

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.

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. If you can't see the option you require please contact us.

● Valve Islands

VM10 2 x 3/2, 5/2 & 5/3 10 mm  Page 57	VM15 2 x 3/2, 5/2 & 5/3 15 mm  Page 58	VS18 2 x 3/2, 5/2 & 5/3 ISO 15407-2 18 mm  Page 59	VS26 2 x 3/2, 5/2 & 5/3 ISO 15407-2 26 mm  Page 60
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● Sub-base Valves

V40/V41 2 x 3/2, 5/2 & 5/3 Valve ISO 15407-1/VDMA 24 563 18 mm  Page 62	V44/V45 2 x 3/2, 5/2 & 5/3 Valve ISO 15407-1/VDMA 24 563 26 mm  Page 67	ISO★STAR 5/2 & 5/3 ISO #1 ... ISO #3  Page 73	UM/22000 5/2 & 5/3 ISO #4  Page 76
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● In-line and Manifold Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3 G1/8 ... G1/2  Page 79	V50 ... 53 3/2, 5/2 & 5/3 G1/8 ... G1/2  Page 90	EXCEL 22, M/49 3/2 G1/8  Page 94
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● Special Purpose Valves

Two-hand control unit XSHC04 4 mm PIF  Page 95	Safety valves SCVA 3/2 G1/4, G3/4, G1  Page 96	Safety valves SCVA10 3/2 G1/2  Page 98	Safety valves SCSQ 3/2 G1/2  Page 100	Solenoid actuated press safety valves XSz 3/2 G1/4 ... G2  Page 102
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● Manual/Mechanical Valves

Super X 3/2, 5/2 & 5/3 G1/8, G1/4  Page 106	VHLA 4/2, 4/3 APB G1/4 ... G1/2  Page 116	M/1700 5/2, 5/3 G1/4, G1/2  Page 117	S/666 3/2 G1/8  Page 118
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Fast Find Guide

Please note: These products represent only part of the IMI Precision Engineering valves range. If you can't see the option you require please contact us.

● Proportional Valves

VP50S G1/4  Page 120	VP51 G1/4  Page 121
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● Process Industry

82510 2/2 G1/4 ... G3/8  Page 123	82400 2/2 G1/4 ... G2  Page 124	84500 2/2 G1/2 ... G2  Page 125	95000 2/2 G1/4  Page 127	96000 3/2 G1/4  Page 128
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● Flow Control Valves

C00GE, C00GP Ø 4 ... 12 mm  Page 130	T1000 Uni-directional M5, G1/8 ... G1/2  Page 209	T1100 Bi-directional G1/8 ... G1/2  Page 209	T20 M5, G1/8 ... G1/2  Page 210	C0T, C0K, C0S, C0L BANJO FLOW REGULATORS (COMPOSITE BODY)  Page 196	10K51, BANJO FLOW REGULATORS (METAL BODY)  Page 196
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● Other Valves and Accessories

T55 Non-return valves M5, G1/8 ... G1/2  Page 131	C00GL Non-return valves Ø 4 ... 12 mm  Page 211	T65 Shuttle valves G1/8 & G1/4  Page 131	T70 Quick exhaust valves G1/8 ... G1/2  Page 212	Solenoid plugs and cables 15 mm, 22 mm & 30 mm  Page 132
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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, fieldbus or industrial ethernet.

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:

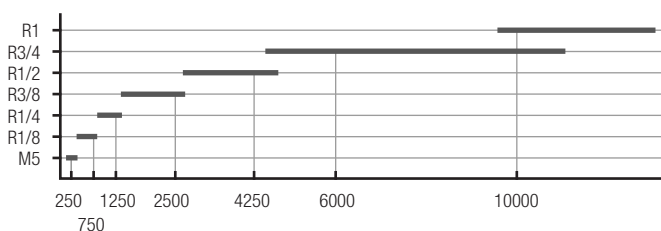
The Correct sizing is based upon the required force and applied pressure. Go to page 14 for more information on cylinder sizing and air consumption.

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 1250 l/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.

DESIGN & SIZING IN PNEUMATICS

Golden Rules

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VALVES

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Online at www.imi-precision.com

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.

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 14.

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/m^3	Water Max. Pressure Dew Point $^{\circ}\text{C}$	Oil concentration mg/m^3
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 $+35^{\circ}\text{C}$, air quality to ISO8573-1 class 5.6.4 is normally sufficient. This is $40 \mu\text{m}$ filtration, $+10^{\circ}\text{C}$ maximum pressure dew point and $5 \text{ mg}/\text{m}^3$ 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.

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.

FLOW FACTOR CONVERSION TABLE

	Factors Cv	Kv	C	Flow * m^3/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
m^3/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.

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 $\text{dm}^3/\text{s}/\text{bar}$ specified by ISO 6358

'A' effective area in mm^2 specified by ISO 6358

'S' effective area in mm^2 according to the Japanese standard JIS B 8375

A further measurement is the NW value. This gives the equivalent diameter in mm^2 of the smallest path through a valve. This is non-comparable and not in the table.

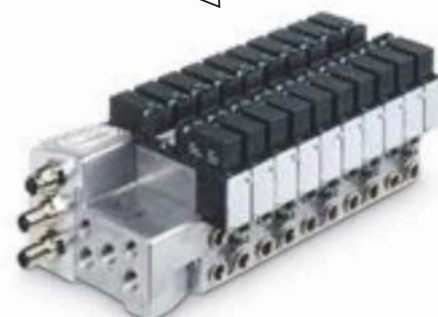
LUBRICANTS

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 Precision Engineering can recommend equivalent products, based on the information from the suppliers.



Engineered polymer -
VM series

Conforms to ISO15407-2
- VS series



EtherNet/IP™

PROFINET®

Engineering
GREAT Solutions



 IMI NORGREN®

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 (VS18/VS26). Electrical connection is via individual wires, multipole, fieldbus or industrial ethernet.

- > 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
- > All our Valve islands can be configured on our new easier to use Valve Island Configurator
- > Industry standard protocols now include Profinet IRT and Ethernet/IP

Find out more
www.imi-precision.com

IMI Precision
Engineering

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.

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 6 mm
- Compact and lightweight
- High flow from 10 mm valve width
- To configure and order a Valve Island visit www.imi-precision.com
- Multipole or individually wired
- Fieldbus or industrial ethernet

Technical Data

Medium:

Compressed air, filtered, lubricated and non-lubricated

Operation:

Spool valve indirectly actuated

Port sizes:

Ports 1,3 & 5: Ø 8 & 10 mm

Ports 2 & 4: Ø 3, 4 & 6 mm

Ports 12/14 & 82/84: Ø 4 & 6 mm

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

Ambient temperature:

-5°C ... +50°C

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



● Protection classification

UL/CSA approval

Recognized to UL 429 - 5th edition & CSA 22.2 No.139 - 1982 for Electrically Operated Valves.

● Models - 2 x 3/2 Double solenoid actuated valves

Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
VM106A11AB313B	2 x 3/2 NC	Solenoid/Spring	Internal	Push only	3 ... 8	—
VM106B11AB313B	2 x 3/2 NO	Solenoid/Spring	Internal	Push only	3 ... 8	—
VM106C11AB313B	2 x 3/2 NO/NC	Solenoid/Spring	Internal	Push only	3 ... 8	—

● Models - 5/2 Single and double solenoid actuated valves

Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
VM106517AB313B	5/2	Solenoid/Spring	Internal	Push only	3 ... 8	—
VM106511AB313B	5/2	Solenoid/Solenoid	Internal	Push only	2 ... 8	—

● Models - 5/3 Double solenoid actuated valves

Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
VM106611AB313B	5/3 APB	Solenoid/Solenoid	Internal	Push only	3 ... 8	—

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.



PRODUCT PLUS

The perfect solution...

Offering flow rates up to 430 l/m, VM10 is the perfect solution when needing to operate smaller roundline or compact cylinders on a machine system. Easier and quicker to install than traditional individual valves, islands can save money by vastly reducing build times

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 8 mm
- 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
- Electrical connection via multipole or individually wired

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

Flow:

Function l/min

5/2 1000

2x3/2 965

5/3 900

Ambient temperature:

-5°C ... +50°C

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



PRODUCT PLUS

To configure your own valve island please visit
https://www.imi-precision.com/en/en/VIC_landing.aspx



● Models - 2 x 3/2 Double solenoid actuated valves

Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
VM158A11AB313B	2 x 3/2 NC	Solenoid/spring	Internal	Push only	3 ... 8	–

● Models - 5/2 Single and double solenoid actuated valves

Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
VM158517AB313B	5/2	Solenoid/spring	Internal	Push only	3 ... 8	–
VM158511AB313B	5/2	Solenoid/solenoid	Internal	Push only	3 ... 8	–

PLUG-IN MINI ISO VALVE ISLANDS

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

- Modular, easy to expand
- 24V d.c. or 115V a.c.
Multipole or single ad-on station
- Integrated fieldbus and industrial ethernet protocols
- To configure and order a Valve Island visit www.imi-precision.com
- Conforms to ISO 15407-2 Size 18mm
- Two spool technologies with unique advantages
 - glandless spool valves for long life cycles
 - softseal spool valves for high flow

Technical Data

Medium:

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

Flow:

Softseal
Function l/min
2x3/2 600
5/2; 5/3 650

Mounting:

Sub-base

Operating pressure:

Maximum pressure
10 bar VS18S and VS18G models with internal pilot supply
16 bar VS18G with external pilot supply (VS18S softseal spool valves VS18G glandless spool valves)

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

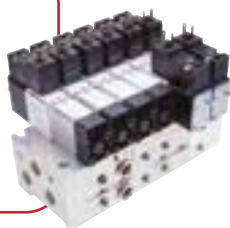


PRODUCT LINKS

If you require...

Individual hard wired valves on the VS valve islands, use V40/41 and V44/45.

See page 62 and 67



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

Model	Function 2x2/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
VS18SA11DF313A	NC	Sol/Spring	Internal	–	2,5 ... 10	Push only	24 V d.c. 1,2 W	SAU
VS18SB11DF313A	NO	Sol/Spring	Internal	–	2,5 ... 10	Push only	24 V d.c. 1,2 W	SBU
VS18SC11DF313A	NO/NC	Sol/Spring	Internal	–	2,5 ... 10	Push only	24 V d.c. 1,2 W	SCU

NO = Normally open, NC = Normally closed.

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	Short code
VS18S11DF313A	Sol/Sol	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	SJU
VS18S17DF313A	Sol/Spring	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	SGU

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

Model	Function 2x2/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
VS18S611DF313A	APB	Sol/Sol	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	SLU
VS18S711DF313A	COE	Sol/Sol	Internal	–	2,5 ... 10	Push only	24 V d.c. 1,2 W	SQU

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 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 and Fieldbus options).

ATEX: The 24 V d.c. 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.

Note: Please refer to the corresponding ATEX installation instructions and the maximum permissible operating conditions for valve islands in the ATEX zone. The maximum allowed power consumption for ATEX is 20W. This corresponds to 16 simultaneously energized pilot valves. If a configuration consists of more than 16 pilot valves the user must undertake external actions (e.g. power-limited power supplies) to make sure that the power consumption of 20W is not exceeded.

PLUG-IN MINI ISO VALVE ISLANDS

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

- Modular, easy to expand
- 24V d.c. or 115V a.c.
Multipole or single ad-on station
- UL
- To configure and order a Valve Island visit www.imi-precision.com
- Conforms to ISO 15407-2 Size 26 mm
- Two spool technologies with unique advantages
 - glandless spool valves for long life cycles
 - softseal spool valves for high flow

Technical Data

Medium:

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

Flow:

Softseal
Function l/min
2x3/2 1250
5/2; 5/3 1350

Mounting:

Sub-base

Operating pressure:

Maximum pressure
10 bar VS26S and VS26G models with internal pilot supply
16 bar VS26G with external pilot supply (VS26S softseal spool valves VS26G glandless spool valves)

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



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

Model	Function 2 x 3/2	Actuation	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
VS26SA11DF313A	NC	Sol/Spring	Internal	–	3 ... 10	Push only	24 V d.c. 1,2 W	SAU
VS26SB11DF313A	NO	Sol/Spring	Internal	–	3 ... 10	Push only	24 V d.c. 1,2 W	SBU
VS26SC11DF313A	NO/NC	Sol/Spring	Internal	–	3 ... 10	Push only	24 V d.c. 1,2 W	SCU

NO = Normally open, NC = Normally closed.

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

Model	Actuation	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
VS26S511DF313A	Sol/Sol	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	SJU
VS26S517DF313A	Sol/Spring	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	SGU

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

Model	Function 2x2/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
VS26S611DF313A	APB	Sol/Sol	Internal	–	2,5 ... 10	Push only	24 V d.c. 1,2 W	SLU
VS26S711DF313A	COE	Sol/Sol	Internal	–	2,5 ... 10	Push only	24 V d.c. 1,2 W	SQU

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 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 and Fieldbus options).

ATEX: The 24 V d.c. valve islands fulfill 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.

Note: Please refer to the corresponding ATEX installation instructions and the maximum permissible operating conditions for valve islands in the ATEX zone. The maximum allowed power consumption for ATEX is 20W. This corresponds to 16 simultaneously energized pilot valves. If a configuration consists of more than 16 pilot valves the user must undertake external actions (e.g. power-limited power supplies) to make sure that the power consumption of 20W is not exceeded.

We help move
man's **most
marvellous
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MINI ISO VALVES

V40/V41 2 x 3/2, 5/2 and 5/3, Solenoid and pilot actuated, ISO 15407-1/DMA 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)

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



● 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-C313A	NC	Solenoid/Spring	Internal	Collected #	2,5 ... 10	–	610

● 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-C313A	Internal	Collected #	Solenoid	Air spring	1 ... 10	–	Glandless	570
V415513D-C313A	Internal	Collected #	Solenoid	Air spring	1 ... 10	–	Soft seal	650
V405516D-C313A	Internal	Collected #	Solenoid	Spring	1,6 ... 10	–	Glandless	570
V415517D-C313A	Internal	Collected #	Solenoid	Spring	2 ... 10	–	Soft seal	650
V405511D-C313A	Internal	Collected #	Solenoid	Solenoid	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-C313A	APB	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	610
V415611D-C313A	APB	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Soft seal	680
V405711D-C313A	COE	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	610
V415711D-C313A	COE	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Soft seal	680

Pilot exhaust collected and exhausted via port 14.

APB = All Ports Blocked, COE = Centre Open Exhaust, NC = Normally closed.

Voltage codes

Voltage	Coil code	Current
24 V d.c.	C313A	1,2 W

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

● 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.

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 Air pilot actuated glandless and softseal valves

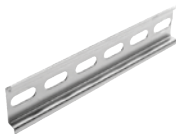




Model	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
V405537A-X0090	Air	Spring	-0,9 ... 16	1,6 ... 16	Glandless	570
V415537A-X0090	Air	Spring	-0,9 ... 10	2 ... 10	Soft seal	610
V405533A-X0020	Air	Air	-0,9 ... 16	2 ... 16	Glandless	570

● 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)
V415633A-X0020	APB	Air	Air	-0,9 ... 10	2 ... 10	Soft seal	680

APB = All Ports Blocked

● 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
				
V10009-C00 (35 x 7,5 mm)	V70531-KA0	V70422-K50 (Ports 1,3,5)	V70532-K00	V70400-K50

● Sandwich plates

Double pressure regulator plate



V70427-K54 (Ports 2+4 reg.)



PRODUCT PLUS

Looking for long life valves?

For high cycling applications or extended life expectancy, select a glandless spool. Whilst having slightly lower flow rates, operating life is extended above soft seals, friction levels are lower and operation remains constant throughout the life of the valve.



PRODUCT LINKS

Connectors and cables

For a full selection of 15 mm DIN EN175301-803 Form C plugs and cables

See page 132



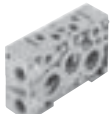



MINI ISO VALVES




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





● Bases

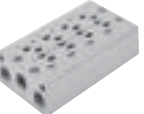



Accessories

Single station				
Model	Description	Straight fitting	Elbow fitting	Silencer
				
V70401-A5B	Single station side ported with pilot ports – G1/8	C02250618	C02470618	T40C1800

Modular sub-bases and end plates				
Model	Description	Straight fitting	Elbow fitting	Silencer
				
V70425-x5F	Modular sub-base side ported without pilot ports (Port 2+4). See table below	C02250618	C02470618	–
V70426-x5F	Modular sub-base side ported with pilot ports (Port 2+4). See table below	C02250618	C02470618	–
V70425-A5E	Modular sub-base bottom ported without pilot ports (Port 2+4) – G1/8	C02250618	C02470618	–
V70426-A5E	Modular sub-base bottom ported with side pilot ports (Port 2+4) – G1/8*	C02250618	C02470618	–

				
V70424-B5C	End plate kit. End ported – G1/4	C02250828	C02470828	T40C2800

				
V70431-A5F	End plate kit with 2 side ported valve stations without pilot ports – G1/4, G1/8	C02250618 (Ports 2 & 4) C02250828 (Ports 1, 3 & 5)	C02470618 (Ports 2 & 4) C02470828 (Ports 1, 3 & 5)	T40C2800 –

				
V70402-A50	2 Station fixed length manifold. Bottom ported	C02250618 (Ports 2 & 4)	C02470618 (Ports 2 & 4)	T40C2800
V70404-A50	4 Station fixed length manifold. Bottom ported	C02250828 (Ports 1, 3 & 5)	C02470828 (Ports 1, 3 & 5)	–
V70406-A50	6 Station fixed length manifold. Bottom ported	–	–	–
V70408-A50	8 Station fixed length manifold. Bottom ported	–	–	–
V70410-A50	10 Station fixed length manifold. Bottom ported	For all models listed on the left	–	–

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

* 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.

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

● Dimensions

V4155*3D-C3***

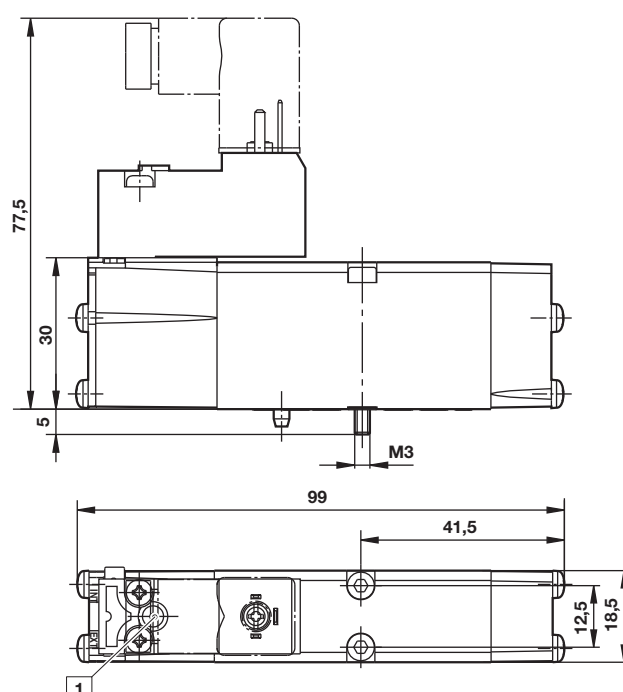
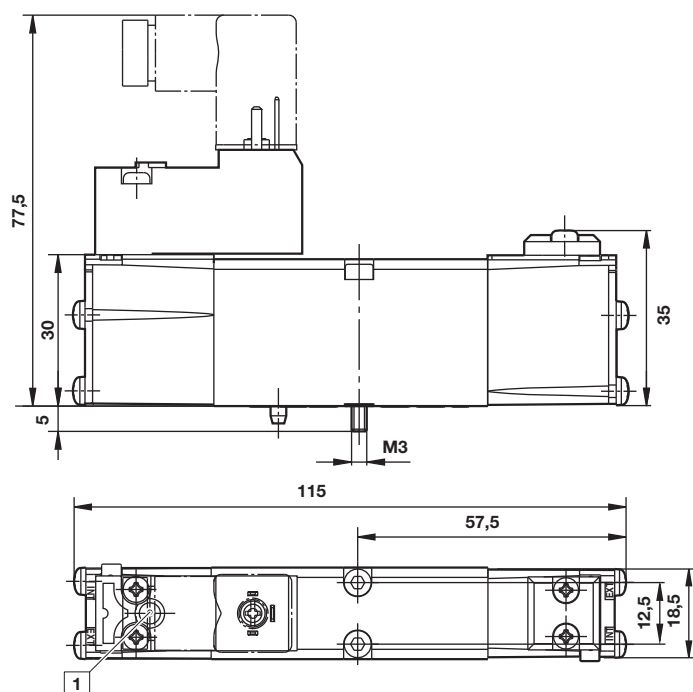
5/2 Single solenoid pilot valve

Air spring return

V4055**D-C3***

5/2 Single solenoid pilot valve

Mechanical (& air) spring valve



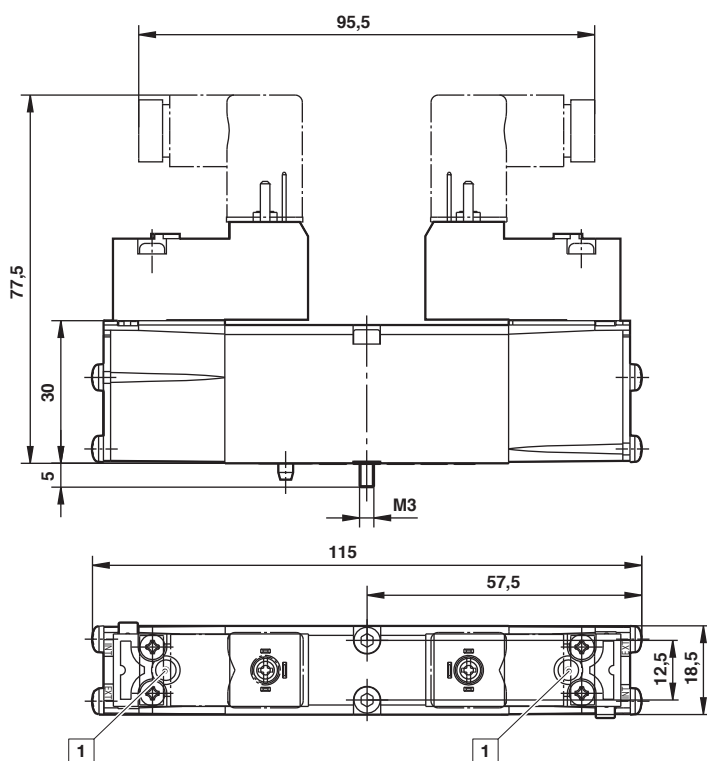
V4055**D-C3*** & V4155**D-C3***

5/2 Double solenoid pilot valve

V405***D-C3*** & V415***D-C3***

2x3/2 + 5/3 Double solenoid pilot valve

[1] Manual override

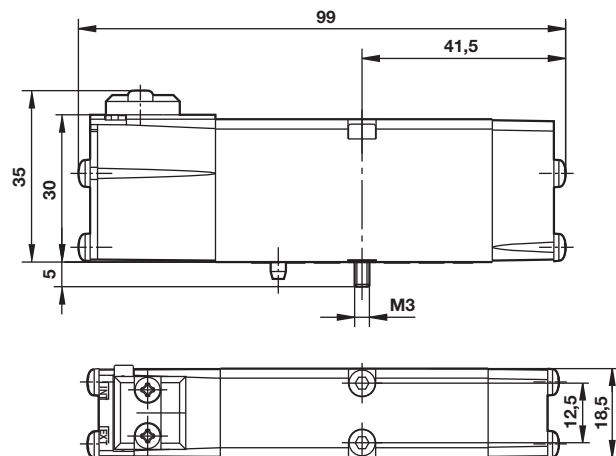


MINI ISO VALVES

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

V415537A-X0090

5/2 Single air pilot valve

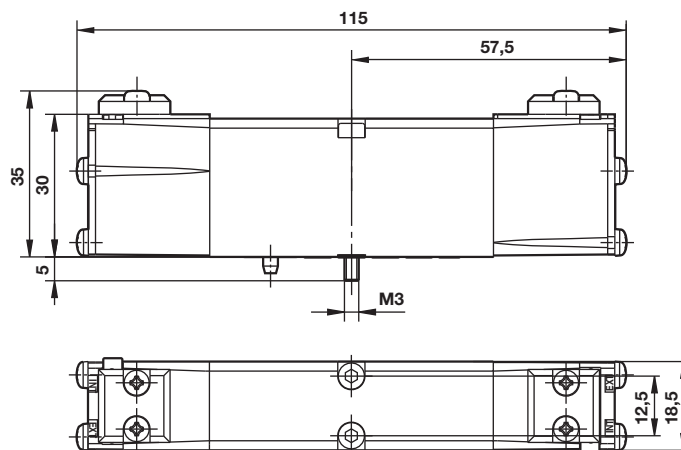


V405537A-X0090

5/2 Single air pilot valve

V405*33A-X00*0 & V415*33A-X00*0

2x3/2, 5/2 + 5/3 Double air pilot valve



PRODUCT LINKS

Tubing...

For our comprehensive range of nylon, polyurethane and other tubing.

See page 202



PRODUCT LINKS

Exhaust air...

Due to the large combined exhaust from valve islands, it is vital that to comply with COSHH requirements silencers are fitted. In addition, they must also be maintained regularly to eliminate restriction of exhausting air.

See page 204



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
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



● 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-C313A	NC	Solenoid/Spring	Internal	Collected #	3 ... 10	–	1000

Pilot exhaust collected and exhausted via port 14.

NC = Normally closed.

● 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-C313A	Internal	Collected #	Solenoid	Air spring	1 ... 10	–	Glandless	900
V44A517D-C313A	Internal	Collected #	Solenoid	Spring	1,6 ... 10	–	Glandless	900
V45A517D-C313A	Internal	Collected #	Solenoid	Spring	2 ... 10	–	Soft	1200
V44A511D-C313A	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	900
V45A511D-C313A	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Soft	1200

Pilot exhaust collected and exhausted via port 14.

● 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-C313A	APB	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	900
V45A611D-C313A	APB	Internal	Collected #	Solenoid	Solenoid	2,5 ... 10	–	Soft	1150
V44A711D-C313A	COE	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	900
V45A711D-C313A	COE	Internal	Collected #	Solenoid	Solenoid	2,5 ... 10	–	Soft	1150

Pilot exhaust collected and exhausted via port 14.

APB = All Ports Blocked, COE = Centre Open Exhaust

Voltage codes

Voltage	Coil code	Current
24 V d.c.	C313A	1,2 W

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

● 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)

MINI ISO VALVES

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

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

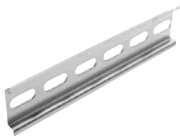




Model	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
V44A537A-X0090	Air	Spring	-0,9 ... 16	1,6 ... 16	Glandless	900
V45A537A-X0090	Air	Spring	-0,9 ... 10	2 ... 10	Soft	1200
V44A533A-X0020	Air	Air	-0,9 ... 16	2 ... 16	Glandless	900
V45A533A-X0020	Air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

● 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)
V45A633A-X0020	APB	Air	Air	-0,9 ... 10	2,5 ... 10	Soft	1150

APB = All Ports Blocked

● 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
				
V10009-C00 (35 x 7,5 mm)	V70531-KA0	V70522-K00 (Ports 1,3,5)	V70532-K00	V70500-KA0

● Sandwich plates

Single pressure regulator plate	Double pressure regulator plate
	
V70527-KA1 (Port 1 reg.)	V70527-KA4 (Ports 2+4 reg.)



PRODUCT PLUS

Looking for long life valves?

For high cycling applications or extended life expectancy, select a glandless spool. Whilst having slightly lower flow rates, operating life is extended above soft seals, friction levels are lower and operation remains constant throughout the life of the valve.



PRODUCT LINKS

Connectors and cables

For a full selection of 15 mm DIN EN175301-803 Form C plugs and cables See page 132



MINI ISO VALVES

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

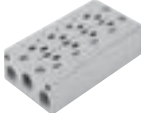
● Bases

Accessories

Single station				
Model	Description	Straight fitting	Elbow fitting	Silencer
				
V70501-BAB	Single station side ported with pilot ports – G1/4	C02250828	C02470828	T40C2800

Modular sub-bases and end plates				
Model	Description	Straight fitting	Elbow fitting	Silencer
				
V70525-xAF	Modular sub-base side ported without pilot ports (Ports 2+4) – G1/4. See table below	C02250828	C02470828	–
V70526-xAF	Modular sub-base side ported with pilot ports (Ports 2+4) – G1/4*. See table below	C02250828	C02470828	–
V70525-BAE	Modular sub-base bottom ported without pilot ports (Ports 2+4) – G1/4	C02250828	C02470828	–
V70526-BAE	Modular sub-base bottom ported with side pilot ports (Ports 2+4) – G1/4*	C02250828	C02470828	–

				
V70524-CAC	End plate kit. End ported – G3/8	C02251038 (Ports 1,3 & 5)	C02471038 (Ports 1,3 & 5)	T40C3800

				
V70502-BA0	2 Station fixed length manifold. Bottom ported	C02250828 (Ports 2 & 4)	C02470828 (Ports 2 & 4)	T40C3800
V70504-BA0	4 Station fixed length manifold. Bottom ported	C02251038 (Ports 1, 3 & 5)	C02471038 (Ports 1, 3 & 5)	–
V70506-BA0	6 Station fixed length manifold. Bottom ported	–	–	–
V70508-BA0	8 Station fixed length manifold. Bottom ported	–	–	–
V70510-BA0	10 Station fixed length manifold. Bottom ported	For all models listed on the left	–	–

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

* Pilot ports 12+14 on side.

x = Insert port type from table.

● Connector plug - Ordered separately

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



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

MINI ISO VALVES

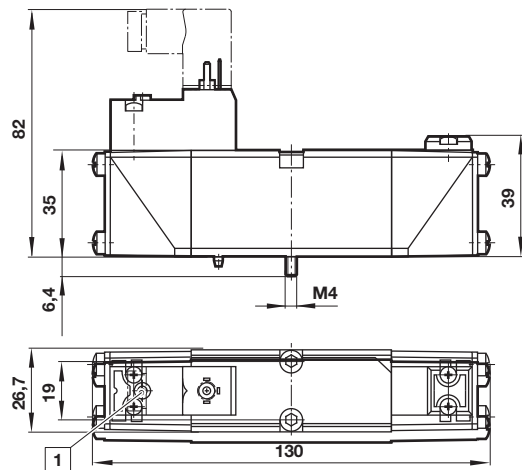
V44/V45 Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 26 mm

● Dimensions

V44A5*3D-C3***

5/2 Single solenoid pilot valve

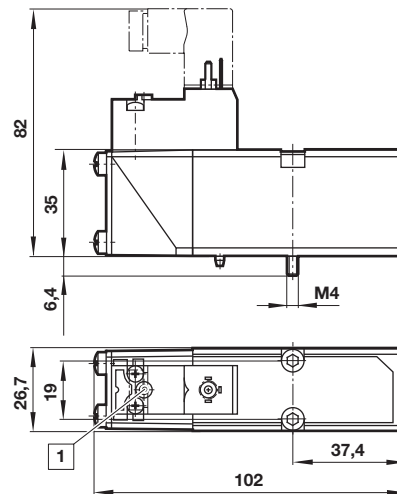
Air spring return



V44A5*7D-C3*** & V45A5*7D-C3***

5/2 Single solenoid pilot valve

Mechanical spring return



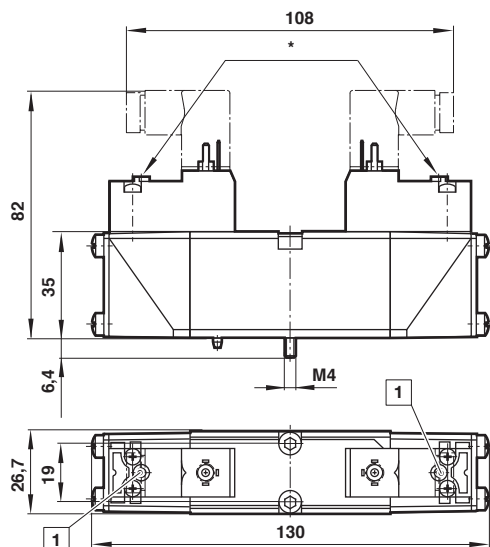
1 Manual override

V44A5**D-C3*** & V45A5**D-C3***

5/2 Double solenoid pilot valve

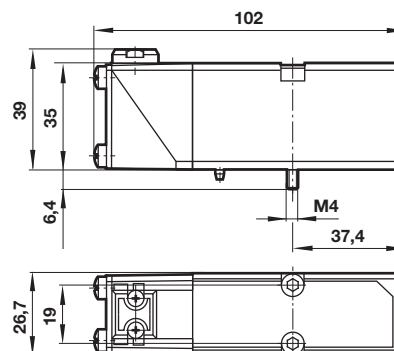
V44A***D-C3*** & V45A***D-C3***

2x3/2 + 5/3 Double solenoid pilot valve



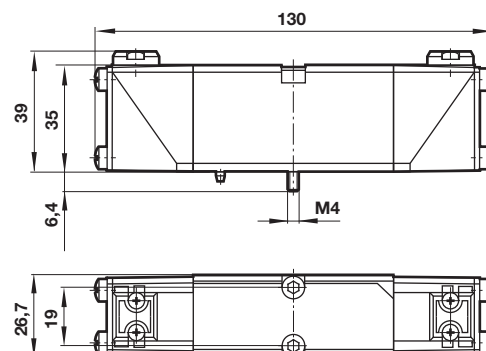
V44A537A-X00*0 & V45A537A-X00*0

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



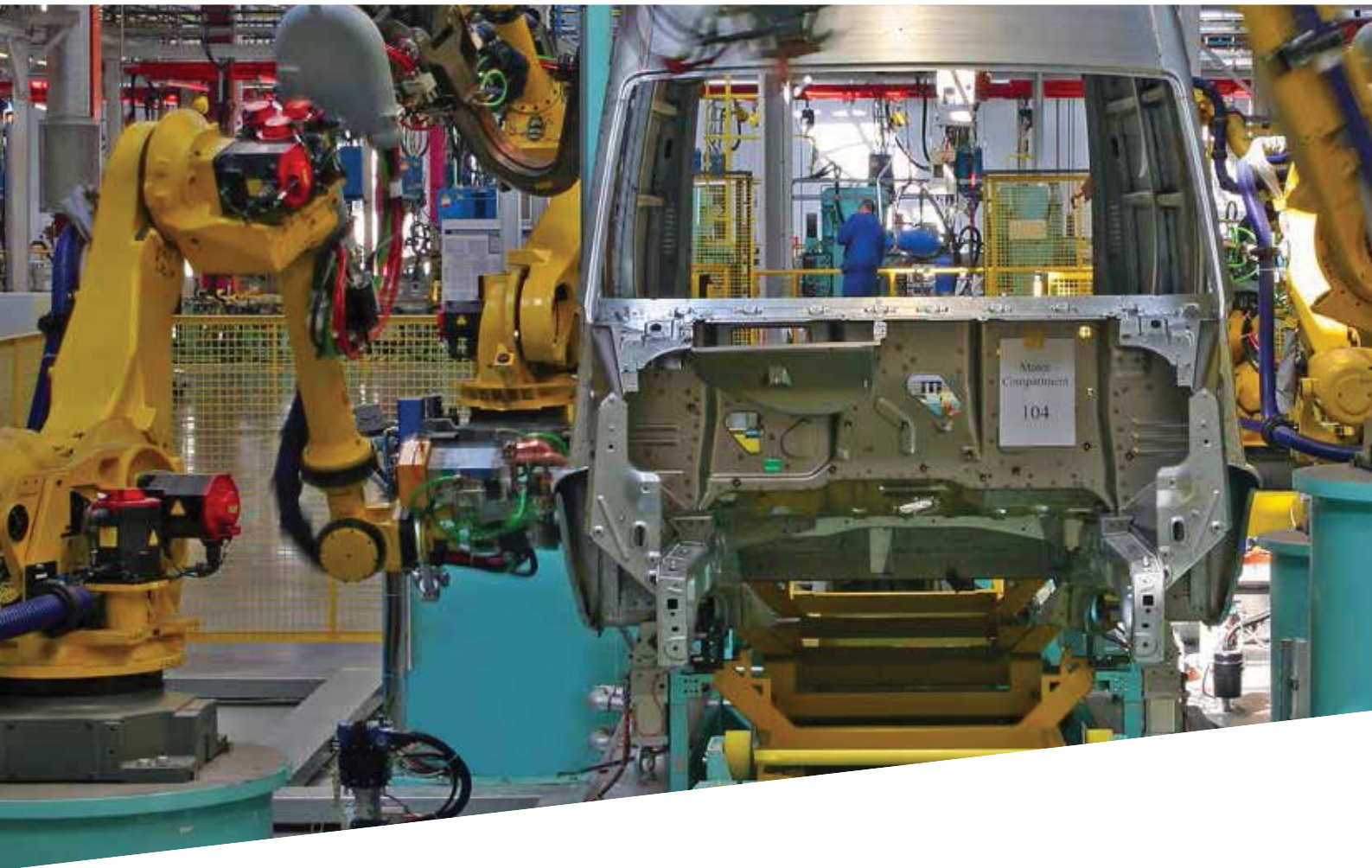
PRODUCT LINKS

Tubing...

For our comprehensive range of nylon, polyurethane and other tubing.

See page 202





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 Values
- > DGUV certified self-monitored safety valves
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 - > Safe position
 - > Safe stop
 - > Reliable reversing
 - > Safely limited speed and more



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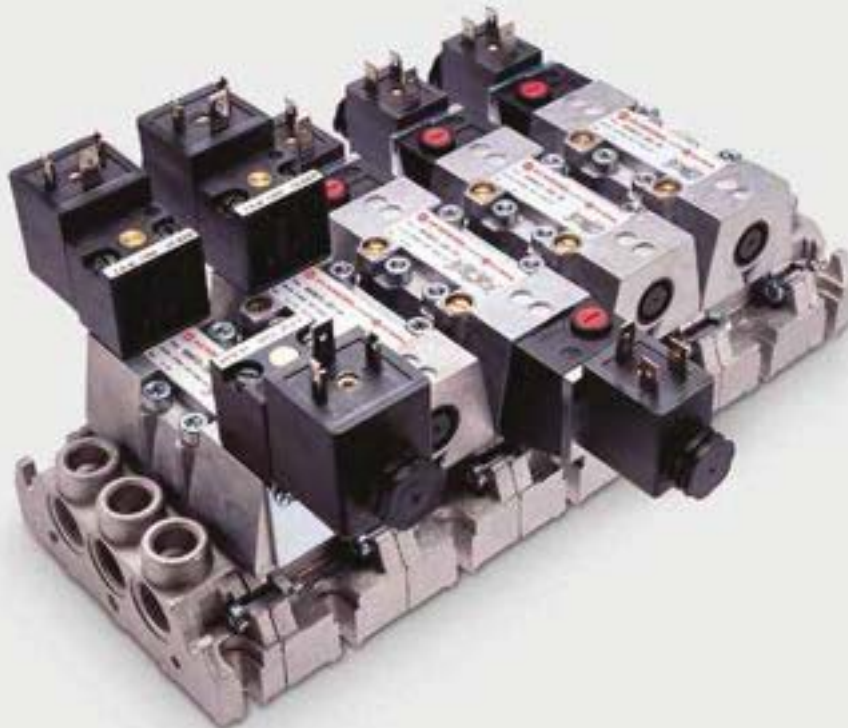
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Engineering



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!



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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



Models - Solenoid pilot actuated valves (without solenoid coils)

End solenoid models		CNOMO solenoid models		Size	Function	Mid position	Actuation	Flow regulator
Model	Operating pressure (bar)	Model	Operating pressure (bar)					
SXE 9573-A81-00K	1,8 ... 10	—	—	ISO #1	5/2	—	Sol/Spring	Built-in
—	—	SXE 0573-Z50-81K	2 ... 16	ISO #1	5/2	—	Sol/Sol	—
SXE 0573-A60-00K	2 ... 10	—	—	ISO #1	5/2	—	Sol/Sol	Built-in
SXE 9673-A60-00K	2 ... 10	—	—	ISO #1	5/3	APB	Sol/Sol	Built-in
SXE 9773-A60-00K	2 ... 10	—	—	ISO #1	5/3	COE	Sol/Sol	Built-in
SXE 9873-A60-00K	2 ... 10	—	—	ISO #1	5/3	COP	Sol/Sol	Built-in
SXE 9574-A81-00K	1,8 ... 10	—	—	ISO #2	5/2	—	Sol/Spring	Built-in
—	—	SXE 0574-Z50-81K	2 ... 16	ISO #2	5/2	—	Sol/Sol	—
SXE 0574-A60-00K	2 ... 10	—	—	ISO #2	5/2	—	Sol/Sol	Built-in
SXE 9674-A60-00K	2 ... 10	—	—	ISO #2	5/3	APB	Sol/Sol	Built-in
SXE 9774-A60-00K	2 ... 10	—	—	ISO #2	5/3	COE	Sol/Sol	Built-in
SXE 9874-A60-00K	2 ... 10	—	—	ISO #2	5/3	COP	Sol/Sol	Built-in
SXE 9575-A71-00K	1,8 ... 10	—	—	ISO #3	5/2	—	Sol/Spring	—
SXE 0575-A50-00K	2 ... 10	SXE 0575-Z50-81K	2 ... 16	ISO #3	5/2	—	Sol/Sol	—
SXE 9675-A50-00K	2 ... 10	—	—	ISO #3	5/3	APB	Sol/Sol	—
SXE 9775-A50-00K	2 ... 10	—	—	ISO #3	5/3	COE	Sol/Sol	—
SXE 9875-A50-00K	2 ... 10	—	—	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.

Manual override on end solenoid models: Push to operate spring return, lockable.

Manual override on CNOMO solenoid models (-81/**): Push to operate spring return.

For Valve complete with solenoid coil remove K and replace with '-****' where **** is taken from the correct coil table below

Voltage Codes and spare coils

Standard Coils

22 mm Coil with connector interface acc. to Industrial Standard		
Model	Code	Power inrush/hold
QM/48/13J/21	13J	2 W
QM/48/18J/21	18J	4/2,5 VA
QM/48/19J/21	19J	6/5 VA

22 mm Coil with connector interface acc. to DIN 43650 table B		
Model	Code	Power inrush/hold
V10626-A13L	13L	2 W
V10626-A18L	18L	4/2,5 VA
V10626-A19L	19L	6/5 VA

CNOMO Coils

30 mm Coil with connector interface acc. to DIN 43650 table A - 10 bar option			
Model	Code	Power inrush/hold	Voltage
V10633-A33N	33N	4 W	24 V d.c.
V10633-A88N	88N	8 VA	110/120 V a.c.
V10633-A89N	89N	8 VA	230 V a.c.

30 mm Coil with connector interface acc. to DIN 43650 table A - 16 bar option			
Model	Code	Power inrush/hold	Voltage
V10633-A23N	23N	1,5 W	24 V d.c.
V10633-A28N	28N	2 VA	110/120 V 50/60 Hz
V10633-A29N	29N	3 VA	220/240 V 50/60 Hz

Connector plugs - ordered separately

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



0657868000000000 0680003000000000 0570275000000000

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)

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 0573-170-00	ISO #1	5/2	–	Pilot/Pilot	–	-0,9 ... 16	0,30
SXP 9673-180-00	ISO #1	5/3	APB	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 0574-170-00	ISO #2	5/2	–	Pilot/Pilot	–	-0,9 ... 16	0,50
SXP 9674-180-00	ISO #2	5/3	APB	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





APB = All Ports Blocked

Bases

Accessories

VDMA 24345 sub-bases					
Model	Description	Size	Straight fitting	Elbow fitting	Silencer
					
M/P19126 (G1/4)	Form A - Side ported	ISO 1	C02250828	C02470828	T40C2800
M/P19132 (G3/8)	Form A - Side ported	ISO 2	C02251038	C02471038	T40C3800
M/P19138 (G1/2)	Form A - Side ported	ISO 3	C02251248	C02471248	T40C4800

					
CQM/22152/3/21	Form C - Manifold	ISO 1	C02250828	C02470828	–
CQM/22253/3/21	Form C - Manifold	ISO 2	C02251038	C02471038	–
CQM/22354/3/21	Form C - Manifold	ISO 3	C02251248	C02471248	–

					
CQM/22152/3/22	Form D - End plates	ISO 1	C02251038	C02471038	T40C3800
CQM/22253/3/22	Form D - End plates	ISO 2	C02251248	C02471248	T40C4800
CQM/22354/3/22	Form D - End plates	ISO 3	–	–	T40C8800

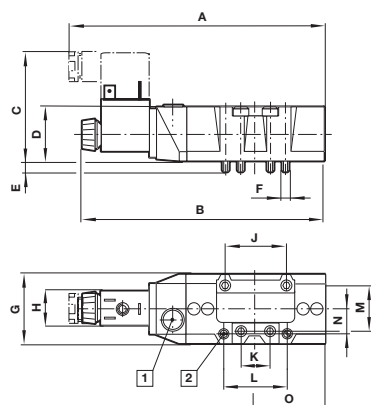
Universal base options					
Model	Description	Size	Straight fitting	Elbow fitting	Silencer
					
CQM/22152/3/27 (G1/4)	Modular base	ISO 1	C02250828	C02470828	–
CQM/22253/3/27 (G3/8)	Modular base	ISO 2	C02251038	C02471038	–
					
CQM/22152/3/31 (G3/8)	End plate, side ports open	ISO 1	C02251038	C02471038	T40C3800
CQM/22253/3/31 (G1/2)	End plate, side ports open	ISO 2	C02251248	C02471248	T40C4800

SOLENOID & PILOT ACTUATED POOL VALVES

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

● Dimensions

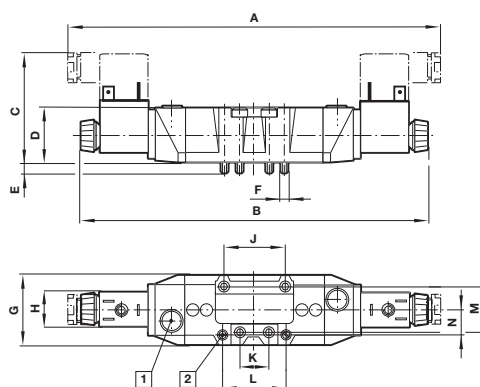
Single end solenoid models



- 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

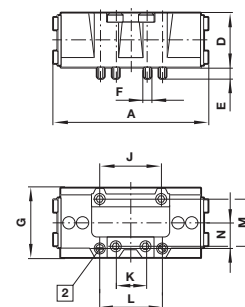
Double end solenoid models



- 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

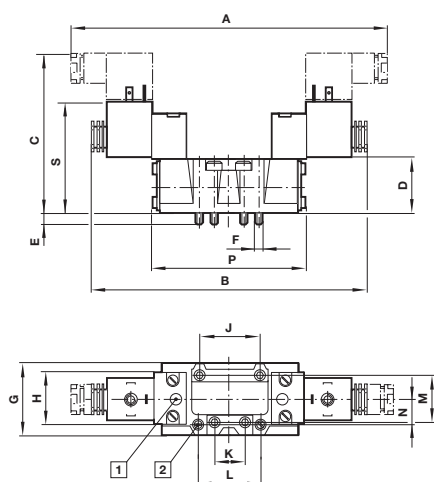


- 2 Flow regulators

	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.

Double CNOMO solenoid valves



- 1 Manual override
2 Flow regulators

	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.

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



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

Model 22 mm industrial 24vDC coil	ISO size	Operator/return	Pilot supply	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)
UM/22456/172/61/13J	4	Solenoid/spring and air	Internal	5660	2,5 ... 10	–
UM/22456/123/61/13J	4	Solenoid/ solenoid	Internal	5660	2 ... 10	–

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

Model 22 mm industrial 24vDC coil	ISO size	Function	Operator/return	Pilot supply	Flow (l/min)	Operating pressure (bar)
UM/22456/6123/61/13J	4	APB	Solenoid/ solenoid	Internal	5490	2,8 ... 10

Function: APB = All Ports Blocked

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		
Model	Code	Power inrush/hold	Model	Code	Power inrush/hold
QM/48/13J/21	13J	2 W	V10626-A13L	13L	2 W
QM/48/18J/21	18J	4/2,5 VA	V10626-A18L	18L	4/2,5 VA
QM/48/19J/21	19J	6/5 VA	V10626-A19L	19L	6/5 VA

● 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

SOLENOID & PILOT ACTUATED SPOOL VALVES

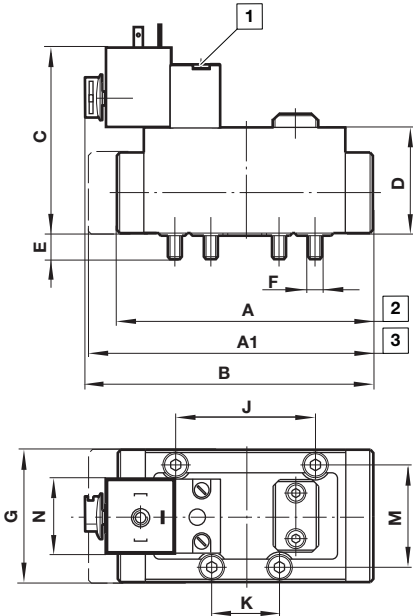
UM/22000 Sub-base 5/2 and 5/3, ISO #4

Bases - VDMA 24 345 sub-bases

Form A Side ported	Form C Manifold	Form D End Plates
		
ISO#4 M/P19144 (G3/4)	CQM/22456/3/21	CQM/22456/3/22

Dimensions

5/2 Single solenoid valve

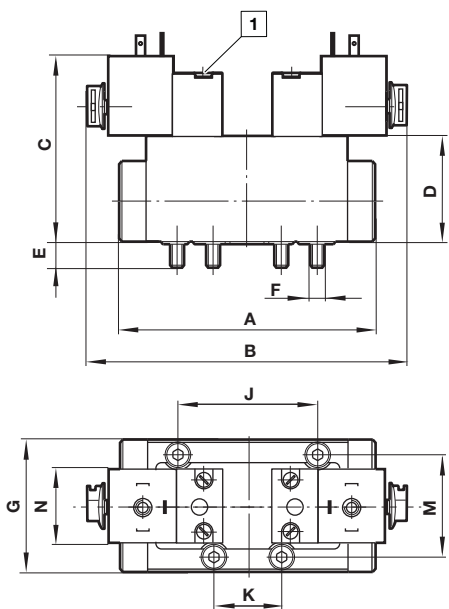


- 1 Manual override
- 2 Model .../172
- 3 Model .../22, .../122

	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.



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

Pneumatic pilot options



*Engineering
GREAT Solutions*

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



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-A3000	3 ... 10
Sol/Sol COE	V60A711A-A3000	3 ... 10	V61B711A-A3000	3 ... 10	V62C711A-A3000	3 ... 10	V63D711A-A3000	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.



PRODUCT LINKS

Connectors and cables

For a full selection of 22 mm Industrial Standard or DIN EN175301-803 Form B plugs and cables


See page 132



IN-LINE VALVES



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

Voltage codes and spare coils

Model	Voltage	Coil code	Power inrush/hold
			
22 mm coil for connector interface acc. to industrial standard			
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 175301-803, form B			
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.

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 suppression	0664811000000000 15 ... 30 V DC; LED, surge suppression
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.

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° rotatable
Manual override	Without # = 1
	Push and turn to lock # = 2
	Push only (not lockable) # = 3
Protection class	IP 65 (with sealed plug)

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	—	—
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/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
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
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	—	—

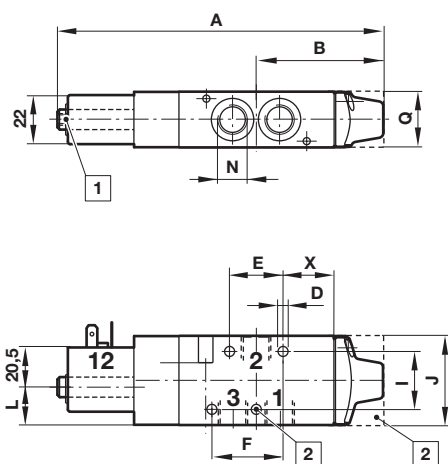
Note: NC = Normally Closed

IN-LINE VALVES

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

● Dimensions

3/2 Sol/Spring V60-V62

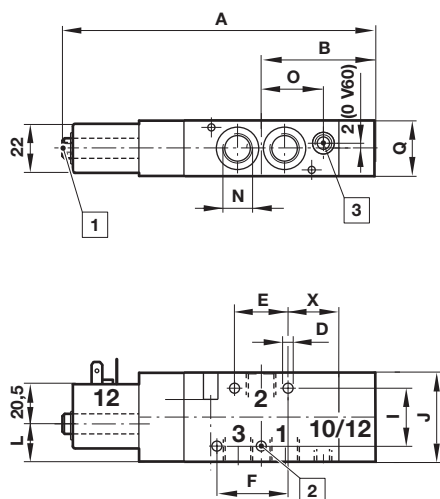


1 Collected pilot exhaust (M5)

2 V62: Central mounting hole (left hole is not applicable) and square end cover

Model	A	B	Ø D	E	F	I	J	L	N	O	Q	Ø T	V	X
V60	125	45	4,5	18	25	26	35	12	G1/8	—	22	—	—	19
V61	147	57,5	4,5	24	32	26	40	17	G1/4	—	25	—	—	23
V62	166,5	70	4,5	26	—	36	55	32	G3/8	—	34	—	23	30
V63	197	87,5	7	46	75	26	65	38	G1/2	—	35	5,5	—	36

3/2 Sol/Air Spring V60-V62



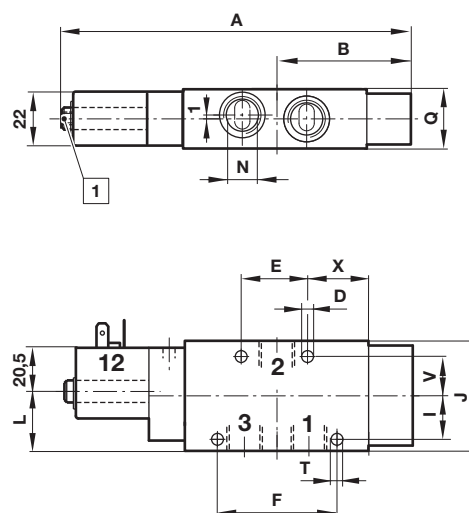
1 Collected pilot exhaust (M5)

2 V62: Central mounting hole (left hole is not applicable) and square end cover

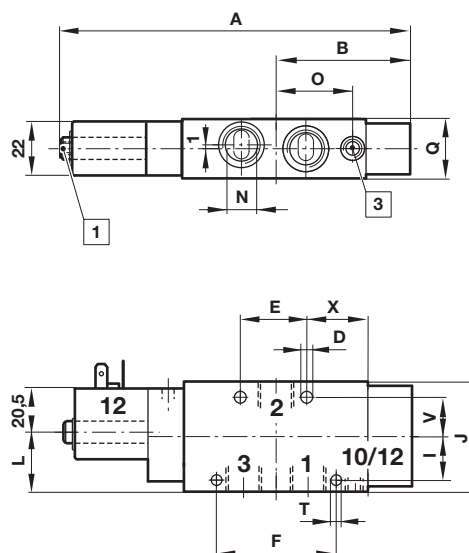
3 External pilot port, M5 (V60 & V61), G1/8

Model	A	B	Ø D	E	F	I	J	L	N	O	Q	Ø T	V	X
V60	116,5	37	4,5	18	25	26	35	12	G1/8	—	22	—	—	19
V61	132,5	43	4,5	24	32	26	40	17	G1/4	—	25	—	—	23
V62	147	50,5	4,5	26	—	36	55	32	G3/8	—	34	—	—	30
V63	190	80	7	46	75	26	65	38	G1/2	—	35	5,5	23	36

3/2 Sol/Spring V63



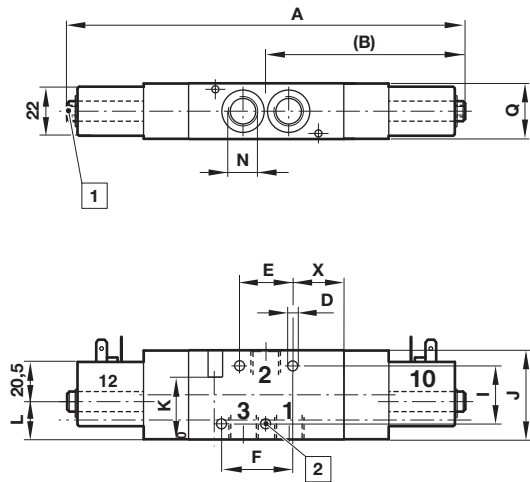
3/2 Sol/Air Spring V63



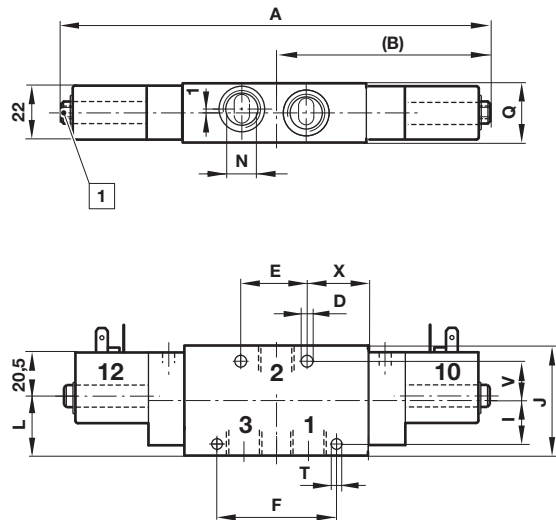
IN-LINE VALVES

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

3/2 Sol/Sol V60-V62



3/2 Sol/Sol V63



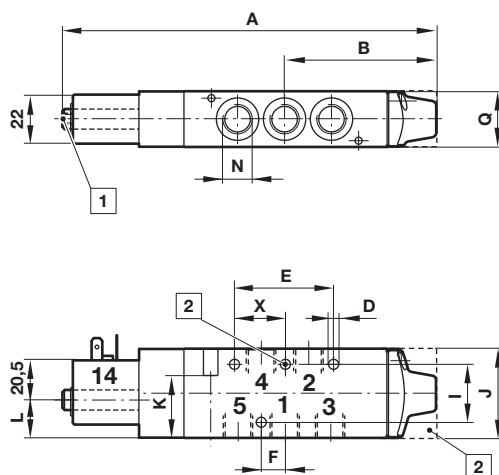
- 1 Collected pilot exhaust (M5)
- 2 V62: Central mounting hole (left hole is not applicable) and square end cover

Model	A	B	Ø D	E	F	I	J	L	N	Q	Ø T	V	X
V60	116,5	37	4,5	18	25	26	35	12	G1/8	22	–	–	19
V61	132,5	43	4,5	24	32	26	40	17	G1/4	25	–	–	23
V62	147	50,5	4,5	26	–	36	55	32	G3/8	34	–	–	30
V63	190	80	7	46	75	26	65	38	G1/2	35	5,5	23	36

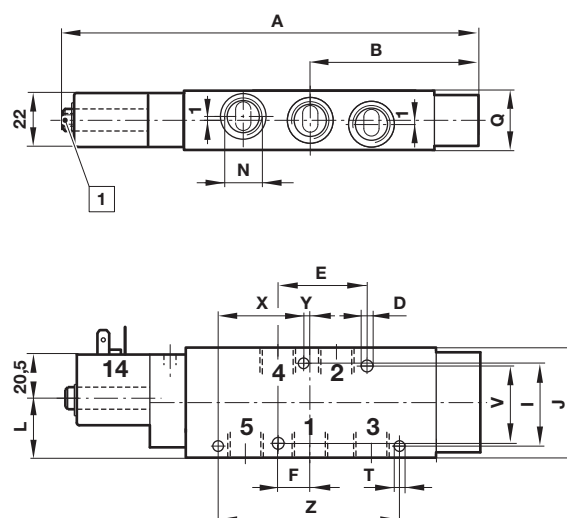
IN-LINE VALVES

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



1 Collected pilot exhaust (M5)

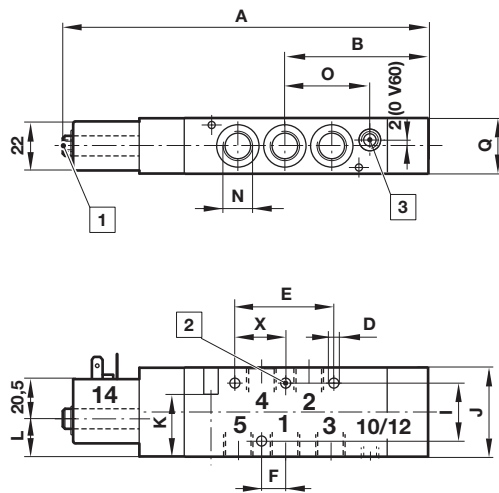
2 V62: Central mounting hole (left hole is not applicable) and square end cover

Model	A	B	Ø D	E	F	I	J	K	L	N	O	Q	Ø T	V	X	Y	Z
V60	140	52,5	4,5	33,5	8	26	35	28	12	G1/8	—	22	—	—	17	—	—
V61	167	67,5	4,5	44	10	26	40	28	17	G1/4	—	25	—	—	22	—	—
V62	191	82	4,5	—	12	36	55	44	32	G3/8	—	34	—	—	26	—	—
V63	235	106,5	7	60	19	52	65	—	38	G1/2	—	35	5,5	46	57,5	3	115

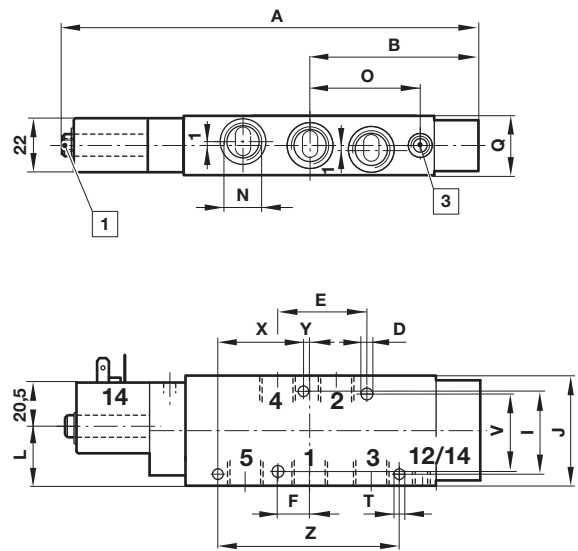
IN-LINE VALVES

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

5/2 Sol/Air Spring V60-V62



5/2 Sol/Air Spring V63



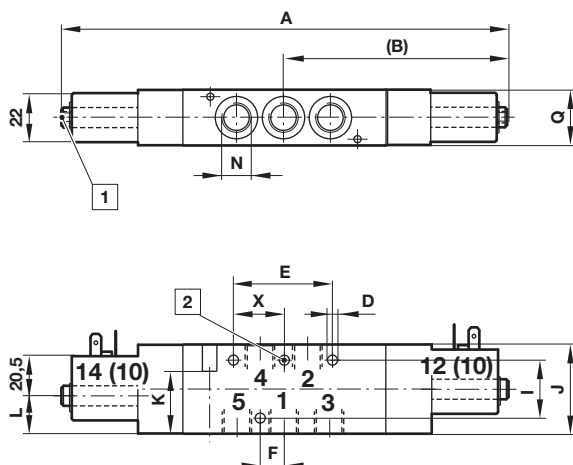
- 1 Collected pilot exhaust (M5)
- 2 V62: Central mounting hole (left hole is not applicable) and square end cover
- 3 External pilot port, M5 (V60 & V61), G1/8

Model	A	B	Ø D	E	F	I	J	K	L	N	O	Q	Ø T	V	X	Y	Z
V60	132	44,5	4,5	33,5	8	26	35	28	12	G1/8	–	22	–	–	17	–	–
V61	153	53	4,5	44	10	26	40	28	17	G1/4	–	25	–	–	22	–	–
V62	171,5	62,5	4,5	–	12	36	55	44	32	G3/8	–	34	–	–	26	–	–
V63	228	99	7	60	19	52	65	–	38	G1/2	–	35	5,5	46	57,5	3	115

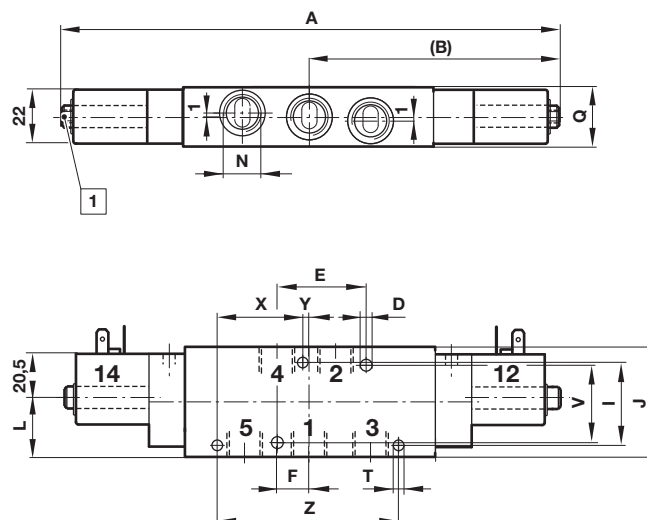
IN-LINE VALVES

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

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



5/2 Sol/Sol V63



1 Collected pilot exhaust (M5)

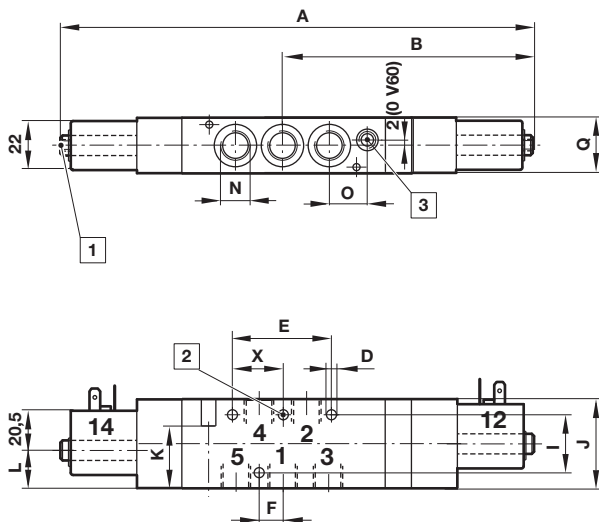
2 V62: Central mounting hole (left hole is not applicable)

Model	A	B	Ø D	E	F	I	J	L	N	Q	Ø T	V	W	X	Y	Z
V60	174,5	87,5	4,5	33,5	8	26	35	12	G1/8	22	—	—	16	17	—	—
V61	199	99,5	4,5	44	10	26	40	17	G1/4	25	—	—	21	22	—	—
V62	218	109	4,5	—	12	36	55	32	G3/8	34	—	—	24,5	26	—	—
V63	257	128,5	7	60	19	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

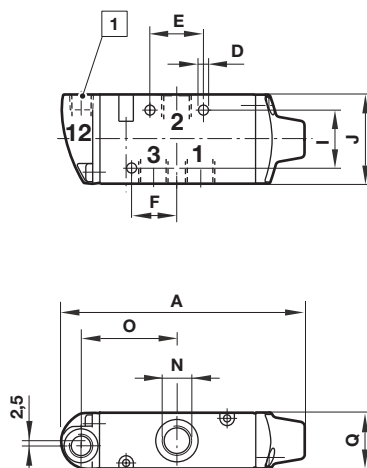
5/3 Sol/Sol V60-V62



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

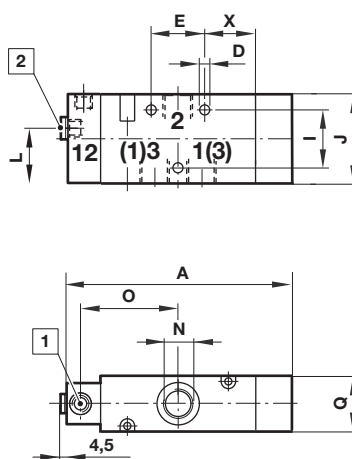
Model	A	B	Ø D	E	F	I	J	L	N	O	Q	X
V60	188,5	101,5	4,5	33,5	8	26	35	12	G1/8	13	22	17
V61	217	117,5	4,5	44	10	26	40	17	G1/4	18	25	22
V62	240,5	131,5	4,5	—	12	36	55	32	G3/8	23,5	34	26

3/2NC Air/Spring V60-V61

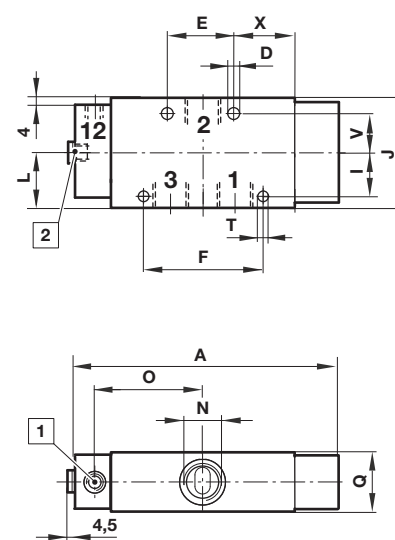


- 1 Pilot ports G1/8
 2 Alternative pilot ports G1/8

3/2NC Air/Spring V62



3/2NC Air/Spring V63

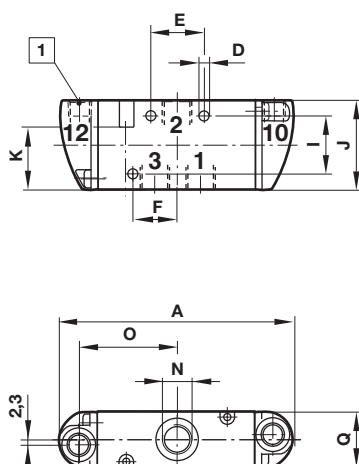


Model	A	Ø D	E	F	I	J	L	N	O	Q	Ø T	V	X
V60	89,5	4,5	18	16	26	35	—	G1/8	36	22	—	—	—
V61	110	4,5	24	20	26	40	—	G1/4	43	25	—	—	—
V62	132	4,5	26	—	36	55	33,5	G3/8	52	34	—	—	—
V63	162	7	46	75	26	65	39,5	G1/2	64	35	5,5	23	36

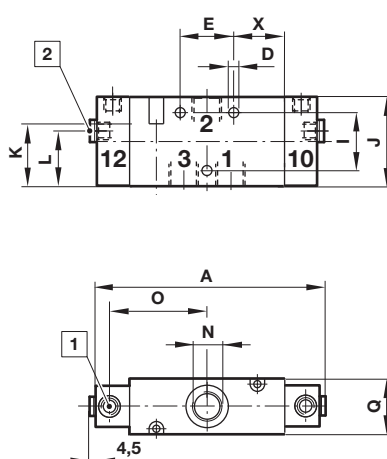
IN-LINE VALVES

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

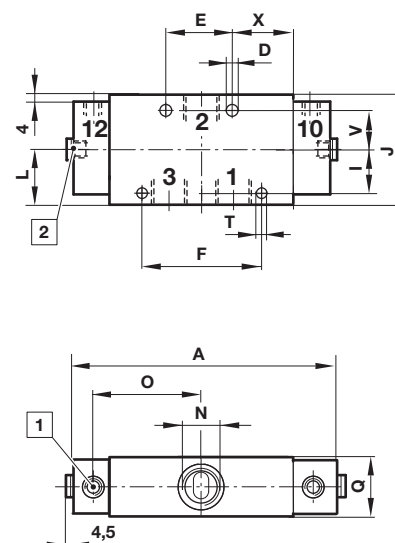
3/2NC Air/Air V60 & V61



3/2NC Air/Air V62



3/2NC Air/Air V63



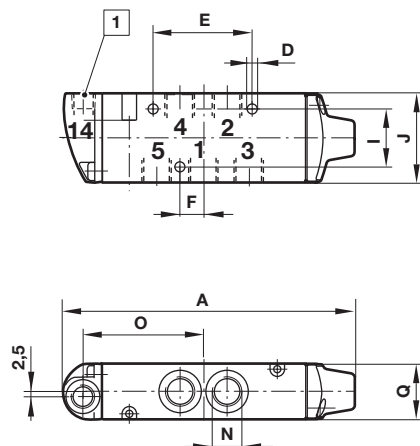
- 1 Pilot ports G1/8
2 Alternative pilot ports G1/8

Model	A	D	E	F	I	J	L	N	O	Q	T	V	X
V60	89	4,5	18	16	26	35	—	G1/8	36	22	—	—	—
V61	104	4,5	24	20	26	40	—	G1/4	43	25	—	—	—
V62	124	4,5	26	—	36	55	33,5	G3/8	52	34	—	—	30
V63	148	7	46	75	26	65	39,5	G1/2	64	35	5,5	23	36

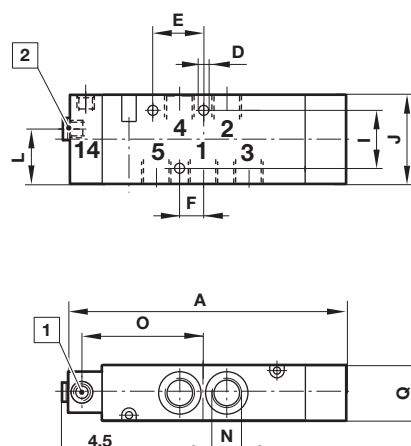
IN-LINE VALVES

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

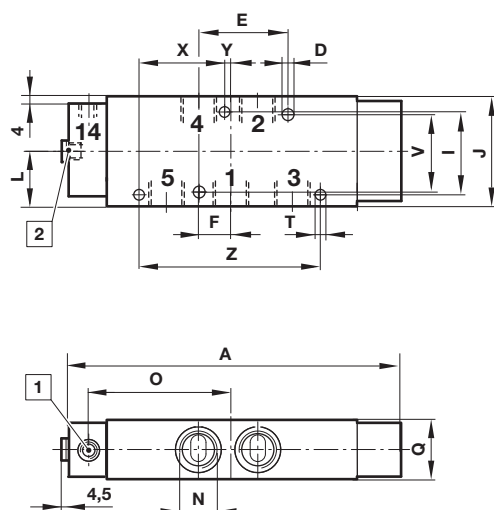
5/2 Air/Spring V60 & V61



5/2 Air/Spring V62



5/2 Air/Spring V63



1 Pilot ports G1/8 or 1/8-27 NPT

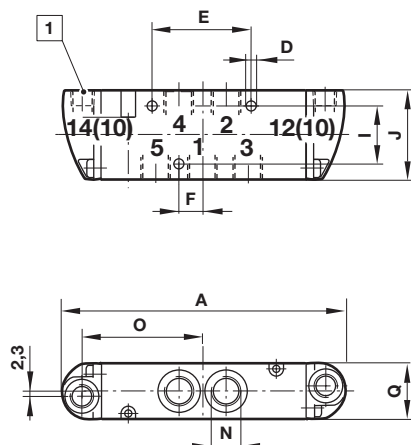
2 Alternative pilot ports G1/8 or 1/8-27 NPT

Model	A	D	E	F	I	J	L	N	O	Q	T	V	X	Y	Z
V60	105	4,5	33,5	8	26	35	—	G1/8	43,5	22	—	—	—	—	—
V61	130	4,5	44	10	26	40	—	G1/4	53	25	—	—	—	—	—
V62	156	4,5	26	12	36	55	33,5	G3/8	64	34	—	—	—	—	—
V63	200	7	60	19	52	65	39,5	G1/2	83	35	5,5	46	57,5	3	115

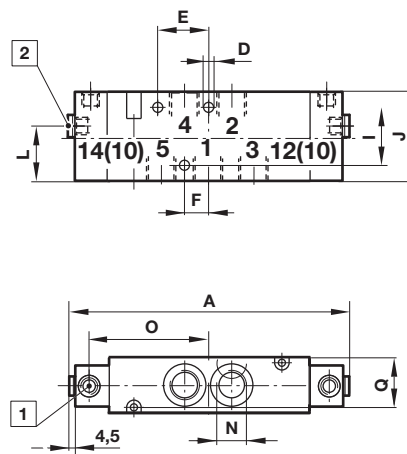
IN-LINE VALVES

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

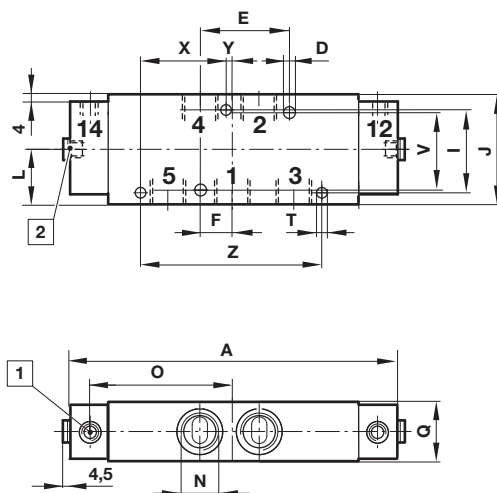
5/2 Air/Air V60 & V61



5/2 Air/Air V62



5/2 Air/Air V63



1 Pilot ports G1/8

2 Alternative pilot ports G1/8

Model	A	D	E	F	I	J	L	N	O	Q	T	V	X	Z
V60	104,5	4,5	33,5	8	26	35	—	G1/8	44	22	—	—	—	—
V61	124	4,5	44	10	26	40	—	G1/4	53	25	—	—	—	—
V62	148	4,5	26	12	36	55	33,5	G3/8	64	34	—	—	—	—
V63	186	7	60	19	52	65	39,5	G1/2	83	35	5,5	46	57,5	115

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




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-A213A	2 ... 8	—	—	—	—	—	—
Sol/Spring	—	—	V51B417A-A213J	2 ... 8	V52C417A-A213J	2 ... 8	V53D417A-A213J	2 ... 8
Models - 5/2 Valves								
Actuation								
Sol/Air Spring	V50A513A-A213A	2 ... 8	—	—	—	—	—	—
Sol / Spring	—	—	V51B517A-A213J	2 ... 8	V52C517A-A213J	2 ... 8	V53D517A-A213J	2 ... 8
Sol/Sol	V50A511A-A213A	2 ... 8	V51B511A-A213J	2 ... 8	V52C511A-A213J	2 ... 8	V53D511A-A213J	2 ... 8
Models - 5/3 Valves								
Actuation								
Sol/Sol APB	V50A611A-A213A	3 ... 8	V51B611A-A213J	3 ... 8	V52C611A-A213J	3 ... 8	V53D611A-A213J	3 ... 8
Sol/Sol COE	V50A711A-A213A	3 ... 8	V51B711A-A213J	3 ... 8	V52C711A-A213J	3 ... 8	V53D711A-A213J	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-A13	24 V d.c.	2,9 W	13A



V51 ... V53 series

22 mm coil for connector interface acc. to industrial standard			
Model	Voltage	Power Inrush/Hold	Code
			
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

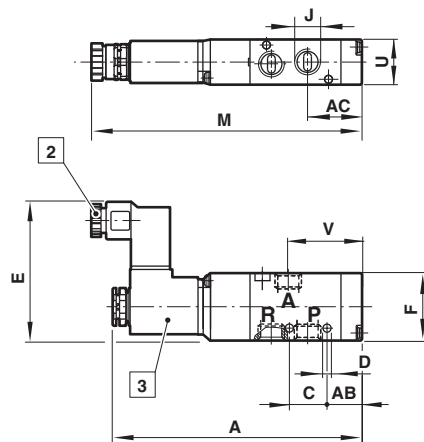
V50 ... V53 3/2, 5/2 or 5/3, G1/8 ... G1/2

● Dimensions

1

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

Air return



2 Gland size Pg 7

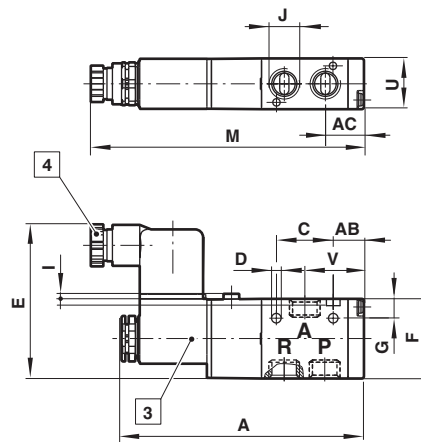
3 Solenoid rotates 2 x 180° (V50), 4 x 90° (V51 ... V53)

4 Gland size Pg 9

2

3/2 Single solenoid pilot valve, 1/4" ... 1/2" ports

Spring return

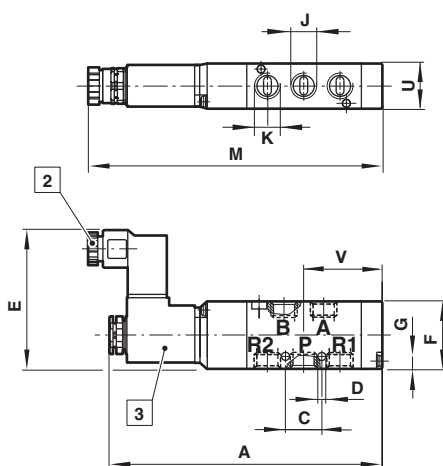


Series	Dimension No.	A	AB	AC	C	D	E	F	G	I	J	M	U	V
V50	1	99,5	13,5	21,5	15	3,2	55,5	27	5	—	1/8"	108	18	29,5
V51	2	106,5	13,5	17	25	4,2	67	35	8,5	3	1/4"	120	22,5	26
V52	2	126,5	13	26	26	4,5	73	46,5	39,5	3	3/8"	139,5	30	41
V53	2	133	12,5	27	29	4,5	73	46,5	39,5	3	1/2"	146	30	40,5

3

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

Air return



2 Gland size Pg 7

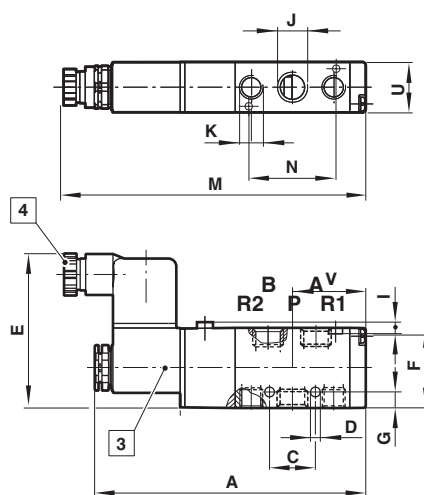
3 Solenoid rotates 2 x 180° (V50), 4 x 90° (V51 ... V53)

4 Gland size Pg 9

4

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

Spring return



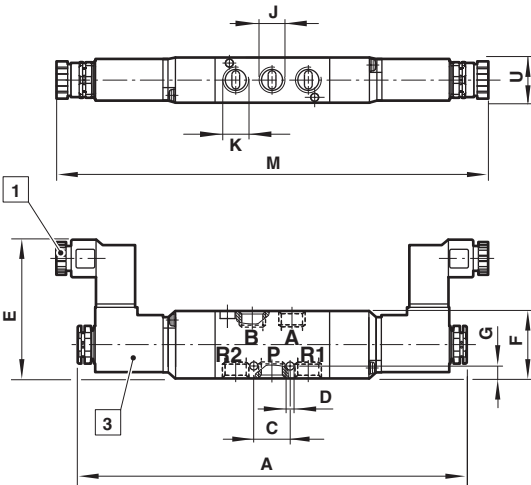
Series	Dimension No.	A	C	D	E	F	G	I	J	K	M	U	V
V50	3	110	14,5	3,2	54	27	5	—	1/8"	1/8"	118,5	18	32,5
V51	4	118,5	20	4,2	67	35	7	3	1/4"	1/8"	132	22,5	32
V52	4	145,5	26	5,5	73	46,5	4,5	3	3/8"	3/8"	158,5	30	45
V53	4	157	29	4,5	73	46,5	7	3	1/2"	1/2"	170	30	51

IN-LINE VALVES

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

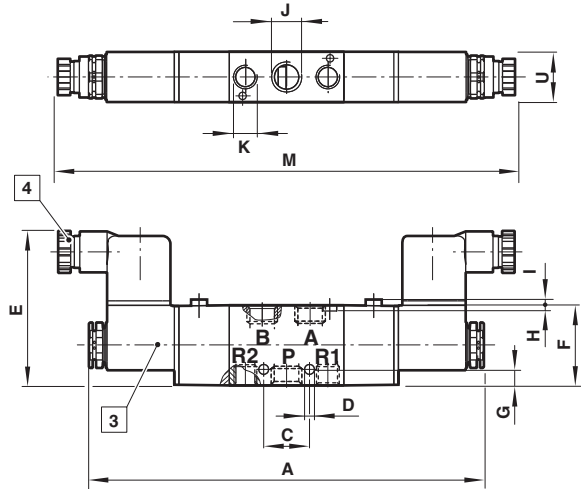
5

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



6

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



- 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	C	D	E	F	G	I	J	K	M	U
V50	5	155	14,5	3,2	55	27	5	—	1/8"	1/8"	172	18
V51	6	173	20	4,2	67	35	7	3	1/4"	1/8"	200	22,5
V52	6	201	26	5,5	73	46,5	4,5	3	3/8"	3/8"	228	30
V53	6	212	29	4,5	73	46,5	7	3	1/2"	1/2"	238	30



PRODUCT LINKS

V50...53 Valves

Are supplied with basic wireable connectors as standard.

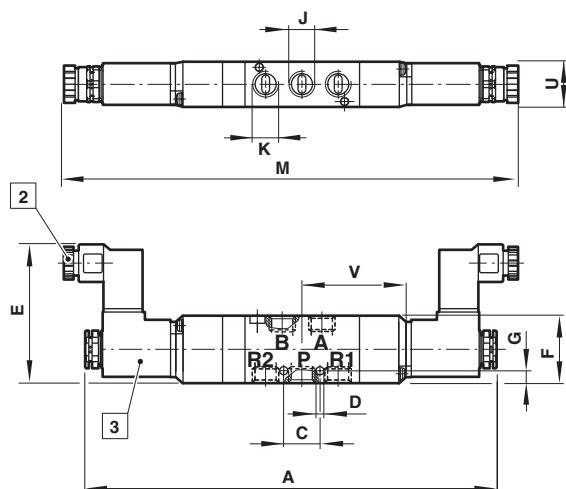
For a further selection of cables and connectors please see page 132

IN-LINE VALVES

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

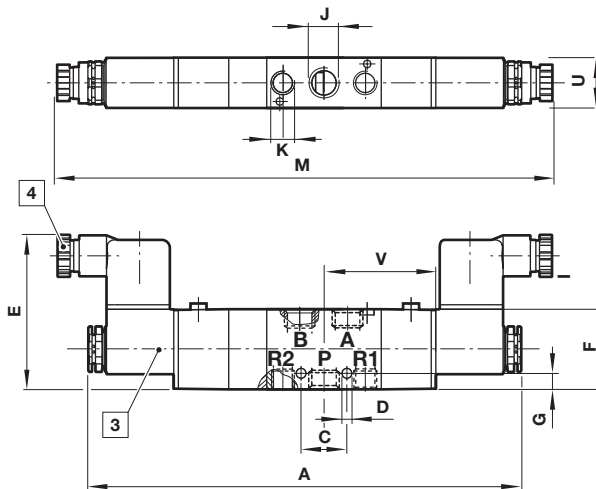
7

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



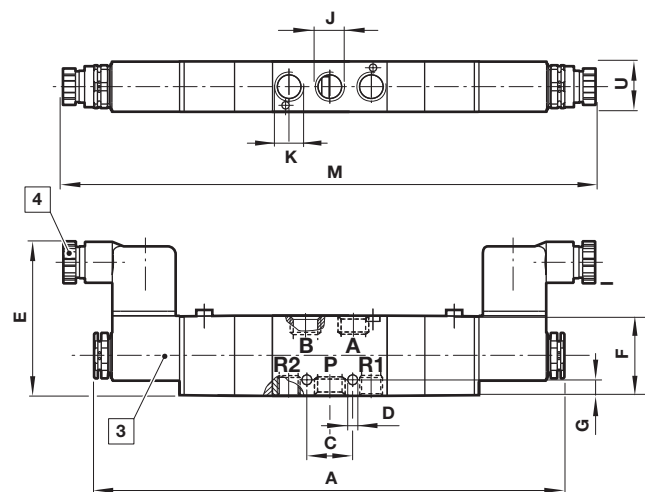
8

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



9

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



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	C	D	E	F	G	I	J	K	M	U	V
V50	7	164	14,5	3,2	55	27	5	—	1/8"	1/8"	181	18	43,5
V51	8	194	20	4,2	67	35	7	3	1/4"	1/8"	221	22,5	48,5
V52	9	254,5	26	5,5	73	46,5	4,5	3	3/8"	3/8"	281,5	30	—
V53	9	265,5	29	4,5	73	46,5	7	3	1/2"	1/2"	291,5	30	—

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



Models

Accessories

Model	Actuation	Orifice	Port size	Flow (l/min)	Operating pressure (bar)	Mounting	Straight fitting	Elbow fitting	Basic plug
M/49/MAZ***	3/2 NC	1 mm (low power)	G1/8	30	0 ... 10	Single	C02250618	C02470618	M/P19063
M/49/MDZ***	3/2 NC	1,6 mm	G1/8	77	0 ... 10	Single	C02250618	C02470618	M/P19063

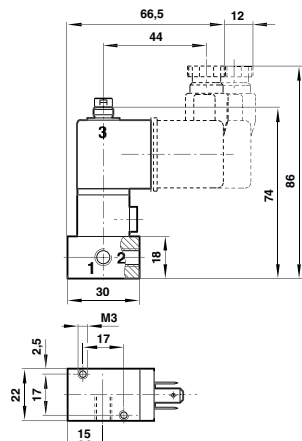
*** Insert voltage codes from table below.
Order connector plugs separately.

Voltage codes and spare coils

Voltage	1,0 mm orifice (low power)		
	Code	Power	Coil
24 V d.c.	13J	2 W	QM/48/13J/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

Voltage	1,6 mm orifice		
	Code	Power	Coil
24 V d.c.	83J	6 W	QM/48/83J/21
110/120 V 50/60 Hz	88J	12/8 VA	QM/48/88J/21
220/240 V 50/60 Hz	89J	12/8 VA	QM/48/89J/21

Dimensions



PRODUCT LINKS

Connectors and cables

For a full selection of 22 mm
Industrial Standard or
DIN EN175301-803 Form
B plugs and cables
See page 132



TWO-HAND CONTROL UNIT

XSHC04 PIF 4 mm

- Meets the requirements of EN574 Class IIIB ^{*)}
- 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

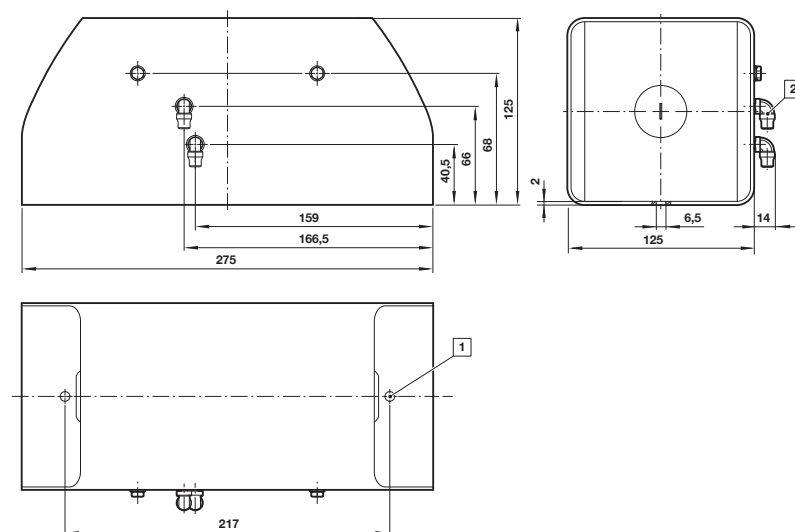
^{*)} The scope of the Machinery Directive encompasses safety components as well as machinery, and since two-hand control units are classed as safety components this requires the XSHC04 to satisfy the essential health and safety requirements of the Directive. One method of ensuring this is to conform 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.



Models

Model	O/D tube	Return	Operation
XSHC04	4 mm	0,6 s max.	Both buttons must be operated within 0,5 secs

Dimensions



1 Mounting hole

2 Pneufit fitting turnable

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 $\leq 50 \mu\text{m}$, 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:

$-10^{\circ}\text{C} \dots +60^{\circ}\text{C}$

Air supply must be dry enough to avoid ice formation at temperatures below $+2^{\circ}\text{C}$



Models

Accessories

Model	Port size	Orifice (mm)	Power at 24 V d.c. (W)	Pressure range (bar)	Flow		Port sizes			Plug	Pressure switch - flange/face mounted direct onto valve *2)
					1 » 2 (l/min)	2 » 3 (l/min)	1	2	3		
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	G1	0570275000000000, EN 175301-803 - form A	0881400000000000
SCVA321FH0C02400	G1	32	16	2 ... 10	8250	30000	G1	—	—	0570275000000000, EN 175301-803 - form A	0881400000000000

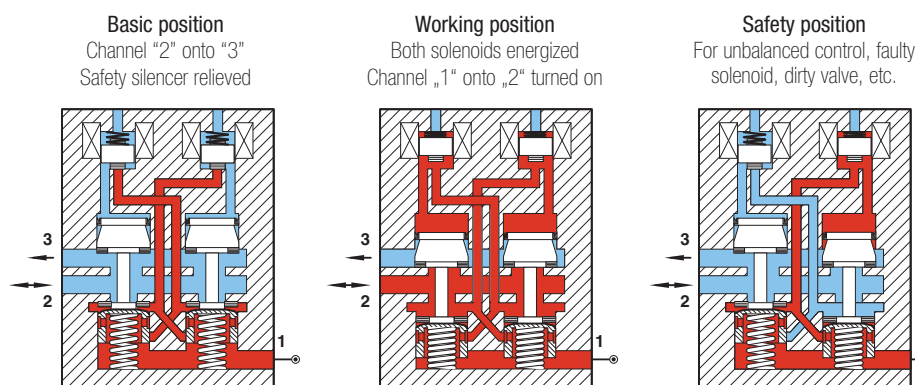
*2) The pressure switch is not required as part of the safe functioning system within the valve, its is offered as a means of indicating that the valve taken up a safe condition ie. no pressure at the output port 2.

Technical data – Solenoids

Standard voltages	24 V d.c.
Duty cycle	100% ED
Protection class	IP65

Other voltages on request!

Functional diagram



SOLENOID ACTUATED SAFETY VALVES

SCVA10 3/2 – G1/2

- Redundant valve assembly, pneumatic self-monitoring 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 & Excelon Plus 84 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



Models

Model	Orifice (mm)	Power at 24 V d.c. (W)	Pressure range (bar)	Flow		Port sizes		
				1 » 2 (l/min)	2 » 3 (l/min)	1	2	3

Accessories

Connector form A, DIN EN 175301-803	Quikclamp® with wall bracket *1)	Quikmount pipe adaptor	Pressure switch - flange/face mounted direct onto valve *2)
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SCVA101DE1A02400	10	4,8	2 ... 10	3400	6500	G1/2	G1/2	G3/4	06800030000000000	4314-52	4315-11 (G1/2)	08814000000000000
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*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.

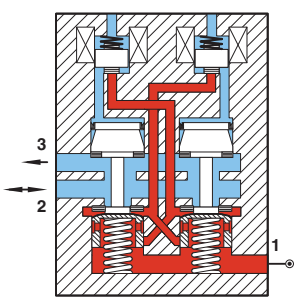
Technical data – Solenoids

Standard voltages	24 V d.c.
Duty cycle	100% ED
Protection class	IP65

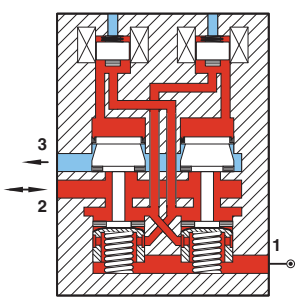
Other voltages on request!

Functional diagram

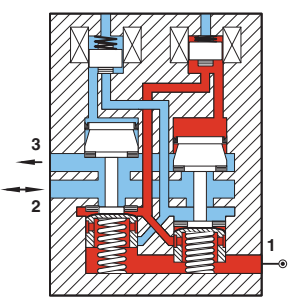
Basic position
Channel “2” onto “3”
Safety silencer relieved



Working position
Both solenoids energized
Channel „1” onto „2” turned on



Safety position
For unbalanced control, faulty solenoid, dirty valve, etc.



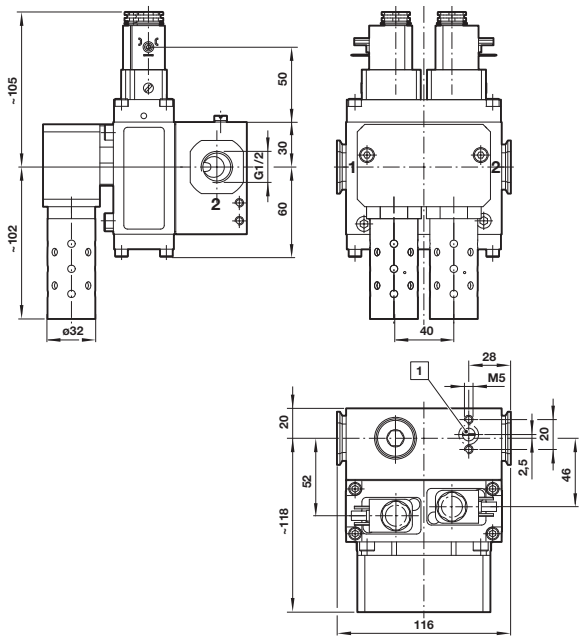
SOLENOID ACTUATED SAFETY VALVES

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 & Excelon Plus 84 series air preparation products

Technical Data

Medium:

Compressed air, filtered $\leq 50 \mu\text{m}$, 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:

$-10^{\circ}\text{C} \dots +60^{\circ}\text{C}$

Air supply must be dry enough to avoid ice formation at temperatures below $+2^{\circ}\text{C}$



Models

Model	Orifice (mm)	Power at 24 V d.c. (W)	Pressure range (bar)	Flow 1 \rightarrow 2 (l/min)	2 \rightarrow 3 (l/min)	Port sizes 1 2 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	057027500000000000	4314-52	4315-11 (G1/2)	088140000000000000



*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.

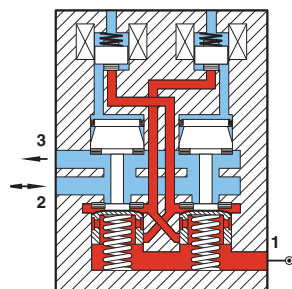
Technical data – Solenoids

Standard voltages	24 V d.c.
Duty cycle	100% ED
Protection class	IP65

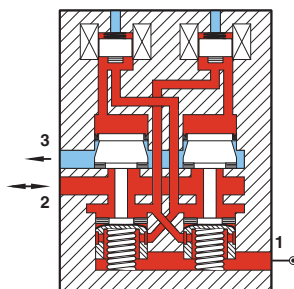
Other voltages on request!

Functional diagram

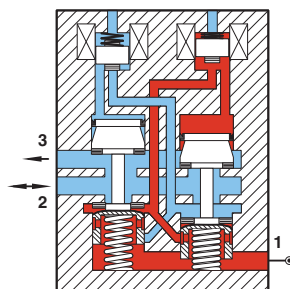
Basic position
Channel "2" onto "3"
Safety silencer relieved



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 ($ps > = 0,6 \times po$)

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

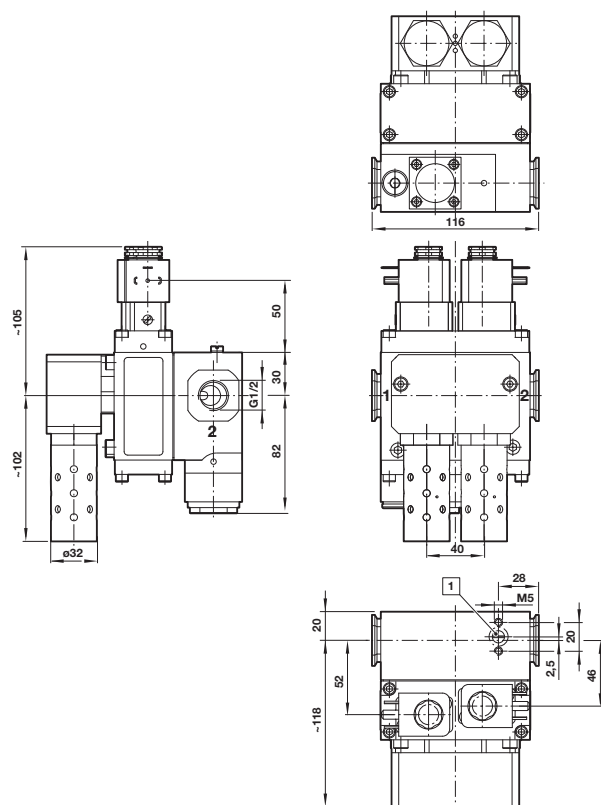
Operating pressure (bar)	Volume (dm ³)	Filling time approx. (ms) Numbers of needle turn		
		4	6	12
5	3	3200	2600	1700
	8	8300	7000	4300
6	3	3000	2400	1500
	8	7800	6500	3900
8	3	2700	2200	1400
	8	7300	5700	3700

● Exhausting time

From switching signal OFF to pressure reduction to 10% of rated pressure

Operating pressure (bar)	Volume (dm ³)	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 ($\leq 50 \mu\text{m}$), 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



Models

Model *	Series	Pressure range (bar)	Flow		Port sizes				Dimension No.
			1 (P)	2 (A) » 3 (R)	1 (P)	2 (A)	2 ₁ (A ₁)	3 (R)	
			(m³/h)	(m³/h)					
2492806305202400	XSz 8 *1)	3 ... 10	77	93	G1/4	G1/4	—	G1/4	1
2492932305202400	XSz 10 *2)	2 ... 10	190	390	G1/2	G1/2	(G1/2)	—	2
2493032020002400	XSz 20 *2)	2 ... 8	230	840	G3/4	G3/4	G1	—	3
2493105080002400	XSz 32 *2)	2 ... 8	495	1800	G1	G1	G1 1/2	—	4

Port sizes in brackets are plugged.

* 24VDC Solenoids included. For other voltages please contact us. 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).

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

Accessories

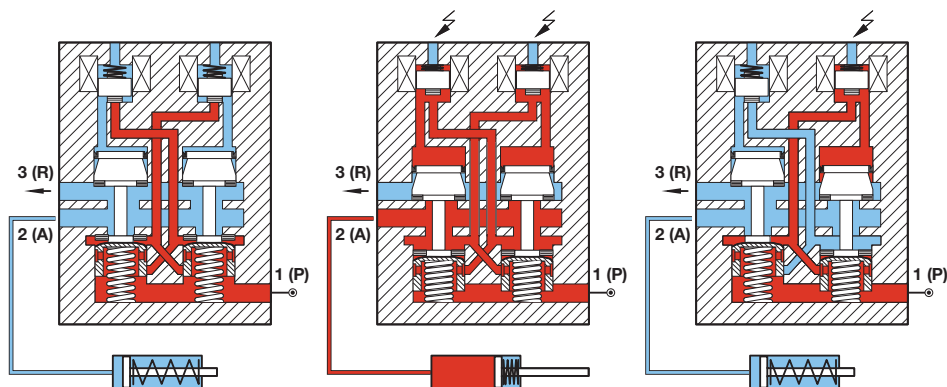
Series	Connector DIN EN 175301-803	Silencer
		
XSz 8	0680003000000000	MB002B (G1/4), MB003B (G3/8)
XSz 10	0680003000000000	—
XSz 20	0570275000000000	—
XSz 32	0570275000000000	—

Caution: the safety is related to the quality of the silencer, use only IMI Norgren original silencers.

SOLENOID ACTUATED PRESS SAFETY VALVES

XSz 8 ... XSz 50 3/2, G1/4 ... G2

● 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

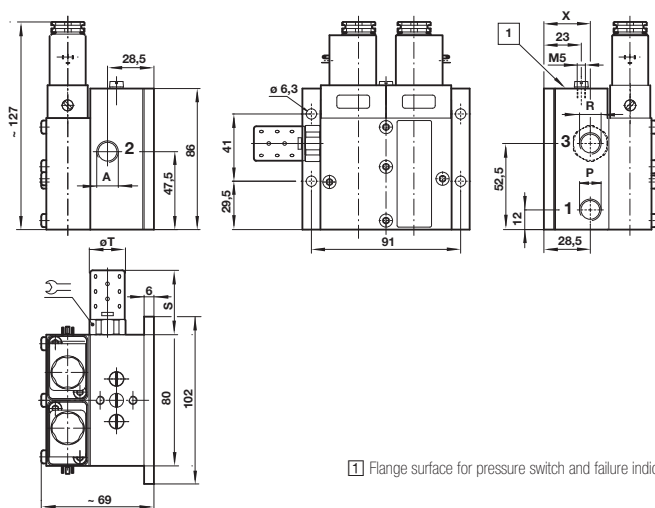
Pilots non-synchronously energised. Dynamic monitor notices failure operation and prevents the pistons from giving connection from P to A. Synchronously port A exhausts through R. No residual pressure remains in the system since P and A are not connected. The pilot line has lost the pressure and is locked.

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



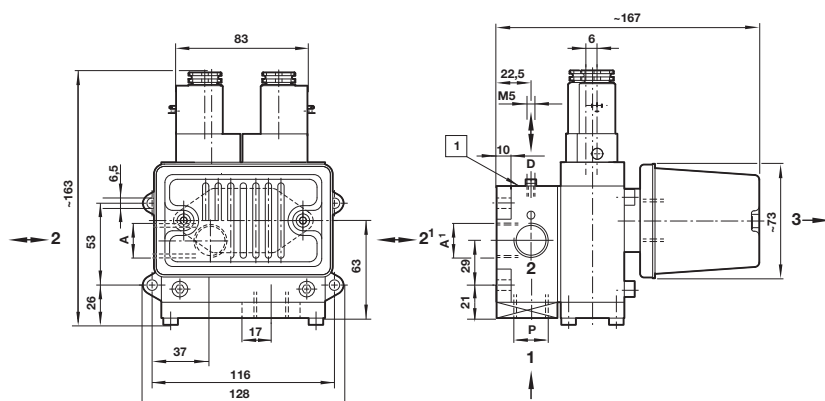
1 Flange surface for pressure switch and failure indicator unit

Model	1 (P)	2 (A)	3 (R)	S	øT	X	⌀
24928063052	G1/4	G1/4	G1/4	42	21	—	21

SOLENOID ACTUATED PRESS SAFETY VALVES

XSz 8 ... XSz 50 3/2, G1/4 ... G2

2 - XSz 10 - with silencer

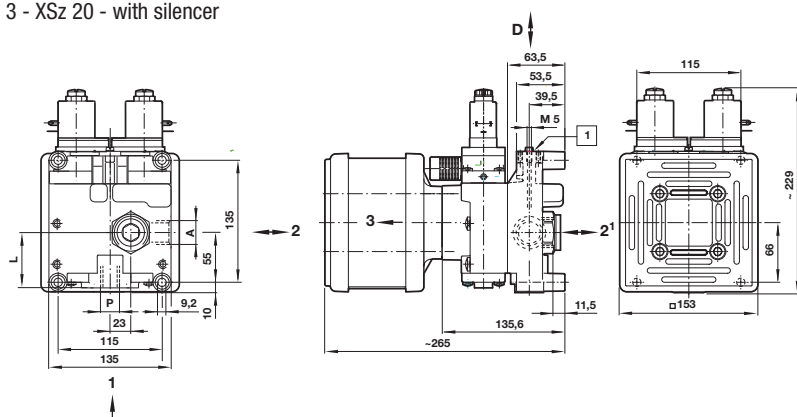


Model	1 (P)	2 (A)	2 ¹ (A ¹)	3 (R)
24929323052	G1/2	G1/2	G1/2 *	—

* Closed

1 Flange surface for pressure switch and failure indicator unit

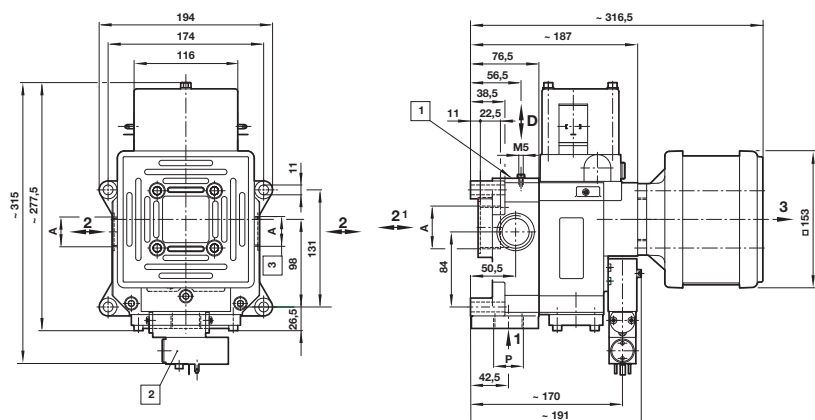
3 - XSz 20 - with silencer



Model	1 (P)	2 (A)	2' (A ¹)	3 (R)	L
24930320200	G3/4	G3/4	G1	—	66,5 (57)

1 Flange surface for pressure switch and failure indicator unit

4 - XSz 32 - with silencer



Model	1 (P)	2 (A)	2 ¹ (A ¹)	3 (R)
24931050800	G1	G1	G1 1/2	–

1 Flange surface for pressure switch and failure indicator unit



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. New er 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

Find out more
www.imi-precision.com



*Engineering
GREAT Solutions*



MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4

- 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.

Please contact us - many options available ex-stock



Models – 3/2 mechanical valves

Accessories

	Model	Port size	Actuation	Operating pressure (bar)	Operating force (N)	Dimension No.	Straight fitting	Elbow fitting	Silencer
	03040002	G1/8	Plunger/spring	- 0,9 ... 10	31	1	C02250618	C02470618	T40C1800
	03060002	G1/4	Plunger/spring	- 0,9 ... 10	53	8	C02250828	C02470828	T40C2800
	03040202	G1/8	Roller/spring	- 0,9 ... 10	31	2	C02250618	C02470618	T40C1800
	03060202	G1/4	Roller/spring	- 0,9 ... 10	61	9	C02250828	C02470828	T40C2800
	03041102	G1/8	Roller lever/spring	- 0,9 ... 10	31	3	C02250618	C02470618	T40C1800
	03061102	G1/4	Roller lever/spring	- 0,9 ... 10	45	10	C02250828	C02470828	T40C2800
	03029302	G1/8	Roller lever (heavy duty) /spring	- 0,9 ... 10	31	4	C02250618	C02470618	T40C1800



Models – 3/2 manual valves

Accessories

	Model	Port size	Actuation	Colour	Operating pressure (bar)	Operating force (N)	Dimension No.	Straight fitting	Elbow fitting	Silencer
	03040402	G1/8	Button/spring	Black	- 0,9 ... 10	31	13	C02250618	C02470618	T40C1800
	03040602	G1/8	Button/spring	Red	- 0,9 ... 10	31	13			
	03041402	G1/8	Button (shrouded)/spring	Black	- 0,9 ... 10	31	14	C02250618	C02470618	T40C1800
	03041502	G1/8	Button (shrouded)/spring	Green	- 0,9 ... 10	31	14	C02250618	C02470618	T40C1800
	03041602	G1/8	Button (shrouded)/spring	Red	- 0,9 ... 10	31	14	C02250618	C02470618	T40C1800
	03042802	G1/8	Emergency stop/twist reset	Red	- 0,9 ... 10	18	15	C02250618	C02470618	T40C1800
	03041902	G1/8	Rotary knob/set reset	Black	- 0,9 ... 10	–	20	C02250618	C02470618	T40C1800
	03029602	G1/8	Lever toggle/spring	Black	- 0,9 ... 10	13	16	C02250618	C02470618	T40C1800
	03040302	G1/8	Toggle/toggle	Black	- 0,9 ... 10	28	17	C02250618	C02470618	T40C1800
	03042402	G1/8	Knob/knob or pilot	Black	- 0,9 ... 10	18	19	C02250618	C02470618	T40C1800
	03062702	G1/4	Knob/knob or pilot	Black	- 0,9 ... 10 *	13	32	C02250828	C02470828	T40C2800
	03043702	G1/8	Lever/lever	Black	- 0,9 ... 10	9	18	C02250618	C02470618	T40C1800
	03063702	G1/4	Lever/lever	Black	- 0,9 ... 10	13	33	C02250828	C02470828	T40C2800
	03043802	G1/8	Lever/spring	Black	- 0,9 ... 10	9	18	C02250618	C02470618	T40C1800
	03048102	G1/8	Pedal/spring	–	- 0,9 ... 10	22	21	C02250618	C02470618	T40C1800
	03068102	G1/4	Pedal/spring	–	- 0,9 ... 10	22	31	C02250828	C02470828	T40C2800



* Reset pressure: 4 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

● Models – 5/2 mechanical valves

















Accessories

	Model	Port size	Actuation	Colour	Operating pressure (bar)	Operating force (N)	Dimension No.	Straight fitting	Elbow fitting	Silencer
	X3044202	G1/8	Roller/spring	–	- 0,9 ... 10	54	5	C02250618	C02470618	T40C1800
	X3064202	G1/4	Roller/spring	–	- 0,9 ... 10	67	11	C02250828	C02470828	T40C2800
	X3045102	G1/8	Roller lever/spring	–	- 0,9 ... 10	31	6	C02250618	C02470618	T40C1800
	X3065102	G1/4	Roller lever/spring	–	- 0,9 ... 10	45	12	C02250828	C02470828	T40C2800
	X3039302	G1/8	Roller lever (heavy duty)/spring	–	- 0,9 ... 10	31	7	C02250618	C02470618	T40C1800



● Models – 5/2 manual valves

Accessories


	Model	Port size	Actuation	Colour	Operating pressure (bar)	Operating force (N)	Dimension No.	Straight fitting	Elbow fitting	Silencer
	X3046802	G1/8	Emergency stop/twist reset	Red	- 0,9 ... 10	18	22	C02250618	C02470618	T40C1800
	X3045802801	G1/8	Key/key		- 0,9 ... 10	–	29	C02250618	C02470618	T40C1800
	X3045902	G1/8	Rotary knob/knob reset		- 0,9 ... 10	–	23	C02250618	C02470618	T40C1800
	X3046502	G1/8	Knob/knob	Black	- 0,9 ... 10	22	27	C02250618	C02470618	T40C1800
	X3066502	G1/4	Knob/knob	Black	- 0,9 ... 10	13	34	C02250618	C02470618	T40C1800
	X3046402	G1/8	Knob, push/knob, pull or pilot	Black	- 0,9 ... 10 *	22	28	C02250618	C02470618	T40C1800
	X3047802	G1/8	Lever/spring	Black	- 0,9 ... 10	16	38	C02250828	C02470828	T40C2800
	X3067802	G1/4	Lever/spring	Black	- 0,9 ... 10	15	35	C02250618	C02470618	T40C1800
	X3029602	G1/8	Toggle/toggle	Black	- 0,9 ... 10	13	24	C02250618	C02470618	T40C1800
	X3044302	G1/8	Toggle/spring	Black	- 0,9 ... 10	48	25	C02250618	C02470618	T40C1800
	X3047702	G1/8	Toggle/lever	Black	- 0,9 ... 10	13	38	C02250618	C02470618	T40C1800
	X3067702	G1/4	Toggle/lever	Black	- 0,9 ... 10	13	35	C02250828	C02470828	T40C2800
	X3048202	G1/8	Pedal/spring	Black	- 0,9 ... 10	22	30	C02250618	C02470618	T40C1800
	X3068202	G1/4	Pedal/spring	Black	- 0,9 ... 10	22	37	C02250828	C02470828	T40C2800
	X3048402	G1/8	Pedal/pedal	Black	- 0,9 ... 10	22	30	C02250618	C02470618	T40C1800
	X3068402	G1/4	Pedal/pedal	Black	- 0,9 ... 10	22	37	C02250828	C02470828	T40C2800



* The operating pressure for pilot function is the minimum pressure to operate the valve. The valve may switch below this pressure.

● Models – 5/3 manual valves

Accessories

	Model	Port size	Actuation	Colour	Operating pressure (bar)	Operating force (N)	Dimension No.	Straight fitting	Elbow fitting	Silencer
	X3343702	G1/8	Lever/lever/lever	Black	- 0,9 ... 10	12	26	C02250618	C02470618	T40C1800
	X3363702	G1/4	Lever/lever/lever	Black	- 0,9 ... 10	12	36	C02250828	C02470828	T40C2800



MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

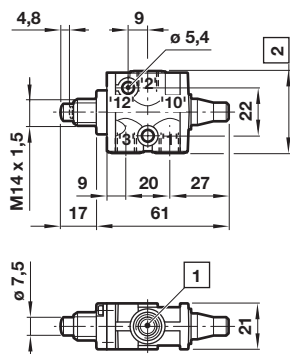
Super X 3/2, 5/2 and 5/3, G1/8, G1/4

● Dimensions

1

03040002

3/2 Plunger actuated spring return valve

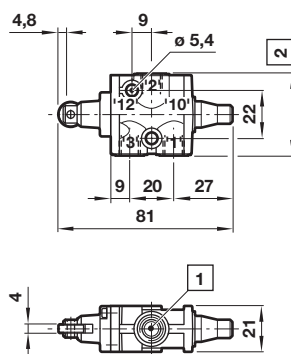


The plunger on this valve is designed for axial loading only.
Nut and mounting washer kit supplied as optional extra part number 03 0430 00

2

03040202

3/2 Roller actuated spring return valve

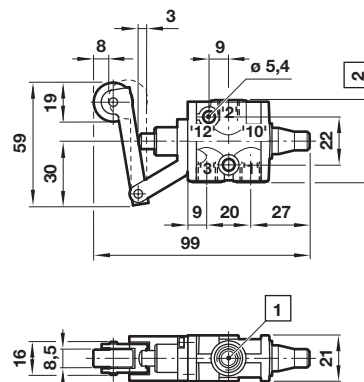


Maximum recommended cam rise: 4.5 mm
Cam angle of approach: 30° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

3

03041102

3/2 Roller lever actuated spring return valve

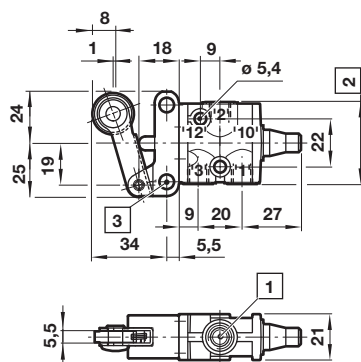


Operating travel: 8 mm
Over-travel: 3 mm
Cam angle of approach: 45° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

4

03029302

3/2 Heavy duty roller lever actuated spring return valve

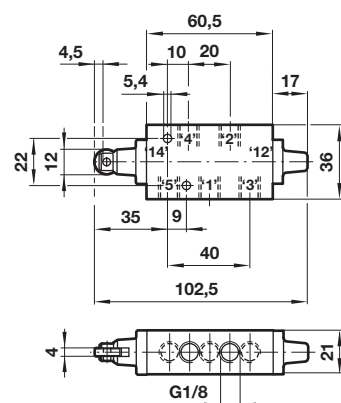


Operating Travel: 8 mm
Over-travel: 1 mm
Cam angle of approach: 45° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

5

X3044202

5/2 Roller actuated spring return valve

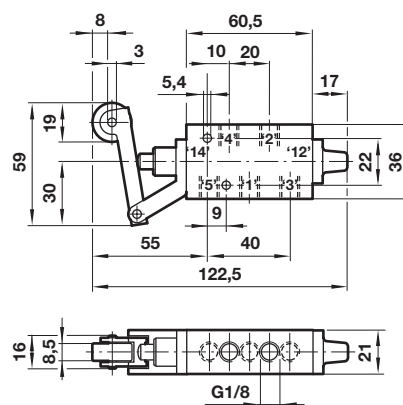


Maximum recommended can rise: 4.5 mm
Cam angle of approach: 30° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

6

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

- 1 Port size G1/8 or 6 mm
- 2 37 mm for G1/8 and 45 mm for 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

3

VALVES

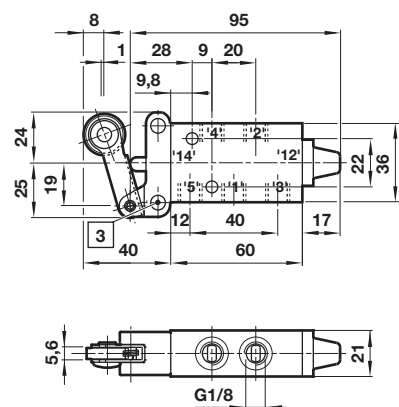
109

Online at www.imi-precision.com

7

X3039302

5/2 Heavy duty roller lever actuated spring return valve

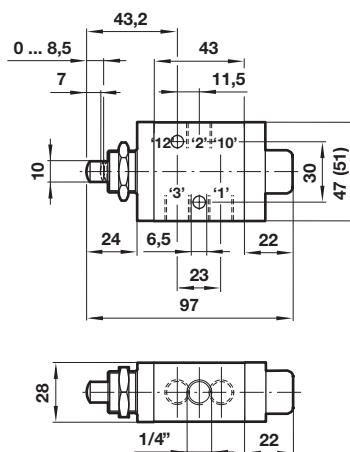


Operating travel: 8 mm
Over-travel: 1 mm
Cam angle of approach: 45° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

8

03060002

3/2 Plunger actuated spring return valve

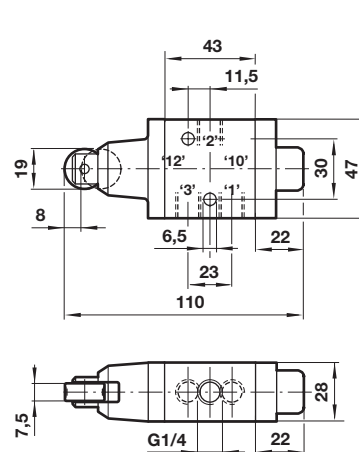


Panel hole: Ø 21 mm
The plunger on this valve is designed for axial loading only.

9

03060202

3/2 Roller actuated spring return valve

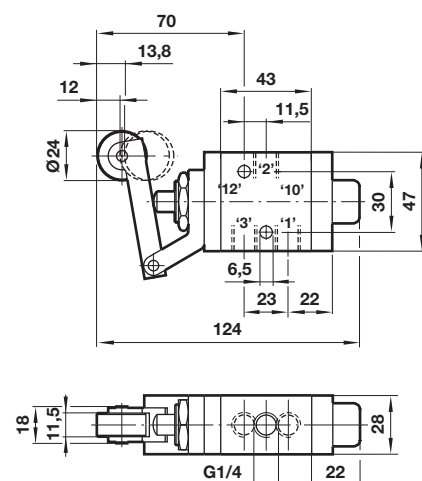


Cam angle of approach: 45° maximum
Cam speed: 6 m/min. maximum
Operating speed: 200 cpm

10

03061102

3/2 Roller lever actuated spring return valve

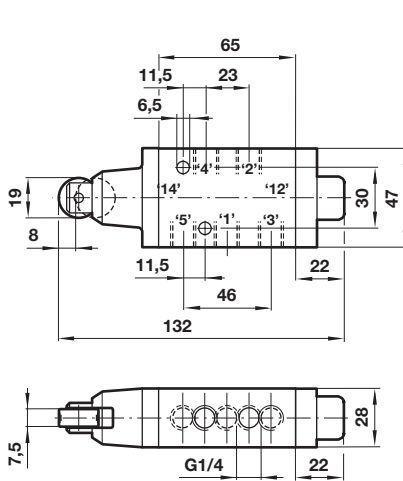


Cam angle of approach: 45° maximum
Cam speed: 5 m/min. maximum
Operating speed: 150 cpm

11

X3064202

5/2 Roller actuated spring return valve

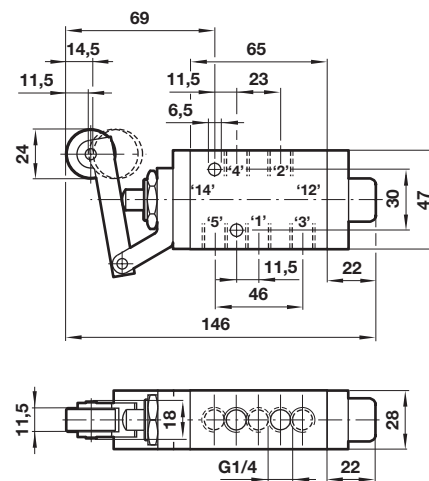


Cam angle of approach: 45° maximum
Cam speed: 6 m/min. maximum
Operating speed: 200 cpm

12

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

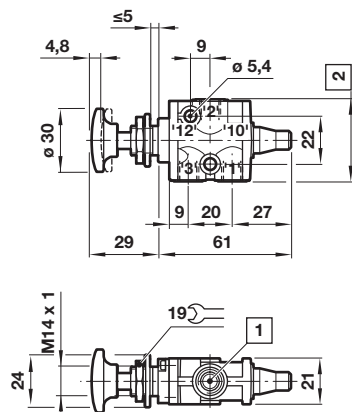
MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4

13

03040402, 03040602

3/2 Button operated spring return valves

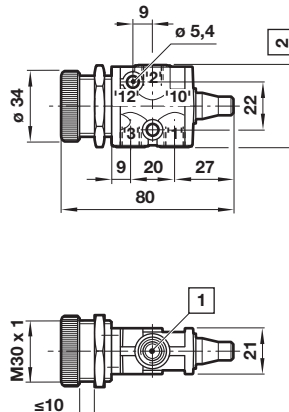


These valves are suitable for panel mounting by means of an optional nut and washer, reference 03 0430 00; a shrouded panel mounting kit is also available, reference 03 0429 00.

14

03041402, 03041502, 03041602

3/2 Button (Shrouded) operated spring return valves

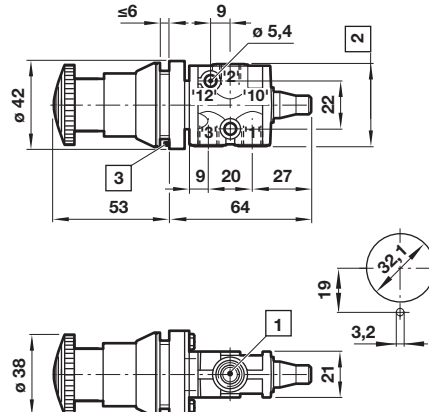


These valves are suitable for panel mounting.

15

03042802

3/2 Button (Palm) operated, twist return valve (Emergency stop)

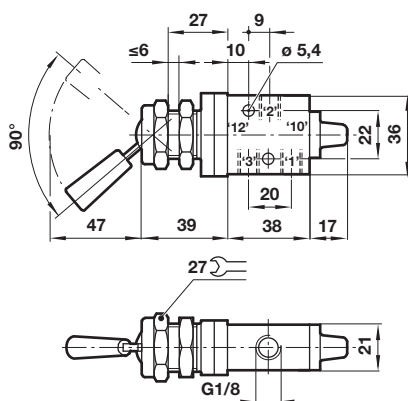


Valve latches when button is depressed and returns when the locking ring is rotated anti-clockwise. This valve is suitable for panel mounting.

16

03029602

3/2 Lever toggle spring return valve

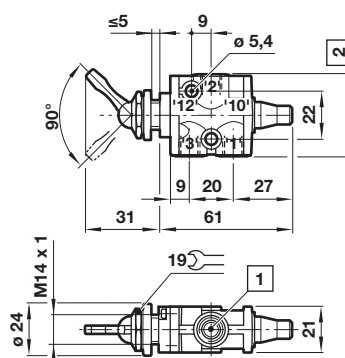


Panel hole: Ø 22,5 mm
This valve is suitable for panel mounting.

17

03040302

3/2 Toggle operated spring return valve

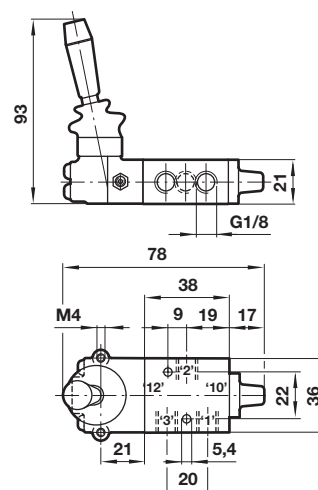


This valve is suitable for panel mounting.
A fingertip extension is available for this valve, reference 07003301.

18

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

- 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.

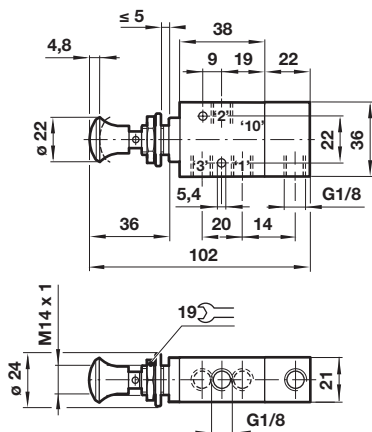
MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4

19

03042402

3/2 Knob operated, knob or pilot return valve

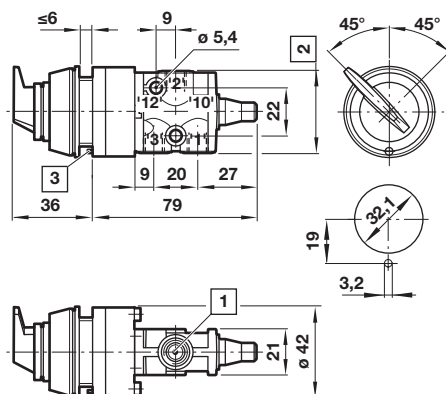


This valve is suitable for panel mounting by means of an optional nut and washer, reference 03 0430 00.

20

03041902

3/2 Rotary knob operated rotary knob return valve

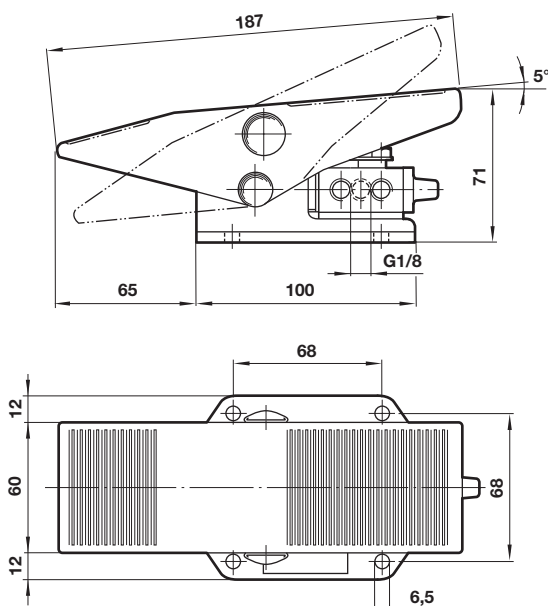


Switch shown in non-operated position
This valve is suitable for panel mounting.

21

03048102

3/2 Pedal operated spring return valve

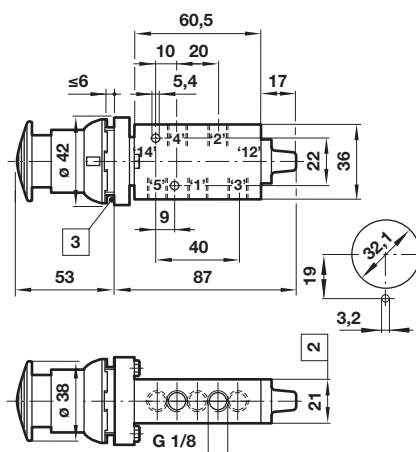


A foot guard is available for this valve, reference 03 0480 60.

22

X3046802

5/2 Button (Palm) operated spring return valves



These valves are suitable for panel mounting.

- 1 Port size G1/8 or ϕ 6 mm
- 2 37 mm for G1/8 and 45 mm for ϕ 6 mm
- 3 0,7 mm thick spacing washer must be used if additional mounting holes are used.

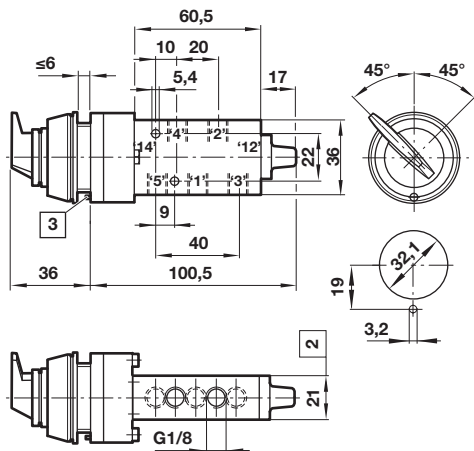
MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4

23

X3045902

5/2 Rotary knob operated rotary knob return valve

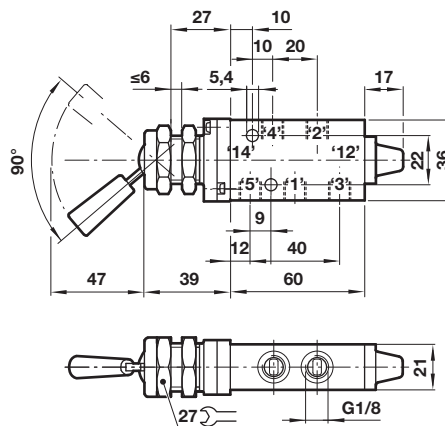


Switch shown in non-operated position
This valve is suitable for panel mounting.

24

X3029602

5/2 Toggle operated toggle return valve

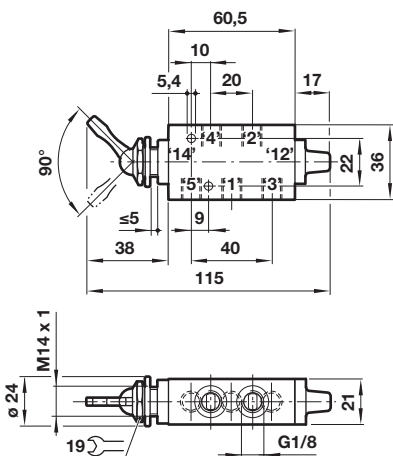


Panel hole: Ø 22,5 mm
This valve is suitable for panel mounting.

25

X3044302

5/2 Toggle operated spring return valve

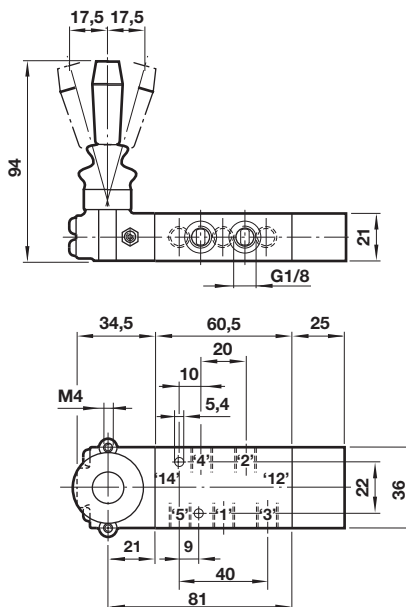


This valve is suitable for panel mounting.
A fingertip extension is available for use on this valve,
reference 07 0033 01.

26

X3343702

5/3 Lever operated valves

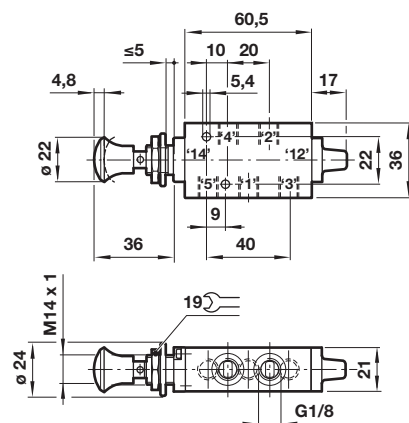


All models are suitable for panel mounting, by means of
a bezel kit, reference 03 3437 64.
Panel hole: Ø 24 mm
Panel thickness: 8 mm maximum

27

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.

- 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.

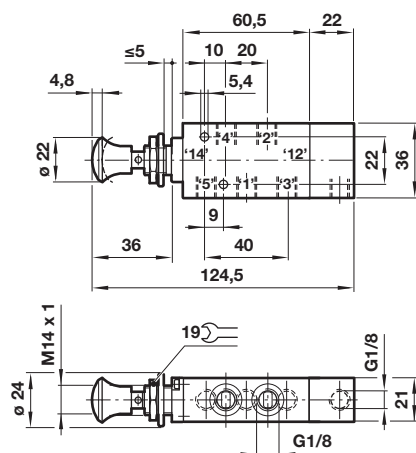
MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4

28

X3046402

5/2 Knob operated, knob or pilot return valve

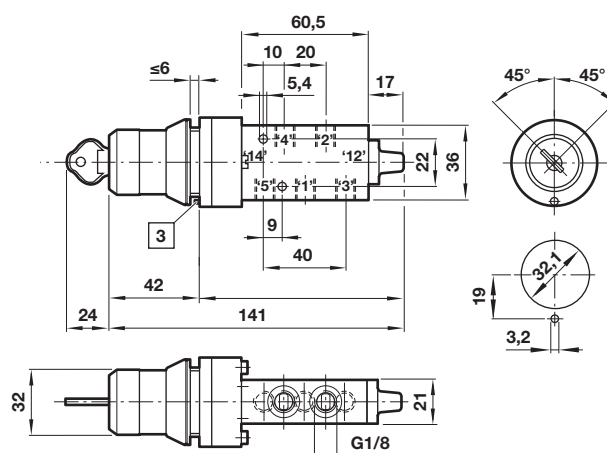


These valves are suitable for panel mounting by means of an optional nut and washer, reference 03043000

29

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.

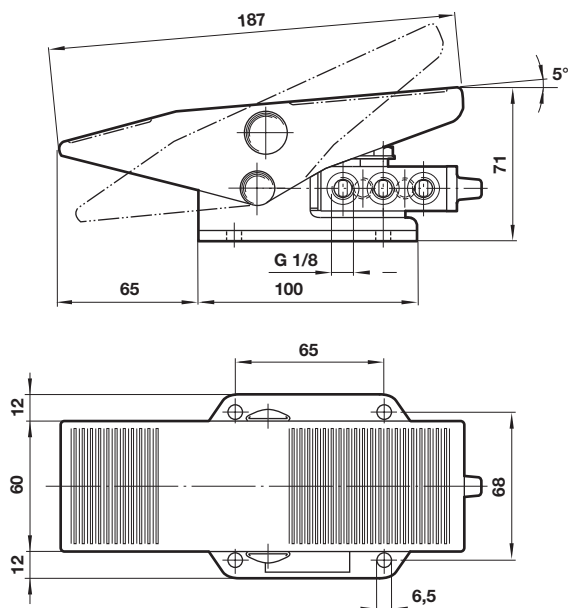
30

X3048202

5/2 Pedal operated spring return valve

X3048402

5/2 Pedal operated pedal return valve



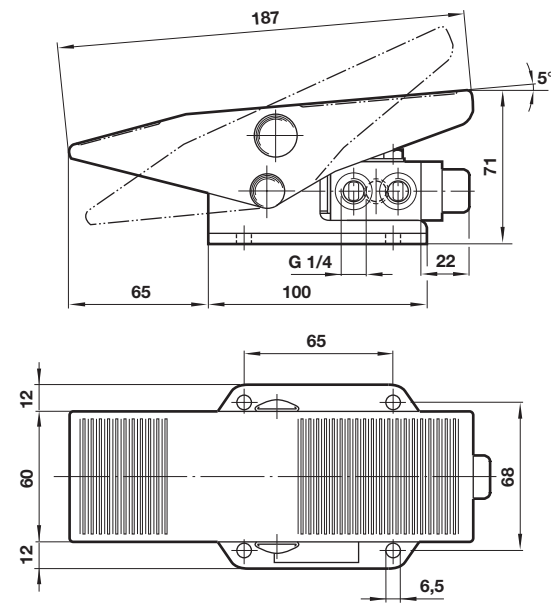
A foot guard is available for this valve, reference 03048060.

31

03068102

3/2 Pedal operated spring return valve

3/2 Pedal operated pedal return valve



A foot guard is available for this valve, reference 03048060.

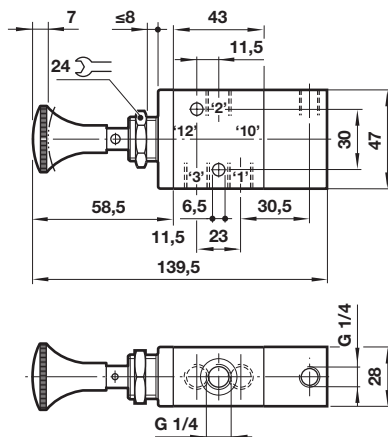
MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4

32

03062702

3/2 Knob operated, knob or pilot return valve



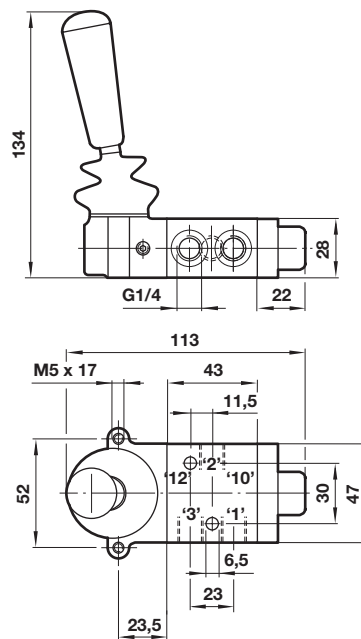
This valve is suitable for panel mounting and includes a nut and washer.

Panel hole: Ø 21 mm

33

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.

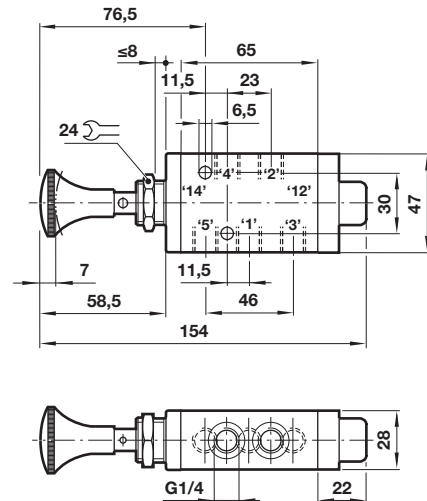
Panel hole: Ø 31 mm;

Panel thickness: 8 mm maximum

34

X3066502

5/2 Knob operated knob return valve



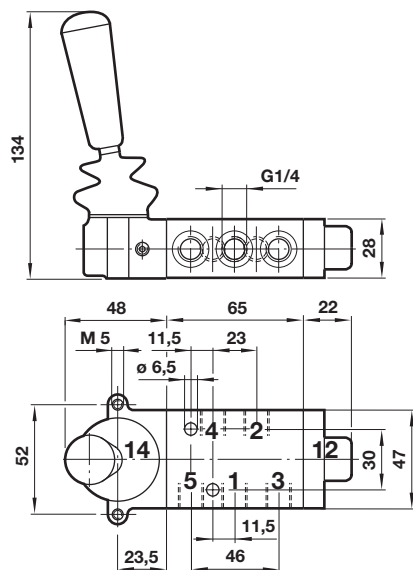
This valve is suitable for panel mounting and includes a nut and washer.

Panel hole: Ø 21 mm

35

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.

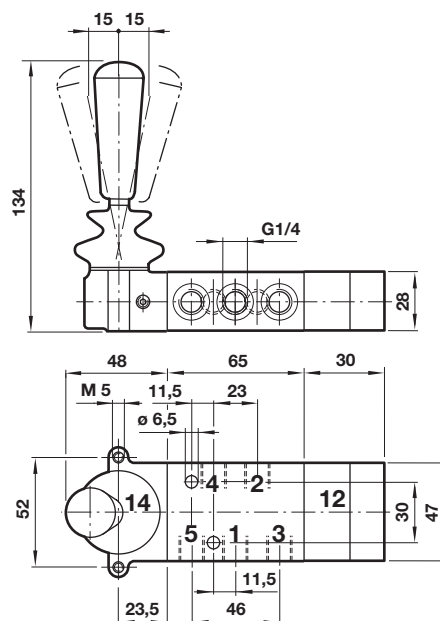
Panel hole: Ø 31 mm

Panel thickness: 8 mm maximum

36

X3363702

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

MANUALLY & MECHANICALLY ACTUATED SPOOL VALVE

Super X 3/2, 5/2 and 5/3, G1/8, G1/4

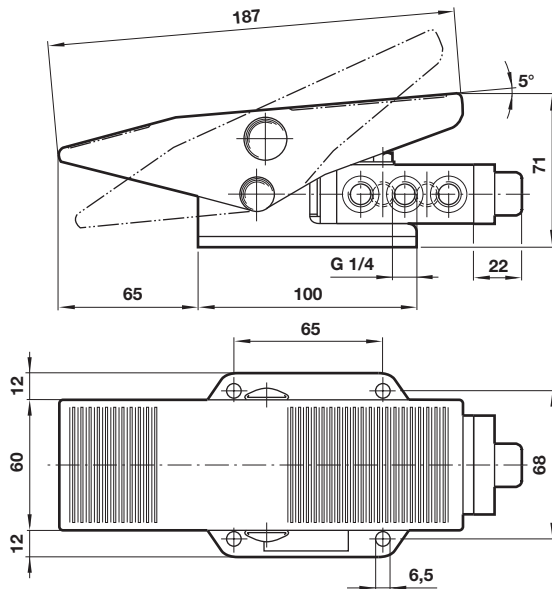
37

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.

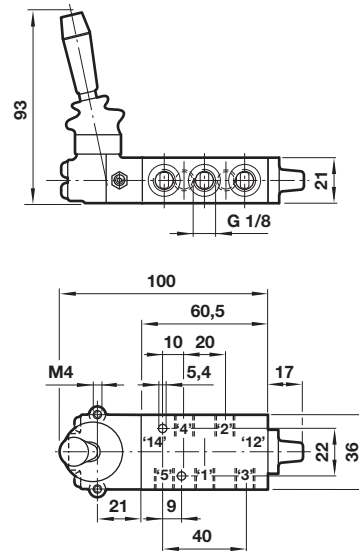
38

X3047802

5/2 Lever/spring

X3047702

5/2 Toggle/lever



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



Models

Accessories

Model	Port size	Function	Flow (l/min)	Panel mount nut	Straight fitting	Elbow fitting	Silencer
	G1/4	4/2	400				
VHLA202-02G	G1/4	4/2	400	VHLA-200N	C02250828	C02470828	T40C2800
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
VHLA400-04G	G1/2	4/3 APB	3100	VHLA-400N	C02251248	C02471248	T40C4800

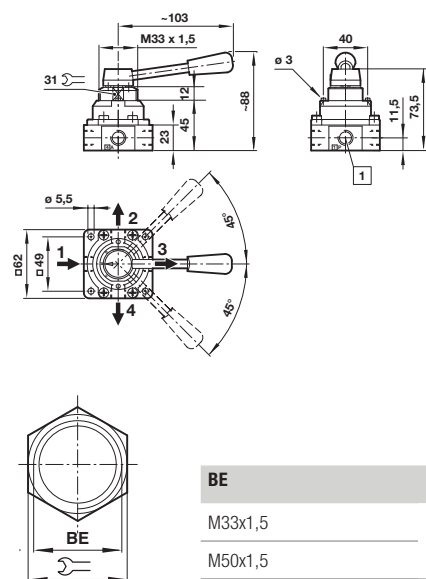
Caution: These valves are not leak free, care should be taken with safety critical applications and where an APB valve is used to hold an actuator in a mid position.

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.

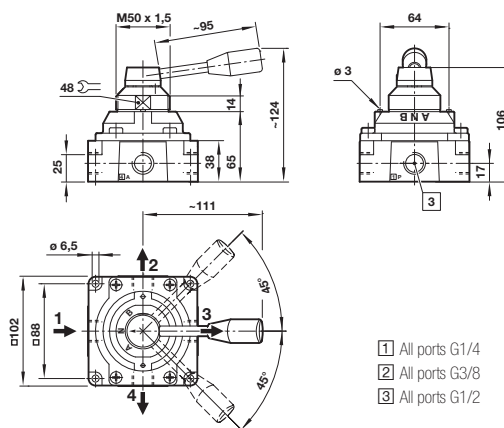
Dimensions

Panel mount nut


G1/4



G1/2



- ① All ports G1/4
- ② All ports G3/8
- ③ All ports G1/2

BE		KW	Model
M33x1,5	40	6	VHLA-200N
M50x1,5	55	8	VHLA-400N

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

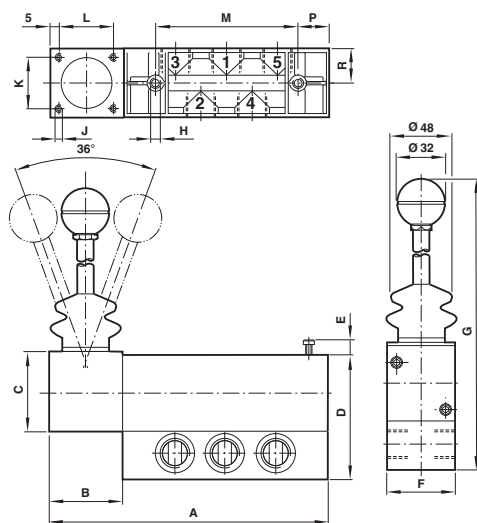
Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough to avoid ice
formation at temperatures below +2°C



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

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

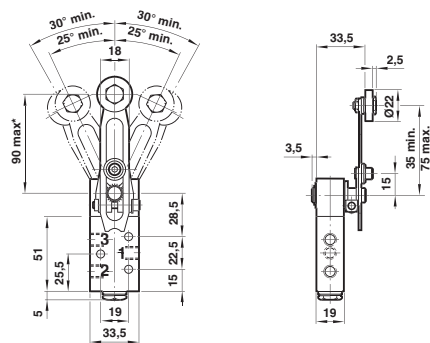


Models

Model	Function	Actuation	Dimension No.
Pilot			
S/666/40	3/2 NC	Pilot/Spring	9
S/667/40	3/2 NO	Pilot/Spring	9
Mechanical			
S/666/14	3/2 NC	Plunger/Spring	7
S/666/8	3/2 NC	Roller/Spring	8
S/667/8	3/2 NO	Roller/Spring	8
S/666/108	3/2 NC	Variable Roller/Spring	1
S/666/106	3/2 NC	Variable Rod/Spring	2
S/666/116	3/2 NC	Antenna Spring/Spring	3
Manual			
S/666/1	3/2 NC	Button/Spring	6
S/666/7	3/2 NC	Lever/Lever (Panel mounting)	5
S/666/117	3/2 NC	Lever (long)/Lever (panel mounting)	4

● Dimensions

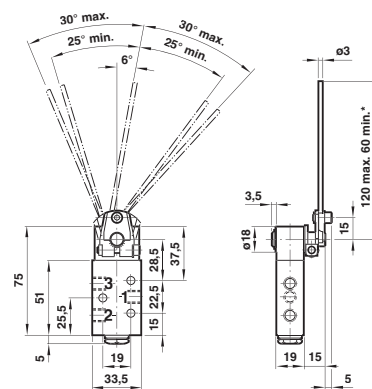
1-S/666/108



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.

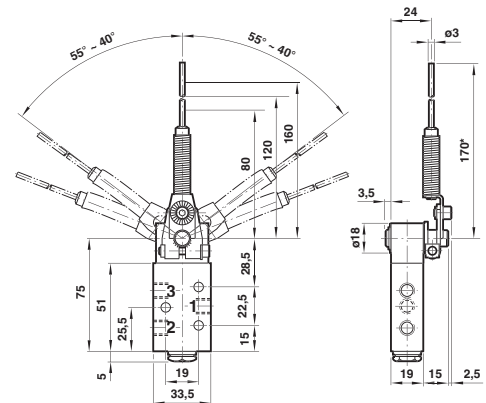
*Alternative position

2- S/666/106



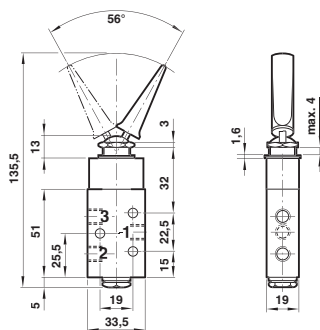
Mechanism may be operated either side of centre line.
*Recommended

3-S/666/116



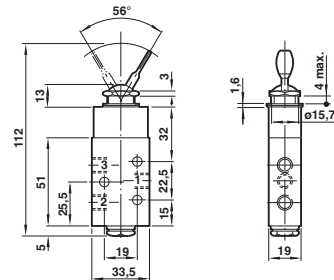
*Rotation at Point of Application: 40° minimum @ 80 mm,
50° minimum @ 120 mm, 55° minimum @ 160 mm.
Mechanism may be operated either side of centre line.

4-S/666/117



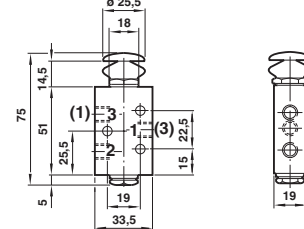
Panel hole: \varnothing 16 mm
Panel thickness: 4 mm maximum

5-S/666/7

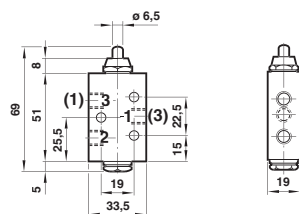


Panel hole: \varnothing 16 mm
Panel thickness: 4 mm maximum

6-S/666/1

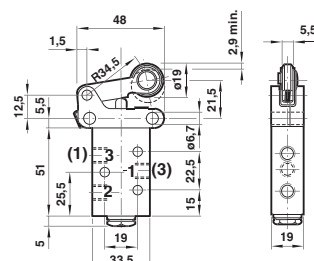


7-S/666/14



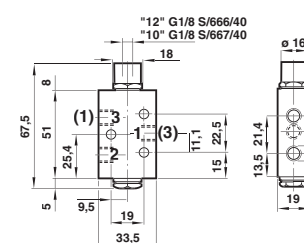
Pre-travel: 0,8 mm closed top seat
Operating Travel: 0,8 mm open bottom seat
Over-travel: 1,5 mm
Model number S/667/14 type 3/2 normally open
numbers are shown in brackets.

8-S/666/8 y 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.

9-S/666/40 y S/667/40



PROPORTIONAL PRESSURE CONTROL VALVE

VP50S G1/4

- Closed loop air pilot operated proportional pressure control valve with pressure output display
- Fast response time
- High flow
- Excellent performance characteristics
- Adjustable gain
- Adjustable pressure range
- Low power consumption
- Feedback signal
- Manifold mountable

Technical Data

Medium:

Compressed air, filtered to 5 µm, dry and oil free

Operation:

Air piloted spool valve with integrated electronic pressure control

Supply pressure:

Minimum 2 bar above maximum output required, 12 bar max.

Supply sensitivity:

Better than 0,75% span output change per bar supply pressure change

Flow:

Standard units up to 1400 N l/min (see characteristic curves)

Air consumption:

<5 N l/min

Ambient temperature:

0°C ... +50°C

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

Linearity:






<1%

Hysteresis and deadband:

<1%



Models

Model	Port size	Flow (l/min)	Output pressure (bar)	Control signal	Straight fitting	Elbow fitting	Silencer	Connector with 5m moulded cable
								
VP5006SBJ111H00	G1/4	1400	0 ... 6	0 ... 10 V	C02250828	C02470828	T40C2800	0250081000000000
VP5006SBJ411H00	G1/4	1400	0 ... 6	4 ... 20 mA	C02250828	C02470828	T40C2800	0250081000000000
VP5010SBJ111H00	G1/4	1400	0 ... 10	0 ... 10 V	C02250828	C02470828	T40C2800	0250081000000000
VP5010SBJ411H00	G1/4	1400	0 ... 10	4 ... 20 mA	C02250828	C02470828	T40C2800	0250081000000000

Accessories

Electrical information

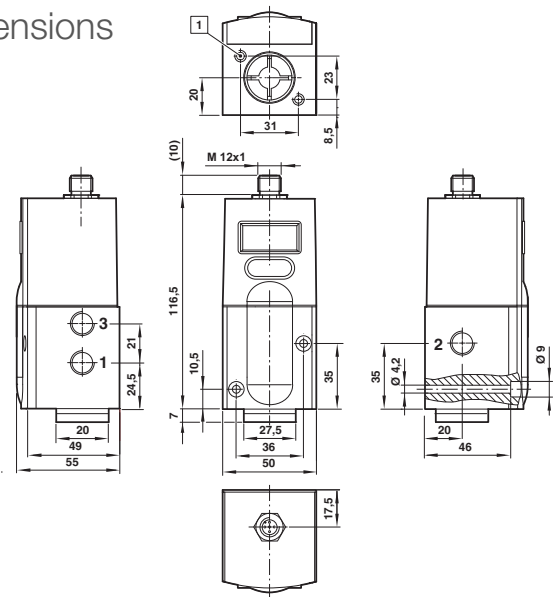
Electromagnetic compatibility	CE marked: conforms to EC requirements EN 50081-2 (1994) and EN 50082-2 (1995)
Electrical input signal	4 ... 20 mA or 0 ... 10 V factory set
Electrical power input	24 V d.c. ±25% (power consumption <1 W)
Output pressure feedback signal	0 ... 10 V full range, <±1% Accuracy
Connections	M12x1, 5 pin

Pin configuration



1	+24 V d.c. supply
2	0 ... 10V feedback
3	Control signal (+VE)
4	Common (supply signal and feedback return)
5	Chassis

Dimensions



PROPORTIONAL PRESSURE CONTROL VALVE

VP51 Programmable G1/4

- Closed loop air pilot digital proportional control valve
- Fully programmable with on-board diagnostics
- Ability to set up offline
- Multi-language menu option
- Password protection option at first level functionality
- Instant LED warning functions
- Pressure output display; no gauge necessary
- High speed response

Technical Data

Medium:

Compressed air, filtered to 5 µm, dry and oil free

Output pressure:

User adjustable up to 10 bar

Supply pressure:

Minimum 2 bar above maximum output required, 12 bar max

Ambient temperature:

0°C ... +50°C

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

Air Supply sensitivity:

Better than 0,75% span output change per bar supply pressure change

Flow:

Standard units up to 1400 N l/min (see characteristic curves)

Air consumption:

<5 N l/min

Linearity:


<1%

Hysteresis and deadband:

<1%



Models

Model	Port size	Max. flow (l/min)	Output pressure (bar)	Control signal	Straight fitting	Elbow fitting	Silencer	Connector with 5m moulded cable
								
VP5110BJ111H00	G1/4	1200	0 ... 10	0 ... 10 V	C02250828	C02470828	T40C2800	0250081000000000
VP5110BJ411H00	G1/4	1200	0 ... 10	4 ... 20 mA	C02250828	C02470828	T40C2800	0250081000000000

Accessories



Electrical information

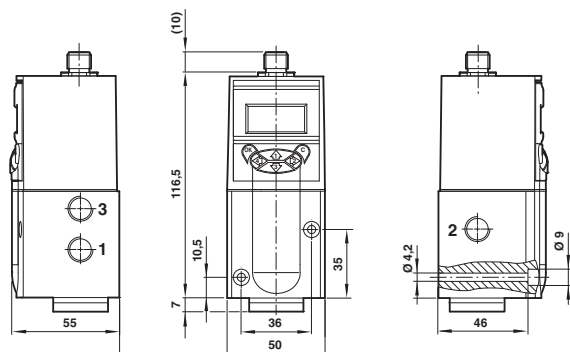
Electromagnetic compatibility	CE marked: conforms to EC requirements EN 50081-2 (1994) and EN 50082-2 (1995)
Electrical input signal	4 ... 20 mA or 0 ... 10 V factory set
Electrical power input	24 V d.c. ±25% (power consumption <1 W)
Output pressure feedback signal	0 ... 10 V full range or user-configurable switched output
Connections	M12 5 pin

Pin configuration



1	+24 V d.c. supply
2	0 ... 10 V feedback
3	Control signal (+ve)
4	Common (DC supply signal and feedback return)
5	Chassis

Dimensions





*Valve technology
for over 75 years*



IMI Buschjost valves

The constant research and continuing innovation behind the IMI Buschjost name has helped to create a market leader in process and multimedia valves, which can be found in a huge variety of applications worldwide.

In fact, in Germany, IMI Buschjost process valves are amongst only three brands which are SIL certified for use in power plants.

SOLENOID OPERATED VALVES

- > Port sizes from G1/4 to G2 plus options of flange connections
- > Range of body and seal materials to cover most industrial applications

- > Extensive use of patented IMI Buschjost Click-on® coils
- > ATEX versions available
- > Diaphragm (up to 16 bar) and piston (up to 40 bar versions available)
- > Range covers direct, indirect and forced lift versions

PRESSURE OPERATED VALVES

- > Port sizes G1/4 to G2
- > Diaphragm and piston versions available up to 16 bar depending upon size and actuator type
- > Range of body and seal materials to cover most industry applications
- > Suitable for fluid viscosities up to 600 centistokes and fluids with contamination

- > Solenoid pilot operator available to directly mount to the valve actuator

CLICK-ON® BENEFITS

- > Valve core tube completely sealed – fluid cannot escape
- > Solenoid can be removed and replaced without tools
- > Can be rotated through 360°
- > Cannot be over tightened leading to damage to valve
- > Totally IP65 protected

*Engineering
GREAT Solutions*



Find out more

www.imi-precision.com



2/2-WAY DIRECTLY OPERATED VALVES

Series 82510

- 2/2-way seat valves
- G1/4 ... 3/8
- Suitable for vacuum
- High flow rate
- Functional compact design
- Body with M5 fastening thread as standard
- Solenoid interchangeable without tools (Click-on®)
- Valve operates without pressure differential (Zero delta P)

Technical Data

Switching function:
Normally closed

Flow direction:
Determined

Mounting position:
Optional, preferably solenoid
vertical on top



● Models - Valves normally closed

Port size	Orifice (mm)	Series 82510 Model	Operating pressure (bar)
G1/4	1,5	8251000.9101.xxxxx	0 ... 25
G1/4	2,5	8251020.9101.xxxxx	0 ... 10
G3/8	2,5	8251120.9101.xxxxx	0 ... 10
G1/4	3	8251040.9101.xxxxx	0 ... 4
G1/4	4	8251060.9151.xxxxx	0 ... 12
G3/8	4	8251160.9151.xxxxx	0 ... 12


Replace xxxx with Voltage code & frequency from the table below

Technical data

82510	
Medium	Neutral gases and liquids
Port size	G1/4 ... 3/8
Operating pressure	0 ... 10/25/4 bar
Temperature	
Media temperature	-10°C ... +90°C
Ambient temperature	-10°C ... +50°C
Material	
Body	Brass (CW617N)
Seat seal	NBR
Internal parts	Stainless steel, brass

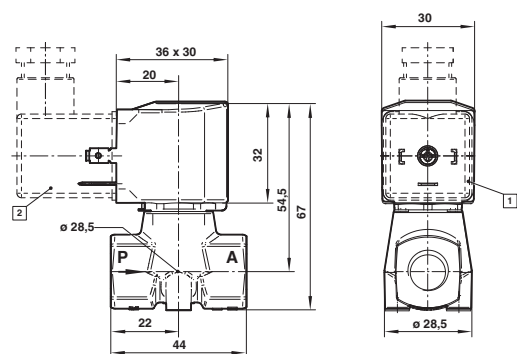
Voltage codes and spare coils

Voltage and frequency solenoid									
Model	Code Voltage	Code Frequency	Voltage	Frequency	Power consumption				
9101	9151				Inrush	Holding	Inrush	Holding	
					9101 *1)		9151 *1)		
0000000.9101.02400	0000000.9151.02400	024	00	24 V d.c.	—	8 W	8 W	18 W	18 W
0000000.9101.23050	0000000.9151.23050	230	50	230 V a.c.	50 Hz	15 VA	12 VA	45 VA	35 VA

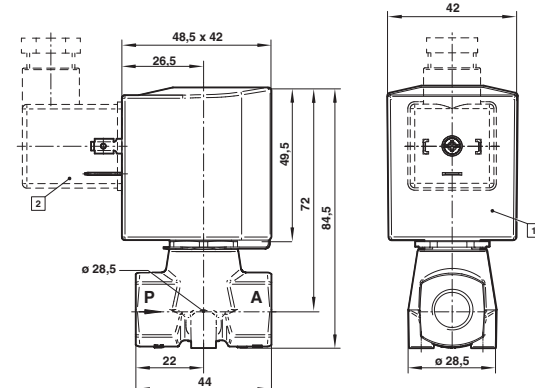
*1) Note:  coil only / up to +55°C ambient temperature.
Further versions on request!

● Dimensions

82510 with solenoid 9101



82510 with solenoid 9151



- 1 Solenoid rotatable 360°
2 Socket turnable 4 x 90°
(Socket included)

2/2-WAY INDIRECTLY OPERATED SOLENOID VALVES

Series 82400

- 2/2-way seat valves
- DN 8 ... 50, G1/4 ... 2
- High flow rate
- Damped operation
- Functional compact design
- Solenoid interchangeable without tools (Click-on®)
- Fluids of Group 2 acc. Pressure Equipment Directive 97/23/EC (Series 83030)

Technical Data

Switching function:
Normally closed

Flow direction:
Determined

Mounting position:
Optional, preferably solenoid vertical on top

Differential pressure:
0,1 bar required



Standard models

Port size	Orifice (mm)	Series 82400 Model	Operating pressure (bar)
G1/4	8	8240000.9101.xxxxx	0,1 ... 16
G3/8	10	8240100.9101.xxxxx	0,1 ... 16
G1/2	12	8240200.9101.xxxxx	0,1 ... 16
G3/4	20	8240300.9101.xxxxx	0,1 ... 16
G1	25	8240400.9101.xxxxx	0,1 ... 16
G1 1/4	32	8240500.9101.xxxxx	0,1 ... 10 *1)
G1 1/2	40	8240600.9101.xxxxx	0,1 ... 10 *1)
G2	50	8240700.9101.xxxxx	0,1 ... 10 *1)

*1) Note: Operating pressure 0,1 ... 16 bar with solenoid 9151.
Replace xxxx with voltage code & frequency from the table below.

Technical data

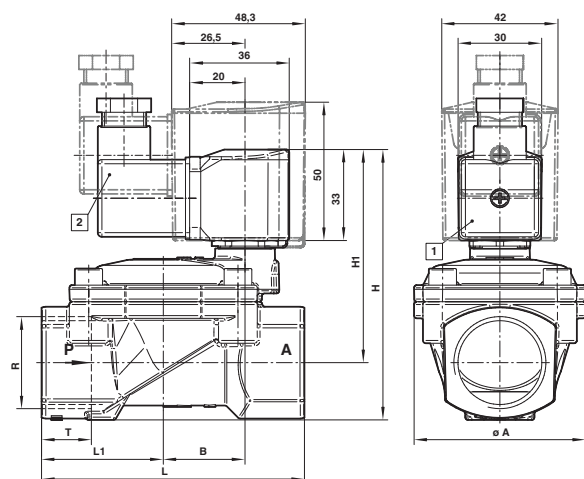
82400 (82410)	
Medium	Neutral gases and liquids
Port size	G1/4 ... 2
Operating pressure	0,1 ... 10/16 bar
Temperature	
Media temperature	-10°C ... +90°C
Ambient temperature	-10°C ... +50°C
Material	
Body	Brass (CW617N)
Seat seal	NBR
Internal parts	Stainless steel, PVDF, brass from DN 25

Voltage codes and spare coils

Voltage and frequency solenoid									
Model	Code Voltage	Code Frequency	Voltage	Frequency	Power consumption				
9101	9151				Inrush	Holding	Inrush	Holding	
					9101 *2)		9151*2)		
0000000.9101.02400	0000000.9151.02400	024	00	24 V d.c.	—	8 W	8 W	18 W	18 W
0000000.9101.23050	0000000.9151.23050	230	50	230 V a.c.	50 Hz	15 VA	12 VA	45 VA	35 VA

*2) Note: coil only / up to +55°C ambient temperature.
Further versions on request!

Dimensions



- [1] Solenoid rotatable 360°
[2] Socket turnable 4 x 90° (Socket included)

Model	Port size	A	B	H	H1	L	L1	T
8240000.9101.xxxxx	G1/4	44	19,5	78,5	67	60	27,5	12
8240100.9101.xxxxx	G3/8	44	19,5	78,5	67	60	27,5	12
8240200.9101.xxxxx	G1/2	44	19,5	81	67	67	31	14
8240300.9101.xxxxx	G3/4	50	24	88	71,5	80	36,5	16
8240400.9101.xxxxx	G1	62	29,5	97,5	77	95	44	18
8240500.9101.xxxxx	G1 1/4	92	44,5	124,5	95,5	132	60	20
8240600.9101.xxxxx	G1 1/2	92	44,5	124,5	95,5	132	60	22
8240700.9101.xxxxx	G2	109	54,5	142,5	108	160	74	24

Replace xxxx with voltage code & frequency from the voltage codes table.

2/2-WAY PRESSURE ACTUATED VALVES BY EXTERNAL FLUID

Series 84500

- 2/2-way seat valves
- DN 15 ... 50, G1/2 ... 2
- Easy rebuilding into »normally open« or »double-acting« without tools
- Optical position indicator is standard
- Damped closing (Valve closes against flow direction)
- Suitable for contaminated flow fluid
- Suitable for vacuum up to max. 90%
- Reversed flow direction optional

Technical Data

Switching function:
Normally closed

Flow direction:
Determined

Mounting position:
Optional, preferably solenoid
vertical on top



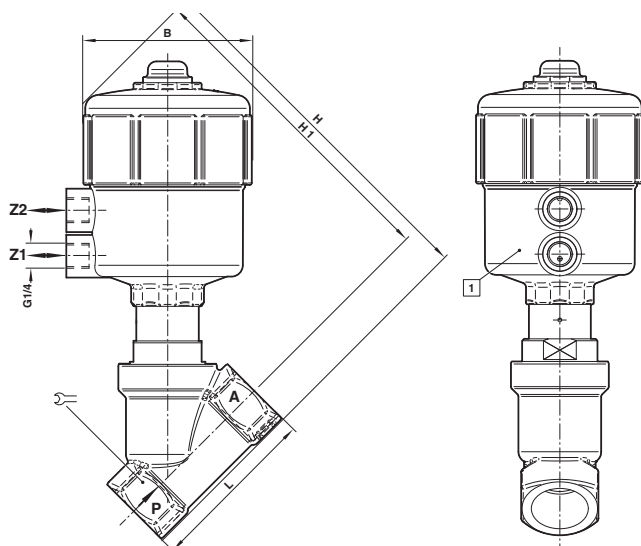
Standard models

Port size	Series 84500 Model	Operating pressure (bar)
G1/2	8450200.0000.00000	0 ... 16 (25)
G3/4	8450300.0000.00000	0 ... 10 (16)
G1	8450400.0000.00000	0 ... 10
G1 1/4	8450500.0000.00000	0 ... 7
G1 1/2	8450600.0000.00000	0 ... 4,5
G2	8450700.0000.00000	0 ... 3

Technical data

84500	
Medium	Neutral gases and liquids
Pilot fluid	Neutral gases max. +60°C
Port size	G1/2 ... 2
Operating pressure	0 ... 25 bar (depends on port size)
Pilot pressure	3,5 ... 10 bar
Temperature	
Media temperature	-10°C ... +180°C
Ambient temperature	-10°C ... +60°C
Material Process fluid	
Body	Brass (CW617N)
Seat seal	PTFE
Internal parts	Brass, stainless steel
Material Pilot fluid	
Body	Polyamid 66 with glass fibre 30%
Seals	NBR
Internal parts	Brass, stainless steel

Dimensions



1 Actuator may be rotated 360°

Model	Port size	B	H	H1	L	A
8450200.0000.00000	G1/2	89,5	177,5	164	65	27
8450300.0000.00000	G3/4	89,5	184	168	75	32
8450400.0000.00000	G1	89,5	194,5	174	90	41
8450500.0000.00000	G1 1/4	89,5	209,5	184,5	110	50
8450600.0000.00000	G1 1/2	89,5	208,5	186	120	55
8450700.0000.00000	G2	89,5	229,5	194,5	150	70



Efficient and inexpensive dust filter cleaning

Filter valves for air-blasting have been developed to allow efficient and inexpensive cleaning. Top priorities in the developers' requirements specification were to optimise the filter cleaning, reduce air consumption and prolong the valves' service life. To achieve optimum cleaning with the compressed air pulse, the pressure in the filter has to reach the set point very quickly. This means that the valves must open fully within a few milliseconds.

Compared with the previous models, the IMI Buschjost filter valve series has extremely fast opening times, which are essential for effective, intensive cleaning. The closing mechanism is just as fast as the opening mechanism. This determines the economical operation of a valve. The air pulse must return to zero as quickly as possible, as any minor delay will only consume air and cost money.

Product highlight:

- > High grade materials
- > Solenoid exchangeable without tools (TWIST-ON®)
- > CE-mark
- > Optimized strength
- > Designed with newest CAD-technologies
- > High flow rate
- > One-piece diaphragm
- > Usable from -40°C ... +140°C
- > High corrosion resistance (optional)
- > Explosion proof up to hazardous area 1/21 and temperature class T4/ T5
- > Usable for low pressure- and vacuum applications
- > Integrated silencer
- > Frost proof solenoid system
- > International registrations like GOST-R or CRN available

*Engineering
GREAT Solutions*



Find out more

www.imi-precision.com



DIRECT SOLENOID ACTUATED POPPET VALVES

95000 2 ... 6 mm orifice (ND) 2/2, NC/NO, G1/4

- Direct acting solenoid – operation down to zero bar pressure
- Short switching times
- Assembled oil and grease-free

Technical Data

Medium:
Neutral gaseous and liquid fluids

Flow direction:
Fixed

Mounting position:
Optional, preferably with solenoid on top

Media temperature:
-25°C ... +80°C NBR

Ambient temperature:
Depending on solenoid system
-25°C ... +80°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C
For contaminated fluids installation of an upstream filter is recommended



Models

Model	Function	Port size	Orifice (mm)	Operating pressure (bar)	Flow (l/min)	Solenoid group	Dimension No.
9500200xxxx*****	2/2 NC	G1/4	2	0 ... 35	120	13B	1
9500300xxxx*****	2/2 NC	G1/4	3	0 ... 10	200	13C	1
9500400xxxx*****	2/2 NC	G1/4	4	0 ... 12	350	13D	1
9501500xxxx*****	2/2 NC	G1/4	5	0 ... 5	450	16D	2
9501600xxxx*****	2/2 NC	G1/4	6	0 ... 5	550	16D	2
9502210xxxx*****	2/2 NO	G1/4	2	0 ... 40	70	13B	3
9502310xxxx*****	2/2 NO	G1/4	3	0 ... 10	160	13B	3

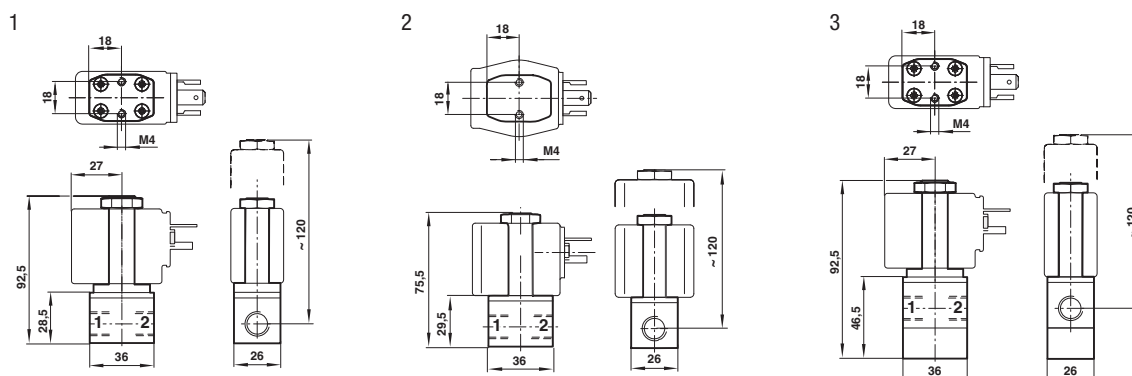
xxxx Insert solenoid code according to solenoid group from tables on page 129. ***** Insert voltage codes from table below.
Replace both xxxx and ***** with '0' for valve without solenoid.

Voltage codes

24 V d.c.	02400
230 V a.c.	23050

Other voltages available, please contact us for more information.

Dimensions



DIRECT SOLENOID ACTUATED POPPET VALVES

96000 2 ... 5 mm orifice (ND) 3/2, NC/NO, G1/4

- Direct acting solenoid – operation down to zero bar pressure
- Short switching times
- Assembled oil and grease-free

Technical Data

Medium:
Neutral gaseous and liquid fluids

Flow direction:
Fixed

Mounting position:
Optional, preferably with solenoid on top

Media temperature:
-25°C ... +80°C NBR

Ambient temperature:
Depending on solenoid system
-25°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C
For contaminated fluids installation of an upstream filter is recommended



Models

Model	Function	Port size	Orifice (mm)	Operating pressure (bar)	Flow l/min	Solenoid group	Dimension No.
9600210xxxx*****	3/2 NC	G1/4	2	0 ... 10	120	13B	1
9600240xxxx*****	3/2 NC	G1/4	2	0 ... 18	120	13D	1
9600340xxxx*****	3/2 NC	G1/4	3	0 ... 14	200	13D	1
9601430xxxx*****	3/2 NC	G1/4	4	0 ... 8	350	16C	2
9601440xxxx*****	3/2 NC	G1/4	4	0 ... 10	350	16D	1
9601540xxxx*****	3/2 NC	G1/4	5	0 ... 7	450	16D	2
9602210xxxx*****	3/2 NO	G1/4	2	0 ... 9	100	13B	3
9602340xxxx*****	3/2 NO	G1/4	3	0 ... 9	160	13D	3
9602440xxxx*****	3/2 NO	G1/4	4	0 ... 6	300	16D	3

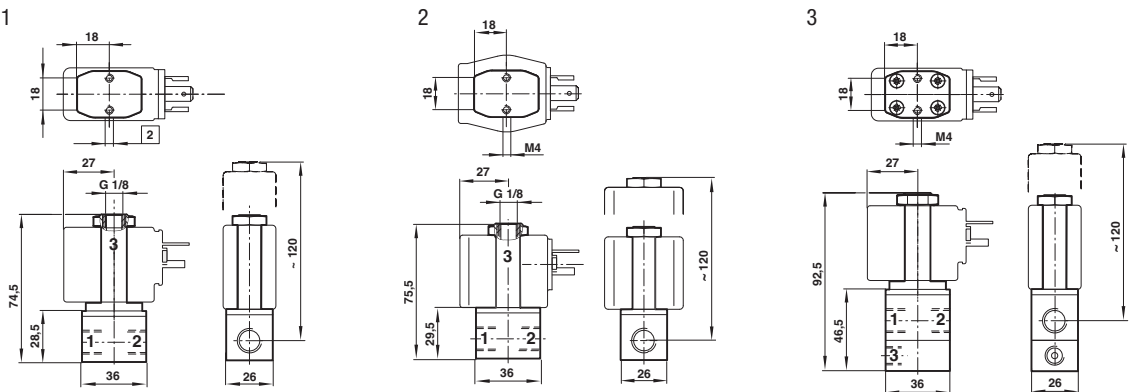
xxxx Insert solenoid code according to solenoid group from tables on page 129. ***** Insert voltage codes from table below.
Replace both xxxx and ***** with '0' for valve without solenoid.

Voltage codes

24 V d.c.	02400
230 V a.c.	23050

Other voltages available, please contact us for more information.

Dimensions



SOLENOID OPERATORS

95000 & 96000 Poppet Valves

Model	Power consumption		Voltage		Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (mA)	230 V a.c. (mA)					



Group 13B	8,0	–	331	–	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁶⁾	0246 ⁷⁾
Group 13B	–	9,2	–	40	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁶⁾	3206 ⁷⁾

Model	Power consumption		Voltage		Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (mA)	230 V a.c. (mA)					



Group 13C	12,1	–	504	–	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁶⁾	0200 ⁷⁾
Group 13C	–	11,3	–	49	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁶⁾	3204 ⁷⁾

Model	Power consumption		Voltage		Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (mA)	230 V a.c. (mA)					



Group 13D	16,9	–	703	–	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁶⁾	0700 ⁷⁾
Group 13D	–	19,5	–	75	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁶⁾	3703 ⁷⁾

Model	Power consumption		Voltage		Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (mA)	230 V a.c. (mA)					



Group 16C	6,8	–	284	–	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁶⁾	0827 ⁷⁾
Group 16C	–	10,6	–	46	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁶⁾	3805 ⁷⁾

Model	Power consumption		Voltage		Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (mA)	230 V a.c. (mA)					



Group 16D	16,9	–	703	–	–	IP00 without plug ⁵⁾ IP65 with plug ⁵⁾	-25 ... +60	DIN EN 175301-803 Form A ⁶⁾	0800 ⁷⁾
Group 16D	–	17,3	–	75	–	IP00 without plug ⁵⁾ IP65 with plug ⁵⁾	-25 ... +60	DIN EN 175301-803 Form A ⁶⁾	3803 ⁷⁾

Standard voltages 24 V d.c., 230 V a.c. Other voltages on request.

Design acc. to VDE 0580, EN 50014/50028. 100% duty cycle.

5) Required connector type 0570275000000000.

6) Connector/cable gland not supplied, see 'Accessories' table.

7) Suitable for outdoor installation only if equipped with a special protection (e.g. cubicle installation).

Accessories

Connectors



0570275000000000

IN-LINE FLOW REGULATORS (BLOCK FORM)

C00GE and C00GP Uni-directional – Ø 4 ... 12

- High flow performance
- In-line or panel mounting
- Adjustment can be locked
- Captive regulator needle will not blow out when unscrewed
- Nickel plated brass components provide corrosion and contamination resistance and an extended life

Technical Data

Medium:

Compressed air, filtered, lubricated and non-lubricated

Operating pressure:

10 bar max.

Ambient temperature:

0°C ... +60°C

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

Tube sizes:

4 ... 12 mm

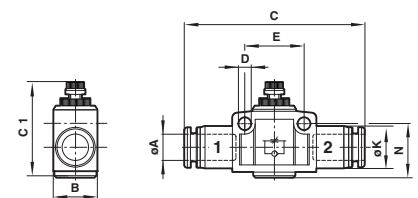
Tubing types:

Nylon 11 or 12, Polyurethane 85, 95 or 98 durometer





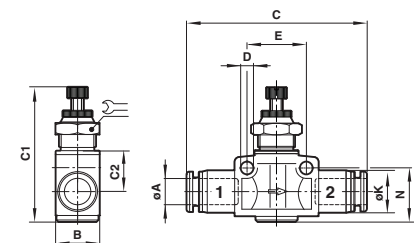
Models – In-line flow control

Model	ØA	B	C	C1 min.	max.	D	E	ØK	N
C00GE0400	4	12	45	30	33	3,3	15	11	13,5
C00GE0600	6	16	50	35	39,5	4,4	20,5	13	17,5
C00GE0800	8	19	55,5	37,5	42	4,4	23	15	20
C00GE1000	10	23	61	44	49	4,4	28	17,5	23
C00GE1200	12	26,5	70	47,5	53,5	4,4	32	20,5	25,5



Models – In-line and panel mounting flow control

Model	ØA	B	C	C1 min.	max.	C2	D	E	ØK	N		Panel hole	Panel thickness	
	C00GP0400	4	12	42	35,5	38	5,5	3,2	15,5	11	13,5	12	11	5
	C00GP0600	6	16	49,5	43	48,5	8	4,3	20,5	13	17,5	17	16	6
	C00GP0800	8	19	56,5	47,5	53	8,5	4,3	23	15	20	19	17	6
	C00GP1000	10	23	63	53,5	61,5	10,5	4,3	27,5	17,5	23	22	17	7
	C00GP1200	12	26.5	73.5	57.5	64.5	12	4.4	32.5	20.5	25.5	24	21	7



NON-RETURN VALVES

T55 In-line G1/8 ... G1/2

- Permit free flow of air in one direction only
- Simple, reliable design
- Silicone free
- Low cracking pressure

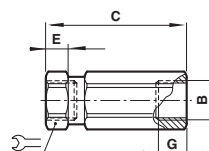
Technical Data

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

Operating pressure:
0,1 ... 10 bar

Ambient temperature:
-20°C ... +80°C

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



Models

BSPP	Port size	Flow factor C*	CV
T55C1800	1/8	2,4	0,59
T55C2800	1/4	5,5	1,35
T55C3800	3/8	9,0	2,20
T55C4800	1/2	15,0	3,70

* Measured in dm³/(s.bar).

Dimensions

Model	B	C	E	G	⌀
T55C1800	G1/8	42,5	7	7	14
T55C2800	G1/4	54	8	10	17
T55C3800	G3/8	63	9	13,5	24
T55C4800	G1/2	77	12	13,5	27

SHUTTLE VALVE

T65 G1/8 & G1/4

- Allow two independent signal sources to be connected to a common pilot line
- Can be used to perform an 'OR' logic function
- Can be combined to operate from three or more sources
- Valves can be ganged together

Technical Data

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

Operation:
Shuttle valve ('OR' logic function)

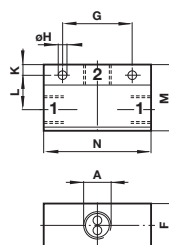
Operating pressure:
0,7 ... 10 bar

Port size:
G1/8, G1/4

Mounting:
Line mounted

Ambient temperature:
-20°C ... +80°C max.

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



Models

Model	A	F	Ø H	K	L	M	N
T65C1800	G1/8	15	5,25	6	10	25	36
T65C2800	G1/4	20	5,25	8	12	30	50

Dimensions





Model	Port size	Flow factor C*1)	Cv	Flow at 6 - 1 bar (dm ³ /min)
T65C1800	G1/8	1,7	0,42	412
T65C2800	G1/4	2,6	0,64	631

*1) Measured in dm³/(s.bar).





SOLENOID PLUGS AND CABLES

15 mm, 22 mm & 30 mm





● 15 mm plugs according to DIN EN175301-803 form C

Connector	Model	Connector type	Cable length	Voltage a.c.	d.c.	Features	Suppression	Protection class	Gland size	Power consumption
Plug with moulded cable 	V10013-D01	DIN EN175301-803	1000 mm	—	—	—	—	IP 65	Pg 7	—
	V10013-D03	DIN EN175301-803	3000 mm	—	—	—	—	IP 65	Pg 7	—
Plug with cable gland 	V10027-D00	DIN EN175301-803	—	—	—	—	—	IP 65	Pg 7	—
Indicator plug 	V10012-D13	DIN EN175301-803	—	12 ... 24 V	12 ... 24 V	LED,VDR	•	IP 65	Pg 7	0,25W
	V10012-D18	DIN EN175301-803	—	110 V	110 V	LED,VDR	•	IP 65	Pg 7	0,25W
	V10012-D19	DIN EN175301-803	—	220 V	220 V	LED,VDR	•	IP 65	Pg 7	0,25W
Indicator plug with moulded cable 	V10014-D03	DIN EN175301-803	3000 mm	24 V	24 V	LED,VDR	•	IP 65	Pg 7	0,25W
	V10015-D03	DIN EN175301-803	3000 mm	110 V	110 V	LED,VDR	•	IP 65	Pg 7	0,25W
	V10016-D03	DIN EN175301-803	3000 mm	220 V	220 V	LED,VDR	•	IP 65	Pg 7	0,25W

● 22 mm plugs according to Industrial standard or DIN EN175301-803 form B

Connector	Model	Connector type	Cable length	Voltage a.c.	d.c.	Features	Suppression	Protection class	Gland size	Power consumption
Plug with moulded cable 	M/P43313/1	22 mm Industrial std.	1000 mm	—	—	—	—	IP 65	Pg 9	—
	M/P43313/3	22 mm Industrial std.	3000 mm	—	—	—	—	IP 65	Pg 9	—
Plug with cable gland 	M/P19063	22 mm Industrial std.	—	—	—	—	—	IP 65	Pg 9	—
Indicator plug 	M/P24121/1	22 mm Industrial std.	—	12 ... 24 V	12 ... 24 V	LED,VDR	•	IP 65	Pg 9	0,25W
	M/P24121/2	22 mm Industrial std.	—	110 V	110 V	LED,VDR	•	IP 65	Pg 9	0,25W
	M/P24121/3	22 mm Industrial std.	—	220 V	220 V	LED,VDR	•	IP 65	Pg 9	0,25W
Indicator plug with moulded cable 	M/P43314/13	22 mm Industrial std.	3000 mm	24 V	24 V	LED,VDR	•	IP 65	Pg 9	0,25W
	M/P43314/23	22 mm Industrial std.	3000 mm	110 V	110 V	LED,VDR	•	IP 65	Pg 9	0,25W
	M/P43314/33	22 mm Industrial std.	3000 mm	220 V	220 V	LED,VDR	•	IP 65	Pg 9	0,25W

● 30 mm plugs according to DIN EN175301-803 form A

Connector	Model	Connector type	Cable length	Voltage a.c.	d.c.	Features	Suppression	Protection class	Gland size	Power consumption
Plug with moulded cable 	M/P43315/1	DIN EN175301-803	1000 mm	—	—	—	—	IP 65	Pg 11	—
	M/P43315/3	DIN EN175301-803	3000 mm	—	—	—	—	IP 65	Pg 11	—
Plug with cable gland 	M/P15737	DIN EN175301-803	—	250 V	300 V	—	—	IP 65	Pg 11	—
	M/P19117	DIN EN175301-803	—	—	240 V	—	—	IP 65	Pg 11	—
	0570275000000000	DIN EN175301-803	—	250 V	300 V	—	—	IP 65	Pg 11	—
	0663303000000000	DIN EN175301-803	—	12 ... 250 V	12 ... 250 V	—	—	IP 65	Pg 11	—
	0570110000000000	DIN EN175301-803	—	12 ... 240 V	12 ... 240 V	—	—	IP 65	Pg 11	—
Indicator plug 	M/P24120/1	DIN EN175301-803	—	10 ... 50 V	10 ... 50 V	LED,VDR	•	IP 65	Pg 11	0,25W
	M/P24120/2	DIN EN175301-803	—	70 ... 115 V	70 ... 115 V	LED,VDR	•	IP 65	Pg 11	0,25W
	M/P24120/3	DIN EN175301-803	—	150 ... 240 V	150 ... 240 V	LED,VDR	•	IP 65	Pg 11	0,25W
Indicator plug with moulded cable 	M/P43316/13	DIN EN175301-803	3000 mm	24 V	24 V	LED,VDR	•	IP 65	Pg 11	0,25W
	M/P43316/23	DIN EN175301-803	3000 mm	110 V	110 V	LED,VDR	•	IP 65	Pg 11	0,25W
	M/P43316/33	DIN EN175301-803	3000 mm	220 V	220 V	LED,VDR	•	IP 65	Pg 11	0,25W