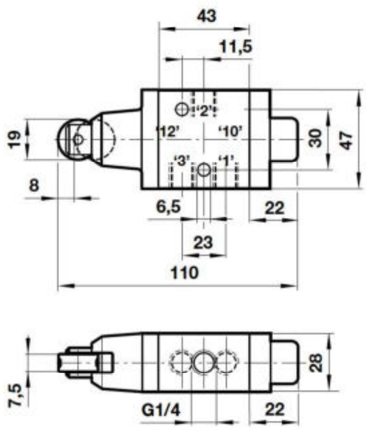


Panel hole: Ø 21 mm
The plunger on this valve is designed for axial loading only.

24

03060202

3/2 Roller actuated spring return valve

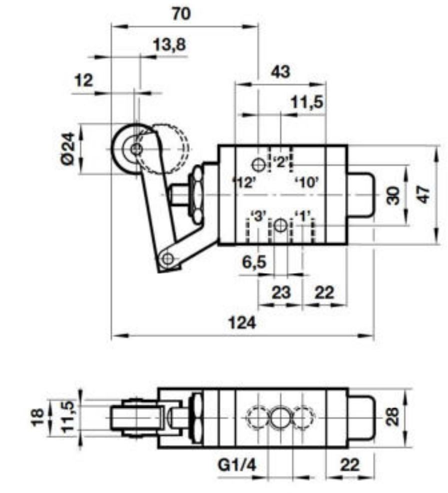


Cam angle of approach: 45° maximum
Cam speed: 6 m/min. maximum
Operating speed: 200 cpm

26

03061102

3/2 Roller lever actuated spring return valve

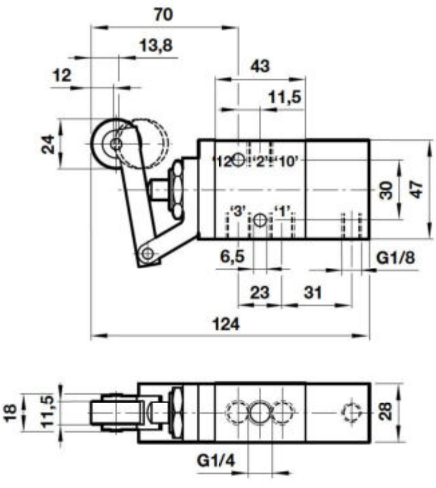


Cam angle of approach: 45° maximum
Cam speed: 5 m/min. maximum
Operating speed: 150 cpm

27

03062402

3/2 Roller lever actuated pilot return valve

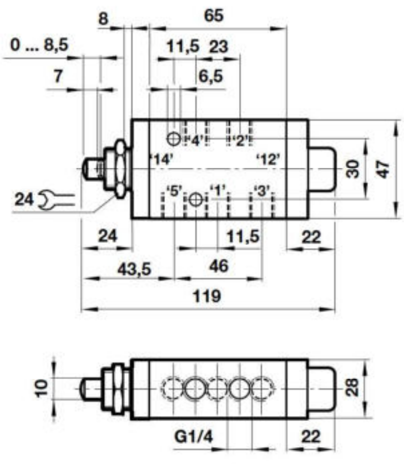


Cam angle of approach: 45° maximum
Cam speed: 5 m/min. maximum
Operating speed: 150 cpm

28

X3064002

5/2 Plunger actuated spring return valve

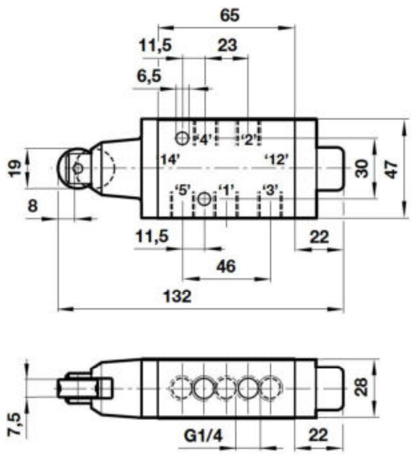


Panel hole: Ø 21 mm
The plunger on this valve is designed for axial loading only.

29

X3064202

5/2 Roller actuated spring return valve

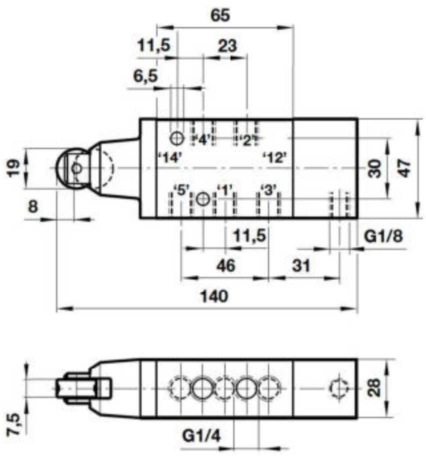


Cam angle of approach: 45° maximum
Cam speed: 6 m/min. maximum
Operating speed: 200 cpm

30

X3064902

5/2 Roller actuated pilot return valve

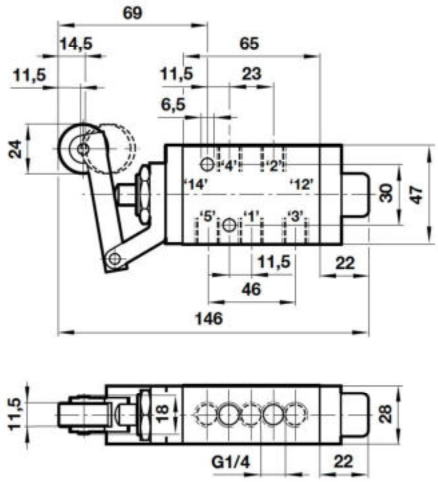


Cam angle of approach: 45° maximum
Cam speed: 6 m/min. maximum
Operating speed: 200 cpm

31

X3065102

5/2 Roller lever actuated spring return valve



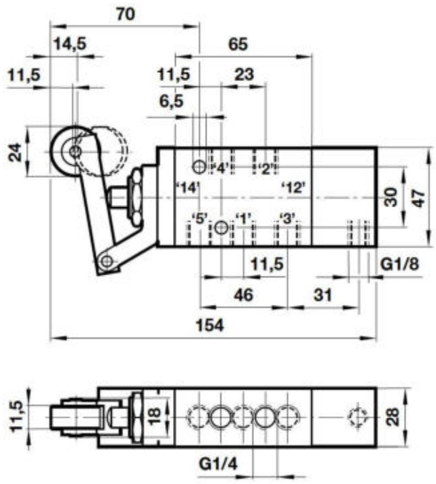
Cam angle of approach: 45° maximum
Cam speed: 5 m/min. maximum
Operating speed: 150 cpm

345

32

X3066402

5/2 Roller lever actuated pilot return valve

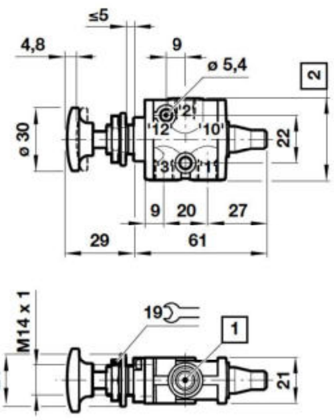


Cam angle of approach: 45° maximum
Cam speed: 5 m/min. maximum
Operating speed: 150 cpm

33

03040402, 03040502, 03040602, 03040432, 03040532, 03040632

3/2 Button operated spring return valves

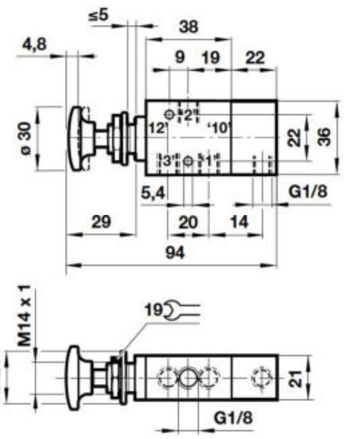


These valves are suitable for panel mounting by means of an optional nut and washer, reference 03 0430 00; a shrouded panel mounting kit is also available, reference 03 0429 00.

34

03040802, 03042002, 03042102

3/2 Button operated pilot return valve



These valves are suitable for panel mounting by means of an optional nut and washer, reference 03 0430 00; a shrouded panel mounting kit is also available, reference 03 0429 00.

1 Port size G1/8 or Ø 6 mm
2 37 mm for G1/8 and 45 mm for Ø 6 mm

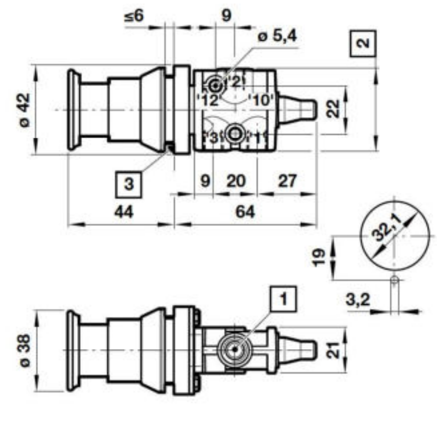
MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4 and 6 mm PIF

35

03036602, 03036702, 03036802,
03036632, 03036732, 03036832

3/2 Button (Palm) operated spring return valves

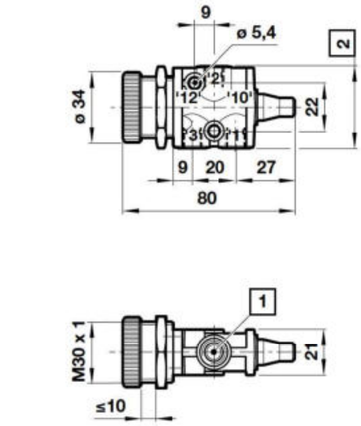


These valves are suitable for panel mounting.

36

03041402, 03041502, 03041602,
03041432, 03041532, 03041632

3/2 Button (Shrouded) operated spring return valves

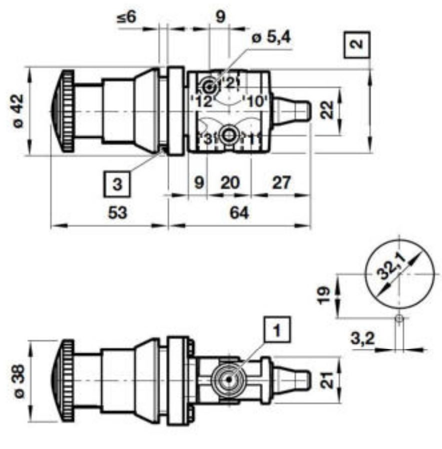


These valves are suitable for panel mounting.

37

03042802, 03042832

3/2 Button (Palm) operated, twist return valve (Emergency stop)

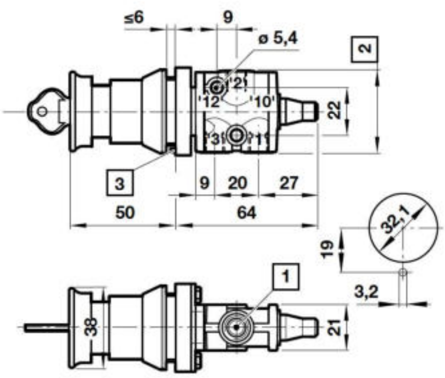


Valve latches when button is depressed and returns when the locking ring is rotated anti-clockwise.
This valve is suitable for panel mounting.

39

03033502801, 03033532801

3/2 Button (Palm) operated key return valve

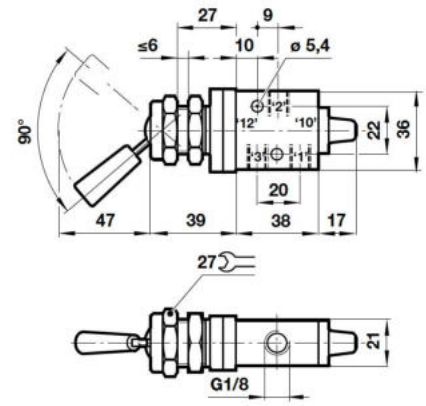


Valve latches when button is depressed.
To reset, turn key. This valve is suitable for panel mounting.

40

03029602

3/2 Lever Toggle spring return valve

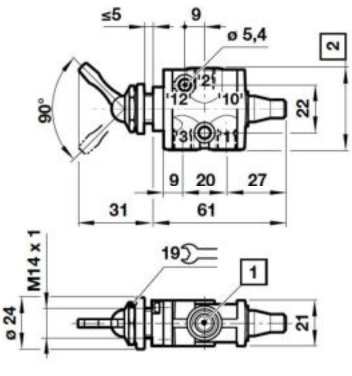


Panel hole: Ø 22,5 mm
This valve is suitable for panel mounting.

41

03040302, 03040332

3/2 Toggle operated spring return valve



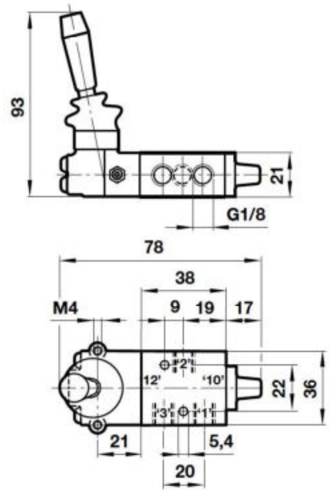
This valve is suitable for panel mounting.
A fingertip extension is available for this valve, reference 07003301.

1 Port size G1/8 or Ø 6 mm
2 37 mm for G1/8 and 45 mm for Ø 6 mm

42

03043802 & 03043702

3/2 Lever operated spring return valve

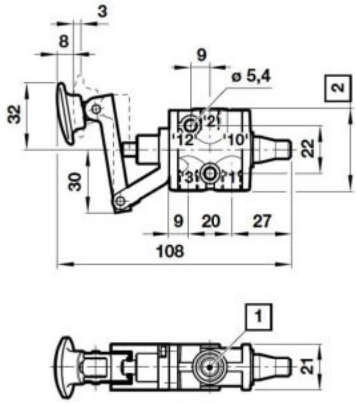


Model 03043702 features a positive detent.
Panel hole: Ø 24 mm
Panel thickness: 8 mm maximum

43

03042602

3/2 Knob lever operated spring return valve



This valve is suitable for panel mounting.
Panel hole: Ø 24 mm;
Panel thickness: 8 mm maximum

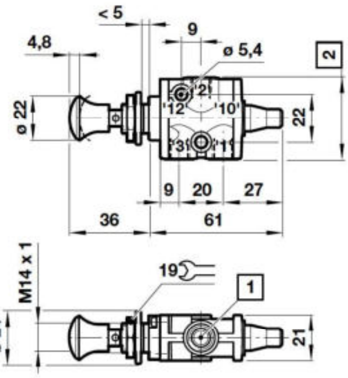
44

03034502, 03034532

3/2 Knob operated spring return valve

03042502, 03042532

3/2 Knob operated knob return valve

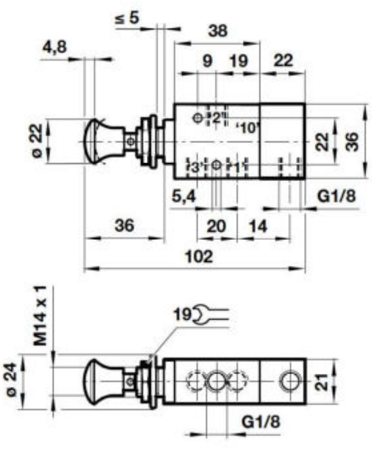


This valve is suitable for panel mounting by means of an optional nut and washer, reference 03043000.

45

03042402

3/2 Knob operated, knob or pilot return valve

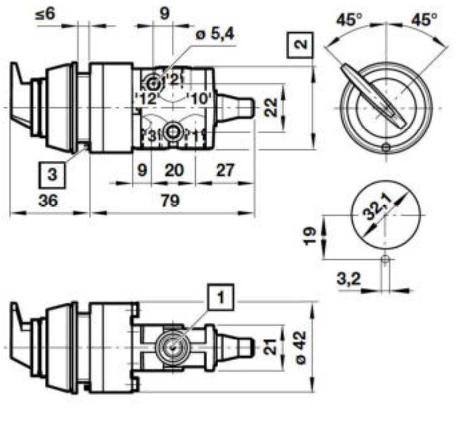


This valve is suitable for panel mounting by means of an optional nut and washer, reference 03 0430 00.

46

03041902, 03041923

3/2 Rotary knob operated rotary knob return valve



Switch shown in non-operated position
This valve is sutiable for panel mounting.

1 Port size G1/8 or Ø 6 mm
2 37 mm for G1/8 and 45 mm for Ø 6 mm
3 0,7 mm thick spacing washer must be used if additional mounting holes are used.

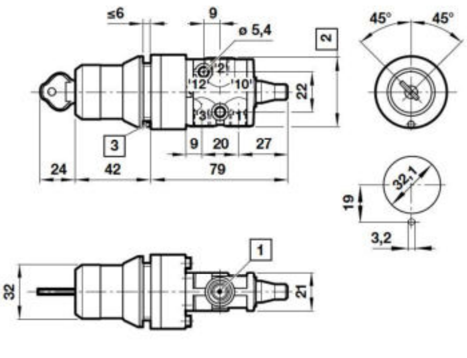
MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4 and 6 mm PIF

48

03041802801, 03041832801

3/2 Key operated key return valve



The key is removable in both positions.
Key slot shown in non-operated position.
Two keys are supplied.
This valve is suitable for panel mounting.

1 Port size G1/8 or Ø 6 mm
2 37 mm for G1/8 and 45 mm for Ø 6 mm

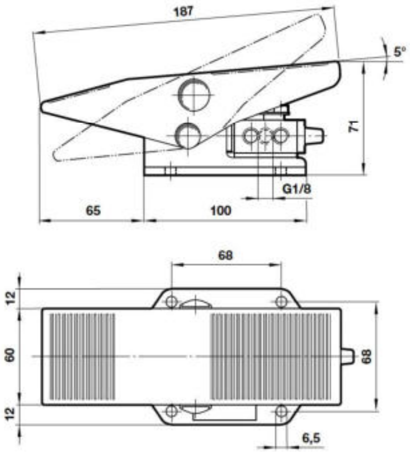
49

03048102

3/2 Pedal operated spring return valve

03048302

3/2 Pedal operated pedal return valve

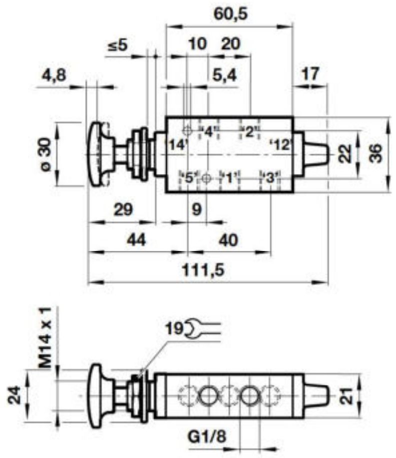


A foot guard is available for this valve, reference 03 0480 60.

50

X3044402, X3044502, X3044602

5/2 Button (Palm) operated spring return valves

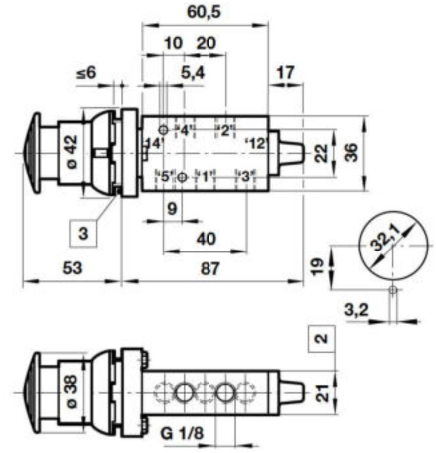


Operating force: 54 N
These valves are suitable for panel mounting by means of an optional nut and washer, reference 03043000; a shrouded panel mounting kit is also available, reference 03042900.

51

X3038602, X3038702, X3038802, X3046802

5/2 Button (Palm) operated spring return valves

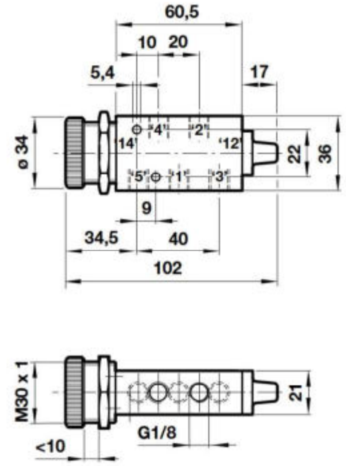


These valves are suitable for panel mounting.

52

X3045402, X3045502, X3045602

5/2 Button (Shrouded) operated spring return valves

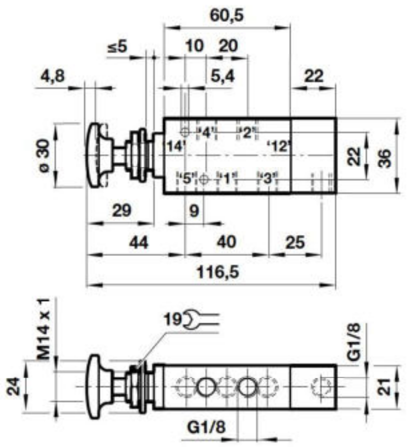


These valves are suitable for panel mounting.

53

X3044802, X3046002, X3046102

5/2 Button (Palm) operated pilot return valves]

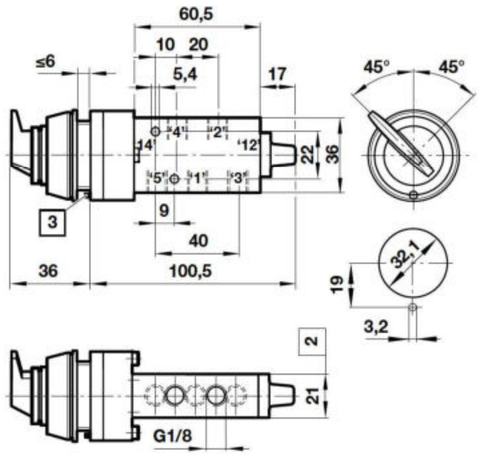


These valves are suitable for panel mounting by means of an optional nut and washer, reference 03043000; a shrouded panel mounting kit is also available, reference 03042900.

54

X3045902

5/2 Rotary knob operated rotary knob return valve

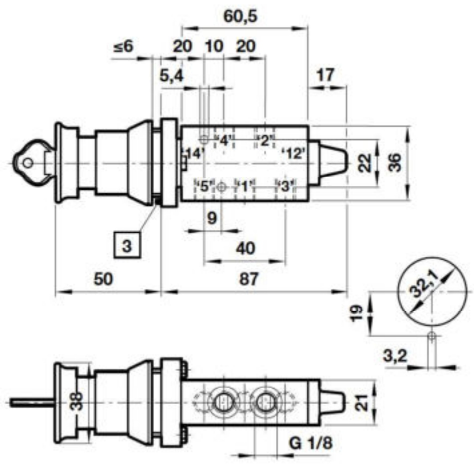


Switch shown in non-operated position
This valve is sutiable for panel mounting.

55

X3037502

5/2 Button (Palm) operated key return valve



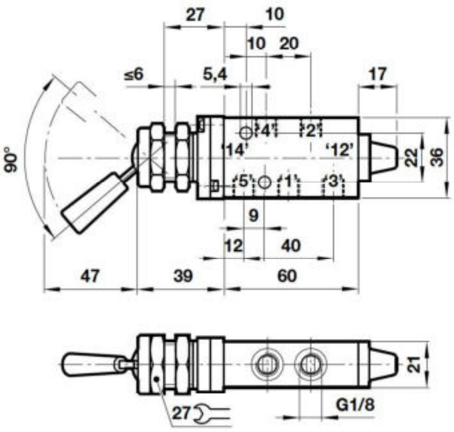
Valve latches when button is depressed.
To reset, turn key. This valve is suitable for panel mounting.

[3] 0,7 mm thick spacing washer must be used if additional mounting holes are used.

56

X3029602

5/2 Toggle operated toggle return valve

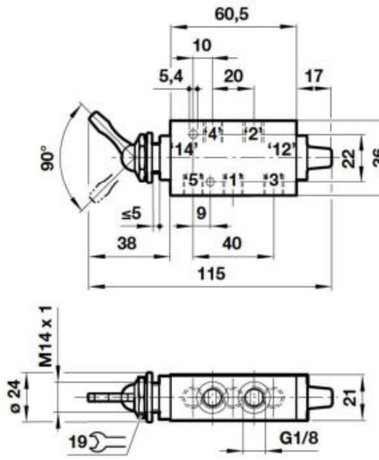


Panel hole: Ø 22,5 mm
This valve is suitable for panel mounting.

57

X3044302

5/2 Toggle operated spring return valve

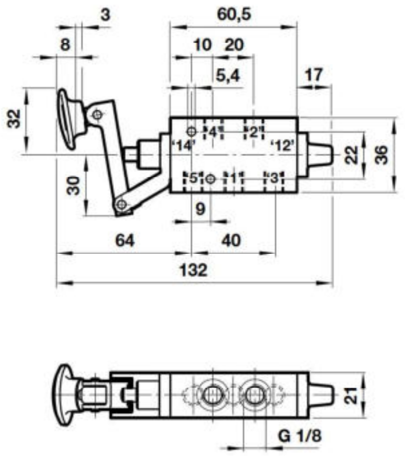


This valve is suitable for panel mounting.
A fingertip extension is available for use on this valve, reference 07 0033 01.

58

X3046602

5/2 Knob lever operated spring return valve



This valve is suitable for panel mounting.
Panel hole: Ø 24 mm;
Panel thickness: 8 mm maximum

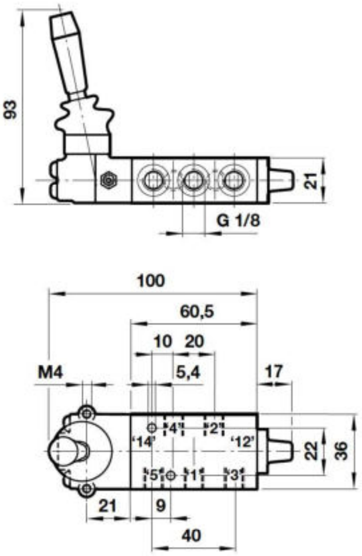
MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4 and 6 mm PIF

59

X3047802, X3047702

5/2 Lever operated valves

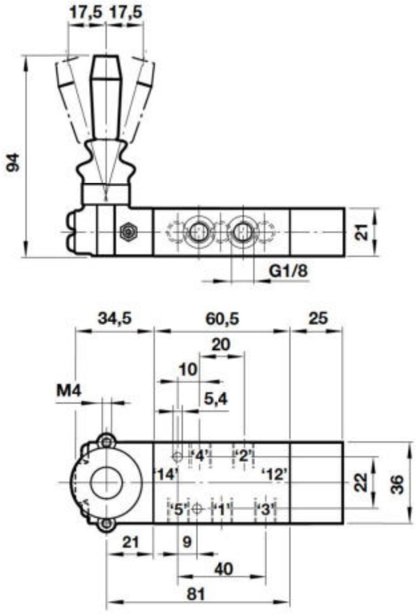


Both models are suitable for panel mounting by means of a bezel kit, reference 03 3437 64.
Panel hole: Ø 24 mm
Panel thickness: 8 mm maximum

60

X3343802, X3347802, X3343702, X3347702

5/3 Lever operated valves

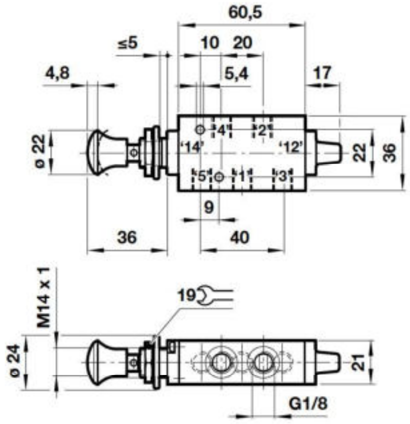


All models are suitable for panel mounting, by means of a bezel kit, reference 03 3437 64.
Panel hole: Ø 24 mm
Panel thickness: 8 mm maximum

61

X3046502

5/2 Knob operated knob return valve

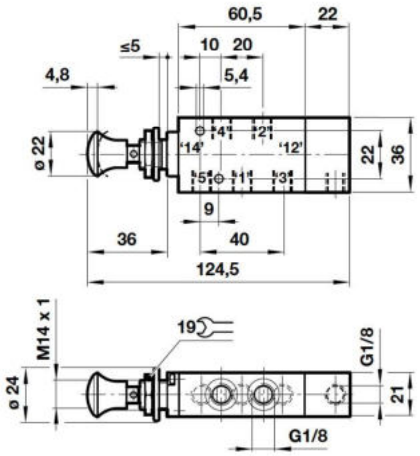


This valve is suitable for panel mounting by means of an optional nut and washer, reference 03043000.

62

X3046402

5/2 Knob operated, knob or pilot return valve

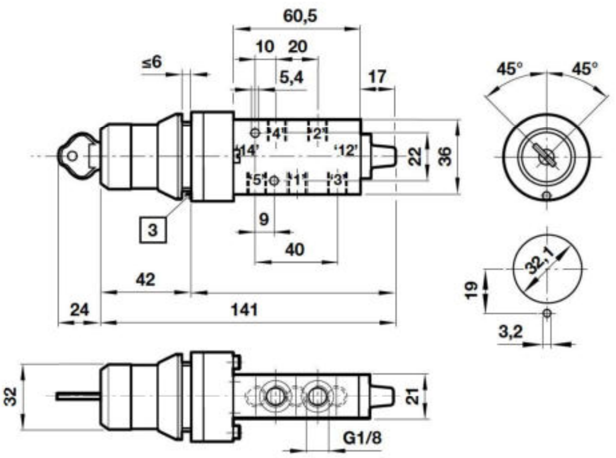


These valves are suitable for panel mounting by means of an optional nut and washer, reference 03043000

64

X3045802801

5/2 Key operated key return valve



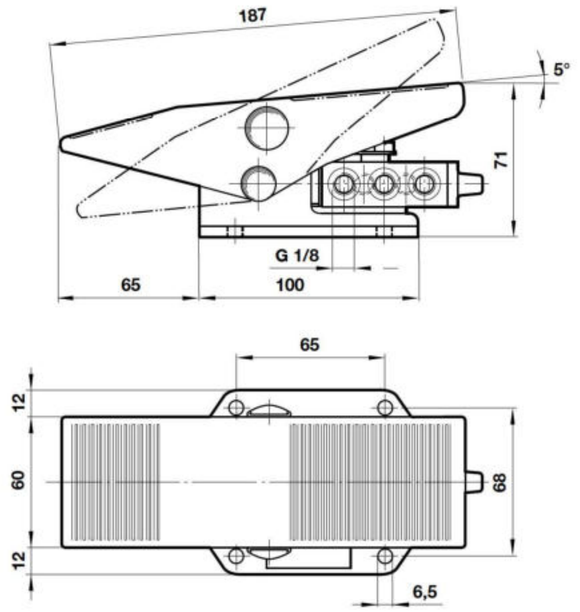
The key is removable in both positions.
Key slot shown in non-operated position.
Two keys are supplied.
This valve is suitable for panel mounting.

MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4 and 6 mm PIF

65

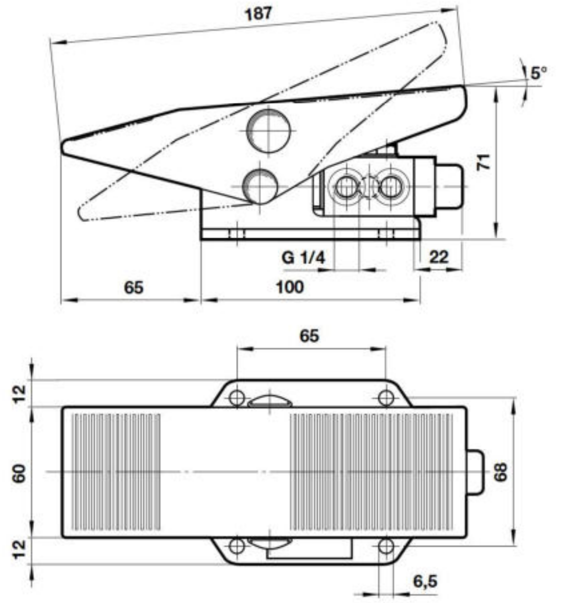
X3048202
5/2 Pedal operated spring return valve
X3048402
5/2 Pedal operated pedal return valve



A foot guard is available for this valve, reference 03048060.

66

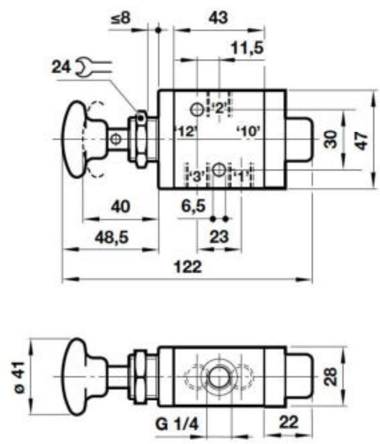
03068102
3/2 Pedal operated spring return valve
03068302
3/2 Pedal operated pedal return valve



A foot guard is available for this valve, reference 03048060.

67

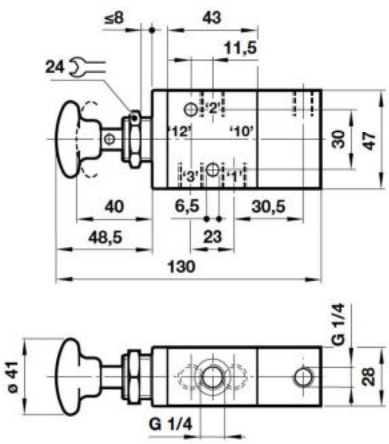
03060402
3/2 Button operated spring return valve



This valve is suitable for panel mounting and includes a nut and washer.
Panel hole: Ø 21 mm

68

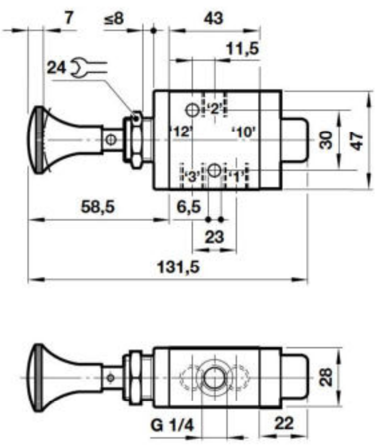
03060802
3/2 Button operated pilot return valve



This valve is suitable for panel mounting and includes a nut and washer.
Panel hole: Ø 21 mm

69

03062502
3/2 Knob operated knob return valve



This valve is suitable for panel mounting and includes a nut and washer.
Panel hole: Ø 21 mm

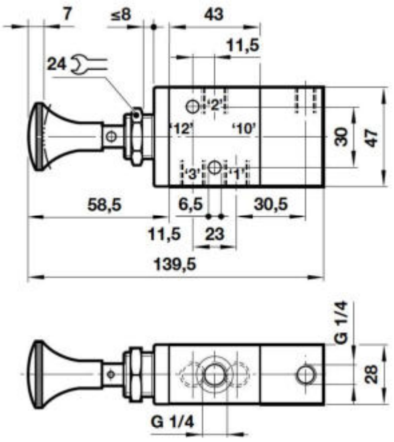
MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4 and 6 mm PIF

70

03062702

3/2 Knob operated, knob or pilot return valve

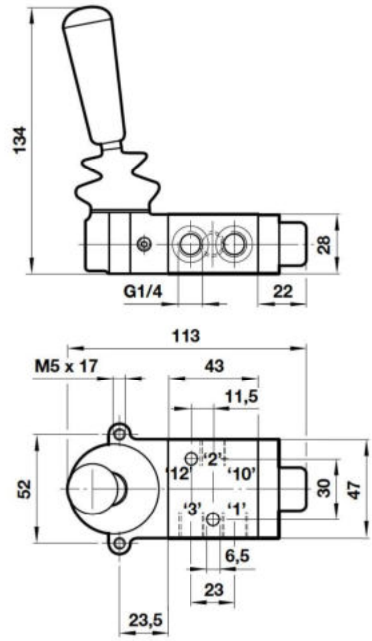


This valve is suitable for panel mounting and includes a nut and washer.
Panel hole: Ø 21 mm

71

03063802, 03063702

3/2 Lever operated valve

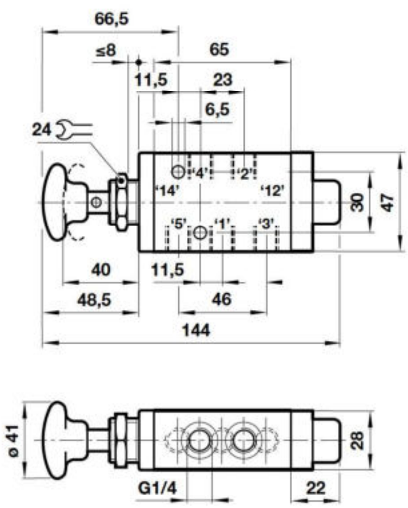


Model 03063702 features a positive detent in each position.
Both models are suitable for panel mounting by means of a bezel kit,reference 03363764.
Panel hole: Ø 31 mm;
Panel thickness: 8 mm maximum

72

X3064402

5/2 Button operated spring return valve

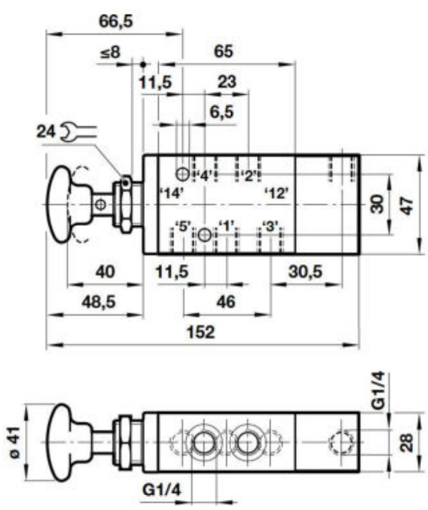


This valve is suitable for panel mounting and includes a nut and washer.
Panel hole: Ø 21 mm

73

X3064802

5/2 Button operated pilot return valve

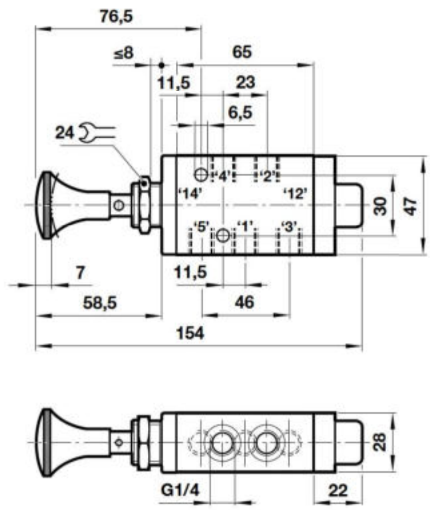


This valve is suitable for panel mounting and includes a nut and washer.
Panel hole: Ø 21 mm

74

X3066502

5/2 Knob operated knob return valve

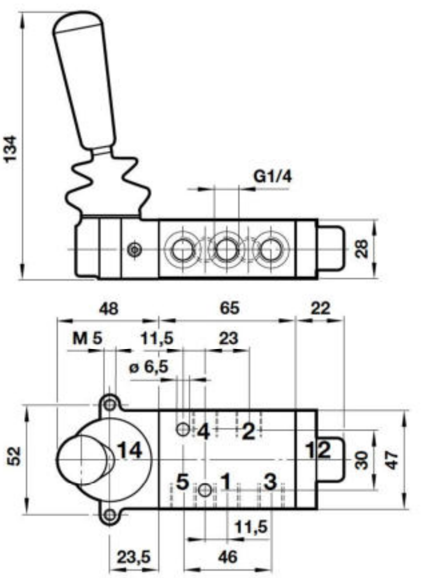


This valve is suitable for panel mounting and includes a nut and washer.
Panel hole: Ø 21 mm

75

X3067802, X3067702

5/2 Lever operated valve

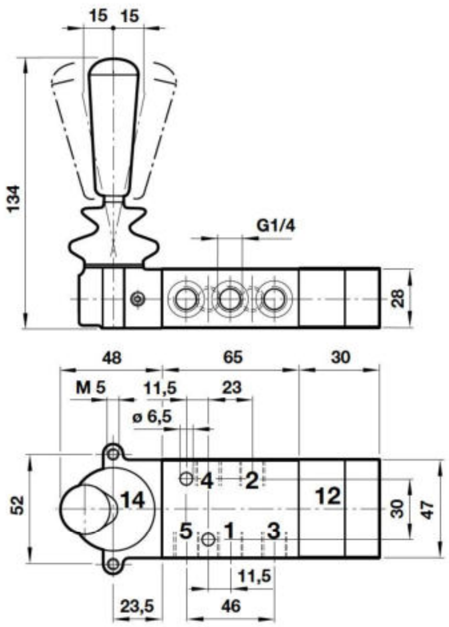


Model X3067702 features a positive detent in each position.
Both models are suitable for panel mounting by means of a bezel kit, reference 03363764.
Panel hole: Ø 31 mm
Panel thickness: 8 mm maximum

76

X3363802, X3367802, X3363702, X3367702

5/3 Three position lever operated valves



These valves are suitable for panel mounting by means of a bezel kit, reference 03363764.
Panel hole: Ø 31 mm
Panel thickness: 8 mm maximum

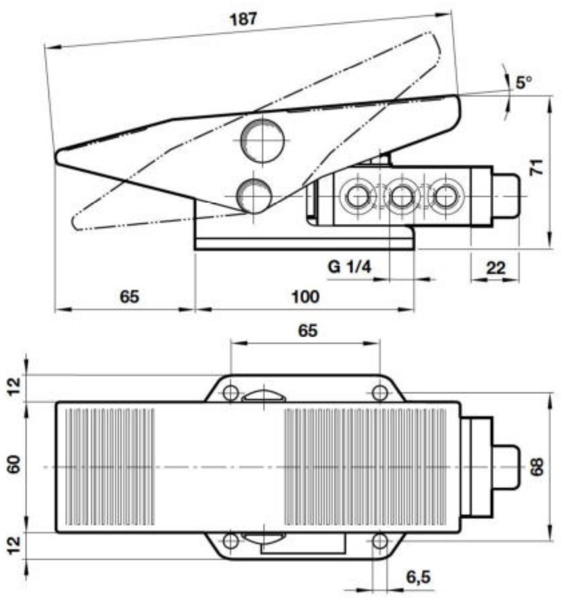
77

X3068202

5/2 Pedal operated spring return valve

X3068402

5/2 Pedal operated pedal return valve



A foot guard is available for this valve, reference 03048060.

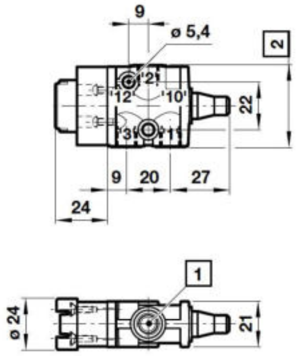
MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4 and 6 mm PIF

78

03029502, 03029532

3/2 Adapter valve

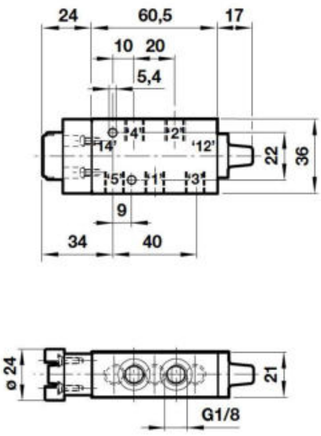


This valve is for use with standard electrical style operating heads.
For details see below.

79

X3039502

5/2 Adapter valve



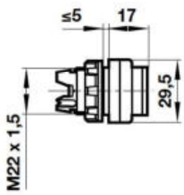
This valve is for use with standard electrical style operating heads.
For details see below.

Operating heads for use with G1/8, 3/2 and 5/2 Adaptor valves

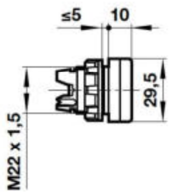
Panel hole: Ø 22,5 mm

Panel thickness: 6 mm maximum

V11783-C01 (pink)
V11783-C02 (green)
V11783-C03 (black)
Button (palm) operated, spring return

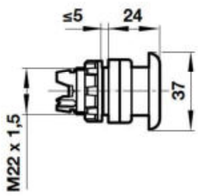


V11783-C04 (pink)
V11783-C05 (green)
V11783-C06 (black)
Button (shrouded) operated, spring return

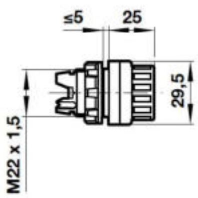


V11783-C07 (red)
V11783-C08 (green)

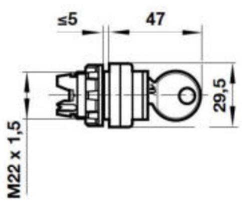
Button (mushroom) operated, spring return



V11783-C10
Rotary knob operated rotary knob return



V11783-C12
Key operated key return



Online at www.imi-precision.com

ROTARY HAND VALVE

VHLA 4/2, 4/3, G1/4 … G1/2

- Manually operated hand valve
- Easy to grasp and rotate handle
- Detented centre position
- Panel mounting option
- High flow

Technical Data

Medium:
Compressed air, filtered, lubricated and non-lubricated

Operating pressure:
0 … 9,7 bar

Flow:
400 … 3100 l/min

Ambient temperature:
-5°C … +60°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body and cover:
Aluminium alloy

Seals:
NBR

EXPRESS

Models

Accessories

Model	Port size	Function	Flow (l/min)	Panel mount nut	Straight fitting	Elbow fitting	Silencer
							
VHLA202-02G	G1/4	4/2	400	VHLA-200N	C02250828	C02470828	T40C2800
VHLA302-03G	G3/8	4/2	1100	VHLA-300N	C02251038	C02471038	T40C3800
VHLA402-04G	G1/2	4/2	3100	VHLA-400N	C02251248	C02471248	T40C4800
VHLA200-02G	G1/4	4/3 APB	400	VHLA-200N	C02250828	C02470828	T40C2800
VHLA300-03G	G3/8	4/3 APB	1100	VHLA-300N	C02251038	C02471038	T40C3800
VHLA400-04G	G1/2	4/3 APB	3100	VHLA-400N	C02251248	C02471248	T40C4800
VHLA201-02G	G1/4	4/3 COE	400	VHLA-200N	C02250828	C02470828	T40C2800
VHLA301-03G	G3/8	4/3 COE	1100	VHLA-300N	C02251038	C02471038	T40C3800
VHLA401-04G	G1/2	4/3 COE	3100	VHLA-400N	C02251248	C02471248	T40C4800

Caution: These valves are not leak free, care should be taken with safety critical applications and where an APB valve is used to hold an actuator in a mid position.
Installation: It is recommended that air pressure is applied only at port 1, otherwise leakage may occur - (ie. reverse porting is not recommended). It is recommended that a silencer is fitted in the exhaust port, particularly in applications where dust is present.

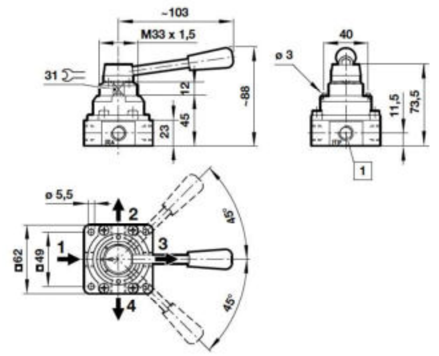
ROTARY HAND VALVE VHLA S

VHLA 4/2, 4/3, G1/4... G1/2

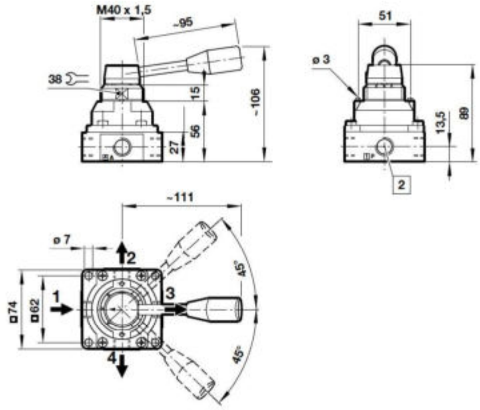
Dimensions

Panel mount nut

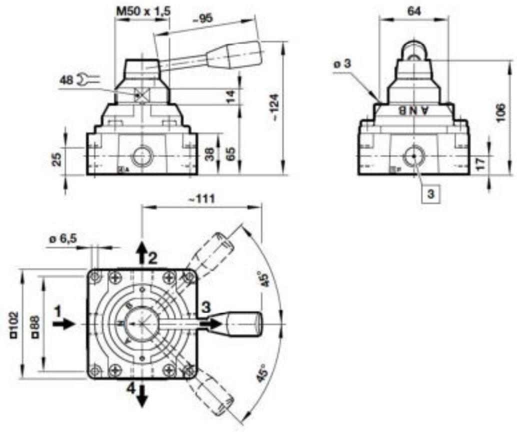
G1/4



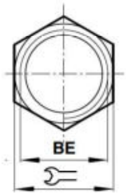
G3/8



G1/2



1 All ports G1/4
2 All ports G3/8
3 All ports G1/2



BE	(wrench)	KW	Model
M33x1,5	40	6	VHLA-200N
M40x1,5	50	6	VHLA-300N
M50x1,5	55	8	VHLA-400N

POPPET VALVE MANUAL/MECHANICAL

S/666 3/2 G1/8

- Long established and well-proven valves
- Compact size
- Normally closed and normally open models
- May also be used as 2/2 valves

Technical Data

Medium:
Compressed air, filtered, lubricated and non-lubricated

Operation:
Poppet valves, directly actuated

Mounting:
Through-holes in valve body

Port Size:
G1/8

Operating Pressure:
2 … 10 bar

Flow:
666 range = 174 l/min
667 range = 156 l/min

Ambient temperature:
-20°C … +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body:
Diecast zinc alloy

Piston:
Aluminium

Seals:
NBR

EXPRESS

Models

Accessories

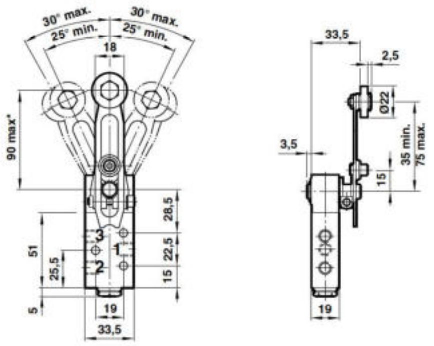
Model	Function	Actuation	Dimension No.	Spares Kit
Mechanical				
S/666/14	3/2 NC	Plunger/Spring	7	QS/666/1/00
S/666/8	3/2 NC	Roller/Spring	8	QS/666/1/00
S/667/8	3/2 NO	Roller/Spring	8	QS/667/1/00
S/666/108	3/2 NC	Variable Roller/Spring	1	QS/666/1/00
S/666/106	3/2 NC	Variable Rod/Spring	2	QS/666/1/00
S/666/116	3/2 NC	Antenna Spring/Spring	3	QS/666/1/00
Manual				
S/666/1	3/2 NC	Button/Spring	6	QS/666/1/00
S/666/7	3/2 NC	Lever/Lever (Panel mounting)	5	QS/666/1/00
S/666/117	3/2 NC	Lever (long)/Lever (panel mounting)	4	QS/666/1/00

POPPET VALVE MANUAL/MECHANICAL

S/666 3/2 G1/8

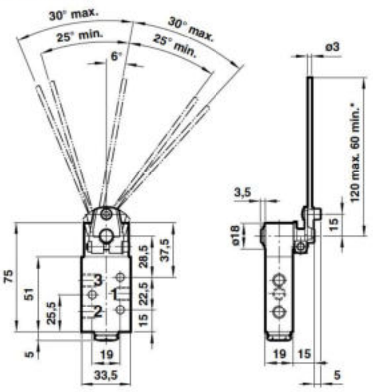
Dimensions

1-S/666/108



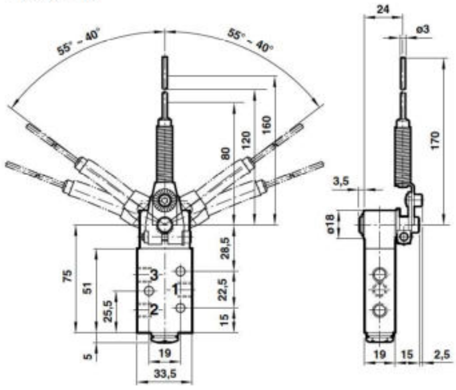
Mechanism may be operated either side of centre line. When the valve is mounted horizontally, the roller is recommended to be positioned on the upper face of the arm.
*Alternative position

2- S/666/106



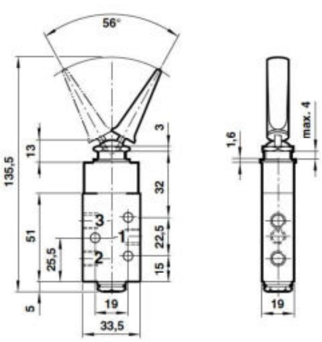
Mechanism may be operated either side of centre line.
*Recommended

3-S/666/116



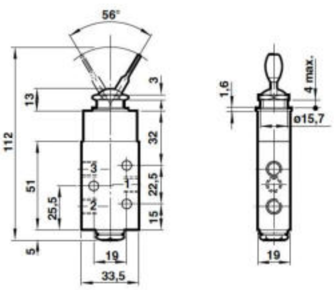
*Rotation at Point of Application: 40° minimum @ 80 mm
50° minimum @ 120 mm
55° minimum @ 160 mm
Mechanism may be operated either side of centre line.

4-S/666/117



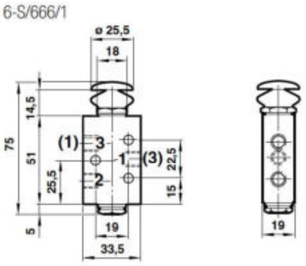
Panel hole: Ø 16 mm
Panel thickness: 4 mm maximum

5-S/666/7

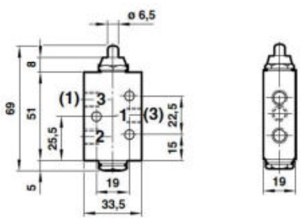


Panel hole: Ø 16 mm
Panel thickness: 4 mm maximum

6-S/666/1

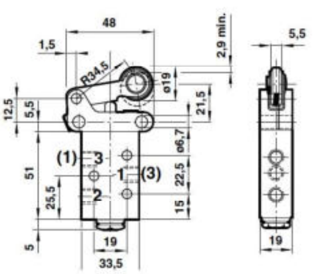


7-S/666/14



Pre-travel: 0,8 mm closed top seat
Operating Travel: 0,8 mm open bottom seat
Over-travel: 1,5 mm
Model number S/667/14 type 3/2 normally open numbers are shown in brackets.

8-S/666/8 & S/667/8



Pre-travel: 1,4 mm closed top seat
Operating Travel: 1,4 mm open bottom seat
Over-travel: 2,2 mm
Model number S/667/8 type 3/2 normally open numbers are shown in brackets.

MANUAL IN-LINE VALVE

M/1700 5/2, 5/3, G1/4, G1/2

- Compact, well proven range – perfectly suited to many applications
- Air assisted detent ensures positive valve location
- Simple servicing and sub-base mounting for reduced down-time

Technical Data

Medium:
Compressed air, filtered, lubricated and non-lubricated

Operating pressure:
2 … 10 bar

Flow:

Size	l/min
G1/4	1290
G1/2	3200

Ambient temperature:
-20°C … +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body/sub-base:
Pressure die-cast zinc alloy

Spool:
Aluminium

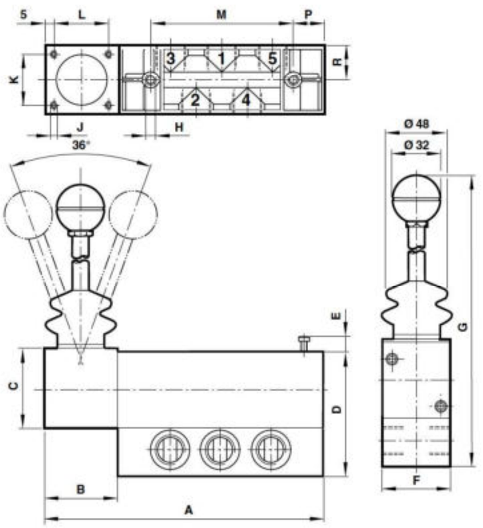
Seals:
Nitrile

EXPRESS

Models

Model	Size	Function	Actuation	Mid position
M/1702/177	G1/4	5/2	Lever/Lever	–
M/1702/87	G1/4	5/3	Lever/Lever/Lever	APB
M/1704/177	G1/2	5/2	Lever/Lever	–
M/1704/87	G1/2	5/3	Lever/Lever/Lever	APB
M/1704/687	G1/2	5/3	Lever/Spring/Lever	APB
M/1714/687	G1/2	5/3	Lever/Spring/Lever	COE

Dimensions



Model	A	B	C	D	E	F	G	H	J	K	L	M	P	R
M/1702	143,5	42	41,5	65	0,5	35	200,5	M6	M4	27	32	67,5	17	17,5
M/17*4	197	49	56,5	89,5	9,5	35	222,5	M8	M5	35,5	35,5	101,5	23	24

3/2 POPPET VALVE MANUAL/MECHANICAL

S/1340 G1/4

- **Very rugged, heavy duty valves**
- **Corrosion resistant**
- **Adjustable lever operators, may be rotated at 90° intervals**
- **Integral alternative ports**

Technical Data

Medium:
Compressed air, filtered, lubricated and non-lubricated

Operation:
Poppet valves, directly actuated

Mounting:
Through-holes in valve body

Port Size:
G1/4

Operating Pressure:
0,7 … 10 bar

Flow:
1300 l/min

Ambient temperature:
+5°C … +75°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

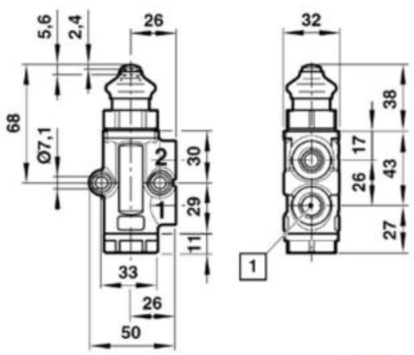
Body, poppet and lever:
Brass

Screws and roller:
Stainless steel

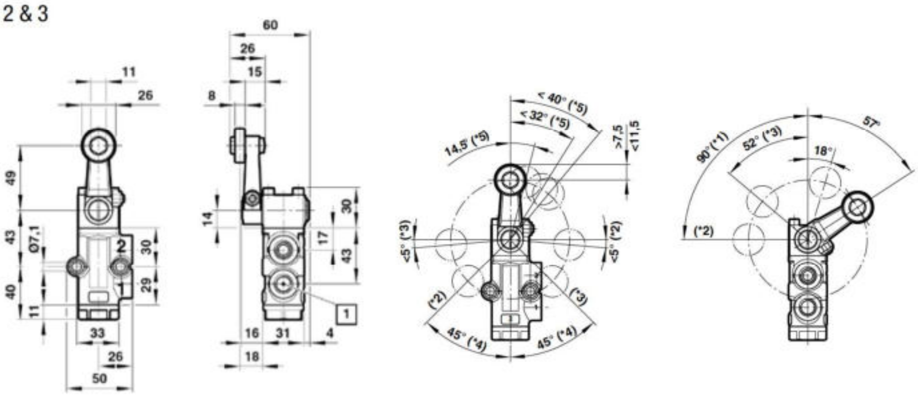
Seals:
NBR

Dimensions

1



2 & 3



1 G1/4

Models

Model	Actuation	Dimension No.	Spares kit
S/1340/14	Plunger/Spring	1	QS/1340/6/00
S/1340/8	Roller/Spring	2	QS/1340/6/00
S/1340/48	One-way trip/spring	2	QS/1340/6/00

S/1340/8:

- Pre-travel: 14° maximum, exhaust seat closes
- Operating Travel: 32°/7,5 mm minimum, including pre-travel
- Total movement of valve including over-travel:
- 40°/11,5 mm maximum

Notes:

1. Operating lever must not be set to exceed this position at any time during operation.
2. Maximum rest position of operating lever for valve operating clockwise.
3. Maximum rest position of operating lever for valve operating anti-clockwise.
4. Operating lever must not enter this arc at any time during operation.
5. Valve may be operated either clockwise or anti-clockwise.
6. Operating lever may be positioned at any angle on the operating spindle providing the conditions of operation in notes 1 … 5 are maintained.

Operating mechanism may be rotated through 360° at 90° intervals.

S/1340/48:

- Pre-travel: 19° maximum, exhaust seat closes
- Operating Travel: 36°/9,5 mm minimum, including pre-travel
- Total movement of valve including over-travel:
- 40°/10,5 mm maximum
- Minimum movement anti-clockwise to trip valve:
- 38° (valve does not operate)

Notes:

1. Operating lever must not be set to exceed this position at any time during movement to operate or to trip valve.
2. Maximum rest position of operating lever if full amount of over-travel is required.
3. Operating lever must not enter this arc at any time during movement to trip valve.
4. Operating lever must not enter this arc at any time during operation.
5. Valve may be operated clockwise, but does not operate anti-clockwise.
6. Operating lever may be positioned at any angle on the operating spindle providing the conditions of operation in notes 1 … 5 are maintained

Operating mechanism may be rotated through 360° at 90° intervals.

PROPORTIONAL PRESSURE CONTROL VALVE

VP10 G1/4

- Air piloted proportional pressure valve
- Reliable, rugged design
- Excellent accuracy
- IP 65 environmental protection in normal position

Technical Data

Medium:
Compressed air, filtered to 5 µm, dry and oil free

Flow capacity:
Up to 300 l/min

Air consumption:
Up to 1 bar: 2,8Nl/min,
up to 2 bar: 4,0Nl/min,
up to 4 bar: 7,5Nl/min,
up to 8 bar: 9,0Nl/min

Supply Pressure:
At least 0,7 bar above max. required output pressure.
Up to 2bar instruments: max 5bar,
up to 8bar instruments: max 10 bar

Ambient temperature:
-40°C … +85°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Response time:
< 0,35 seconds for 10 … 90% or 90 … 10% of output pressure into a 10cc load (1 bar range instruments)

Supply sensitivity:
> 0,075% span output change per % supply pressure change

Linearity:
≤ 0,5% of span

Hysteresis:
≤ 0,5% of span

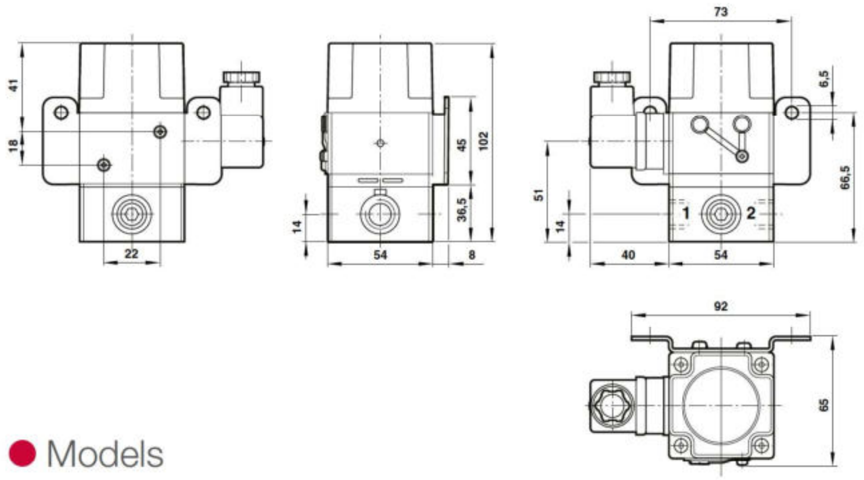
Materials

Body:
Passivated zinc die-casting, epoxy painted

Cover:
Glass reinforced PA

Diaphragms:
NBR

Dimensions



Models

Accessories

Model	Port size	Flow (l/min)	Operating pressure (bar)	Control signal	Straight fitting	Elbow fitting
						
VP1001BJ400A00	G1/4	300	0,2 … 1	4 … 20 mA	C02250828	C02470828
VP1006BJ401A00	G1/4	300	0,2 … 6	4 … 20 mA	C02250828	C02470828
VP1008BJ401A00	G1/4	300	0,2 … 8	4 … 20 mA	C02250828	C02470828