

# Valves

Norgren Express stocks a wide range of valves for your rapid replacement needs. Included in this section are solenoid valves, namur valves, proportional valves, process valves and mechanical valves. Ex-stock brands include Norgren plus other Norgren owned brands, Herion and Buschjost. We also offer the VM10 Valve island which can be configured to your bespoke requirements and despatched with a very rapid turnaround time. For expert advice and guidance on valve products call the Express team or follow the links on the product pages in this section for detailed technical data.



# Fast Find Guide

## VALVE ISLANDS

**VM10/VM15**  
2 x 3/2, 5/2 & 5/3  
10 mm & 15 mm



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**VS18/VS26**  
2 x 2/2, 2 x 3/2, 5/2 &  
5/3 valves, ISO 15407-2  
18 mm & 26 mm



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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



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



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**ISO★STAR**  
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## IN-LINE AND MANIFOLD VALVES

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G1/8... G1/2



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## SAFETY VALVES

**Two-hand control unit**  
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**XSz Press safety valves**  
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# Fast Find Guide

## PROPORTIONAL VALVES



## PROCESS INDUSTRY/NAMUR VALVES



## FLOW CONTROL VALVES



## OTHER VALVES



# Fast Find Guide

## ADDITIONAL RANGES

**T50 Non-return valves**  
Ø 4... 12mm PIF



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**T65 Shuttle valves**  
G1/8 & G1/4



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**S/636, M/637  
Precision flow  
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G1/8... G1/2



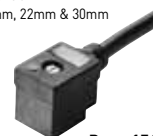
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**S/520 Non-return  
valves**  
G1/8... G1/2



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



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## CLASSIC PRODUCTS

**Martonair S/666**  
G1/8



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**Martonair S/1340**  
G1/4



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**Martonair M/1700**  
G1/4, G1/2



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**Martonair M/21**  
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**Martonair M/1553**  
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**Enots Super X**  
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**Martonair M/20000**  
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**Herion 26360, 80207**  
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**Herion 26230**  
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**Herion 26220**  
4/2, G1/8, G1/4



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# NORGREN – a name built on success

Norgren may have a reputation that extends across the world, but there's more to the company than just a name. In fact, it's built on many names – such as Martonair, Enots, Herion, Buschjost, Webber, Lintra, Excelon, Olympian, Pneufit, Fleetfit and more. They're all brands which are known for their exceptional quality, performance and reliability.

They're also all available from Norgren Express, the perfect single-source for a full range of products from these famous brands – plus, of course, thousands of products bearing the Norgren brand itself.

If you're looking for fast and easy access to high-quality, high-reliability pneumatic and fluid control solutions, you'll find it in Norgren Express.



## NORGREN – the home of established brands



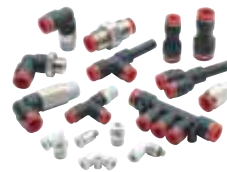
### ACTUATORS

Norgren, Martonair, Lintra, Enots



### VALVES

Norgren, Herion, Watson Smith, Webber, Buschjost, KIP, Kloehn, FAS, Walter Pneumatik, Martonair



### FITTINGS

Norgren, Pneufit, Enots, Fleetfit, PosiClik



### AIRLINE

Norgren, Olympian, Excelon, Puraire, Ultraire

Call the Express Team today  
or visit [norgren.com](http://norgren.com)



When you need it fast.

# VALVE ISLANDS VM10 & VM15 Series

10 & 15 mm valve slices 2 x 3/2, 5/2 and 5/3 with integral push-in fittings  
 Ø 3 mm, 4 mm, 6 mm, 8 mm, 10 mm

Fieldbus, multipole or individually wired for installation flexibility

High flow from 10 mm (VM10) and 15 mm (VM15) valve width

Long life up to 100 million cycles

Up to 32 solenoids (16 valves) in one valve island

Compact and lightweight

Integral push in fittings



CANopen  
DeviceNet

## TECHNICAL DATA

### Medium:

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

### Operation:

Spool valve indirectly actuated

### Operating pressure:

Maximum 8 bar

### Flow:

VM10 430 l/min

VM15 1000 l/min

### Voltage:

24 V d.c., 12 V d.c. (optional)

### Ambient temperature:

-5°C ... +50°C

Consult our Technical Service for use below +2°C

### Degree of protection:

Individually wired IP40

Multipole and fieldbus IP65

## FEATURES

- 1 Engineered polymer provides increased strength and weight reduction
  - 2 Up to 32 solenoids enabling a reduction in the number of valve islands required
  - 3 Single screw and hinge locking mechanism for securing each valve to the next facilitates simple valve addition and exchange (no tie rods)
  - 4 Integral push-in fittings reduce installation time, valve island size, component count and eliminate potential leak paths
  - 5 Wide range of accessories
  - 6 Through hole mounting enable valve islands to be directly mounted
- > 430 l/min from a 10 mm body width and 1000 l/min from a 15 mm body width provides maximum flow to size ratio
  - > Balanced spool design enables the valves to be used with both pressure and vacuum
  - > Proven spool and seal pack design ensures a high life of up to 100 million cycles
  - > Pneumapole sub-base allows quick disconnect of valve island whilst leaving all tubing in place

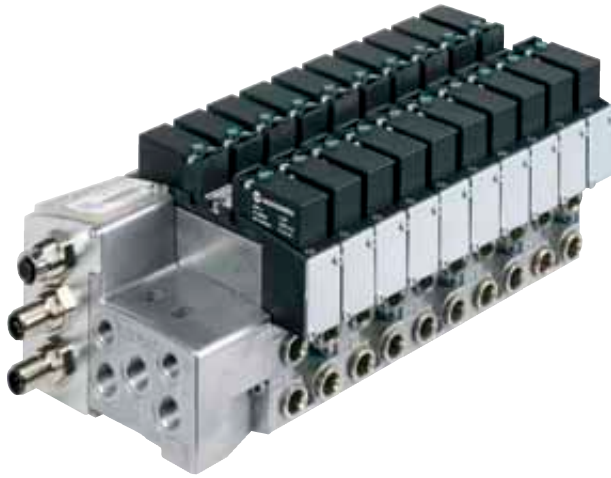
## EXPRESS PLUS

To configure your own valve island please visit [vi.norgren.com](http://vi.norgren.com)



# PLUG-IN MINI ISO VALVE ISLANDS VS18 & VS26 Series

2 x 2/2, 2 x 3/2, 5/2 and 5/3 valves, ISO 15407-2 – Sizes 18 mm and 26 mm



CANopen  
DeviceNet



## EXPRESS PLUS

To configure your own valve island please visit [vi.norgren.com](http://vi.norgren.com)

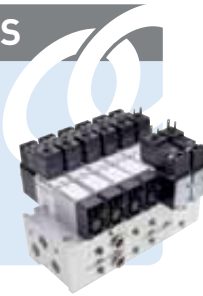


## EXPRESS LINKS

### If you require...

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

See Pages 90 & 94



Multipole or integrated fieldbus for installation flexibility

Field expandable with single add-on stations

Dual spool technology:

– Glandless spool and sleeve for long life

– Softseal spool for high flow

Wide range of accessories

UL and ATEX

Universal PNP/NPN 24 V d.c. Multipole

## TECHNICAL DATA

### Medium:

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

### Operation:

Spool valve indirectly actuated

### Operating pressure:

Glandless – maximum 16 bar

Softseal – maximum 10 bar

### Flow:

VS18 650 l/min

VS26 1350 l/min

### Voltage:

24 V d.c., 115 V a.c.

### Ambient temperature:

–15°C ... +50°C

Consult our Technical Service for use below +2°C

### Degree of protection:

Multipole and fieldbus IP65

## Spare Valves

VS18 – 24 V d.c., INTERNAL PILOT, PUSH ONLY MO			
Model	Function	Actuation	Spool type
VS18SE11DF313A	2x 2/2 NC	Sol/Spring	Softseal
VS18SF11DF313A	2x 2/2 NO	Sol/Spring	Softseal
VS18SG11DF313A	2x 2/2 NO/NC	Sol/Spring	Softseal
VS18SA11DF313A	2x 3/2 NC	Sol/Spring	Softseal
VS18SB11DF313A	2x 3/2 NO	Sol/Spring	Softseal
VS18SC11DF313A	2x 3/2 NO/NC	Sol/Spring	Softseal
VS18S511DF313A	5/2	Sol/Sol	Softseal
VS18S517DF313A	5/2	Sol/Spring	Softseal
VS18S611DF313A	5/3 APB	Sol/Sol	Softseal
VS18S711DF313A	5/3 COE	Sol/Sol	Softseal

## Spare Valves

VS26 – 24 V d.c., INTERNAL PILOT, PUSH ONLY MO			
Model	Function	Actuation	Spool type
VS26SE11DF313A	2x 2/2 NC	Sol/Spring	Softseal
VS26SF11DF313A	2x 2/2 NO	Sol/Spring	Softseal
VS26SG11DF313A	2x 2/2 NO/NC	Sol/Spring	Softseal
VS26SA11DF313A	2x 3/2 NC	Sol/Spring	Softseal
VS26SB11DF313A	2x 3/2 NO	Sol/Spring	Softseal
VS26SC11DF313A	2x 3/2 NO/NC	Sol/Spring	Softseal
VS26S511DF313A	5/2	Sol/Sol	Softseal
VS26S517DF313A	5/2	Sol/Spring	Softseal
VS26S611DF313A	5/3 APB	Sol/Sol	Softseal
VS26S711DF313A	5/3 COE	Sol/Sol	Softseal

## Island Expansion Kits

VS18 – INCLUDES SINGLE STATION SUB-BASE, PCB, GASKET & SCREWS	
Model	Ports 2 & 4
VS1872004-6FF0	6 mm PIF
VS1872004-8FF0	8 mm PIF
VS1872004-AFF0	G 1/8

## Island Expansion Kits

VS26 – INCLUDES SINGLE STATION SUB-BASE, PCB, GASKET & SCREWS	
Model	Ports 2 & 4
VS2672504-8GF0	8 mm PIF
VS2672504-YGF0	10 mm PIF
VS2672504-BGF0	G 1/4

Glandless spool valves also available, please contact your Express Team

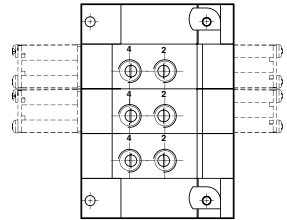
# MINI ISO VALVES V40/V41 Series

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

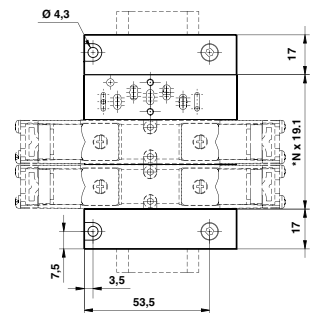
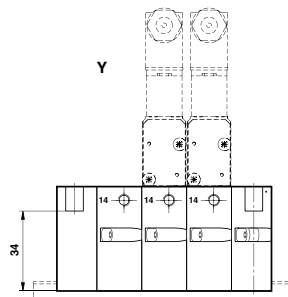
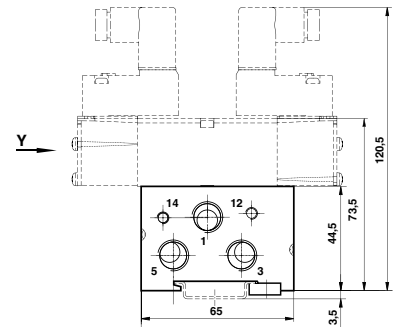
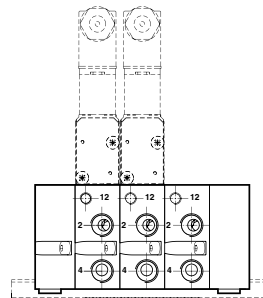
- High performance, compact design
- Flexible sub-base system
- Multipressure system capability
- Wide range of accessories
- Dual spool technology
  - V40 Glandless spool and sleeve (long life)
  - V41 Softseal spool (high flow)
- Easy to convert from internal to external pilot supply
- Valve exchange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



Bottom ported



Side ported



## TECHNICAL DATA

### Medium:

Compressed air, 40 µm filtered, 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

### Operating pressure:

Maximum 16 bar, see tables for individual details

### Flow:

570-680 l/min

### Ambient temperature:

–15°C to +50°C V40/V41 solenoid & V41 air pilot models

–15°C to +80°C V40 air pilot models

Consult our Technical Service for use below +2°C

## Models – Softseal Spool (V41 Series)

### 2 X 3/2 VALVES – SOLENOID ACTUATED VALVES INTERNAL PILOT SUPPLY

Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)
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V415A11D-C313A	Sol/Spring NC	18 mm	610	2,5 ... 10
V415B11D-C313A	Sol/Spring NO	18 mm	610	2,5 ... 10
V415C11D-C313A	Sol/Spring NO/NC	18 mm	610	2,5 ... 10

## Accessories

### Basic plug



V10027-D00
V10027-D00
V10027-D00

### 5/2 VALVES – SOLENOID ACTUATED VALVES INTERNAL PILOT SUPPLY

Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)
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V415513D-C313A	Sol/Air spring	18 mm	650	1 ... 10
V415517D-C313A	Sol/Spring	18 mm	650	2 ... 10
V415511D-C313A	Sol/Sol	18 mm	650	2 ... 10

### Basic plug



V10027-D00
V10027-D00
V10027-D00






## MINI ISO VALVES V40/V41 Series


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


### Models – Softseal Spool (V41 Series)

### Accessories

5/3 VALVES – SOLENOID ACTUATED VALVES INTERNAL PILOT SUPPLY					Basic plug
24 DC Push only M/O Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)	
					
V415611D-C313A	Sol/Sol APB	18 mm	680	2 ... 10	V10027-D00
V415711D-C313A	Sol/Sol COE	18 mm	680	2,5 ... 10	V10027-D00
V415811D-C313A	Sol/Sol COP	18 mm	680	2 ... 10	V10027-D00

2 X 3/2 VALVES – PILOT ACTUATED VALVES				
Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)
				
V415A33A-X0020	Air/Spring NC	18 mm	610	0 ... 10
V415B33A-X0020	Air/Spring NO	18 mm	610	0 ... 10
V415C33A-X0020	Air/Spring NO/NC	18 mm	610	0 ... 10

5/2 VALVES – PILOT ACTUATED VALVES				
Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)
				
V415537A-X0090	Air/Spring	18 mm	650	-0,9 ... 10
V415533A-X0090	Air/Air	18 mm	650	-0,9 ... 10

5/3 VALVES – PILOT ACTUATED VALVES				
Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)
				
V415633A-X0020	Air/Air APB	18 mm	680	-0,9 ... 10
V415733A-X0020	Air/Air COE	18 mm	680	-0,9 ... 10
V415833A-X0020	Air/Air COP	18 mm	680	-0,9 ... 10

APB – All Ports Blocked, COE – Centre Open Exhaust, COP – Centre Open Pressure

### EXPRESS PLUS

#### Looking for long life valves?

Then select a glandless version which can increase life up to four times.  
Please see page 92

### EXPRESS LINKS

#### Connectors and cables

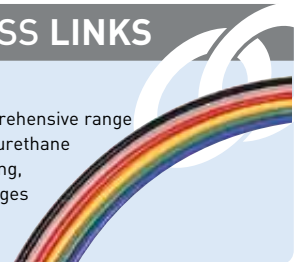
For a full selection of 15 mm DIN EN175301-803 Form C plugs and cables please see page 151



### EXPRESS LINKS

#### Tubing...

For our comprehensive range of nylon, polyurethane and weld tubing, please see pages 267 to 269







## MINI ISO VALVES V40/V41 Series

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


### Models – Glandless Spool (V40 Series)

### Accessories

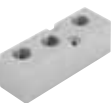





5/2 VALVES – SOLENOID ACTUATED VALVES INTERNAL PILOT SUPPLY 24 DC Push only M/O						Basic plug
Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)		
						
V405513D-C313A	Sol/Air spring	18 mm	570	1 ... 10	V10027-D00	
V405516D-C313A	Sol/Spring	18 mm	570	1,6 ... 10	V10027-D00	
V405511D-C313A	Sol/Sol	18 mm	570	2 ... 10	V10027-D00	







5/3 VALVES – SOLENOID ACTUATED VALVES INTERNAL PILOT SUPPLY 24 DC Push only M/O						Basic plug
Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)		
						
V405611D-C313A	Sol/Sol APB	18 mm	610	2 ... 10	V10027-D00	
V405711D-C313A	Sol/Sol COE	18 mm	610	2 ... 10	V10027-D00	
V405811D-C313A	Sol/Sol COP	18 mm	610	2 ... 10	V10027-D00	

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure

5/2 VALVES – PILOT ACTUATED VALVES					
Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)	
					
V405537A-X0090	Air/Spring	18 mm	570	-0,9 ... 16	
V405533A-X0020	Air/Air	18 mm	570	-0,9 ... 16	
V405533A-X0070	Air/Air priority 14	18 mm	570	-0,9 ... 16	

### BASES AND ACCESSORIES

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





DIN EN 50 022 rail (1 metre)	DIN-rail mounting kit	Blanking plate for unused station	Blanking disk to modular sub-base	Manual override set-up kit	Transition plate #18 mm to #26 mm
					
V10009-C00 (35 x 7,5 mm)	V70531-KA0	V70400-K50	V70422-K50 (Ports 1,3,5) V70423-K50 (Ports 12 + 14)	V70532-K00	V70436-K00

## MINI ISO VALVES V40/V41 Series





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


### BASES AND ACCESSORIES

#### Models


SINGLE STATION Model	Description	Straight fitting	Elbow fitting	Silencer	
	V70401-A5B	Single station side ported with pilot ports – G 1/8			
		C02250618	C02470618	T40C1800	


#### Models

MODULAR SUB-BASES AND END PLATES Model	Description	Straight fitting	Elbow fitting	Silencer	
	V70425-A5F	Modular sub-base side ported without pilot ports – G1/8			
	V70426-A5F	Modular sub-base side ported with pilot ports – G1/8	C02250618	C02470618	-
	V70425-65F	Modular sub-base side ported (PIF) without pilot ports – Ø6 mm	Included 6mm	-	-
	V70426-65F	Modular sub-base side ported (PIF) with pilot ports – Ø6 mm	Included 6mm	-	-
	V70425-A5E	Modular sub-base bottom ported without pilot ports – G1/8	C02250618	C02470618	-
	V70426-A5E	Modular sub-base bottom ported with side pilot ports – G1/8	C02250618	C02470618	-

	V70432-A5F	Double modular sub-base side ported without pilot ports – G1/8	C02250618	C02470618	-
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	V70424-B5C	End plate kit. End ported – G1/4	C02250828	C02470828	T40C2800
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	V70431-A5F	End plate kit with 2 side ported valve stations without pilot ports – G1/4, G1/8	C02250618 [2 & 4] C02250828 [1, 3 & 5]	C02470618 [2 & 4] C02470828 [1, 3 & 5]	T40C2800 -
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	V70402-A50	2 Station fixed length manifold. Bottom ported – G1/8	C02250618	C02470618	T40C2800
	V70404-A50	4 Station fixed length manifold. Bottom ported – G1/8	C02250618	C02470618	T40C2800
	V70406-A50	6 Station fixed length manifold. Bottom ported – G1/8	C02250618	C02470618	T40C2800
	V70408-A50	8 Station fixed length manifold. Bottom ported – G1/8	C02250618	C02470618	T40C2800
	V70410-A50	10 Station fixed length manifold. Bottom ported – G1/8	C02250618	C02470618	T40C2800

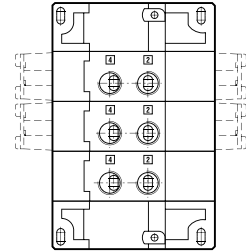
# MINI ISO VALVES V44/V45 Series

2 x 3/2, 5/2 and 5/3 Valves – Solenoid and pilot actuated – ISO 15407-1/VDMA 24 563 – Size 26 mm

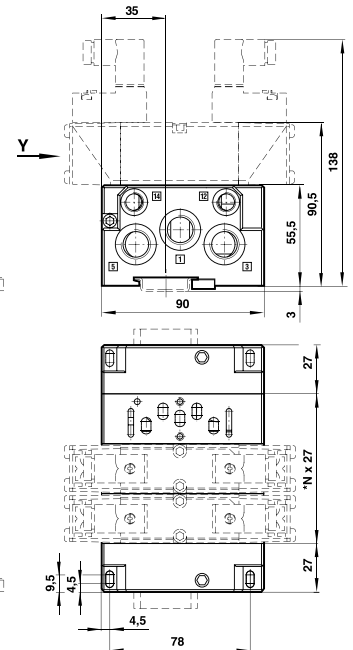
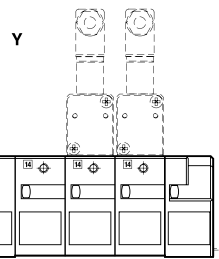
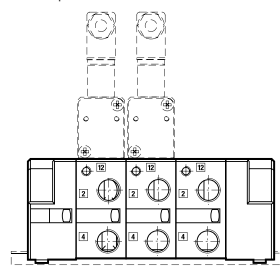
- High performance, compact design
- Flexible sub-base system
- Multipressure system capability
- Wide range of accessories
- Dual spool technology
- V44 Glandless spool and sleeve (long life)
- V45 Softseal spool (high flow)
- Easy to convert from internal to external pilot supply
- Valve exchange under pressure



Bottom ported



Side ported



## TECHNICAL DATA

### Medium:

Compressed air, 40 µm filtered, 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

### Operating pressure:

Maximum 16 bar, see table for individual details

### Flow:

900-1200 l/min

### Ambient temperature:

-15°C to +50°C V44/V45 solenoid and V45 air pilot models

-15°C to +80°C V44 air pilot models

Consult our Technical Service for use below +2°C

## Models – Softseal Spool (V45 Series)

2 X 3/2 VALVES – SOLENOID ACTUATED VALVES INTERNAL PILOT SUPPLY						Basic plug
24 DC Push only M/O Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)		



V45AA11D-C313A	Sol/Spring NC	26 mm	1100	3...10	V10027-D00
V45AB11D-C313A	Sol/Spring NO	26 mm	1100	3...10	V10027-D00
V45AC11D-C313A	Sol/Spring NO/NC	26 mm	1000/1100	3...10	V10027-D00

5/2 VALVES – SOLENOID ACTUATED VALVES INTERNAL PILOT SUPPLY						Basic plug
24 DC Push only M/O Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)		





V45A517D-C313A	Sol/Spring	26 mm	1200	2...10	V10027-D00
V45A511D-C313A	Sol/Sol	26 mm	1200	2...10	V10027-D00


## MINI ISO VALVES V44/V45 Series


2 x 3/2, 5/2 and 5/3 Valves – Solenoid and pilot actuated – ISO 15407-1/VDMA 24 563 – Size 26 mm


### Models – Softseal Spool (V45 Series)

### Accessories

5/3 VALVES – SOLENOID ACTUATED VALVES INTERNAL PILOT SUPPLY						Basic plug
24 DC Push only M/O Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)		
						
V45A611D-C313A	Sol/Sol APB	26 mm	1150	2,5...10		V10027-D00
V45A711D-C313A	Sol/Sol COE	26 mm	1150	2,5...10		V10027-D00
V45A811D-C313A	Sol/Sol COP	26 mm	1150	2,5...10		V10027-D00

2 X 3/2 VALVES – PILOT ACTUATED VALVES					
Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)	
					
V45AA33A-X0020	Air/Spring NC	26 mm	1100	0...10	
V45AB33A-X0020	Air/Spring NO	26 mm	1100	0...10	
V45AC33A-X0020	Air/Spring NO/NC	26 mm	1000/1100	0...10	

5/2 VALVES – PILOT ACTUATED VALVES					
Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)	
					
V45A537A-X0090	Air/Spring	26 mm	1200	-0,9...10	
V45A533A-X0020	Air/Air	26 mm	1200	-0,9...10	

5/3 VALVES – PILOT ACTUATED VALVES					
Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)	
					
V45A633A-X0020	Air/Air APB	26 mm	1150	-0,9...10	
V45A733A-X0020	Air/Air COE	26 mm	1150	-0,9...10	
V45A833A-X0020	Air/Air COP	26 mm	1150	-0,9...10	

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure

### EXPRESS PLUS

#### Looking for long life valves?

Then select a glandless version which can increase life up to four times.  
Please see page 96

### EXPRESS LINKS

#### Connectors and cables

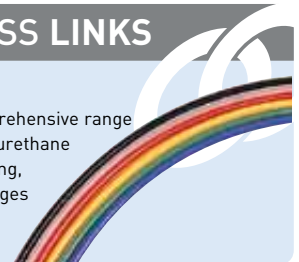
For a full selection of 15 mm DIN EN175301-803 Form C plugs and cables please see page 151



### EXPRESS LINKS

#### Tubing...

For our comprehensive range of nylon, polyurethane and weld tubing, please see pages 267 to 269







## MINI ISO VALVES V44/V45 Series

2 x 3/2, 5/2 and 5/3 Valves – Solenoid and pilot actuated – ISO 15407-1/VDMA 24 563 – Size 26 mm


### Models – Glandless Spool (V44 Series)

### Accessories







5/2 VALVES – SOLENOID ACTUATED VALVES INTERNAL PILOT SUPPLY						Basic plug
24 DC Push only M/O Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)		
						
V44A513D-C313A	Sol/Air spring	26 mm	900	1...10		V10027-D00
V44A517D-C313A	Sol/Spring	26 mm	900	1,6...10		V10027-D00
V44A511D-C313A	Sol/Sol	26 mm	900	2...10		V10027-D00







5/3 VALVES – SOLENOID ACTUATED VALVES INTERNAL PILOT SUPPLY						Basic plug
24 DC Push only M/O Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)		
						
V44A611D-C313A	Sol/Sol APB	26 mm	900	2...10		V10027-D00
V44A711D-C313A	Sol/Sol AC0E	26 mm	900	2,5...10		V10027-D00
V44A811D-C313A	Sol/Sol ACOP	26 mm	900	2...10		V10027-D00

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure

5/2 VALVES – PILOT ACTUATED VALVES					
Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)	
					
V44A537A-X0090	Air/Spring	26 mm	900	-0,9...16	
V44A533A-X0020	Air/Air	26 mm	900	0,9...16	

### BASES AND ACCESSORIES

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





DIN EN 50 022 rail (1 metre)	DIN-rail mounting kit	Blanking plate for unused station	Blanking disk to modular sub-base	Manual override set-up kit	Transition plate #18 mm to #26 mm
					
V10009-C00 (35 x 7,5 mm)	V70531-KA0	V70500-KA0	V70522-K00 (Ports 1,3,5) V70523-K00 (Ports 12+14)	V70532-K00	V70436-K00

## MINI ISO VALVES V44/V45 Series

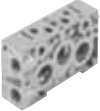



2 x 3/2, 5/2 and 5/3 Valves – Solenoid and pilot actuated – ISO 15407-1/VDMA 24 563 – Size 26 mm

### BASES AND ACCESSORIES


#### Models

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-BAF	Modular sub-base side ported without pilot ports – G1/4	C02250828	C02470828	-
V70526-BAF	Modular sub-base side ported with pilot ports – G1/4	C02250828	C02470828	-
V70525-8AF	Modular sub-base side ported (PIF) without pilot ports – Ø8 mm	Included 8mm	-	-
V70526-8AF	Modular sub-base side ported (PIF) with pilot ports – Ø8 mm	Included 8mm	-	-
V70525-BAE	Modular sub-base bottom ported without pilot ports – G1/4	C02250828	C02470828	-
V70526-BAE	Modular sub-base bottom ported with side pilot ports – G1/4	C02250828	C02470828	-

				
V70524-CAC	End plate kit, End ported – G3/8	C02251038	C02471038	T40C3800

				
V70502-BA0	2 Station fixed length manifold. Bottom ported – G1/4	C02250828	C02470828	T40C3800
V70504-BA0	4 Station fixed length manifold. Bottom ported – G1/4	C02250828	C02470828	T40C3800
V70506-BA0	6 Station fixed length manifold. Bottom ported – G1/4	C02250828	C02470828	T40C3800
V70508-BA0	8 Station fixed length manifold. Bottom ported – G1/4	C02250828	C02470828	T40C3800
V70510-BA0	10 Station fixed length manifold. Bottom ported – G1/4	C02250828	C02470828	T40C3800

#### EXPRESS LINKS

##### Exhaust air...

Can be noisy and dangerous to ears, always fit a silencer.

Please see page 275



#### EXPRESS LINKS

##### Connectors and cables

For a full selection of 15 mm DIN EN175301-803 Form C plugs and cables please see page 151



# ISO★STAR Solenoid and pilot actuated spool valves

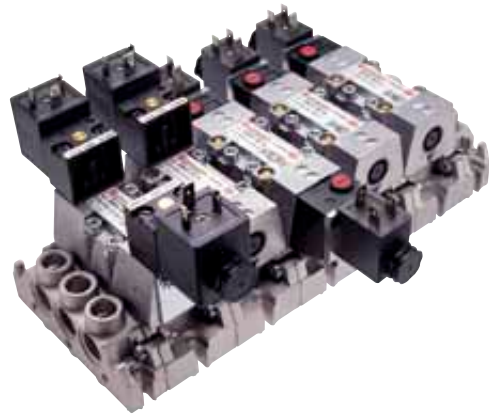
Sub-base 5/2 and 5/3, ISO #1 to ISO #3

Specially coated glandless spool and sleeve for extremely long life

Available with integral flow regulators on ISO #1 and #2 sizes

Low power solenoids and manual override as standard

Wide range of sub-bases and accessories



## TECHNICAL DATA

### Medium:

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

### Operation:

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:

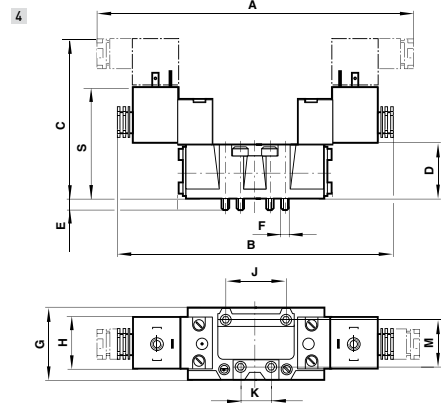
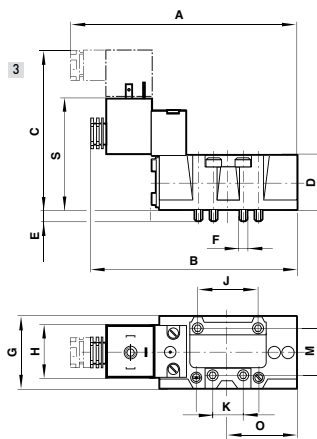
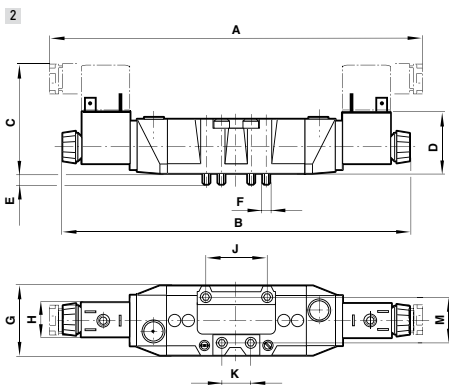
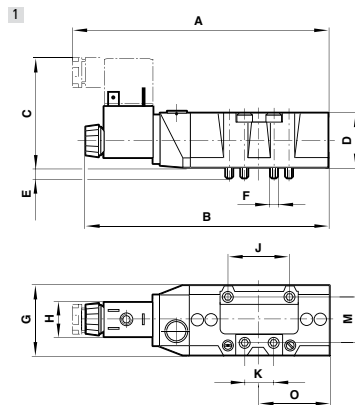
-15°C to +50°C solenoid models, -15°C to +80°C pilot models

Consult our Technical Service for use below +2°C

## EXPRESS LINKS

### For ISO #4 Valves...

Please see UM/22000 range  
See Page 101



## Dimensions

Model	ISO size	A	B	C	D	E	F	G	H	J	K	M	O	Drawing No.
SXE 9573-A...	1	153	144	65	33	7,5	M5	42	22	36	18	28	42	1
SXE 9574-A...	2	181	173	71	42	8	M6	55	22	48	24	38	53	1
SXE 9575-A...	3	207,5	197	72	43	11,5	M8	62,5	22	64	32	48	65,5	1

Model	ISO size	A	B	C	D	E	F	G	H	J	K	M	Drawing No.
SXE 0573-A...	1	222	204	65	33	7,5	M5	42	22	36	18	28	2
SXE 9*73-A...													
SXE 0574-A...	2	255	239	71	42	8	M6	55	22	48	24	38	2
SXE 9*74-A...													
SXE 0575-A...	3	284	263	72	43	11,5	M8	62,5	22	64	32	48	2
SXE 9*75-A...													

Model	ISO size	A	B	C	D	E	F	G	H	J	K	M	O	Drawing No.
SXE 9573-Z...	1	137,5	128	99,5	33	7,5	M5	42	30	36	18	28	42	3
SXE 9574-Z...	2	157	147	107	42	8	M6	55	30	48	24	38	53	3
SXE 9575-Z...	3	181	171	108,5	43	11,5	M8	62,5	30	64	32	48	65,5	3

Model	ISO size	A	B	C	D	E	F	G	H	J	K	M	Drawing No.
SXE 0573-Z...	1	191	171,5	99,5	33	7,5	M5	42	30	36	18	28	4
SXE 9*73-Z...													
SXE 0574-Z...	2	208	189	107	42	8	M6	55	30	48	24	38	4
SXE 9*74-Z...													
SXE 0575-Z...	3	181	171	108,5	43	11,5	M8	62,5	30	64	32	48	4
SXE 9*75-Z...													



## ISO★STAR Solenoid and pilot actuated spool valves

Sub-base 5/2 and 5/3, ISO #1 to ISO #3

### Models – 22mm Coil, Industrial Standard

### Accessories

5/2 VALVES – SOLENOID ACTUATED, INTERNAL PILOT SUPPLY							Basic plug
24 DC Push lockable M/O Model	220 AC Push lockable M/O Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)	Drawing No.	



SXE9573-A81-00/13J	SXE9573-A81-00/19J	Sol/Spring	ISO 1	1230	1.8..10	1	M/P19063
SXE9574-A81-00/13J	SXE9574-A81-00/19J	Sol/Spring	ISO 2	2450	1.8..10	1	M/P19063
SXE9575-A71-00/13J	SXE9575-A71-00/19J	Sol/Spring	ISO 3	4400	1.8..10	1	M/P19063
SXE9573-A80-00/13J	SXE9573-A80-00/19J	Sol/Air spring	ISO 1	1230	1..10	1	M/P19063
SXE9574-A80-00/13J	SXE9574-A80-00/19J	Sol/Air spring	ISO 2	2450	1..10	1	M/P19063
SXE9575-A70-00/13J	SXE9575-A70-00/19J	Sol/Air spring	ISO 3	4400	1..10	1	M/P19063
SXE0573-A60-00/13J	SXE0573-A60-00/19J	Sol/Sol	ISO 1	1230	2..10	2	M/P19063
SXE0574-A60-00/13J	SXE0574-A60-00/19J	Sol/Sol	ISO 2	2450	2..10	2	M/P19063
SXE0575-A50-00/13J	SXE0575-A50-00/19J	Sol/Sol	ISO 3	4400	2..10	2	M/P19063

5/3 VALVES – SOLENOID ACTUATED, INTERNAL PILOT SUPPLY							Basic plug
24 DC Push lockable M/O Model	220 AC Push lockable M/O Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)	Drawing No.	



SXE9673-A60-00/13J	SXE9673-A60-00/19J	Sol/Sol APB	ISO 1	1230	2..10	2	M/P19063
SXE9674-A60-00/13J	SXE9674-A60-00/19J	Sol/Sol APB	ISO 2	2450	2..10	2	M/P19063
SXE9675-A50-00/13J	SXE9675-A50-00/19J	Sol/Sol APB	ISO 3	4400	2..10	2	M/P19063
SXE9773-A60-00/13J	SXE9773-A60-00/19J	Sol/Sol COE	ISO 1	1230	2..10	2	M/P19063
SXE9774-A60-00/13J	SXE9774-A60-00/19J	Sol/Sol COE	ISO 2	2450	2..10	2	M/P19063
SXE9775-A50-00/13J	SXE9775-A50-00/19J	Sol/Sol COE	ISO 3	4400	2..10	2	M/P19063
SXE9873-A60-00/13J	SXE9873-A60-00/19J	Sol/Sol COP	ISO 1	1230	2..10	2	M/P19063
SXE9874-A60-00/13J	SXE9874-A60-00/19J	Sol/Sol COP	ISO 2	2450	2..10	2	M/P19063
SXE9875-A50-00/13J	SXE9875-A50-00/19J	Sol/Sol COP	ISO 3	4400	2..10	2	M/P19063

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.

Note: ISO 1 and 2 with integral flow regulators

### Models – 30mm Coil, CNOMO

5/2 VALVES – SOLENOID ACTUATED, INTERNAL PILOT SUPPLY							Basic plug
24 DC Push only M/O Model	220 AC Push only M/O Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)	Drawing No.	



SXE9573-Z71-81/33N	SXE9573-Z71-81/89N	Sol/Spring	ISO 1	1230	1.8..16	3	M/P15737
SXE9574-Z71-81/33N	SXE9574-Z71-81/89N	Sol/Spring	ISO 2	2450	1.8..16	3	M/P15737
SXE9575-Z71-81/33N	SXE9575-Z71-81/89N	Sol/Spring	ISO 3	4400	1.8..16	3	M/P15737
SXE9573-Z70-81/33N	SXE9573-Z70-81/89N	Sol/Air spring	ISO 1	1230	1..16	3	M/P15737
SXE9574-Z70-81/33N	SXE9574-Z70-81/89N	Sol/Air spring	ISO 2	2450	1..16	3	M/P15737
SXE9575-Z70-81/33N	SXE9575-Z70-81/89N	Sol/Air spring	ISO 3	4400	1..16	3	M/P15737
SXE0573-Z50-81/33N	SXE0573-Z50-81/89N	Sol/Sol	ISO 1	1230	2..16	4	M/P15737
SXE0574-Z50-81/33N	SXE0574-Z50-81/89N	Sol/Sol	ISO 2	2450	2..16	4	M/P15737
SXE0575-Z50-81/33N	SXE0575-Z50-81/89N	Sol/Sol	ISO 3	4400	2..16	4	M/P15737

Other models, voltages and manual override options available. Please call your Express Team.

# ISO★STAR Solenoid and pilot actuated spool valves

Sub-base 5/2 and 5/3, ISO #1 to ISO #3

## Models – 30mm Coil, CNOMO

## Accessories

5/3 VALVES – SOLENOID ACTUATED, INTERNAL PILOT SUPPLY							Drawing No.	Basic plug
24 DC Push only M/O Model	220 AC Push only M/O Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)			



SXE9673-Z50-81/33N	SXE9673-Z50-81/89N	Sol/Sol APB	ISO 1	1230	2..16	4	M/P15737
SXE9674-Z50-81/33N	SXE9674-Z50-81/89N	Sol/Sol APB	ISO 2	2450	2..16	4	M/P15737
SXE9675-Z50-81/33N	SXE9675-Z50-81/89N	Sol/Sol APB	ISO 3	4400	2..16	4	M/P15737
SXE9773-Z50-81/33N	SXE9773-Z50-81/89N	Sol/Sol COE	ISO 1	1230	2..16	4	M/P15737
SXE9774-Z50-81/33N	SXE9774-Z50-81/89N	Sol/Sol COE	ISO 2	2450	2..16	4	M/P15737
SXE9775-Z50-81/33N	SXE9775-Z50-81/89N	Sol/Sol COE	ISO 3	4400	2..16	4	M/P15737
SXE9873-Z50-81/33N	SXE9873-Z50-81/89N	Sol/Sol COP	ISO 1	1230	2..16	4	M/P15737
SXE9874-Z50-81/33N	SXE9874-Z50-81/89N	Sol/Sol COP	ISO 2	2450	2..16	4	M/P15737
SXE9875-Z50-81/33N	SXE9875-Z50-81/89N	Sol/Sol COP	ISO 3	4400	2..16	4	M/P15737

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.

## Voltage codes and spare coils for 10 bar models

Voltage	22 mm Coil with connector interface acc. to Industrial Standard			22 mm Coil with connector interface acc. to DIN 43 650, table B			30 mm Coil with connector interface acc. to DIN 43 650, table A		
	Model	Code	Power inrush/hold	Model	Code	Power inrush/hold	Model	Code	Power inrush/hold
24 V d.c.	QM/48/13J/21	13J	2 W	V10626-A13L	13L	2 W	V10633-A23N	23N	1,5 W
220/240 V a.c. 50/60 Hz	QM/48/19J/21	19J	9/5 VA	V10626-A19L	19L	9/5 VA	V10633-A29N	29N	3/2 VA

Other voltages available, please call your Express Team.

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

Voltage	30 mm Coil with connector interface acc. to DIN 43 650, table A		
	Model	Code	Power inrush/hold
24 V d.c.	V10633-A33N	33N	4 W
220/240 V a.c. 50/60 Hz	V10633-A89N	89N	10/8 VA

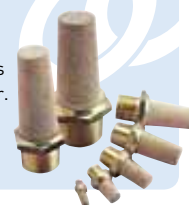
Other voltages available, please call your Express Team.

## EXPRESS LINKS

### Exhaust air...

Can be noisy and dangerous to ears, always fit a silencer.

Please see page 275



## Models – Air Pilot Actuated

5/2 VALVES Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)
------------------	-----------	------	--------------	--------------------------



SXP9573-180-00	Air/Spring	ISO 1	1230	-0,9..16
SXP9574-180-00	Air/Spring	ISO 2	2450	-0,9..16
SXP9575-170-00	Air/Spring	ISO 3	4400	-0,9..16
SXP0573-180-00	Air/Air	ISO 1	1230	-0,9..16
SXP0574-180-00	Air/Air	ISO 2	2450	-0,9..16
SXP0575-170-00	Air/Air	ISO 3	4400	-0,9..16

Note: ISO 1 and 2 with integral flow regulators.

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.

5/3 VALVES Model	Actuation	Size	Flow (l/min)	Operating pressure (bar)
------------------	-----------	------	--------------	--------------------------





SXP9673-180-00	Air/Air APB	ISO 1	1230	-0,9..16
SXP9674-180-00	Air/Air APB	ISO 2	2450	-0,9..16
SXP9675-170-00	Air/Air APB	ISO 3	4400	-0,9..16
SXP9773-180-00	Air/Air COE	ISO 1	1230	-0,9..16
SXP9774-180-00	Air/Air COE	ISO 2	2450	-0,9..16
SXP9775-170-00	Air/Air COE	ISO 3	4400	-0,9..16
SXP9873-180-00	Air/Air COP	ISO 1	1230	-0,9..16
SXP9874-180-00	Air/Air COP	ISO 2	2450	-0,9..16
SXP9875-170-00	Air/Air COP	ISO 3	4400	-0,9..16


## UM/22000 Solenoid and pilot actuated spool valves

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

### Models – UM/22000, ISO #4

### Accessories

SOLENOID ACTUATED VALVES		Actuation	Size	Flow (l/min)	Operating pressure (bar)	Basic plug
24 DC Push only M/O Model	220 AC Push only M/O Model					
						
UM/22456/172/61/13J	UM/22456/172/61/19J	5/2 Sol/Air Spring	ISO 4	5660	2,5..10	M/P19063
UM/22456/123/61/13J	UM/22456/123/61/19J	5/2 Sol/Sol	ISO 4	5660	2..10	M/P19063
UM/22456/6123/61/13J	UM/22456/6123/61/19J	5/3 Sol/Sol APB	ISO 4	5490	2,8..10	M/P19063

AIR PILOT ACTUATED VALVES		Actuation	Size	Flow (l/min)	Operating pressure (bar)
Model					
					
UM/22456/40		5/2 Air/Spring	ISO 4	5660	-0,9..16
UM/22456/3		5/2 Air/Air	ISO 4	5660	-0,9..16
UM/22456/63		5/3 Air/Air APB	ISO 4	5490	-0,9..16
UM/22466/63		5/3 Air/Air COE	ISO 4	5660	-0,9..16

APB = All Ports Blocked, COE = Centre Open Exhaust.





## ISO★STAR AND UM/22000 Pilot solenoid actuated spool valves

Sub-base 5/2 and 5/3, ISO #1 to ISO #4

### BASES AND ACCESSORIES

#### Models

#### Accessories







VDMA 24345 SUB-BASES		Size	Straight fitting	Elbow fitting	Silencer
Side ported Model					
					
M/P19126		ISO 1	C02250828	C02470828	T40C2800
M/P19132		ISO 2	C02251038	C02471038	T40C3800
M/P19138		ISO 3	C02251248	C02471248	T40C4800
M/P19144		ISO 4	-	-	T40C6800


# ISO★STAR AND UM/22000 Solenoid and pilot actuated spool valves

Sub-base 5/2 and 5/3, ISO #1 to ISO #4


## BASES AND ACCESSORIES


### Models

MANIFOLD Model	END PLATES Model	Size	Straight fitting	Elbow fitting	Silencer	Blanking disk	Plugs
							
CQM/22152/3/21		ISO 1	C02250828	C02470828	-	FP 8382	-
CQM/22253/3/21		ISO 2	C02251038	C02471038	-	FP 8482	-
CQM/22354/3/21		ISO 3	C02251248	C02471248	-	FP 8582	-
CQM/22456/3/21		ISO 4	-	-	-	-	-





	CQM/22152/3/22	ISO 1	C02251038	C02471038	T40C3800	-	160050038
	CQM/22253/3/22	ISO 2	C02251248	C02471248	T40C4800	-	160050048
	CQM/22354/3/22	ISO 3	-	-	T40C8800	-	160050088
	CQM/22456/3/22	ISO 4	-	-	T40C8800	-	160050088

### UNIVERSAL BASE OPTIONS

Modular base Side and bottom ported Model	End plate End ports open Model	Size	Straight fitting	Elbow fitting	Silencer	Blanking disk	Plugs
							
CQM/22152/3/27		ISO 1	C02250828	C02470828	-	M/P43173	-
CQM/22253/3/27		ISO 2	C02251038	C02471038	-	M/P43174	-

	CQM/22152/3/31	ISO 1	C02251038	C02471038	T40C3800	-	160050038
	CQM/22253/3/31	ISO 2	C02251248	C02471248	T40C4800	-	160050048

### Accessories

Size	Single pressure regulator plate port 1 reg.	Single pressure regulator plate port 2 reg.	Single pressure regulator plate port 4 reg.	Single pressure regulator plate port 2 + 4 reg.
				
ISO #1	V71010-KB1	V71012-KB2	V71012-KB3	V71012-KB4
ISO #2	V71010-KC1	V71012-KC2	V71012-KC3	V71012-KC4
ISO #3	V71010-KD1	V71012-KD2	V71012-KD3	V71012-KD4

# IN-LINE VALVES V60 ... 63 Series

3/2, 5/2, 5/3 and 2 x 3/2 solenoid actuated G 1/8 to G 1/2



- High flow rate
- Low power consumption (2 W)

## TECHNICAL DATA

- Medium:**  
Compressed air, filtered to 50µm, lubricated or non-lubricated
- Operating pressure:**  
8 bar maximum, see individual tables
- Flow:**  
500 – 4200 l/min
- Voltage:**  
24 V d.c., 220 V a.c. (other options available)
- Ambient and medium temperature:**  
-10°C ... +50°C  
(consult our Technical Service for use below +2°C)

## MATERIALS

- Body/sub-base:**  
Aluminium
- Softseal spool:**  
NBR/stainless steel
- Springs:**  
Stainless steel

## Models – 3/2 Valves

SOLENOID ACTUATED, INTERNAL PILOT, INDUSTRIAL STANDARD 22MM COIL						
24 DC	220 AC	Actuation	Port Size	Flow (l/min)	Operating pressure (bar)	Drawing No.
Push Only M/O	Push Only M/O					

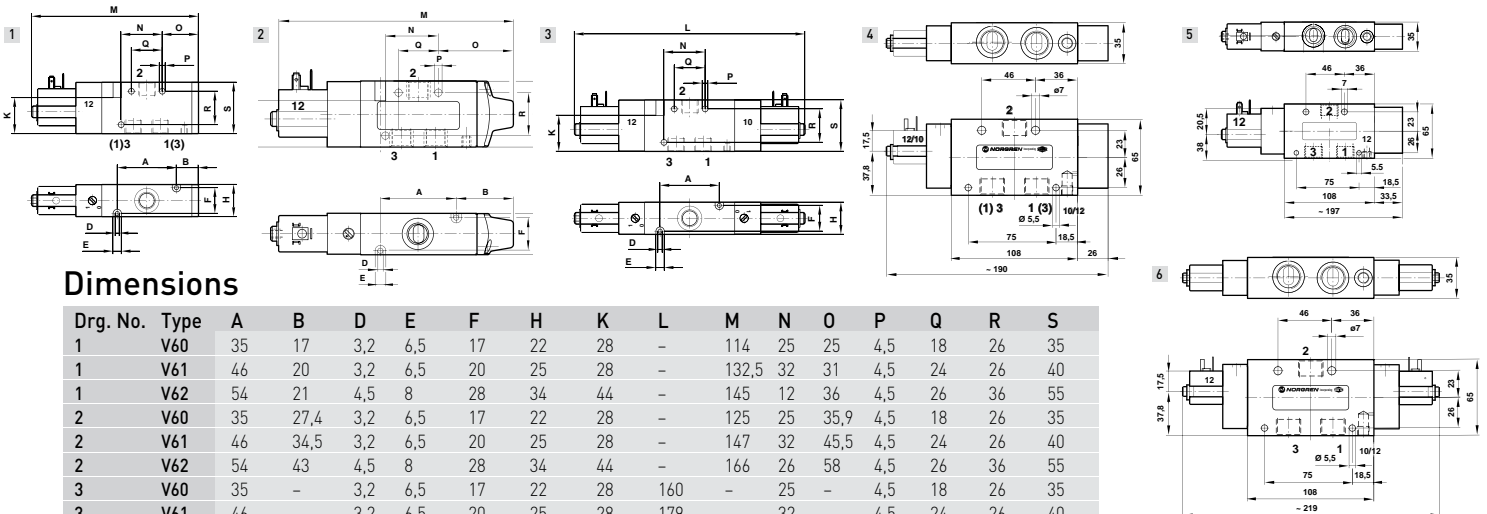
## Accessories

Straight fitting	Elbow fitting	Silencer	Basic plug
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V60A413A-A313J	V60A413A-A319J	Sol/Air spring	G1/8	750	2 ... 8	1	C02250618	C02470618	T40C1800	M/P19063
V61B413A-A313J	V61B413A-A319J	Sol/Air spring	G1/4	1300	2 ... 8	1	C02250828	C02470828	T40C2800	M/P19063
V62C413A-A313J	V62C413A-A319J	Sol/Air spring	G3/8	2600	2 ... 8	1	C02251038	C02471038	T40C3800	M/P19063
V63D413A-A313J	V63D413A-A319J	Sol/Air spring	G1/2	4200	2 ... 8	4	C02251248	C02471248	T40C4800	M/P19063
V60A417A-A313J	V60A417A-A319J	Sol/Spring	G1/8	750	2 ... 8	2	C02250618	C02470618	T40C1800	M/P19063
V61B417A-A313J	V61B417A-A319J	Sol/Spring	G1/4	1300	2 ... 8	2	C02250828	C02470828	T40C2800	M/P19063
V62C417A-A313J	V62C417A-A319J	Sol/Spring	G3/8	2600	2 ... 8	2	C02251038	C02471038	T40C3800	M/P19063
V63D417A-A313J	V63D417A-A319J	Sol/Spring	G1/2	4200	2 ... 8	5	C02251248	C02471248	T40C4800	M/P19063
V60A411A-A313J	V60A411A-A319J	Sol/Sol	G1/8	750	1,5 ... 8	3	C02250618	C02470618	T40C1800	M/P19063
V61B411A-A313J	V61B411A-A319J	Sol/Sol	G1/4	1300	1,5 ... 8	3	C02250828	C02470828	T40C2800	M/P19063
V62C411A-A313J	V62C411A-A319J	Sol/Sol	G3/8	2600	1,5 ... 8	3	C02251038	C02471038	T40C3800	M/P19063
V63D411A-A313J	V63D411A-A319J	Sol/Sol	G1/2	4200	1,5 ... 8	6	C02251248	C02471248	T40C4800	M/P19063

Note: For models with 22mm coil DIN EN 175301-803 [DIN 43650B] replace J by L. Pilot actuated versions also available.



## Dimensions

Drg. No.	Type	A	B	D	E	F	H	K	L	M	N	O	P	Q	R	S
1	V60	35	17	3,2	6,5	17	22	28	-	114	25	25	4,5	18	26	35
1	V61	46	20	3,2	6,5	20	25	28	-	132,5	32	31	4,5	24	26	40
1	V62	54	21	4,5	8	28	34	44	-	145	12	36	4,5	26	36	55
2	V60	35	27,4	3,2	6,5	17	22	28	-	125	25	35,9	4,5	18	26	35
2	V61	46	34,5	3,2	6,5	20	25	28	-	147	32	45,5	4,5	24	26	40
2	V62	54	43	4,5	8	28	34	44	-	166	26	58	4,5	26	36	55
3	V60	35	-	3,2	6,5	17	22	28	160	-	25	-	4,5	18	26	35
3	V61	46	-	3,2	6,5	20	25	28	179	-	32	-	4,5	24	26	40
3	V62	54	-	4,5	8	28	34	44	194	-	12	-	4,5	26	36	55

# IN-LINE VALVES V60 ... 63 Series

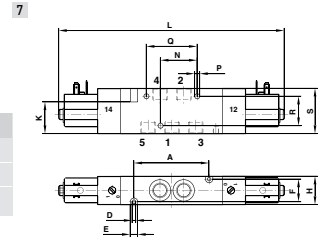
Solenoid actuated 3/2, 5/2, 5/3 and 2 x 3/2

## Models – 2 x 3/2 Valves

SOLENOID ACTUATED, INTERNAL PILOT, INDUSTRIAL STANDARD 22MM COIL							Drawing No.	Straight fitting	Elbow fitting	Silencer	Basic plug
24 DC Push Only M/O	220 AC Push Only M/O	Actuation	Port size	Flow (l/min)	Operating pressure (bar)						
V60AA11A-A313J	V60AA11A-A319J	Sol/Spring NC	G1/8	500	2 ... 8	7	C02250618	C02470618	T40C1800	M/P19063	
V61BA11A-A313J	V61BA11A-A319J	Sol/Spring NC	G1/4	950	2 ... 8	7	C02250828	C02470828	T40C2800	M/P19063	
V62CA11A-A313J	V62CA11A-A319J	Sol/Spring NC	G3/8	1900	2 ... 8	7	C02251038	C02471038	T40C3800	M/P19063	

## Dimensions

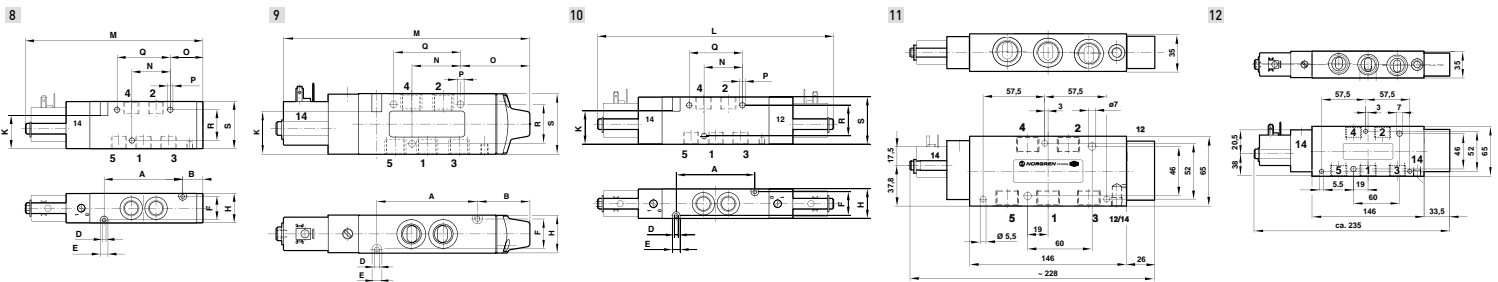
Drg. No.	Type	A	D	E	F	H	K	L	M	N	O	P	Q	R	S
7	V60	50	3,2	6,5	17	22	28	175	-	25	-	4,5	33,6	26	35
7	V61	66	3,2	6,5	20	25	28	199	-	32	-	4,5	44	26	40
7	V62	78	4,5	8	28	34	44	218	-	12	-	4,5	26	36	55



## Models – 5/2 Valves

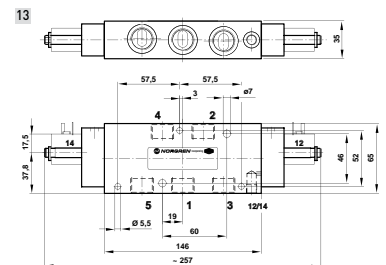
SOLENOID ACTUATED, INTERNAL PILOT, INDUSTRIAL STANDARD 22MM COIL							Drawing No.	Straight fitting	Elbow fitting	Silencer	Basic plug
24 DC Push Only M/O	220 AC Push Only M/O	Actuation	Port size	Flow (l/min)	Operating pressure (bar)						
V60A513A-A313J	V60A513A-A319J	Sol/Air spring	G1/8	750	2 ... 8	8	C02250618	C02470618	T40C1800	M/P19063	
V61B513A-A313J	V61B513A-A319J	Sol/Air spring	G1/4	1300	2 ... 8	8	C02250828	C02470828	T40C2800	M/P19063	
V62C513A-A313J	V62C513A-A319J	Sol/Air spring	G3/8	2600	2 ... 8	8	C02251038	C02471038	T40C3800	M/P19063	
V63D513A-A313J	V63D513A-A319J	Sol/Air spring	G1/2	4200	2 ... 8	11	C02251248	C02471248	T40C4800	M/P19063	
V60A517A-A313J	V60A517A-A319J	Sol/Spring	G1/8	750	2 ... 8	9	C02250618	C02470618	T40C1800	M/P19063	
V61B517A-A313J	V61B517A-A319J	Sol/Spring	G1/4	1300	2 ... 8	9	C02250828	C02470828	T40C2800	M/P19063	
V62C517A-A313J	V62C517A-A319J	Sol/Spring	G3/8	2600	2 ... 8	9	C02251038	C02471038	T40C3800	M/P19063	
V63D517A-A313J	V63D517A-A319J	Sol/Spring	G1/2	4200	2 ... 8	12	C02251248	C02471248	T40C4800	M/P19063	
V60A511A-A313J	V60A511A-A319J	Sol/Sol	G1/8	750	2 ... 8	10	C02250618	C02470618	T40C1800	M/P19063	
V61B511A-A313J	V61B511A-A319J	Sol/Sol	G1/4	1300	2 ... 8	10	C02250828	C02470828	T40C2800	M/P19063	
V62C511A-A313J	V62C511A-A319J	Sol/Sol	G3/8	2600	2 ... 8	10	C02251038	C02471038	T40C3800	M/P19063	
V63D511A-A313J	V63D511A-A319J	Sol/Sol	G1/2	4200	2 ... 8	13	C02251248	C02471248	T40C4800	M/P19063	

Note: For models with 22mm coil DIN EN 175301-803 (DIN 43650B) replace J by L. Pilot actuated versions also available.



## Dimensions

Drg. No.	Type	A	B	D	E	F	H	K	L	M	N	O	P	Q	R	S
8	V60	50	17	3,2	6,5	17	22	28	-	129	25	25	4,5	33,6	26	35
8	V61	66	20	3,2	6,5	20	25	28	-	152,5	32	31	4,5	44	26	40
8	V62	78	21	4,5	8	28	34	44	-	170	12	60	4,5	26	36	55
9	V60	50	17	3,2	6,5	17	22	28	-	140	25	35,7	4,5	33,6	26	35
9	V61	66	34,5	3,2	6,5	20	25	28	-	167	32	45,5	4,5	44	26	40
9	V62	78	43	4,5	8	28	34	44	-	191	12	82	4,5	26	36	55
10	V60	50	-	3,2	6,5	17	22	28	175	-	25	-	4,5	33,6	26	35
10	V61	66	-	3,2	6,5	20	25	28	199	-	32	-	4,5	44	26	40
10	V62	78	-	4,5	8	28	34	44	218	-	12	-	4,5	26	36	55



## IN-LINE VALVES V60 ... 63 Series

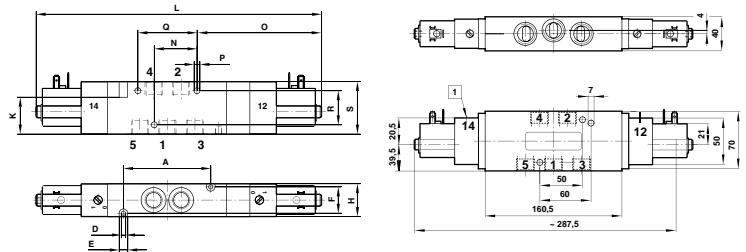
Solenoid actuated 3/2, 5/2, 5/3 and 2 x 3/2

### Models – 5/3 Valves

### Accessories

SOLENOID ACTUATED, INTERNAL PILOT, INDUSTRIAL STANDARD 22MM COIL							Drawing No.	Straight fitting	Elbow fitting	Silencer	Basic plug
24 DC Push Only M/O	220 AC Push Only M/O	Actuation	Port size	Flow (l/min)	Operating pressure (bar)						
	V60A611A-A319J	Sol/Sol APB	G1/8	500	3 ... 8	14	C02250618	C02470618	T40C1800	M/P19063	
V61B611A-A313J	V61B611A-A319J	Sol/Sol APB	G1/4	950	3 ... 8	14	C02250828	C02470828	T40C2800	M/P19063	
V62C611A-A313J	V62C611A-A319J	Sol/Sol APB	G3/8	1900	3 ... 8	14	C02251038	C02471038	T40C3800	M/P19063	
V63D611A-A313J	V63D611A-A319J	Sol/Sol APB	G1/2	2200	2,5 ... 8	15	C02251248	C02471248	T40C4800	M/P19063	
V60A711A-A313J	V60A711A-A319J	Sol/Sol COE	G1/8	500	3 ... 8	14	C02250618	C02470618	T40C1800	M/P19063	
V61B711A-A313J	V61B711A-A319J	Sol/Sol COE	G1/4	950	3 ... 8	14	C02250828	C02470828	T40C2800	M/P19063	
V62C711A-A313J	V62C711A-A319J	Sol/Sol COE	G3/8	1900	3 ... 8	14	C02251038	C02471038	T40C3800	M/P19063	
V63D711A-A313J	V63D711A-A319J	Sol/Sol COE	G1/2	2200	2,5 ... 8	15	C02251248	C02471248	T40C4800	M/P19063	
V60A811A-A313J	V60A811A-A319J	Sol/Sol COP	G1/8	500	3 ... 8	14	C02250618	C02470618	T40C1800	M/P19063	
V61B811A-A313J	V61B811A-A319J	Sol/Sol COP	G1/4	950	3 ... 8	14	C02250828	C02470828	T40C2800	M/P19063	
V62C811A-A313J	V62C811A-A319J	Sol/Sol COP	G3/8	1900	3 ... 8	14	C02251038	C02471038	T40C3800	M/P19063	

Note: For models with 22mm coil DIN EN 175301-803 (DIN 43650B) replace J by L. Pilot actuated versions also available. APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure



### Dimensions

Drg. No.	Type	A	B	D	E	F	H	K	M	N	O	P	Q	R	S
14	V60	50	-	3,2	6,5	17	22	28	189	25	84,5	4,5	33,6	26	35
14	V61	66	-	3,2	6,5	20	25	28	217	32		4,5	44	26	40
14	V62	78	-	4,5	8	28	34	44	241	12	132	4,5	26	36	55

### Voltage codes and spare coils

22MM COIL INDUSTRIAL STANDARD			
Model	Voltage	Coil code	Power inrush/hold
QM/48/13J/21	24 V d.c.	13J	2 W
QM/48/19J/21	220/240 V 50/60 Hz	19J	6/5 VA

22MM COIL DIN EN 175 301-803, TYPE B			
Model	Voltage	Coil code	Power inrush/hold
V10626-A13L	24 V d.c.	13L	2 W
V10626-A19L	220/240 V 50/60 Hz	19L	6/5 VA

Connector plugs must be ordered separately. Other voltages available, please call your Express Team.

### Models – Manifold system

FOR 2 X3/2, 5/2, 5/3 VALVES, SOLENOID OPERATED			Number of stations
V60	V61	V62	



2221002000000000	2221102000000000	2221202000000000	2
2221003000000000	2221103000000000	2221203000000000	3
2221004000000000	2221104000000000	2221204000000000	4
2221006000000000	2221106000000000	2221206000000000	6
2221008000000000	2221108000000000	2221208000000000	8
2221010000000000	2221110000000000	-	10
2221012000000000	2221112000000000	-	12

Not suitable for individual 3/2 valves.

### EXPRESS LINKS

#### Connectors and cables

For a full selection of 22 mm Industrial Standard or DIN EN175301-803 Form B plugs and cables please see page 151



# IN-LINE VALVES V50 ... 53 Series

3/2, 5/2 and 5/3. Solenoid actuated G1/8...G1/2

High flow in-line valves

Compact and robust design

Flexible in-line and manifold mounting options

## TECHNICAL DATA

### Medium:

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

### Operating pressure:

8 bar maximum

### Flow:

270 – 2480 l/min

### Voltage:

24 V d.c. (other options available)

### Ambient and medium temperature:

-5°C ... +50°C solenoid models

(consult our Technical Service for use below +2°C)



## MATERIALS

### Body/sub-base:

Die-cast aluminium alloy or aluminium alloy

### Softseal spool:

NBR/aluminium alloy

### Springs:

Stainless steel

## Models

## Accessories

V50 – G1/8, 24 V d.c.							Silencer plastic	Silencer sintered
Model	Function	Actuation	Flow	Manual Override	Drawing No.	Electrical connection*		
V50A413A-A213A	3/2	Sol/Air	480	Push & turn	1	DIN EN 175301-803 Form C	M/S1	T40C1800
V50A411A-A213A	3/2	Sol/Sol	480	Push & turn	3	DIN EN 175301-803 Form C	M/S1	T40C1800
V50A513A-A213A	5/2	Sol/Air	480	Push & turn	5	DIN EN 175301-803 Form C	M/S1	T40C1800
V50A511A-A213A	5/2	Sol/Sol	480	Push & turn	7	DIN EN 175301-803 Form C	M/S1	T40C1800
V50A611A-A213A	5/3 APB	Sol/Sol	270	Push & turn	9	DIN EN 175301-803 Form C	M/S1	T40C1800
V50A711A-A213A	5/3 COE	Sol/Sol	270	Push & turn	9	DIN EN 175301-803 Form C	M/S1	T40C1800
V50A811A-A213A	5/3 COP	Sol/Sol	270	Push & turn	9	DIN EN 175301-803 Form C	M/S1	T40C1800

V51 – G1/4, 24 V d.c.							Silencer plastic	Silencer sintered
Model	Function	Actuation	Flow	Manual Override	Drawing No.	Electrical connection*		
V51B417A-A213J	3/2	Sol/Spring	1020	Push & turn	2	22mm Industrial Standard	M/S2	T40C2800
V51B411A-A213J	3/2	Sol/Sol	1020	Push & turn	4	22mm Industrial Standard	M/S2	T40C2800
V51B517A-A213J	5/2	Sol/Spring	1020	Push & turn	6	22mm Industrial Standard	M/S2	T40C2800
V51B511A-A213J	5/2	Sol/Sol	1020	Push & turn	8	22mm Industrial Standard	M/S2	T40C2800
V51B611A-A213J	5/3 APB	Sol/Sol	755	Push & turn	10	22mm Industrial Standard	M/S2	T40C2800
V51B711A-A213J	5/3 COE	Sol/Sol	755	Push & turn	10	22mm Industrial Standard	M/S2	T40C2800
V51B811A-A213J	5/3 COP	Sol/Sol	755	Push & turn	10	22mm Industrial Standard	M/S2	T40C2800

V52 – G3/8, 24 V d.c.							Silencer plastic	Silencer sintered
Model	Function	Actuation	Flow	Manual Override	Drawing No.	Electrical connection*		
V52C417A-A213J	3/2	Sol/Spring	1705	Push & turn	2	22mm Industrial Standard	M/S3	T40C3800
V52C411A-A213J	3/2	Sol/Sol	1705	Push & turn	4	22mm Industrial Standard	M/S3	T40C3800
V52C517A-A213J	5/2	Sol/Spring	1705	Push & turn	6	22mm Industrial Standard	M/S3	T40C3800
V52C511A-A213J	5/2	Sol/Sol	1705	Push & turn	8	22mm Industrial Standard	M/S3	T40C3800
V52C611A-A213J	5/3 APB	Sol/Sol	1190	Push & turn	11	22mm Industrial Standard	M/S3	T40C3800
V52C711A-A213J	5/3 COE	Sol/Sol	1190	Push & turn	11	22mm Industrial Standard	M/S3	T40C3800
V52C811A-A213J	5/3 COP	Sol/Sol	1190	Push & turn	11	22mm Industrial Standard	M/S3	T40C3800

V53 – G1/2, 24 V d.c.							Silencer plastic	Silencer sintered
Model	Function	Actuation	Flow	Manual Override	Drawing No.	Electrical connection*		
V53D417A-A213J	3/2	Sol/Spring	2480	Push & turn	2	22mm Industrial Standard	M/S4	T40C4800
V53D411A-A213J	3/2	Sol/Sol	2480	Push & turn	4	22mm Industrial Standard	M/S4	T40C4800
V53D517A-A213J	5/2	Sol/Spring	2480	Push & turn	6	22mm Industrial Standard	M/S4	T40C4800
V53D511A-A213J	5/2	Sol/Sol	2480	Push & turn	8	22mm Industrial Standard	M/S4	T40C4800
V53D611A-A213J	5/3 APB	Sol/Sol	1910	Push & turn	11	22mm Industrial Standard	M/S4	T40C4800
V53D711A-A213J	5/3 COE	Sol/Sol	1910	Push & turn	11	22mm Industrial Standard	M/S4	T40C4800
V53D811A-A213J	5/3 COP	Sol/Sol	1910	Push & turn	11	22mm Industrial Standard	M/S4	T40C4800

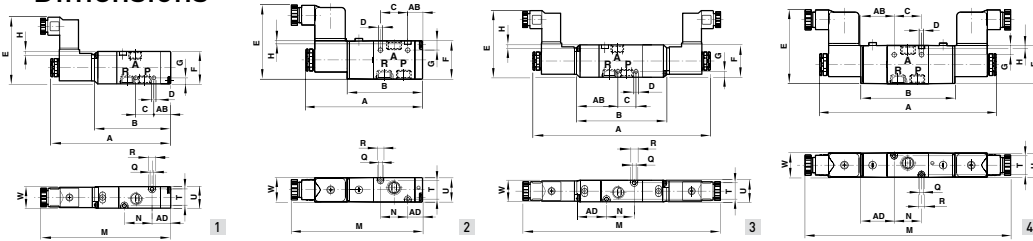
\*All valves supplied with basic wireable connectors.  
Pilot actuated versions also available.



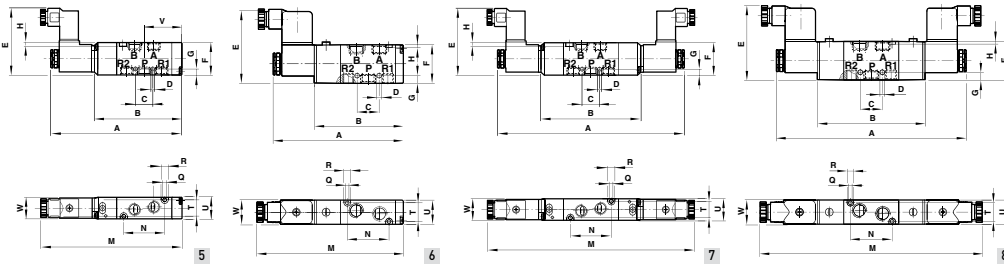
## IN-LINE VALVES V50 ... 53 Series

3/2, 5/2 and 5/3. Solenoid actuated G1/8... G1/2

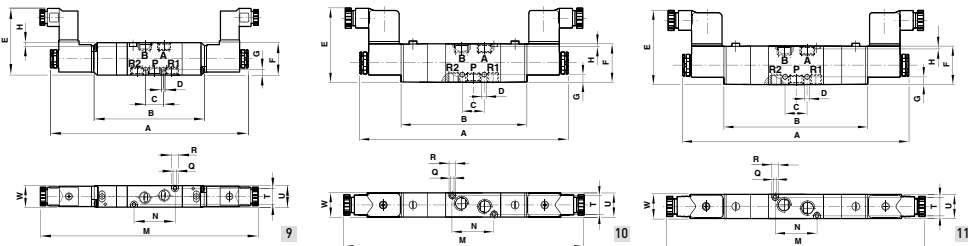
### Dimensions



Type	Drawing	A	AB	AC	AD	B	C	D	E	F	G	H	M	N	Q	R	T	U	W
V50	1	99,5	13,5	-	15,5	65	15	3,2	55,5	27	5	3	108	23	3,2	6	13	18	16
V51	2	106,5	13,5	-	13,5	69	25	4,2	67	35	8,5	3	120	25	3,2	6	17	22,5	22
V52	2	126,5	13	-	15	89	26	4,5	73	46,5	39,5	4	139,5	41	4,5	8	23	30	22
V53	2	133	12,5	-	15	96	29	4,5	73	46,5	39,5	4	146	48	4,2	8	23	30	22
V50	3	144,5	36,5	29	27	76,5	15	3,2	55,5	27	5	3	161,5	23	3,2	6	13	18	16
V51	4	144,5	30,5	34	30,5	86	25	4,2	67	35	8,5	3	188	25	3,2	6	17	22,5	22
V52	4	182	31	44	33	107	26	4,5	73	46,5	39,5	4	208	41	4,5	8	23	30	22
V53	4	188	30,5	45	33	114	29	4,5	73	46,5	39,5	4	214	48	4,2	8	23	30	22



Type	Drawing	A	B	C	D	E	F	G	H	M	N	Q	R	T	U	W
V50	5	110	76	14,5	3,2	54	27	5	3	118,5	34	3,2	6	13	18	16
V51	6	118,5	81	20	4,2	67	35	7	3	132	38	3,2	6	17	22,5	22
V52	6	145,5	108	26	5,5	73	46,5	4,5	4	158,5	13	4,5	8	23	30	22
V53	6	157	120	29	4,5	73	46,5	7	4	170	72	4,2	8	23	30	22
V50	7	155	87	14,5	3,2	55	27	5	3	172	34	3,2	6	13	18	16
V51	8	173	98	20	4,2	67	35	7	3	200	38	3,2	6	17	22,5	22
V52	8	201	126	26	5,5	73	46,5	4,5	4	228	13	4,5	8	23	30	22
V53	8	212	138	29	4,5	73	46,5	7	4	238	72	4,2	8	23	30	22



Type	Drawing	A	B	C	D	E	F	G	H	M	N	Q	R	T	U	W
V50	9	164	96	14,5	3,2	55	27	5	3	181	34	3,2	6	13	18	16
V51	10	194	119	20	4,2	67	35	7	3	221	38	3,2	6	17	22,5	22
V52	11	254,5	179,5	26	5,5	73	46,5	4,5	4	281,5	13	4,5	8	23	30	22
V53	11	265,5	191,5	29	4,5	73	46,5	7	4	291,5	72	4,2	8	23	30	22

### Models – Manifolds

Stations	Valve type	V50 model	Port size	Blanking plate	V51 model	Port size	Blanking plate	V52 model	Port size	Blanking plate	V53 model	Port size	Blanking plate
2	3/2	V50A302	G1/4	V500351	V51B302	G1/4	V510351	V52C302	G3/8	V520351	V53D302	G1/2	V530351
4	3/2	V50A304	G1/4	V500351	V51B304	G1/4	V510351	V52C304	G3/8	V520351	V53D304	G1/2	V530351
6	3/2	V50A306	G1/4	V500351	V51B306	G1/4	V510351	V52C306	G3/8	V520351	V53D306	G1/2	V530351
8	3/2	V50A308	G1/4	V500351	V51B308	G1/4	V510351	V52C308	G3/8	V520351	V53D308	G1/2	V530351
10	3/2	V50A310	G1/4	V500351	V51B310	G1/4	V510351	V52C310	G3/8	V520351	V53D310	G1/2	V530351
2	5/2	V50A502	G1/4	V500551	V51B502	G1/4	V510551	V52C502	G3/8	V520551	V53D502	G1/2	V530551
4	5/2	V50A504	G1/4	V500551	V51B504	G1/4	V510551	V52C504	G3/8	V520551	V53D504	G1/2	V530551
6	5/2	V50A506	G1/4	V500551	V51B506	G1/4	V510551	V52C506	G3/8	V520551	V53D506	G1/2	V530551
8	5/2	V50A508	G1/4	V500551	V51B508	G1/4	V510551	V52C508	G3/8	V520551	V53D508	G1/2	V530551
10	5/2	V50A510	G1/4	V500551	V51B510	G1/4	V510551	V52C510	G3/8	V520551	V53D510	G1/2	V530551

### Voltage codes and spare coils

V50 – DIN EN 175301-803 FORM C			
Model	Voltage	Coil code	Power
V12958-A13	24 V d.c.	13A	2,5 W

V51...V53 – 22 MM INDUSTRIAL STANDARD			
Model	Voltage	Coil code	Power
QM/48/13J/21	24 V d.c.	13J	2 W

Other voltages available, call your Express Team

### EXPRESS LINKS

#### V50...53 Valves

Are supplied with basic wireable connectors as standard.

For a full selection of cables and connectors please see page 151



# SOLENOID ACTUATED 22 MM POPPET VALVES

## Excel 22, M/49 series

In-line and sub-base mounted – 3/2, NC, G1/8

Sub-base mounted and manifold mounted  
– compact and convenient

Manual override as standard

### TECHNICAL DATA

#### Medium:

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

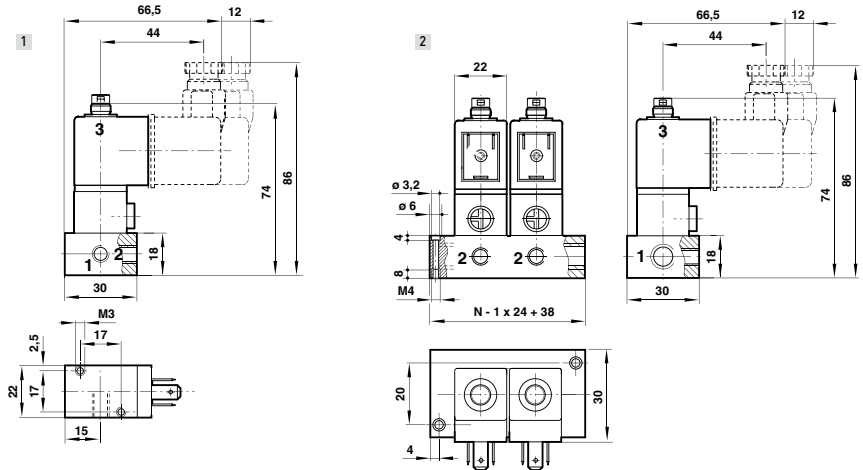
#### Operating pressure:

0 to 10 bar

#### Ambient temperature:

-20°C to +50°C

Consult our Technical Service for use below +2°C.



### Models

1MM ORIFICE Model	Actuation	Port size	Flow (l/min)	Operating pressure (bar)	Mounting	Drawing No.	Straight fitting	Elbow fitting	Basic plug
M/49/MAZ***	3/2 NC	G1/8	30	0..10	Single	1	C02250618	C02470618	M/P19063
DM/49/MAZ***/T*	3/2 NC	G1/8	30	0..10	Manifold	2	C02250618	C02470618	M/P19063
1,6MM ORIFICE Model	Actuation	Port size	Flow (l/min)	Operating pressure (bar)	Mounting	Drawing No.	Straight fitting	Elbow fitting	Basic plug
M/49/MDZ***	3/2 NC	G1/8	77	0..10	Single	1	C02250618	C02470618	M/P19063
DM/49/MDZ***/T*	3/2 NC	G1/8	77	0..10	Manifold	2	C02250618	C02470618	M/P19063

\*\*\* Insert voltage codes from table below. # Add number of valves in manifold up to 6 maximum.  
Order connector plugs separately.

### Voltage codes and spare coils

Voltage	1,0 mm orifice (low power)			1,6 mm orifice		
	Code	Power	Coil	Code	Power	Coil
12 V d.c.	12J	2 W	QM/48/12J/21	82J	7,5 W	QM/48/82J/21
24 V d.c.	13J	2 W	QM/48/13J/21	83J	6 W	QM/48/83J/21
24 V 50/60 Hz	14J	4/2,5 VA	QM/48/14J/21	84J	12/8 VA	QM/48/84J/21
110/120 V 50/60 Hz	18J	4/2,5 VA	QM/48/18J/21	88J	12/8 VA	QM/48/88J/21
220/240 V 50/60 Hz	19J	6/5 VA	QM/48/19J/21	89J	12/8 VA	QM/48/89J/21

### EXPRESS LINKS

#### Connectors and cables

For a full selection of 22 mm Industrial Standard plugs and cables please see page 151



# SOLENOID ACTUATED 32 MM POPPET VALVES

## Excel 32 V04 & V05 series

In-line and sub-base mounted 2/2 and 3/2, NO/NC G1/8, G1/4

Extensive range of power and orifice size options

Compact installation

Removeable coil

Standard exhaust diffuser

### TECHNICAL DATA

#### Medium:

Compressed air, filtered, lubricated and non-lubricated

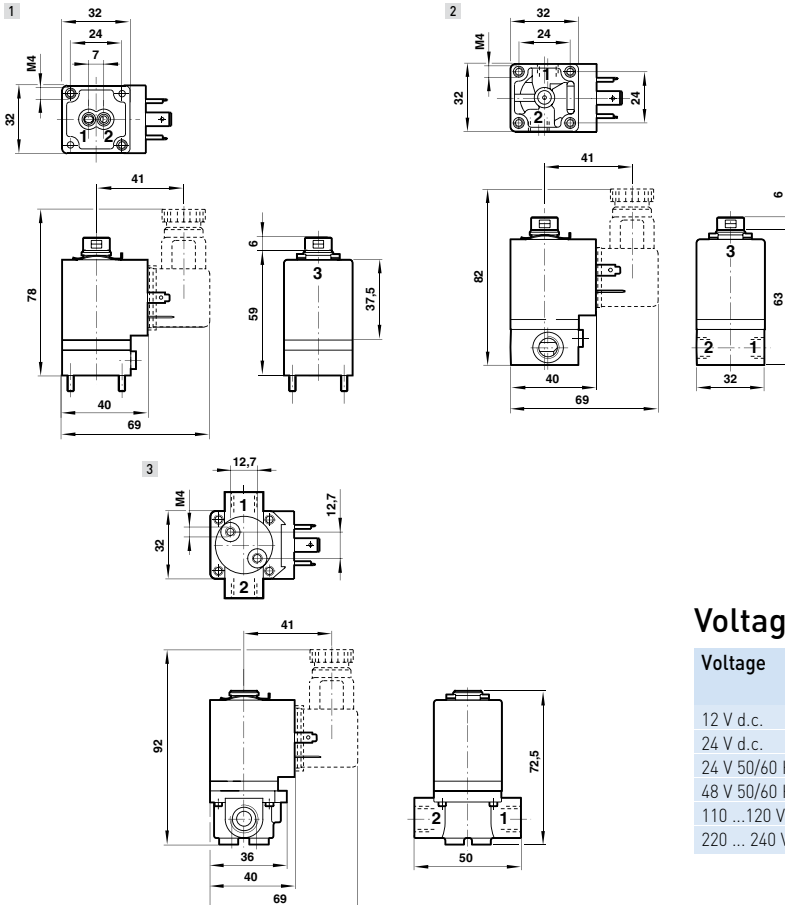
#### Operating pressure:

Maximum 16 bar. See individual details

#### Ambient temperature:

-20°C to +50°C

Consult our Technical Service for use below +2°C



### Voltage codes and spare coils

Voltage	Code	Coil	
		V04	V05
12 V d.c.	2	V04X286A-Q1222	-
24 V d.c.	3	V04X286A-Q1223	V05X286A-Q1233
24 V 50/60 Hz	4	V04X286A-Q1224	V05X286A-Q1234
48 V 50/60 Hz	6	V04X286A-Q1226	-
110 ... 120 V 50/60 Hz	8	V04X286A-Q1228	V05X286A-Q1238
220 ... 240 V 50/60 Hz	9	V04X286A-Q1229	V05X286A-Q1239

### Models

Model	Actuation	Port size	Flow (l/min)	Operating pressure (bar)	Drawing No.
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### Accessories

Straight fitting	Elbow fitting	Basic plug
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V05X286M-B63*A	2/2 NC	Interface	150	0..16	1	C02250618	C02470618	M/P15737
V04A286M-B62*A	2/2 NC	G1/8	190	0..10	2	C02250618	C02470618	M/P15737
V04B286M-B42*A	2/2 NC	G1/4	190	0..10	3	C02250618	C02470618	M/P15737
V05B286N-B43*A	2/2 NC	G1/4	260	0..13	3	C02250618	C02470618	M/P15737
V04X386L-B62*A	3/2 NO	Interface	95	0..10	1	C02250618	C02470618	M/P15737
V04A386L-B62*A	3/2 NO	G1/8	120	0..10	2	C02250618	C02470618	M/P15737
V04X486L-B62*A	3/2 NC	Interface	95	0..10	1	C02250618	C02470618	M/P15737
V05X486M-B63*A	3/2 NC	Interface	150	0..10	1	C02250618	C02470618	M/P15737
V04A486L-B62*A	3/2 NC	G1/8	120	0..10	2	C02250618	C02470618	M/P15737
V05A486M-B63*A	3/2 NC	G1/8	190	0..10	2	C02250618	C02470618	M/P15737

\* Insert voltage codes from table above. Order connector plugs separately.

For interface valves use manifold M/P35598/#. # = number of stations from 1 to 6

# TWO-HAND CONTROL UNIT

G1/8

Certificate of Conformity supplied with every unit

Notified Body Approval from BSI Testing

Meets the requirements of EN574 Class IIIB\*

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.

### Operating pressure:

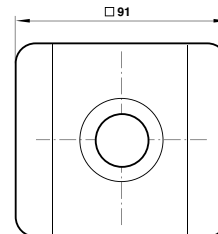
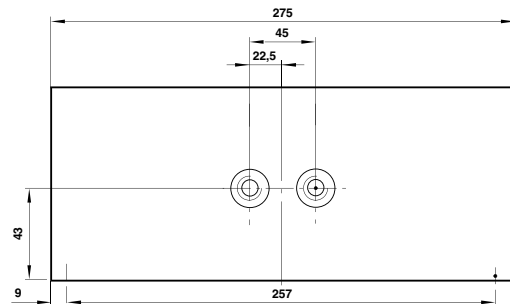
3 to 8 bar


### Ambient temperature:

+5°C to +40°C

Consult our Technical Service for use 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 M/2720 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 M/2720 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. In addition, the M/2720 is dimensionally identical to the M/2710 which it directly replaces.



Function	Model	Switch 'On'	Switch 'Off'
	M/2720	Both buttons must be operated within 0,5 secs	0,6 secs max.

# IN-LINE VALVES Super X

Manually & mechanically actuated spool valve – 3/2, 5/2 and 5/3, G1/8, G1/4



Wide range of operators

Suitable for multi-directional flow and dual supply applications

High flow capacity

Lightweight corrosion resistant materials

## TECHNICAL DATA

**Medium:**

Compressed air, filtered, lubricated and non-lubricated

**Operating pressure:**


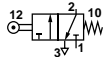




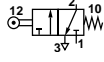

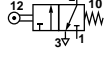

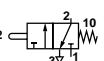

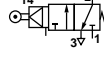

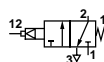
Maximum 10 bar.

**Ambient temperature:**

0°C to +70°C

Consult our Technical Service for use below +2°C.

## Models – 3/2 Mechanical Valves


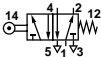




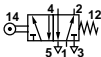

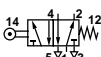

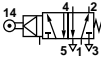

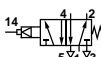
Model	Actuation	Port size	Flow (l/min)	Drawing no.	Straight fitting	Elbow fitting	Silencer
							
03029302	Roller lever (heavy duty)/Spring	G1/8	335	A, 10	C02250618	C02470618	T40C1800
							
03040202	Roller/Spring	G1/8	335	A, 2	C02250618	C02470618	T40C1800
03060202	Roller/Spring	G1/4	965	B, 6	C02250828	C02470828	T40C2800
							
03041102	Roller lever/Spring	G1/8	335	A, 4	C02250618	C02470618	T40C1800
03061102	Roller lever/Spring	G1/4	965	B, 9	C02250828	C02470828	T40C2800
							
03040002	Plunger/Spring	G1/8	335	A, 1	C02250618	C02470618	T40C1800
03060002	Plunger/Spring	G1/4	965	B, 3	C02250828	C02470828	T40C2800
							
03042302	Sensitive roller lever/Spring	G1/8	335	A, 5	C02250618	C02470618	T40C1800
							
03043202	Antenna/Spring	G1/8	335	A, 8	C02250618	C02470618	T40C1800

## IN-LINE VALVES Super X

Manually and mechanically actuated spool valve – 3/2, 5/2 and 5/3, G1/8, G1/4


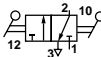




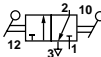

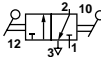


### Models – 5/2 Mechanical Valves

### Accessories

Model	Actuation	Port size	Flow (l/min)	Drawing no.	Straight fitting	Elbow fitting	Silencer
							
X3039302	Roller lever (heavy duty)/Spring	G1/8	335	E, 10	C02250618	C02470618	T40C1800
							
X3045102	Roller lever/Spring	G1/8	335	E, 4	C02250618	C02470618	T40C1800
X3065102	Roller lever/Spring	G1/4	965	F, 9	C02250828	C02470828	T40C2800
							
X3044202	Roller/Spring	G1/8	335	E, 2	C02250618	C02470618	T40C1800
X3064202	Roller/Spring	G1/4	965	F, 6	C02250828	C02470828	T40C2800
							
X3046302	Sensitive roller lever/Spring	G1/8	335	E, 5	C02250618	C02470618	T40C1800
							
X3047202	Antenna/Spring	G1/8	335	E, 8	C02250618	C02470618	T40C1800

### Models – 3/2 Manual Valves



### Accessories

Model	Actuation	Port size	Flow (l/min)	Drawing no.	Straight fitting	Elbow fitting	Silencer
							
03029602	Lever/lever	G1/8	335	-	C02250618	C02470618	T40C1800
							
03040302	Toggle/toggle	G1/8	335	A, 22	C02250618	C02470618	T40C1800
							
03043702	Lever/lever	G1/8	335	A, 23	C02250618	C02470618	T40C1800
03063702	Lever/lever	G1/4	965	B, 31	C02250828	C02470828	T40C2800
							
03029802	Rotary knob/rotary knob	G1/8	335	A, 26	C02250618	C02470618	T40C1800






## IN-LINE VALVES Super X

Manually and mechanically actuated spool valve – 3/2, 5/2 and 5/3, G1/8, G1/4

### Models – 3/2 Manual Valves

Models – 3/2 Manual Valves					Accessories		
Model	Actuation	Port size	Flow (l/min)	Drawing no.	Straight fitting	Elbow fitting	Silencer
							
03029902	Emergency stop/twist ring	G1/8	335	A, 16	C02250618	C02470618	T40C1800
							
03040402	Black – Button/spring	G1/8	335	A, 12	C02250618	C02470618	T40C1800
03040502	Green – Button/spring	G1/8	335	A, 12	C02250618	C02470618	T40C1800
03040602	Red – Button/spring	G1/8	335	A, 12	C02250618	C02470618	T40C1800
							
03041402	Black – Button (shrouded)/spring	G1/8	335	A, 13	C02250618	C02470618	T40C1800
03041502	Green – Button (shrouded)/spring	G1/8	335	A, 13	C02250618	C02470618	T40C1800
03041602	Red – Button (shrouded)/spring	G1/8	335	A, 13	C02250618	C02470618	T40C1800
							
03042402	Knob/knob or pilot	G1/8	335	D, 21	C02250618	C02470618	T40C1800
03062702	Knob/knob or pilot	G1/4	965	D, 20	C02250828	C02470828	T40C2800
							
03042502	Knob/knob	G1/8	335	A, 21	C02250618	C02470618	T40C1800
03062502	Knob/knob	G1/4	965	B, 20	C02250828	C02470828	T40C2800
							
03048102	Pedal/spring	G1/8	335	29	C02250618	C02470618	T40C1800
03068102	Pedal/spring	G1/4	965	29	C02250828	C02470828	T40C2800
							
03043802	Lever/spring	G1/8	335	A, 23	C02250618	C02470618	T40C1800
03063802	Lever/spring	G1/4	965	B, 31	C02250828	C02470828	T40C2800

### Models – 5/2 Manual Valves


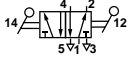




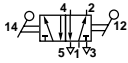

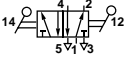

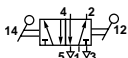

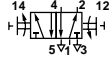

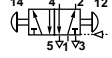

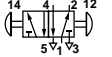

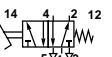

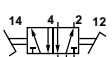

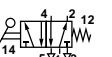
Models – 5/2 Manual Valves					Accessories		
Model	Actuation	Port size	Flow (l/min)	Drawing no.	Straight fitting	Elbow fitting	Silencer
							
X3029602	Lever/lever	G1/8	335	–	C02250618	C02470618	T40C1800

# IN-LINE VALVES Super X

Manually and mechanically actuated spool valve – 3/2, 5/2 and 5/3, G1/8, G1/4

## Models – 5/2 Manual Valves

## Accessories

Model	Actuation	Port size	Flow (l/min)	Drawing no.	Straight fitting	Elbow fitting	Silencer
							
X3044302	Toggle/toggle	G1/8	335	E, 24	C02250618	C02470618	T40C1800
							
X3047702	Lever/lever	G1/8	335	E, 23	C02250618	C02470618	T40C1800
X3067702	Lever/lever	G1/4	965	F, 31	C02250828	C02470828	T40C2800
							
X3029802	Rotary knob/rotary knob	G1/8	335	E, 27	C02250618	C02470618	T40C1800
							
X3029902	Emergency stop/twist ring	G1/8	335	E, 16	C02250618	C02470618	T40C1800
							
X3045802801	Key/key	G1/8	335	E, 28	C02250618	C02470618	T40C1800
							
X3046402	Knob/knob or pilot	G1/8	335	G, 21	C02250618	C02470618	T40C1800
							
X3046502	Knob, push/knob, pull	G1/8	335	E, 26	C02250618	C02470618	T40C1800
X3066502	Knob, push/knob, pull	G1/4	965	F, 20	C02250828	C02470828	T40C2800
							
X3048202	Pedal/spring	G1/8	335	29	C02250618	C02470618	T40C1800
X3068202	Pedal/spring	G1/4	965	29	C02250828	C02470828	T40C2800
							
X3048402	Pedal/pedal	G1/8	335	29	C02250618	C02470618	T40C1800
X3068402	Pedal/pedal	G1/4	965	29	C02250828	C02470828	T40C2800
							
X3047802	Lever/spring	G1/8	335	E, 22	C02250828	C02470828	T40C2800
X3067802	Lever/spring	G1/4	965	F, 31	C02250618	C02470618	T40C1800



## IN-LINE VALVES Super X

Manually and mechanically actuated spool valve – 3/2, 5/2 and 5/3, G1/8, G1/4

### Models – 5/3 Manual Valves

### Accessories

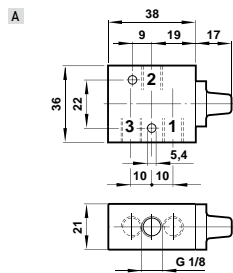
Model	Actuation	Port size	Flow (l/min)	Drawing no.	Straight fitting	Elbow fitting	Silencer
X3343702	Lever/lever/lever – APB	G1/8	335	J, 30	C02250618	C02470618	T40C1800
X3363702	Lever/lever/lever – APB	G1/4	965	J, 32	C02250828	C02470828	T40C2800
X3343802	Lever/spring/lever – APB	G1/8	335	J, 30	C02250618	C02470618	T40C1800
X3363802	Lever/spring/lever – APB	G1/4	965	J, 32	C02250828	C02470828	T40C2800
X3347702	Lever/lever/lever – COE	G1/8	335	J, 30	C02250618	C02470618	T40C1800
X3367702	Lever/lever/lever – COE	G1/4	965	J, 32	C02250828	C02470828	T40C2800
X3347802	Lever/spring/lever – COE	G1/8	335	J, 30	C02250618	C02470618	T40C1800
X3367802	Lever/spring/lever – COE	G1/4	965	J, 32	C02250828	C02470828	T40C2800

APB = All Ports Blocked COE = Centre Open Exhaust

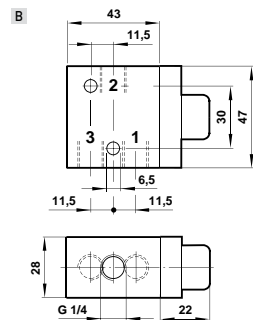
## DIMENSIONS

### Valve bodies

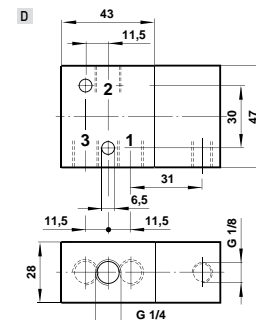
G1/8, 3/2 Spring return, basic body



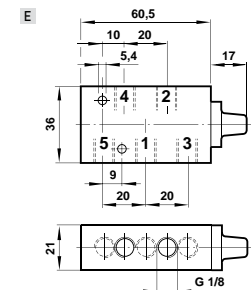
G1/4, 3/2 Spring return, basic body



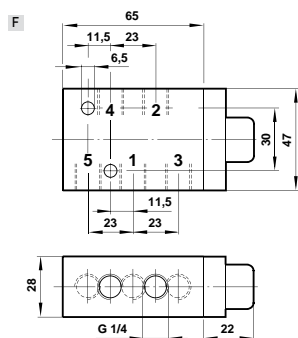
G1/4, 3/2 Pilot return, basic body



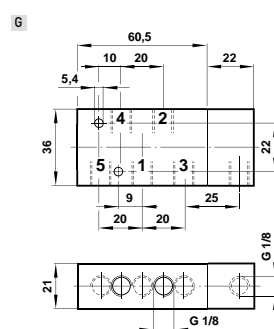
G1/8, 5/2 Spring return, basic body



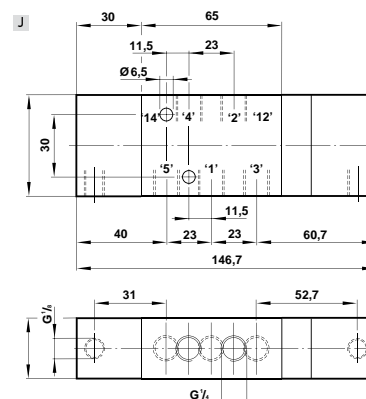
G1/4, 5/2 Spring return, basic body



G1/8, 5/2 Pilot return, basic body



G1/4, 5/3 Spring return, basic body



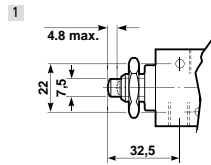
# IN-LINE VALVES Super X

Manually and mechanically actuated spool valve – 3/2, 5/2 and 5/3, G1/8, G1/4

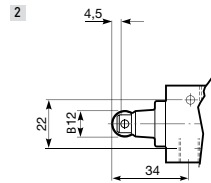
## DIMENSIONS

### Mechanical valve actuators

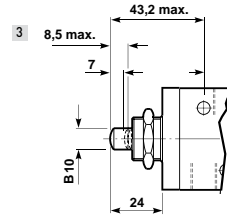
Plunger – G1/8 valves



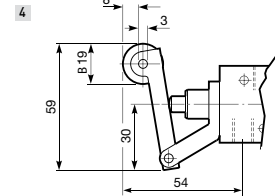
Roller – G1/8 valves



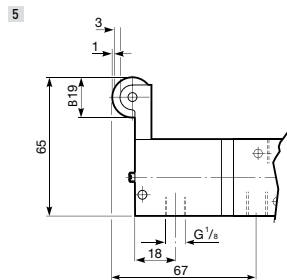
Plunger – G1/4 valves



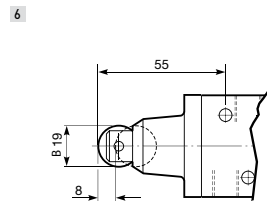
Roller lever – G1/8 valves



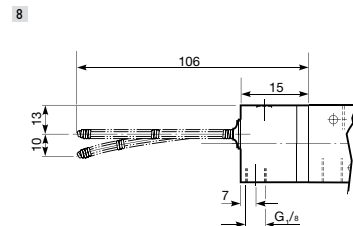
Sensitive roller lever – G1/8 valves



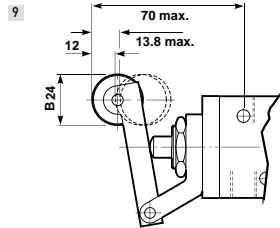
Roller – G1/4 valves



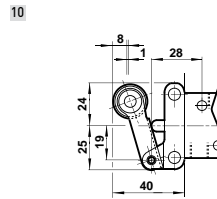
Antenna – G1/8 valves



Roller lever – G1/4 valves

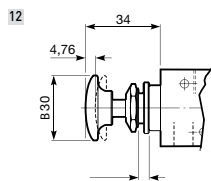


Heavy duty roller lever – G1/8 valves

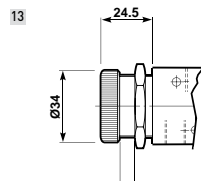


### Manual valve actuators

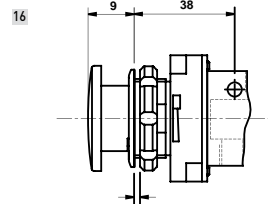
Button – G1/8 valves



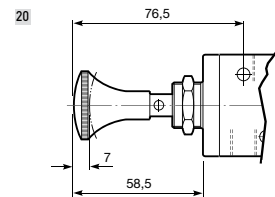
Button (shrouded) – G1/8 valves



Emergency stop – G1/8 valves



Knob – G1/4 valves



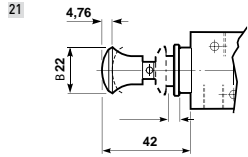
**IN-LINE VALVES Super X**

Manually and mechanically actuated spool valve – 3/2, 5/2 and 5/3, G1/8, G1/4

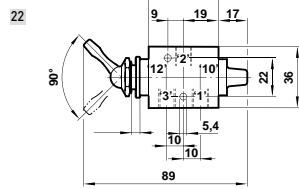
**DIMENSIONS**

**Manual valve actuators**

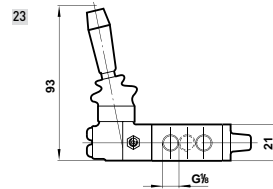
Knob – G1/8 valves



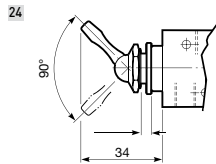
Lever operated spring return valve – G1/8 valves



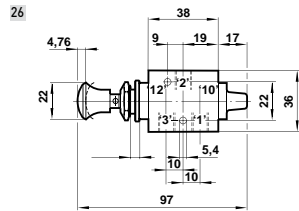
Lever operated spring return valve – G1/8 valves



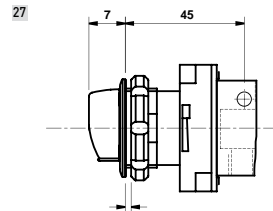
Switch – G1/8 valves



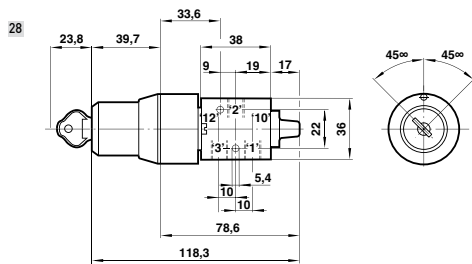
Knob operated knob return valve – G1/8 valves



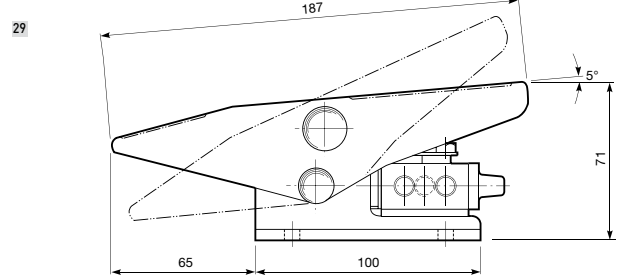
Rotary knob – G1/8 valves



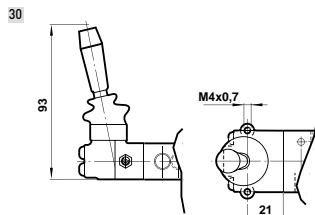
Key – G1/8 valves



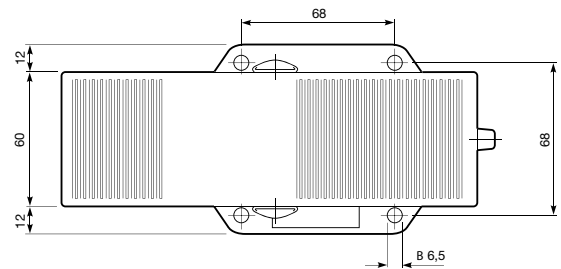
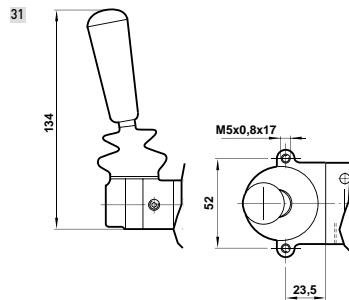
Pedal/treadle – G1/8-G1/4 valves



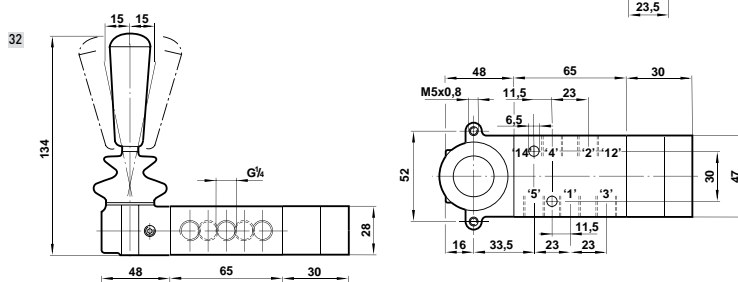
Lever – G1/8 valves



Lever – G1/4 valves



Lever/spring/lever – G1/4 valves



Operating force: 12 N [X3 3638 02 & X3 3678 02], 15 N [X3 3637 02 & X3 3677 02]  
Panel hole: Ø 31 mm  
Panel thickness: 8 mm maximum

# ROTARY HAND VALVE VHLA Series

Manually operated hand valve 4/2, 4/3, G1/4... G1/2

- Easy to grasp and rotate handle
- Detented centre position
- Panel mounting option
- 2 or 3 position functions available

## TECHNICAL DATA

### Medium:

Compressed air, filtered, lubricated and non-lubricated

### Operating pressure:

Maximum 9,7 bar

### Flow:

400 – 3100 l/min

### Ambient temperature:

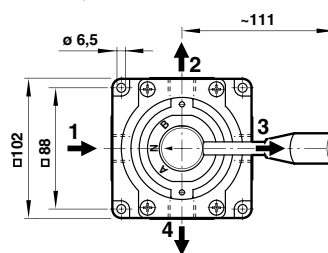
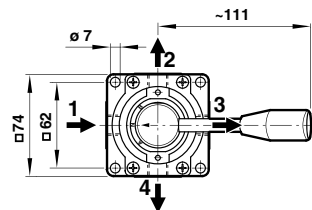
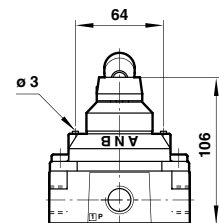
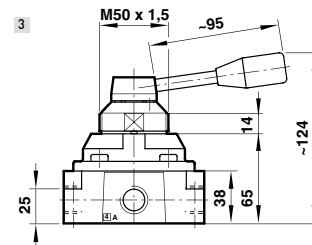
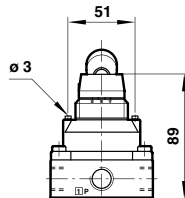
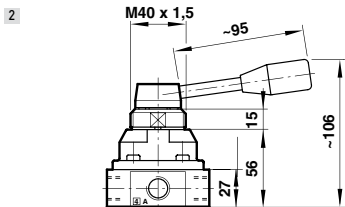
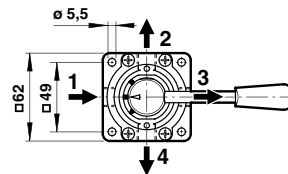
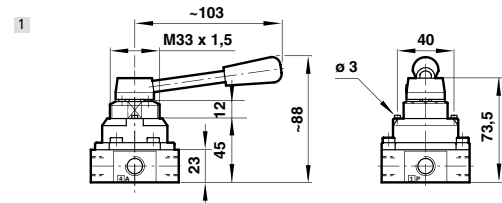
5°C ... 60°C



## MATERIALS

### Body:

Die-cast aluminium



## Models

Model	Port size	Function	Flow	Drawing No.	Panel mounting nut
VHLA200-02G	G1/4	4/3 APB	400	1	VHLA-200N
VHLA202-02G	G1/4	4/2	400	1	VHLA-200N
VHLA300-03G	G3/8	4/3 APB	1100	2	VHLA-300N
VHLA302-03G	G3/8	4/2	1100	2	VHLA-300N
VHLA400-04G	G1/2	4/3 APB	3100	3	VHLA-400N
VHLA402-04G	G1/2	4/2	3100	3	VHLA-400N

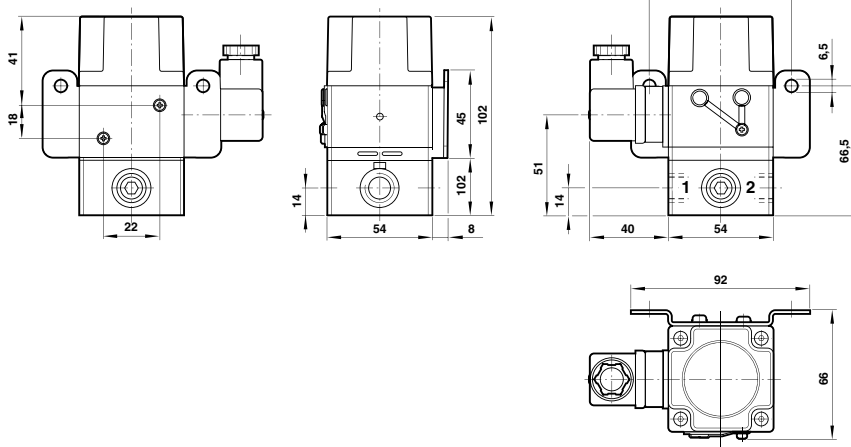
## Accessories

Panel mounting nut
VHLA-200N
VHLA-200N
VHLA-300N
VHLA-300N
VHLA-400N
VHLA-400N

# PROPORTIONAL PRESSURE CONTROL VALVE

## VP10 Series

G1/4



**Air piloted proportional pressure valve**  
**Reliable, rugged design**  
**Excellent accuracy**  
**IP 65 environmental protection in normal position**

### TECHNICAL DATA

**Medium:**

Oil free, dry air, filtered to 5 µm

**Output pressure:**

0,2–1,0 bar, 0,2–2,0 bar, 0,2–4 bar (2 wire version)

0,14–6,0 bar, 0,14–8 bar (3 wire version)

**Flow capacity:**

Up to 300 l/min

**Air consumption:**

<4 bar: 0,85 l/min typical, >4 bar: 1,75 l/min typical

**Operating pressure:**

At least 0,7 bar above maximum required output pressure

**Operating temperature range:**

-20 ... +70 °C

Consult our Technical Service for use below +2°C

**Response time:**

<2 bar: less than 0,5 s for 10...90% step change

>2 bar: 2 s for 10...90% step change

**Total error:**

±0,5% of span (typical, independent error includes the combined effect of non-linearity, hysteresis, deadzone and repeatability)

**Temperature effect:**

Typically 0,1% of span/°C for span and zero over operating range

**Supply sensitivity:**

>0,025% span output change per % supply pressure change

**Failure mode:**

Signal falls to bleed pressure when electrical supply fails

**Mounting:**

Integral surface mounting bracket provided for referred vertical mounting. 50 mm pipe mounting kit available.

### Models

Model	Port size	Flow (l/min)	Control signal	Output pressure (bar)
VP1001BJ400A00	G1/4	300	4... 20 mA	0,2... 1
VP1006BJ401A00	G1/4	300	4... 20 mA	0,14... 6
VP1008BJ401A00	G1/4	300	4... 20 mA	0,14... 6

# PROPORTIONAL PRESSURE CONTROL VALVE

## VP50 Series

G1/4

Closed loop air pilot operated proportional pressure control valve

Adjustable for a wide range of applications

Fast response

Low power consumption

High flow



### TECHNICAL DATA

#### Medium:

Compressed air filtered to 50 µm, non-lubricated

#### Supply pressure:

14 bar max.

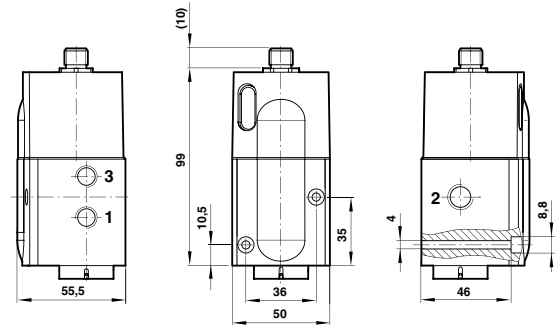
#### Flow:

Up to 1200 l/min

#### Ambient temperature:

-20°C to +50°C

Consult our Technical Service for use below +2°C.



### Models

Model	Actuation	Port Size	Flow (l/min)	Operating pressure (bar)	Control signal	Straight fitting	Elbow fitting	Silencer	Connector with 5m moulded cable
VP5010BJ111H00		G1/4	1200	0..10	0..10 V	C02250828	C02470828	T40C2800	0250081000000000
VP5010BJ411H00		G1/4	1200	0..10	4..20 mA	C02250828	C02470828	T40C2800	0250081000000000
VP5008BJ111H00		G1/4	1200	0..8	0..10 V	C02250828	C02470828	T40C2800	0250081000000000
VP5008BJ411H00		G1/4	1200	0..8	4..20 mA	C02250828	C02470828	T40C2800	0250081000000000
VP5006BJ111H00		G1/4	1200	0..6	0..10 V	C02250828	C02470828	T40C2800	0250081000000000
VP5006BJ411H00		G1/4	1200	0..6	4..20 mA	C02250828	C02470828	T40C2800	0250081000000000
VP5002BJ111H00		G1/4	1200	0..2	0..10 V	C02250828	C02470828	T40C2800	0250081000000000
VP5002BJ411H00		G1/4	1200	0..2	4..20 mA	C02250828	C02470828	T40C2800	0250081000000000

\* Up to 1200 l/min at 11 bar supply pressure

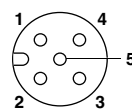
### Accessories



### Electrical Information

Electromagnetic compatibility	CE marked: conforms to EC requirements EN 50081-2 (1994) and EN 50082-2 (1995)
Electrical input signal	4 to 20 mA or 0 to 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
Connections	M12 5 pin

### Pin configuration



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

# PROPORTIONAL PRESSURE CONTROL VALVE

## VP51 Series – 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 50 µm, non-lubricated

#### Output pressure:

User adjustable up to 10 bar

#### Supply pressure:

14 bar

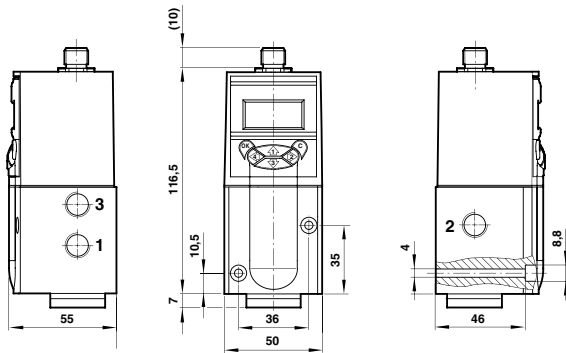
#### Flow:

Up to 1200 l/min


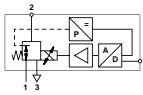




#### Ambient temperature:

-20°C ... +50°C

Consult our Technical Service for use below +2°C.



### Models

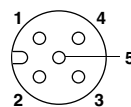
Model	Actuation	Port Size	Flow (l/min)	Operating pressure (bar)	Control signal	Straight fitting	Elbow fitting	Silencer	Connector with 5m moulded cable
									
VP5110BJ111H00		G1/4	1200	0..10	0..10 V	C02250828	C02470828	T40C2800	0250081000000000
VP5110BJ411H00		G1/4	1200	0..10	4..20 mA	C02250828	C02470828	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 to 20 mA or 0 to 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	Monitor output
3	Control signal (+ve)
4	Common (DC supply, signal and feedback return)
5	Chassis (earth)

# INDIRECT SOLENOID ACTUATED DIAPHRAGM VALVES Buschjost 82400 and 82730 Series

8 ... 50 mm orifice (ND) 2/2, NC, G1/4 to G2

High flow rate

Dampened operation

Clear compact design

Solenoid interchangeable without tools (Click-on®)

Particularly suitable for use as water valve in accordance with DIN EN 60730-2-8



## TECHNICAL DATA

### Medium:

Neutral gases and liquids (82400 series)

Slightly aggressive gases and liquids (82730 series)

### Flow direction:

Fixed

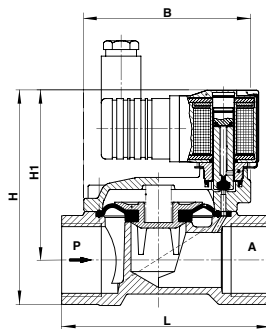
### Operating pressure:

0,1 ... 16 bar, see tables for individual details

### Temperature:

-10°C ... +90°C max. (fluid)

-10°C ... +50°C max. (ambient)



Type-tested up to 25 mm orifice size in accordance with DIN EN 60730-2-8

Solenoid valves

Test institute

TÜV Rheinland / Brandenburg



## Dimensions

Ports	B	H	H1	L
G1/4	44	78,5	67,0	60
G3/8	44	78,5	67,0	60
G1/2	44	81,0	67,0	67
G3/4	50	88,0	71,5	80
G1	62	97,5	77,0	95
G1 1/4	92	124,5	95,5	132
G1 1/2	92	124,5	95,5	132
G2	109	142,5	108,0	160

## MATERIALS

**Body:** brass or stainless steel

**Seat seal:** NBR (Perbunan)

**Internal parts:** stainless steel, PVDF

For contaminated fluids installation of an upstream filter is recommended

## Models

BRASS – FOR NEUTRAL GASES AND LIQUIDS						
Model (24 V d.c.)	Model (230 V a.c.)	Actuation	Orifice (mm)	Port size	Kv value (m³/h)	Operating pressure (bar)
8240000910102400	8240000910123050	2/2 NC	8	G1/4	1,90	0,1..16
8240100910102400	8240100910123050	2/2 NC	10	G3/8	3,00	0,1..16
8240200910102400	8240200910123050	2/2 NC	12	G1/2	3,80	0,1..16
8240300910102400	8240300910123050	2/2 NC	20	G3/4	6,10	0,1..16
8240400910102400	8240400910123050	2/2 NC	25	G1	9,50	0,1..16
8240500910102400	8240500910123050	2/2 NC	32	G1 1/4	23,00	0,1..10
8240600910102400	8240600910123050	2/2 NC	40	G1 1/2	25,00	0,1..10
8240700910102400	8240700910123050	2/2 NC	50	G2	41,00	0,1..10
STAINLESS STEEL – FOR AGGRESSIVE GASES AND LIQUIDS						
Model (24 V d.c.)	Model (230 V a.c.)	Actuation	Orifice (mm)	Port size	Kv value (m³/h)	Operating pressure (bar)
8273200910102400	8273200910123050	2/2 NC	12	G1/2	3,80	0,1..16
8273300910102400	8273300910123050	2/2 NC	20	G3/4	6,00	0,1..16
8273400910102400	-	2/2 NC	25	G1	9,50	0,1..16

For models without coil, replace the last seven digits of the part number with 0000000. Other voltages available, please call your Express Team.

## Solenoid details

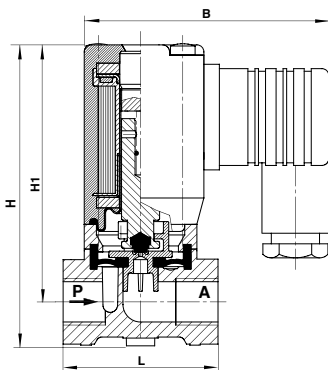
Type	Power Consumption 24 V d.c. (W)	230 V a.c. (VA)	Protection class	Electrical connection	Wireable plug
9101	8	15/12	IP 65	DIN EN 175301-803	Included

For further details please refer to the technical data sheet



# SOLENOID ACTUATED DIAPHRAGM VALVES WITH FORCED LIFTING Buschjost 82530 and 82560 Series

10 mm orifice (ND) 2/2, NC, G1/4 ... G1/2



## Dimensions

Ports	B	H	H1	L
G1/4	70	85,5	73,0	44
G3/8	70	85,5	73,0	44
G1/2	70	85,5	74,5	60

## Models

BRASS - FOR NEUTRAL GASES AND LIQUIDS						
Model (24 V d.c.)	Model (230 V a.c.)	Actuation	Orifice (mm)	Port size	Kv value (m <sup>3</sup> h)	Operating pressure (bar)
8253000800102400	8253000800123050	2/2 NC	10	G 1/4	1,5	0 ...10
8253100800102400	8253100800123050	2/2 NC	10	G 3/8	1,7	0 ...10
8253200800102400	8253200800123050	2/2 NC	10	G 1/2	1,7	0 ...10
STAINLESS STEEL - FOR AGGRESSIVE GASES AND LIQUIDS						
Model (24 V d.c.)	Model (230 V a.c.)	Actuation	Orifice (mm)	Port size	Kv value (m <sup>3</sup> h)	Operating pressure (bar)
8256000800102400	-	2/2 NC	10	G 1/4	1,5	0 ...10
8256200800102400	8256200800123050	2/2 NC	10	G 1/2	1,7	0 ...10

## Solenoid details

Type	Power Consumption 24 V d.c. (W)	230 V a.c. (VA)	Protection class	Electrical connection	Wireable plug
8001	12	20/16	IP 65	DIN EN 175301-803	Included

For further details please refer to the technical data sheet

## TECHNICAL DATA

### Medium:

Neutral gases and liquids (82530 series)

Slightly aggressive gases and liquids (82560 series)

### Flow direction:

Fixed

### Operating pressure:

0 to 10 bar

### Temperature:

-10°C ... +90°C max. (fluid)

-10°C ... +50°C max. (ambient)

## MATERIALS

**Body:** brass, stainless steel

**Seat seal:** NBR (Perbunan)

**Internal parts:** stainless steel 1,4104/430F,  
1,4303, PVDF

For contaminated fluids installation of an  
upstream filter is recommended.

# PRESSURE ACTUATED ANGLE SEAT VALVES

## Buschjost 84720/84740 Series

15 ... 25 mm orifice (ND) 2/2, G1/2 to G1

Visual position indicator as standard

Dampened closing (closes against flow direction)

Suitable for contaminated flow fluids

Suitable for vacuum up to max. 90%

Reversed flow direction optional

### TECHNICAL DATA

#### Medium:

Neutral gases and liquids (84720 Series)

Aggressive gases and liquids (84740 Series)

#### Flow direction:

Fixed

#### Operating pressure:

0 ... 16 bar, see tables for individual details

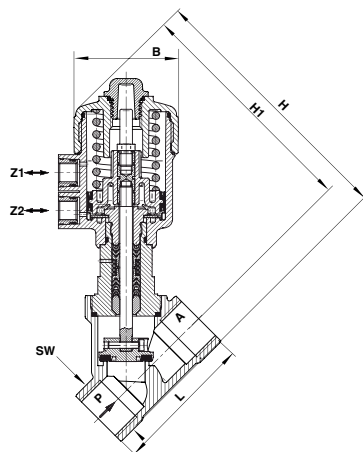
#### Temperature:

-10°C ... +180°C max. (fluid)

-10°C ... +60°C max. (ambient)

#### Pilot fluid:

Neutral gases



### Dimensions

Ports	B	H	H1	L	SW
G1/2	66	154	140,5	65	27
G3/4	66	160	144,5	75	32
G1	66	171	150,5	90	41

### MATERIALS

**Body:** dezincification brass (84720),  
stainless steel (84740)

**Seat seal:** PTFE

**Internal parts:** brass, stainless steel (84720),  
stainless steel (84740)


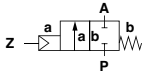

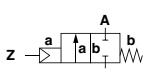
### EXPRESS LINKS

#### Recommended 3/2 pilot valve...

For use with these angle seat pilot valves please see page 126



### Models

BRASS - FOR NEUTRAL GASES AND LIQUIDS					
Model	Actuation	Orifice (mm)	Port size	Kv value (m³h)	Operating pressure (bar)
					
8472200000000000	2/2 N/C	15	G1/2	4,8	0..16
8472300000000000	2/2 N/C	20	G3/4	10	0..8
8472400000000000	2/2 N/C	25	G1	14	0..5
STAINLESS STEEL - FOR AGGRESSIVE GASES AND LIQUIDS					
Model	Actuation	Orifice (mm)	Port size	Kv value (m³h)	Operating pressure (bar)
					
8474200000000000	2/2 N/C	15	G1/2	4,8	0..16

# PRESSURE ACTUATED ANGLE SEAT VALVES

## Buschjost 84500/84520 Series

15 ... 50 mm orifice (ND) 2/2, G1/2 to G2

Interchangeable for NC, NO or double acting functions

Visual position indicator as standard

Dampened closing (closes against flow direction)

Suitable for contaminated flow fluids

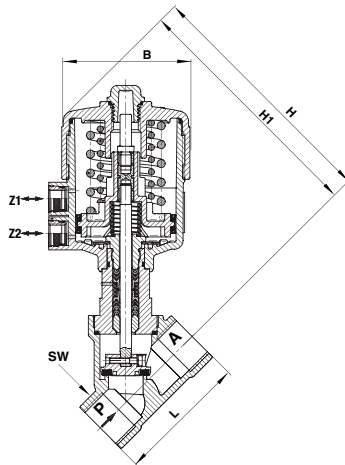
Suitable for vacuum up to max. 90%

Reversed flow direction optional



### Dimensions

Ports	B	H	H1	L	SW
G1/2	89,5	177,5	164,0	65	27
G3/4	89,5	184,0	168,0	75	32
G1	89,5	194,5	174,0	90	41
G1 1/4	89,5	209,5	184,5	110	50
G1 1/2	89,5	208,5	186,0	120	55
G2	89,5	229,5	194,5	150	70



### Models

#### BRASS – FOR NEUTRAL GASES AND LIQUIDS

Model	Actuation	Orifice (mm)	Port size	Kv value (m <sup>3</sup> h)	Operating pressure (bar)
8450200000000000	2/2 N/C	15	G1/2	4,8	0..16
8450300000000000	2/2 N/C	20	G3/4	10	0..10
8450400000000000	2/2 N/C	25	G1	14	0..10
8450500000000000	2/2 N/C	32	G1 1/4	23	0..7
8450600000000000	2/2 N/C	40	G1 1/2	30	0..4,5
8450700000000000	2/2 N/C	50	G2	37	0..3

#### STAINLESS STEEL – FOR AGGRESSIVE GASES AND LIQUIDS

Model	Actuation	Orifice (mm)	Port size	Kv value (m <sup>3</sup> h)	Operating pressure (bar)
8452200000000000	2/2 N/C	15	G1/2	4,8	0..16
8452300000000000	2/2 N/C	20	G3/4	10	0..10
8452400000000000	2/2 N/C	25	G1	14	0..10

### TECHNICAL DATA

#### Medium:

Neutral gases and liquids (84500 Series)

Aggressive gases and liquids (84520 Series)

#### Flow direction:

Fixed

#### Operating pressure:

0 ... 16 bar, see tables for individual details

#### Temperature:

-10°C ... +180°C max. (fluid)

-10°C ... +60°C max. (ambient)

#### Pilot fluid:

Neutral gases

### MATERIALS

**Body:** dezincification brass (84500),

stainless steel (84520)

**Seat seal:** PTFE

**Internal parts:** brass, stainless steel (84500),

stainless steel (84520)

# PILOT VALVE FOR PRESSURE ACTUATED VALVES

## Buschjost 84660 Series

3/2 NC, DN 1,6 and DN 3,0, G1/4

Pilot valve for pressure actuated valves

Indirectly solenoid actuated seat valve

Compact design

Low power consumption

### TECHNICAL DATA

#### Medium:

Compressed air filtered, lubricated or non-lubricated or neutral liquids

#### Switching function:

Normally closed

#### Flow direction:

Fixed

#### Operating pressure:

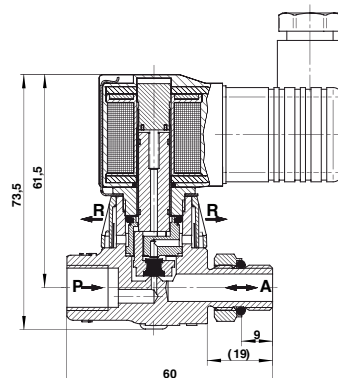
1 ... 10 bar

#### Mounting position:

Optional, but preferably with solenoid facing vertically upwards

#### Temperature:

-10 °C up to max. +60 °C (fluid and ambient)



### MATERIALS

#### Body:

Brass

#### Seat seal:

TPU

#### Internal parts:

Stainless steel, PPS

### Models

Model (24 V d.c.)	Model (230 V a.c.)	Actuation	Orifice (mm)	Port size	Flow (l/min)	Switching time** ms	Operating pressure (bar)
8466000910102400	8466000910123050	3/2	1,6	G1/4	1,2	8,5 (on) 30,4 (off)	1 ... 10

\*\* For 6 bar according to DIN VDI 3290 with solenoid for d.c.

### Solenoid details

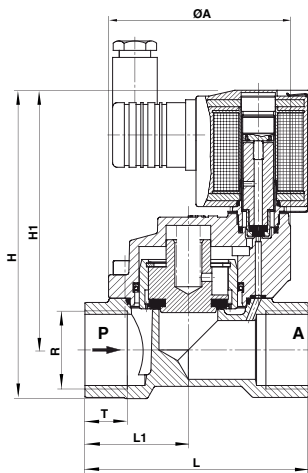
Type	Power Consumption		Protection class	Electrical connection	Wireable plug
	24 V d.c. (W)	230 V a.c. (VA)			
9101	8	15/12	IP 65	DIN EN 175301-803	Included

For further details please refer to the technical data sheet

# INDIRECT SOLENOID ACTUATED PISTON VALVE

## Buschjost 85300 Series

12 to 25 mm orifice (ND) 2/2 NC, G 1/2 to G1



- Compact piston valve
- High flow rate
- Dampened operation
- Functional compact design

### TECHNICAL DATA

#### Medium:

Neutral gases and liquids

#### Flow direction:

Fixed

#### Operating pressure:

0,5 ... 40 bar

#### Temperature:

-20°C ... +90°C max. (fluid)

-20°C ... +50°C max. (ambient)

### MATERIALS

**Body:** brass

**Seat seal:** NBR (Perbunan)

**Internal parts:** stainless steel, brass, PTFE

For contaminated fluids installation of an upstream filter is recommended

### Dimensions

Ports	A mm	H	H1	L	L1	T
G1/2	44	107,5	93,5	67	31,0	14,0
G3/4	50	119,0	102,5	80	36,5	16,0
G1	62	131,5	110,5	95	44,0	18,0

### Models

BRASS		Actuation	Orifice (mm)	Port size	Kv value (m³/h)	Operating pressure (bar)
Model (24 V d.c.)	Model (230 V a.c.)					
8530200915102400	8530200915123050	2/2	12	G1/2	4,4	0,5 ...40
8530300915102400	8530300915123050	2/2	20	G3/4	7,0	0,5 ...40
8530400915102400	8530400915123050	2/2	25	G1	10,5	0,5 ...40

### Solenoid details

Type	Power Consumption		Protection class	Electrical connection	Wireable plug
	24 V d.c. (W)	230 V a.c. (VA)			
9151	18	45/35	IP 65	DIN EN 175301-803	Included

For further details please refer to the technical data sheet

# SOLENOID ACTUATED WITH FORCED LIFT PISTON SEAT VALVE Buschjost 85700 Series

12 ... 25 mm orifice (ND) 2/2, G 1/2 ... G1

High flow rate

For robust industrial applications

Suitable for vacuum

For systems with low or fluctuating pressure

## TECHNICAL DATA

### Medium:

Neutral gases and liquids

### Flow direction:

Fixed

### Operating pressure:

0 to 25 bar

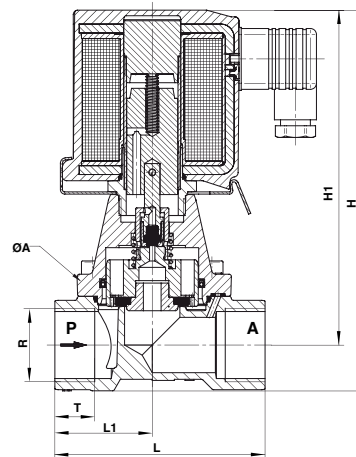
### Mounting position:

Optional, but preferably with solenoid facing vertically upwards

### Temperature:

-20°C to +90°C max. (fluid)

-20°C to +50°C max. (ambient)



## MATERIALS

**Body:** brass

**Seat seal:** NBR (Perbunan)

**Internal parts:** stainless steel, PTFE/carbon

For contaminated fluids installation of an upstream filter is recommended

## Dimensions

Ports	A mm	H	H1	L	L1	T
G1/2	44,0	154,5	140,5	67,0	31,0	14,0
G3/4	50,0	162,0	146,5	80,0	36,5	16,0
G1	62,0	183,0	162,0	95,0	44,0	18,0

## Models

Model (24 V d.c.)	Actuation	Orifice (mm)	Port size	Kv value (m³/h)	Operating pressure (bar)
8570200940102400	2/2	12	G1/2	4,4	0 ...25
8570300940102400	2/2	20	G3/4	7,0	0 ...25
8570400940102400	2/2	25	G1	10,5	0 ...25

## Solenoid details

Type	Power Consumption 24 V d.c. (W)	230 V a.c. (VA)	Protection class	Electrical connection	Wireable plug
9401	38	-	IP 65	DIN EN 175301-803	Included

For further details please refer to the technical data sheet

# SOLENOID ACTUATED NAMUR VALVE

## Herion 97100 Series

6 mm orifice (ND) – 3/2, 5/2, 5/3, NC/APB, G1/4

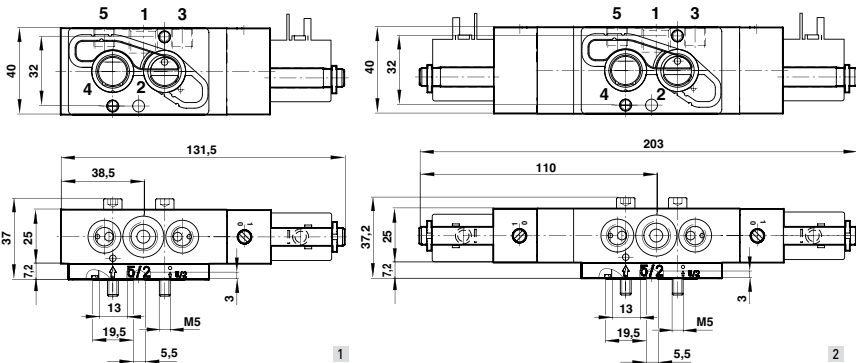


- 3/2 or 5/2 way function via adapter plates
- Exhaust air recirculation
- Crossover-free switching, switch-over function guaranteed even with small cross section air supply
- Rest position in the event of power failure (monostable design)
- Manual override with detent

### TECHNICAL DATA

- Medium:**  
Compressed air filtered, lubricated or non-lubricated.
- Operating pressure:**  
2 to 8 bar
- Flow direction:**  
Fixed
- Mounting position:**  
Optional
- Ambient temperature:**  
Valve: -25°C to +50°C  
Solenoid: See solenoid table

With minus temperatures, use conditioned dry air. If installed in the open protect all connections against the penetration of moisture. Consult our Technical Service for use below +2°C



### Models

3/2, 5/2 AND 5/3 VALVES		Actuation	Port size			Function	Flow (l/min)	Drawing No.
Model 24 V d.c.	Model 230 V a.c.		1	3 (5)	2, 4			
9710000303602400	9710000303623050	Solenoid/Spring	G1/4	G 1/8	Flange	NC	750	1
9711000303602400	9711000303623050	Solenoid/Solenoid	G1/4	G 1/8	Flange	NC	750	2
9712000303602400	9712000303623050	Solenoid/Solenoid	G1/4	G 1/8	Flange	APB	500	2

APB = All Ports Blocked Exterior free of non-ferrous metals. For models without coil, replace the last five digits of the part number with 00000

### Solenoid details

3/2, 5/2 AND 5/3 VALVES		Voltage	Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
Power Consumption 24 V d.c. (W)	230 V a.c. (VA)						
1,6	3,5	30	-	-	IP 65 (with connector)	-40 ... +50	DIN EN 175301-803 Form A 4)

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.

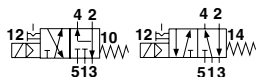
6) Connector not supplied; required connector for d.c.: part no. 0570275 Form A, see 'Accessories' table.

# INDIRECT SOLENOID ACTUATED NAMUR VALVE Herion 97100 series

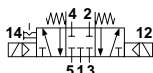
6 mm orifice (ND) – 3/2, 5/2, 5/3, NC/APB, G1/4

## Models

3/2, 5/2 AND 5/3 VALVES FOR MINIMAL ELECTRICAL POWER			Port size			Function	Flow (l/min)	Drawing No.
Model 24 V d.c.	Model 230 V a.c.	Actuation	1	3 (5)	2, 4			



9710002305002400	-	Solenoid/Spring	G1/4	G 1/8	Flange	NC	750	1
9710002303402400	9710002303423050	Solenoid/Spring	G1/4	G 1/8	Flange	NC	750	1



9712002305002400	-	Solenoid/Solenoid	G1/4	G 1/8	Flange	APB	500	2
9712002303402400	9712002303423050	Solenoid/Solenoid	G1/4	G 1/8	Flange	APB	500	2

APB = All Ports Blocked. Exterior free of non-ferrous metals. For models without coil, replace the last nine digits of the part number with 000000000

## Solenoid details

3/2, 5/2 AND 5/3 VALVES FOR MINIMAL ELECTRICAL POWER				Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
Power Consumption 24 V d.c. (W)	230 V a.c. (VA)	Voltage 24 V d.c. (mA)	230 V a.c. (mA)					



1,7	-	-	-	-	IP 65 (with connector)	-40 ... +50	DIN EN 175301-803 Form B <sup>6)</sup>	3050
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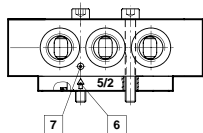


0,7	0,7 2)	-	-	-	IP 65 (with connector) <sup>2)</sup>	-40 ... +50	DIN EN 175301-803 Form A <sup>6)</sup>	3034
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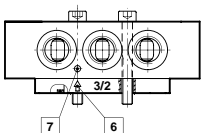
Standard voltages 24 V d.c., 230 V a.c. Other voltages on request. Design acc. to VDE 0580, EN 50014/50028. 100% duty cycle.  
 2) Valves can be operated with d.c. only. For 230 V a.c. application please use 206 V d.c. coil together with rectifier plug 0663303  
 6) Connector not supplied; required connector for d.c.: part no. 0680003 Form B and 0570275 Form A, see 'Accessories' table.

## CONVERSION INSTRUCTIONS

### 5/2 way function (original mode of supply)



### 3/2 way function



3/2 resp. 5/2 way function can be achieved just by swapping enclosed adaptor plates. Make sure Marker and Arrow do match as shown on above drawing. Original mode of supply: 5/2 function.

- Arrow
- Marker

## Accessories

Silencer	Connectors
0014500 (G1/8)*	0570275 Form A 0663303 with rectifier 0680003 Form B

\* For indoor use

## EXPRESS LINKS

### Exhaust air...

Can be noisy and dangerous to ears, always fit a silencer.

Please see page 275





# SOLENOID ACTUATED NAMUR VALVE

## Herion 97300

3/2 and 5/2, G1/4



For single and double operated actuators  
Crossover-free switching, switch-over function guaranteed even with small cross section air supply

3/2 or 5/2 way function in one valve

Manual override with detent

Compact design

The solenoid valves are applicable in the protection class EEx m and EEx ia, for zones 1, 2 (gases) ATEX cat.II 2 G, EEx nA, for zones 2 (gases), 22 (dust) ATEX cat.II 3 GD

### TECHNICAL DATA

#### Medium:

Compressed air filtered, lubricated or non-lubricated.

#### Operating pressure:

2...8 bar

#### Flow direction:

Fixed

#### Mounting position:

Optional

#### Temperature:

-5°C ... +50°C

Please consult our technical service for use below +2°C

### MATERIALS

#### Housing:

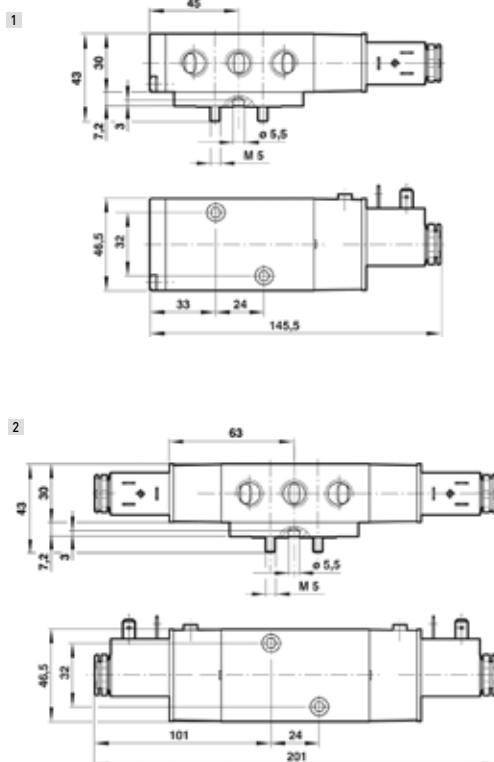
Aluminium anodised

#### Pilot flange:

Plastic (PBT)

#### Seals:

NBR (Perbunan)



### Models



Model 24 V d.c.	Model 230 V a.c.	Port size 1, 3, 5	2, 4	Function	Flow (l/min)	Drawing No.	Electrical connection
9730000305002400	9730000305023050	G1/4	Flange	5/2, 3/2 Sol/Spring	1300	1	DIN EN 175301-803 Form B
9730000303602400	9730000303623050	G1/4	Flange	5/2, 3/2 Sol/Spring	1300	1	DIN EN 175301-803 Form A
9731000305002400	9731000305023050	G1/4	Flange	5/2, 3/2 Sol/Sol	1300	2	DIN EN 175301-803 Form B
9731000303602400	9731000303623050	G1/4	Flange	5/2, 3/2 Sol/Sol	1300	2	DIN EN 175301-803 Form A

For valves without coils, substitute the last nine digits of the part number for 000000000

# INDIRECT SOLENOID ACTUATED NAMUR VALVE Herion 97300

3/2 and 5/2, G1/4

## Solenoid details






	Power Consumption		Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	24 V d.c. (W)	230 V a.c. (VA)					
	1,7	4,3	-	IP 65 (with connector)	-40 ... +50	DIN EN 175301-803 Form B <sup>2</sup>	<b>3050</b>
	1,6	3,5	-	IP 65 (with connector) <sup>1</sup>	-40 ... +50	DIN EN 175301-803 Form A <sup>2</sup>	<b>3036</b>

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

\*1) Certificate of Conformity PTB No. PTB 03 ATEX 2015X

\*2) Connector is not included in delivery; Required connectors 068003 form B or 0570275 form A

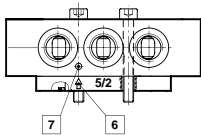
## Accessories

Silencer	Connectors	Flange plate		Yoke
				
0014600 (G1/4)*	0570275 Form A 0663303 Form A with rectifier 0680003 Form B	0612790 Single connection plate 0612791 NAMUR-slot use in combination with 0612790 (Alu)		0540593

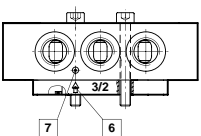
\* For indoor use

## CONVERSION INSTRUCTIONS

### 5/2 way function (original mode of supply)




### 3/2 way function



3/2 resp. 5/2 way function can be achieved just by swapping enclosed adaptor plates. Make sure Marker and Arrow do match as shown on above drawing. Original mode of supply: 5/2 function.

 Arrow

 Marker

## EXPRESS LINKS

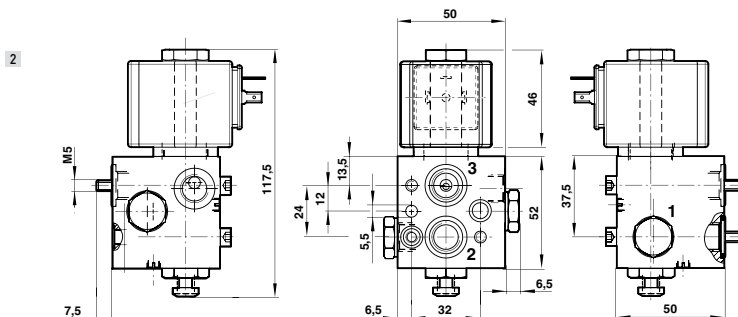
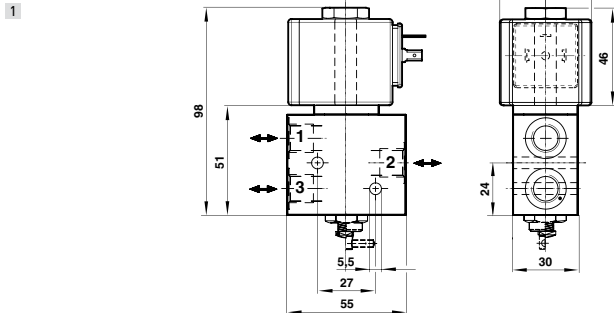
### Connectors and cables

For a full selection of 22mm and 30mm DIN EN175301-803 plugs and cables please see page 151 and 152



# DIRECT SOLENOID ACTUATED POPPET VALVES Herion 24011 series

5 mm orifice (ND) 3/2, Universal, G1/4, 1/4 NPT, flange with NAMUR interface



## Models

VALVES WITH THREADED CONNECTION - BRASS VALVES									
Model 24 V d.c.	Model 230 V a.c.	Actuation	Port size	Operating pressure (bar)#	Materials seat seal	Manual override	Solenoid group	Drawing No.	Test certificate IEC 61 508**
2401103080002400	2401103380323050		G1/4	0 ... 10	NBR	-	A	1	
2401103426002400	2401103426123050		G1/4	0 ... 10	NBR	-	B	1	
2401103466002400	-		G1/4	0 ... 10	NBR	-	B	1	
2401126080002400	2401126380323050		G1/4	0 ... 10	FKM	-	A	1	•
2401126426002400	-		G1/4	0 ... 10	FKM	-	B	1	•
2401138080002400	2401138380323050		1/4 NPT	0 ... 10	NBR	-	A	1	•
2401138426002400	2401138426123050		1/4 NPT	0 ... 10	NBR	-	B	1	•
2401138466002400	-		1/4 NPT	0 ... 10	NBR	-	B	1	•
VALVES WITH THREADED CONNECTION - STAINLESS STEEL VALVES (1,4404/316L) FOR AGGRESSIVE ENVIRONMENT									
2401147080002400	2401147380323050		1/4 NPT	0 ... 10	FKM	-	A	1	

\*\* & # See page 134

Main application: single operated process actuators

TÜV-approval based on IEC 61 508, DIN V 19 251.  
Approvals: DIN EN 161/3394 DVGW, group Rm and EN 13611

Valves for safety systems to SIL 4 or AK 7  
Standard NAMUR type manifold system for easy assembly

Redundancy: 1 of 2, 2 of 3

Valve switches at power failure into starting position (mechanical return spring)

Rest position in the event of power failure provided by mechanical return spring

These solenoids are ATEX approved

Suitable for outdoor use under critical environment conditions (see solenoid list)

## TECHNICAL DATA

### Medium:

Neutral or aggressive gaseous or liquid fluids

### Operating pressure:

0 to 10 bar

### Flow:

340 l/min

### Flow direction:

Optional

### Mounting position:

Optional, preferably vertical

### Fluid temperature:

-25°C to +80°C NBR, -10°C to +120°C FPM,  
water up to +95°C, -40°C to +60°C VMQ

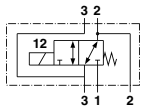
For temperatures below 0°C use conditioned dry air. If installed outdoors protect all connections against the penetration of moisture. Consult our Technical Service for use below +2°C

# DIRECT SOLENOID ACTUATED POPPET VALVES Herion 24011 series

5 mm orifice (ND) 3/2, Universal, G1/4, 1/4 NPT, flange with NAMUR interface

## Models

VALVES WITH NAMUR INTERFACE – ALUMINIUM VALVES ANODIZED									
Model	Model	Actuation	Port size	Operating pressure (bar)#	Materials seat seal	Manual override	Solenoid group	Drawing No.	Test certificate IEC 61 508**



2401109080002400	2401109380323050		G1/4	0 ... 10	NBR	Add-on	A	2	•
2401109426002400	2401109426123050		G1/4	0 ... 10	NBR	Add-on	B	2	•

\*\* Approval is not included in delivery, part No. 0695241. # Viscosity for gaseous or liquid fluids up to 40 mm<sup>2</sup>/s  
 Approval S 137/01, SIL 4 for low demand mode, SIL 3 for high demand mode, Approval S 83/96, AK 7 (request from manufacturer)  
 Particularly for valves with TÜV approval and installation in plants, based on safety standards DIN V 19250, IEC 61511, taking into account Maintenance instruction document 7503444.  
 The responsibility for the maintenance and repair of the solenoid valves lies with the users or the supervisory authority for these process systems.

## Group A solenoid details

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



16,9	-	703	-	-	IP00 without plug <sup>5)</sup> IP65 with plug <sup>5)</sup>	-25 ... +60	DIN EN175301-803 Form A <sup>4)</sup>	0800 <sup>7)</sup>
-	18	-	185	-	IP00 without plug <sup>5)</sup> IP65 with plug <sup>5)</sup>	-25 ... +60	DIN EN175301-803 Form A <sup>4)</sup>	3803 <sup>7)</sup>

## Group B solenoid details

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



4	-	162	-	II2G II2D	EEx me II T4/T6 <sup>2)</sup> IP66 T130°C	-40 ... +80/+55	M20 x 1,5 <sup>4)</sup>	4260 <sup>8)</sup>
-	5,3	-	23	II2G II2D	EEx me II T4/T6 <sup>2)</sup> IP66 T130°C	-40 ... +80/+55	M20 x 1,5 <sup>4)</sup>	4261 <sup>8)</sup>
4	-	162	-	II2G II2D	EEx md IIC T4/T6 <sup>3)</sup> EEx me IIC T4/T6 <sup>3)</sup> IP66 T130°C	-40 ... +80/+55	1/2 NPT <sup>4)</sup>	4660 <sup>8)</sup>

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.

2) Category II 2 GD, EC-Type Examination Certificate KEMA 98 ATEX 4452 X

3) Category II 2 GD, EC-Type Examination Certificate PTB 02 ATEX 2085 X



5) Required connector for d.c. type 0570275. Connector with rectifier for a.c. or universal current: type 0663303

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)

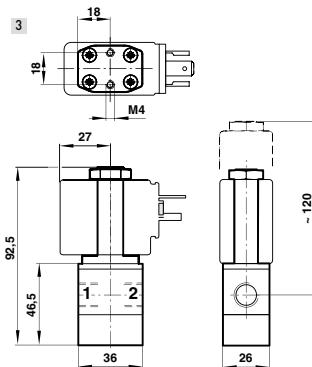
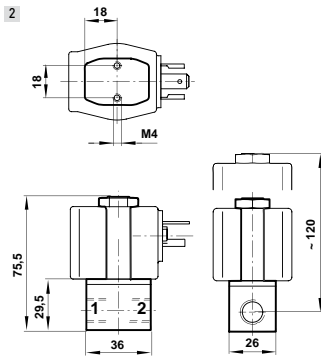
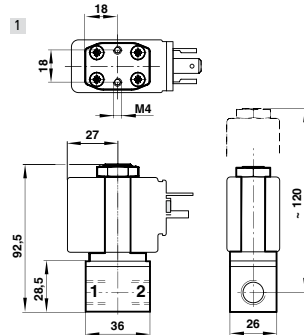
8) This solenoid has a fuse with an appropriate rating.

## Accessories

Cable glands	Connectors
Protection class EEx e, EEx d (ATEX), Ms nickel plated brass	
	
EEx e 0588819 (for solenoid 42xx /46xx M20 x 1,5)	0570275

# DIRECT SOLENOID ACTUATED POPPET VALVES

## Herion 95000 Series 1,5 to 6 mm orifice (ND) 2/2, NC/NO, G1/4



Working from 0 bar up

Short switching times

Suited for fine vacuum 1,33-10<sup>-3</sup> mbar

Assembled oil and grease-free

For a.c. solenoid systems with integrated rectifier (40 to 60 Hz)

These solenoids are ATEX and FM, CSA, XP approved

### TECHNICAL DATA

**Medium:**

Neutral gaseous and liquid fluids

**Operating pressure:**

0 to 40 bar

**Flow direction:**

Fixed

**Mounting position:**

Optional, preferably with solenoid on top

**Fluid temperature:**

-25 to +80°C NBR (Perbunan)

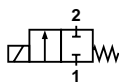
**Ambient temperature:**

Depending on solenoid system -25 to +80°C

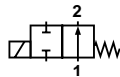
Consult our Technical Service for use below +2°C  
For contaminated fluids installation of an upstream filter is recommended

## Models

Model	Function	Port size	Orifice (mm)	Operating pressure (bar)	Flow l/min	Solenoid group	Drawing No.
9500100xxx*****	2/2 NC	G1/4	1,5	0 ... 40	70	13B	1
9500200xxx*****	2/2 NC	G1/4	2	0 ... 35	120	13B	1
9500300xxx*****	2/2 NC	G1/4	3	0 ... 10	200	13C	1
9500400xxx*****	2/2 NC	G1/4	4	0 ... 12	350	13D	1
9501400xxx*****	2/2 NC	G1/4	4	0 ... 14	350	16D	2
9501500xxx*****	2/2 NC	G1/4	5	0 ... 5	450	16D	2
9501600xxx*****	2/2 NC	G1/4	6	0 ... 5	550	16D	2



9502210xxx*****	2/2 NO	G1/4	1,5	0 ... 40	70	13B	3
9502310xxx*****	2/2 NO	G1/4	3	0 ... 10	160	13B	3



xxxx Insert solenoid code according to solenoid group from tables on page 137. \*\*\*\*\* Insert voltage code from table below

## Voltage codes

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

Other voltages available, please call your Express Team

# DIRECT SOLENOID ACTUATED POPPET VALVES

## Herion 96000 series 2 to 5 mm orifice (ND) 3/2, NC/NO, G1/4

Working from 0 bar up

Short switching times

Suited for fine vacuum down to 1,33·10<sup>-3</sup> mbar

Assembled oil and grease-free

For a.c. solenoid systems with integrated rectifier (40 to 60 Hz)

These solenoid valves are ATEX and FM, CSA, XP approved

### TECHNICAL DATA

#### Medium:

Neutral gaseous and liquid fluids

#### Operating pressure:

0 to 18 bar

#### Flow direction:

Fixed

#### Mounting position:

Optional, preferably with solenoid on top

#### Fluid temperature:

-25 to +80 °C NBR (Perbunan)

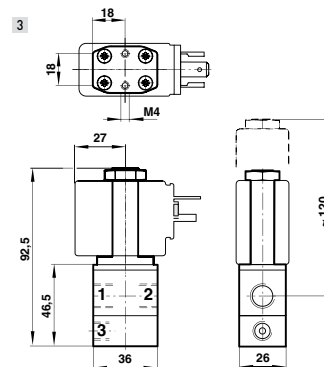
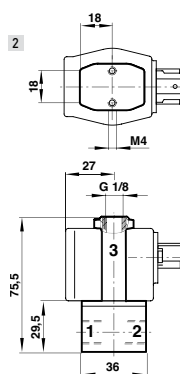
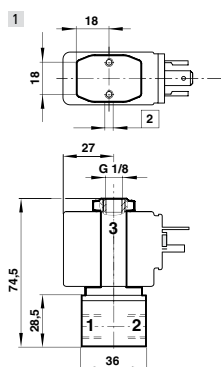
#### Ambient temperature:

Depending on solenoid system

-25, -40 to +55, +80, +100°C

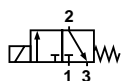
Consult our Technical Service for use below +2°C

For contaminated fluids installation of an upstream filter is recommended

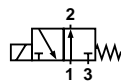


### Models

Model	Function	Port size	Orifice (mm)	Operating pressure (bar)	Flow l/min	Solenoid group	Drawing 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
9600320xxxx*****	3/2 NC	G1/4	3	0 ... 6	200	13C	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 137. \*\*\*\*\* Insert voltage codes from table below

### Voltage codes

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

Other voltages available, please call your Express Team

## SOLENOID ACTUATORS For 95000 &amp; 96000 series

GROUP 13B	Power consumption 24 V d.c. (W)	230 V a.c. (VA)	Voltage 24 V d.c. (mA)	230 V a.c. (mA)	Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	8,0	-	331	-	-	IP 65 (with connector) <sup>5)</sup>	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A <sup>4)</sup>	0246 <sup>7)</sup>
	-	9,2	-	40	-	IP 65 (with connector) <sup>5)</sup>	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A <sup>4)</sup>	3206 <sup>7)</sup>
GROUP 13C	Power consumption 24 V d.c. (W)	230 V a.c. (VA)	Voltage 24 V d.c. (mA)	230 V a.c. (mA)	Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	12,1	-	504	-	-	IP 65 (with connector) <sup>5)</sup>	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A <sup>4)</sup>	0200 <sup>7)</sup>
	-	11,3	-	49	-	IP 65 (with connector) <sup>5)</sup>	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A <sup>4)</sup>	3204 <sup>7)</sup>
	8,9	-	369	-	II2G <sup>2)</sup> II2D	EEx me II T5/T4 IP 66 T 130°C 2)	T5: -40 ... +55 T4: -40 ... +65	M20 x 1,5 <sup>4)</sup>	4220 <sup>8)</sup>
GROUP 13D	Power consumption 24 V d.c. (W)	230 V a.c. (VA)	Voltage 24 V d.c. (mA)	230 V a.c. (mA)	Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	16,9	-	703	-	-	IP 65 (with connector) <sup>5)</sup>	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A <sup>4)</sup>	0700 <sup>7)</sup>
	-	17,3	-	75	-	IP 65 (with connector) <sup>5)</sup>	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A <sup>4)</sup>	3703 <sup>7)</sup>
	11,4	-	475	-	II2G II2D	EEx me II T5/T4 IP66 T 130°C 2)	T5: -40 ... +40 T4: -40 ... +50	M20 x 1,5 <sup>4)</sup>	4230 <sup>8)</sup>
GROUP 16C	Power consumption 24 V d.c. (W)	230 V a.c. (VA)	Voltage 24 V d.c. (mA)	230 V a.c. (mA)	Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	6,8	-	284	-	-	IP 65 (with connector) <sup>5)</sup>	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A <sup>4)</sup>	0827 <sup>7)</sup>
	-	10,6	-	46	-	IP 65 (with connector) <sup>5)</sup>	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A <sup>4)</sup>	3805 <sup>7)</sup>
GROUP 16D	Power consumption 24 V d.c. (W)	230 V a.c. (VA)	Voltage 24 V d.c. (mA)	230 V a.c. (mA)	Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	16,9	-	703	-	-	IP00 without plug <sup>5)</sup> IP65 with plug <sup>5)</sup>	-25 ... +60	DIN EN175301-803 Form A <sup>4)</sup>	0800 <sup>7)</sup>
	-	17,3	-	75	-	IP00 without plug <sup>5)</sup> IP65 with plug <sup>5)</sup>	-25 ... +60	DIN EN175301-803 Form A <sup>4)</sup>	3803 <sup>7)</sup>

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.

2) Category II 2 GD, EC-Type Examination Certificate KEMA 98 ATEX 4452 X

5) Required connector type 0570275.

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)

8) This solenoid has a fuse with an appropriate rating.

## Accessories

Cable glands Protection class EEx e, EEx d (ATEX), Ms nickel plated brass	Connectors
EEx e 0588819 (for solenoid 42xx /46xx M20 x 1,5)	0570275

# INDIRECT SOLENOID ACTUATED POPPET VALVES

## Herion 80200 Series

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

### TECHNICAL DATA

#### Medium:

Compressed air, filtered, lubricated or non-lubricated

#### Mounting position:

Optional, preferably vertical with strong vibration vertical to axis of vibration

#### Operating pressure:

10 bar maximum

#### Flow:

(at 6 bar  $\Delta p$  1 bar)

Orifice  $\varnothing$  l/min

G1/2 5000

G3/4 8000

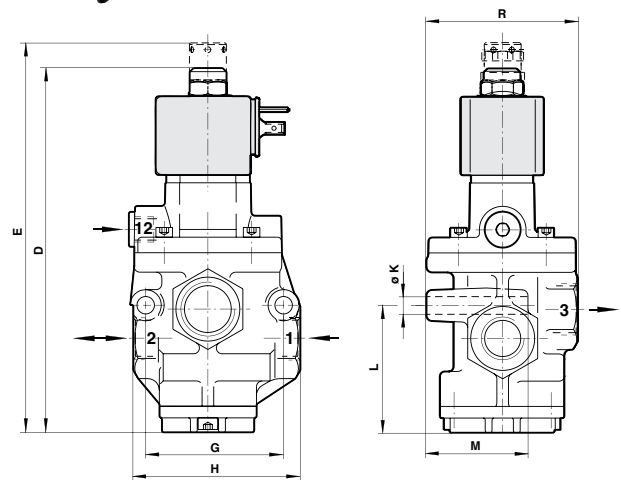
G1 12000, 18000\*

\*For 8026870 valves only

#### Ambient temperature:

-10°C ... +60°C

Consult our Technical Service for use below +2°C



### Dimensions

Model	D	E	G	H	ØK	L	M	R
802657	187,5	-	71	86	9	65,5	52	78
802667	197,5	-	82,5	112	9	74,5	54	92
802677	197,5	-	82,5	112	9	74,5	54	92
802857	-	200,5	71	86	9	65,5	52	78

### MATERIALS

#### Housing:

Aluminium

#### Seat seal:

AU (polyurethane)

#### Inner parts:

POM

### Models

Model 24 V d.c.	Model 24 V a.c.	Port size			Orifice (mm)	Type	Operating pressure (bar)*	Control pressure (bar)*	Switching time (ms)
		1	2	3					
8026570080002400	8026570080002450	G1/2	G1/2	G3/4	15	NC	2 ... 10	-	10
8026670080002400	8026670080002450	G3/4	G3/4	G1	20	NC	2 ... 10	-	10
8026770080002400	8026770080002450	G1	G1	G1	25	NC	2 ... 10	-	10
8026572080002400#	8026572080002450#	G1/2	G1/2	G3/4	15	NC	-0,9 ... 6	4 ... 10	20

\* Required pilot pressure  $\geq$  operating pressure, min. 2 bar; with vacuum operating pressure + 1 bar, min. 4 bar.

# Valve for vacuum



# PRESS SAFETY VALVES

## Herion XSz Series



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 EN 692, EN 954-1, BG, OSHA, SUWA and other approvals

Improves safety and reduces downtime on mechanical power press applications

No additional electrical monitoring required

Easily fitted into existing systems

### TECHNICAL DATA

#### Medium:

Compressed air, filtered, lubricated and non-lubricated

#### Operating pressure:

2 ... 10 bar (XSz10)

2 ... 8 bar (XSz 20/32/50)

#### Voltage:

24V d.c., 24V a.c., 110V a.c. or 230V a.c.

#### Ambient temperature:

-10°C ... +60°C

Consult our Technical Service for use below +2°C

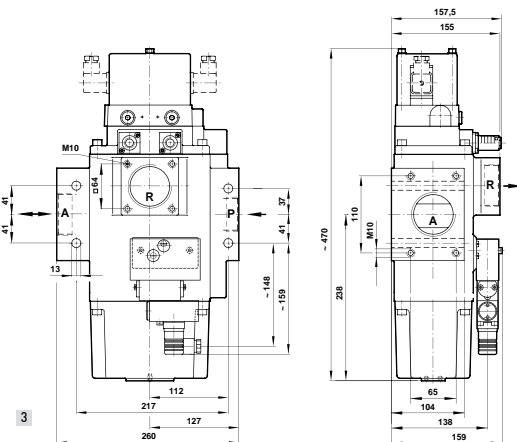
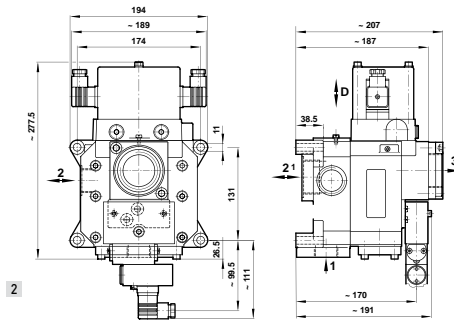
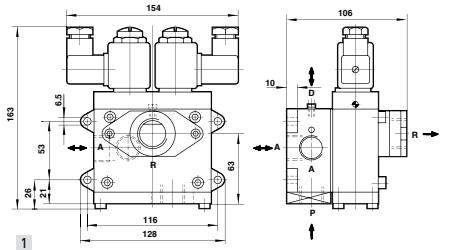
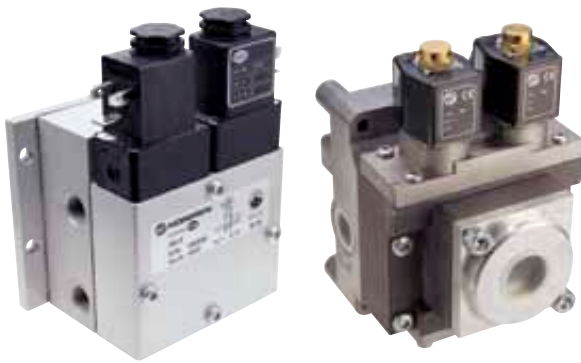
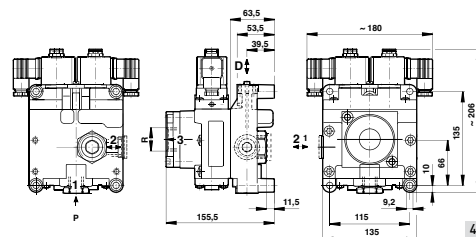
### MATERIALS

#### Body:

Aluminium

#### Seals:

Polyurethane and NBR



### Models

Model 24 V d.c.	Model 24 V a.c.	Model 110 V a.c.	Model 230 V a.c.	Type	Port size				Drawing No.
					P	A	A1	R	
2492901020002400	2492900020002450	2492900020011050	2492900020023050	XSz 10**	G1/2	G1/2	(G1/2)	G3/4	1
2493000080002400	2493000080002450	2493000080011050	2493000080023050	XSz 20**	G1/2	G3/4	(G1)	G1	4
2493130080002400	2493130080002450	2493130080011050	2493130080023050	XSz 32	G1	G1	-	G1 1/2	2
2493230080002400	2493230080002450	2493230080011050	2493230080023050	XSz 50	G1 1/2	G2	-	G2	3

Port sizes in brackets are plugged. Supplied without plug. If required, select model 0570275

\*\* Valve with integrated silencer available

SAFETY SILENCERS			
Model	Thread	Maximum length	Maximum width
0016620000000000	G1 1/2	196mm	200mm
0016720000000000	G2	196mm	200mm

### EXPRESS PLUS

#### For full details...

Of our press ancillary equipment range please call your Express Team



# IN-LINE EXCESS FLOW SHUT-OFF VALVES

## T60 air fuses

1/4 ... 1 1/2" BSSP



- Assists in complying with safety regulations
- Tamper proof
- Compact and safe design
- Low pressure drop
- Automatically resets after failure correction
- High corrosion resistance
- High air pressure rating



### TECHNICAL DATA

#### Medium:

Compressed air, filtered, lubricated and non-lubricated inert gases

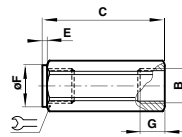
#### Operating pressure:

Maximum 16 bar, minimum according to hose length

#### Ambient temperature:

-20°C to +80°C

Consult our Technical Service for use below +2°C.



### MATERIALS

**Body:** aluminium

**Internal parts:** brass

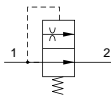
**Spring:** stainless steel

### Dimensions

Model	B	C	E	Ø F	G	Ø
T60C2890	G1/4	51	3	21	11	21
T60C2891	G1/4	51	3	21	11	21
T60C3890	G3/8	62	5	24	14	24
T60C3891	G3/8	62	5	24	14	24
T60C4890	G1/2	78	5	32	15	32
T60C4891	G1/2	78	5	32	15	32
T60C6890	G3/4	90	5	32	19	32
T60C6891	G3/4	90	5	32	19	32
T60C8890	G1	118	5	50	19	50
T60C8891	G1	118	5	50	19	50
T60CB890	G1 1/2	145	5	64	25,5	64
T60CB891	G1 1/2	145	5	64	25,5	64

### Models

Model	Function	Port size BSSP	Drop pressure at shut off flow (bar)	Shut off flow rate at 7 bar (dm <sup>3</sup> /s) ±10%	Flow at 7 bar Δ P 0,07 bar (dm <sup>3</sup> /s)
-------	----------	----------------	--------------------------------------	---	---



T60C2890		1/4	0,14	8,3	6,5
T60C2891		1/4	0,3	14	6,5
T60C3890		3/8	0,14	19,4	13,5
T60C3891		3/8	0,3	32,2	13,5
T60C4890		1/2	0,14	32,2	23,2
T60C4891		1/2	0,3	48,3	23,2
T60C6890		3/4	0,14	48,3	43
T60C6891		3/4	0,3	80	43
T60C8890		1	0,14	92	68
T60C8891		1	0,3	128	68
T60CB890		1 1/2	0,14	186	145
T60CB891		1 1/2	0,3	268	145

BSSP: according to BS2779 and ISO 228/1.

Flow and pressure test conducted according to ISO 6358 test circuit. Mean measured flow values are provided at standard reference conditions.

# NON-RETURN VALVES T55 series

In-line M5, 1/8, 1/4, 3/8, 1/2" BSPP, BSPT



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 to 10 bar

### Ambient temperature:

-20°C to +80°C

Consult our Technical Service for use below +2°C.

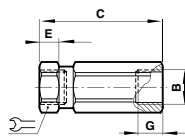
## MATERIALS

Body: aluminium

O-ring: nitrile rubber

Valve: POM

Spring: stainless steel

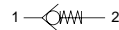


## Dimensions

Model	B	C	E	G	
T55M0500	M5	27,5	4	5	11
T55C1800	G1/8	42,5	7	7	14
T55*2800	G1/4	54	8	10,5	17
T55*3800	G3/8	63	9	12	24
T55*4800	G1/2	77	12	15	27

## Models

METRIC Model	BSPP	BSPT	Function	Port size	Flow factor C*	CV	Cracking pressure (bar)
--------------	------	------	----------	-----------	----------------	----	-------------------------



T55M0500	-	-		M5	0,8	0,19	0,05
-	T55C1800	-		1/8	2,4	0,59	0,05
-	T55C2800	T55B2800		1/4	5,5	1,35	0,05
-	T55C3800	T55B3800		3/8	9,0	2,20	0,05
-	T55C4800	T55B4800		1/2	15,0	3,70	0,05

\*C: measured in dm<sup>3</sup>/(s.bar)

# PUSH-IN NON-RETURN VALVES T51, T52 and T53 series

In-line - Ø 4, 5, 6, 8, 10, 12 mm O/D tube

## TECHNICAL DATA

### Medium:

Compressed air, filtered, lubricated or non-lubricated, vacuum

### Operating pressure:

0,1 to 10 bar (T51, T52), 0,3 to 10 bar (T53),  
-0,1 to -1 bar vacuum (T51, T52)

### Ambient temperature:

-20°C to +80°C

Consult our Technical Service for use below +2°C

### Mounting:

Tube/tube PIF, Tube PIF/male thread,  
Male thread/tube PIF

## MATERIALS

### 4, 6, 8 mm O/D

Body: plastic PBT

Release sleeve: plastic POM

Natural brass insert

Seal: silicon free nitrile

Spring: stainless steel

Grab ring: stainless steel, BS 1440 Pt 2, grade 301.S21

T52 and T53 series, nickel plated brass threads

### 5, 10, 12 mm O/D

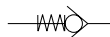
Collet: nickel plated brass

Body: black anodised aluminium

Valve and insert: aluminium

## Models

PIF/PIF METRIC Model	Function	Tube size	Flow factor C/CV*	Cracking pressure (bar)	Minimum operating pressure (bar)**
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T51P0004	tube/tube	4 mm	0,75/0,18	0,03+0,06	0,1
T51P0005	tube/tube	5 mm	1,16/0,28	0,03+0,06	0,1
T51P0006	tube/tube	6 mm	1,9/0,47	0,03+0,06	0,1
T51P0008	tube/tube	8 mm	3,5/0,86	0,03+0,06	0,1
T51P0010	tube/tube	10 mm	4,7/1,15	0,03+0,06	0,1
T51P0012	tube/tube	12 mm	7,5/1,84	0,03+0,06	0,1

PIF to Male Thread Model	Male Thread to PIF Model	Function	Port size x tube size BSPT x metric	Flow factor C/CV*	Cracking pressure (bar)	Minimum operating pressure (bar)**
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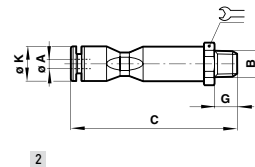
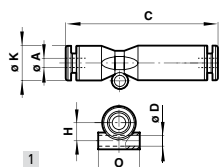


T52B1804	-	tube/thread	R1/8 x 4 mm	0,75/0,18	0,03+0,06	0,1
T52B2805	-	tube/thread	R1/4 x 5 mm	1,16/0,28	0,03+0,06	0,1
T52B1806	T53B1806	tube/thread	R1/8 x 6 mm	1,9/0,47	0,03+0,06	0,1



T52B2806	T53B2806	tube/thread	R1/4 x 8 mm	3,5/0,86	0,03+0,06	0,1
T52B1808	-	tube/thread	R1/8 x 10 mm	4,7/1,15	0,03+0,06	0,1
T52B2808	T53B2808	tube/thread	R1/4 x 12 mm	7,5/1,84	0,03+0,06	0,1

\* Cv measured in dm<sup>3</sup>/(s.bar) \*\* Minimum operating pressure 0,3 bar for T53



## Dimensions

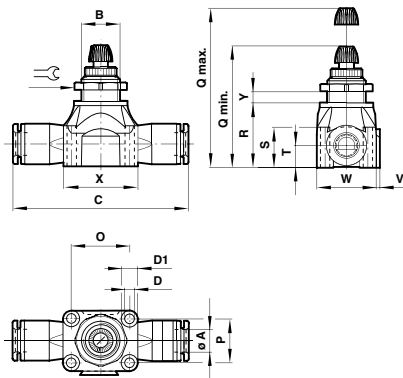
Model	Ø A	C	Ø D	Ø K	H	O	Drawing No.
T51P0004	4	50	4,3	11	5,5	11,5	1
T51P0005	5	53	4,3	13	6,5	13,5	1
T51P0006	6	55,5	4,3	13	6,5	13,5	1
T51P0008	8	62,5	4,3	14,5	7,5	15	1
T51P0010*	10	77,5	-	20	-	-	1
T51P0012*	12	88,5	-	22	-	-	1

Model	Ø A	B	C	G	Ø K	Ø	Drawing No.
T52B1804	4	R1/8	54,5	9,5	11	12	2
T52B2805	5	R1/4	59,5	11	13	15	2
T52B1806	6	R1/8	59,5	9,5	13	15	2
T52B2806	6	R1/4	60,5	11	13	15	2
T52B1808	8	R1/8	63,5	9,5	14,5	15	2
T52B2808	8	R1/4	62,5	11	14,5	15	2

Model	Ø A	B	C	G	Ø K	Ø	Drawing No.
T53B1806	6	R1/8	59,5	9,5	13	15	2
T53B2806	6	R1/4	60,5	11	13	15	2
T53B2808	8	R1/4	62,5	11	14,5	15	2

# PUSH-IN FLOW REGULATORS, UNI-DIRECTIONAL

## T15 series In-line - Ø 3, 4, 5, 6, 8, 10, 12 O/D metric tube



### Dimensions

Model	A	B	C	ØD	D1	O	P		Q	R	S	T	V	W	X	Y	
							max	min									
T15P0003	3	M10x1,0	46	2,4	4,2	13	13	9	35	30,5	17	11,1	6,2	0,9	13	17	1,5
T15P0004	4	M10x1,0	46	2,4	4,2	13	13	9	35	30,5	17	11,1	6,2	0,9	13	17	1,5
T15P0005	5	M12x1	49	3,5	6,2	15	19	11	45,5	39	21	14,7	7,5	1,1	17	25	4
T15P0006	6	M12x1	55	3,5	6,2	15	19	11	45,5	39	21	14,7	7,5	1,1	17	25	4
T15P0008	8	M14x1,5	65,5	3,5	6,2	18	21	15,5	52	44	23,5	14,7	8,1	1,3	21,5	27	4
T15P0010	10	M20x1,5	76,8	4,4	7,9	24	26,5	19	61,5	53	29	18,9	10	1,6	26,5	34	5
T15P0012	12	M20x1,5	92,5	4,4	7,9	24	28,5	22,5	66	55,5	32	22,2	12,1	1,6	30	36	5

### EXPRESS LINKS

#### Push-in flow regulators...

Please see Pneufit C range in the fittings section for further options



### Models

METRIC Model	Function	Tube size	Max. regulated flow factor C/CV**	Flow factor C/CV**	Cracking pressure (bar)	Minimum operating pressure (bar)**
T15P0003		3 mm	0,35/0,09	>0,35/0,09	0,1	0,1
T15P0004		4 mm	0,45/0,11	>0,45/0,11	0,1	0,1
T15P0005*		5 mm	0,8/0,2	0,8/0,2	0,1	0,1
T15P0006		6 mm	1,4/0,34	>1,4/0,34	0,1	0,1
T15P0008		8 mm	2,2/0,54	>2,2/0,54	0,1	0,1
T15P0010		10 mm	3,9/0,96	>3,9/0,96	0,1	0,1
T15P0012*		12 mm	5,4/1,32	>5,4/1,32	0,1	0,1

\* Available only as collet tube connection. \*\* C measured in dm<sup>3</sup>/[s.bar]

High flow performance

Suitable for panel/wall mounting and manifold

Adjustment can be locked

Captive regulator needle will not blow out when unscrewed

Adjusting knob position

Releasable grab ring technology combining plastic and brass components for a compact and superior fitting design

Red release sleeve indicating metric tube sizes

Reliable and corrosion resistant

### TECHNICAL DATA

**Medium:**

Compressed air, filtered, lubricated or non-lubricated

**Operating pressure:**

0,1 to 10 bar maximum

**Ambient temperature:**

-20°C to +80°C

Consult our Technical Service for use below +2°C

**Mounting:**

In-line. Panel mounted by hexagonal mounting nut.

Wall mounted by through-holes in regulator body.

Manifold by quick connection

### MATERIALS

**Ø 3, 4, 6, 8, 10 O/D:**

Body: plastic PBT

Release sleeve, nut, knob: plastic POM

Seals: silicone free nitrile seal

External metal parts: nickel plated brass

Internal parts: brass

Spring: stainless steel

Grab ring: stainless steel, BS 1440 Pt 2, grade 301.S21

**Ø 5, 12 O/D:**

Collet: nickel plated brass

# BLOCK FORM FLOW REGULATORS T1000 series

Uni-directional – M5, G1/8 ... G1/2

Compact size/low weight/ in-line units

High flow performance

Suitable for panel and wall mounting

Adjustment can be locked

Captive regulator needle will not blow out when unscrewed

Adjusting knob position line



## TECHNICAL DATA

### Medium:

Compressed air, filtered, lubricated or non-lubricated, inert gases

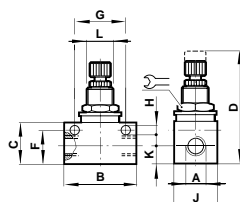
### Operating pressure:

1 to 10 bar (0,3 to 10 bar for M5)

### Ambient temperature:

-20°C to +80°C

Consult our Technical Service for use below +2°C



## MATERIALS

### M5:

Body: aluminium

Seals: nitrile

Needle: brass

### G1/8 ... G1/2:

Body: aluminium alloy

Seals: nitrile

Needle and internal parts: brass

External parts: aluminium alloy

## Dimensions

Model	A	B	C	D	F	G	Ø H	J	K	L	
T1000M0500	M5	25	15	45	12	18	4,5	12	5,5	M10x0,75	12
T1000C1800	G1/8	34	20	51	16,5	24	4,5	16	8	M12x1	14
T1000C2800	G1/4	45	25,5	61,5	21	32	4,5	19	9,5	M14x1	17
T1000C3800	G3/8	58	32,5	78,5	27	43	6,5	28	13	M20x1	24
T1000C4800	G1/2	65	36	82	30,5	50	6,5	30	15	M20x1	24

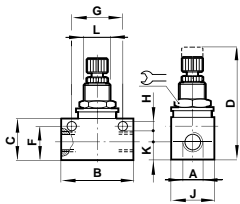
## Models

Model	Function	Port size	Max. regulated flow factor		Free flow factor		Opening pressure (bar)
			C*	CV	C*	CV	
T1000M0500		M5	0,28	0,07	0,28	0,07	0,3
T1000C1800		G1/8	0,57	0,14	1,50	0,37	<0,1
T1000C2800		G1/4	1,30	0,32	2,80	0,69	<0,1
T1000C3800		G3/8	4,80	1,17	6,70	1,64	<0,1
T1000C4800		G1/2	7,50	1,84	8,30	2,00	<0,1

\*C: measured in dm<sup>3</sup>/(s.bar)

# BLOCK FORM FLOW REGULATORS T1100 series

Bi-directional – G1/8 and G1/4



## Dimensions

Model	A	B	C	D	F	G	H	J	K	L	
T1100C1800	G1/8	34	20	51	16,5	24	4,5	16	8	M12x1	14
T1100C2800	G1/4	45	25,4	61,5	20,8	32	4,5	19	9,5	M14x1	17

## Models

Model	Function	Port size	Max. regulated flow factor C*	CV	Critical pressure ratio (b)	Minimum operating pressure (bar)**
T1100C1800	Bi-directional	G1/8	0,57	0,14	0,2	0
T1100C2800	Bi-directional	G1/4	1,3	0,32	0,2	0

\*C: measured in dm<sup>3</sup>/(s.bar)

- Compact size/low weight/ in-line units
- High flow performance
- Suitable for panel and wall mounting
- Two gain flow control
- Adjustment can be locked
- Captive regulator needle will not blow out when unscrewed
- Adjusting knob position line

## TECHNICAL DATA

### Medium:

Compressed air, filtered, lubricated or non-lubricated, inert gases

### Operating pressure:

0 to 10 bar

### Ambient temperature:

-20°C to +80°C

Consult our Technical Service for use below +2°C

## MATERIALS

Body: aluminium alloy

Seals: nitrile

Needle and internal parts: brass

External parts: aluminium alloy

## EXPRESS LINKS

### For compatible...

BSP and hose fittings  
please see page 261



# BLOCKING, PRESSURE REDUCING & PNEUMATIC SENSOR FITTINGS

4 to 12 mm O/D metric tube – G1/8 to G1/2



Very compact units

Easy tube insertion for rapid assembly of pneumatic circuits

Positive tube anchorage

Simpler pneumatic systems



## TECHNICAL DATA

### Medium:

Compressed air

### Operating pressure:

Blocking fitting:

Supply pressure 1 to 10 bar

Pilot pressure – see table

Pressure reducing fitting:

Primary pressure 1 to 10 bar max.

Secondary pressure 1 to 8 bar max.

Pneumatic sensor fitting:

Cylinder pressure (Pc) 10 bar max.

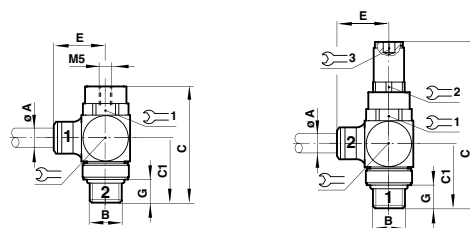
Sensor supply pressure 3 to 10 bar

Sensor switch pressure 0,6 bar typ.

### Ambient temperature:

-20°C to +80°C

Consult our Technical Service for use below +2°C.



## Dimensions

Model	Ø A	B	C	C1	E	G	1
102GA0418	4	G1/8	41	20	22	6	13
102GA0618	6	G1/8	41	20	23	6	13
102GA0628	6	G1/4	48	26	25	10,5	17
102GA0828	8	G1/4	48	26	26	10,5	17
102GA0838	8	G3/8	55	29	28	10,8	22
102GA1038	10	G3/8	55	29	32,5	10,8	22
102GA1248	12	G1/2	65,5	36	39,5	12,8	27

## MATERIALS

Nickel plated brass or plastic body

Nickel plated brass collet

Plastic sealing washer

Nitrile and polyurethane elastomeric parts

Zinc plated brass banjo bolts

Model	Ø A	B	C	C1	E	G	2	3
102GB0418	4	G1/8	73	20	22	6	13 / 16	11/5
102GB0628	6	G1/4	81	26	25	10,5	17 / 20	13/5
102GB0828	8	G1/4	81	26	26	10,5	17 / 20	13/5
102GB0838	8	G3/8	86	29	28	10,8	22 / 24	17/6
102GB1038	10	G3/8	86	29	32,5	10,8	22 / 24	17/6

## Models

### BLOCKING FITTING

Model Function O/D tube Male thread Pilot pressure (bar)



102GA0418		4	G1/8	2,5
102GA0618		6	G1/8	2,5
102GA0628		6	G1/4	2,5
102GA0828		8	G1/4	2,5
102GA0838		8	G3/8	3
102GA1038		10	G3/8	3
102GA1248		12	G1/2	2,5

\*at 6 bar supply

### PRESSURE REDUCING FITTING

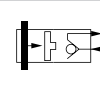
Model Function O/D tube Male thread



102GB0418		4	G1/8
102GB0628		6	G1/4
102GB0828		8	G1/4
102GB0838		8	G3/8
102GB1038		10	G3/8

### PNEUMATIC SENSOR FITTING

Model Function O/D tube Male thread

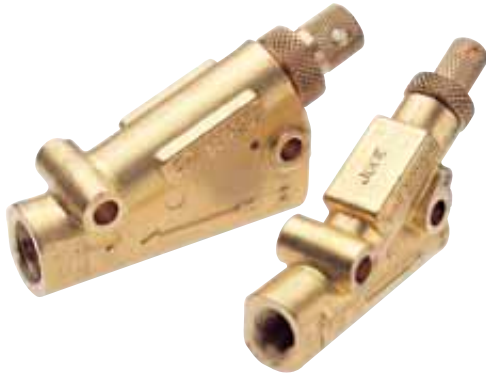


102GD0418		4	G1/8
102GD0428		4	G1/4



# HEAVY DUTY FLOW REGULATORS, UNI-DIRECTIONAL M/800 series

In-line – G1/8 ... G1



- Line mounted general purpose regulators
- Captive regulating needle will not blow out when unscrewed
- Calibrated adjusting knob, can be locked
- Suitable for wall mounting
- High operating pressure

## TECHNICAL DATA

### Medium:

Compressed air, filtered, lubricated and non-lubricated

### Operating pressure:

0,3 to 16 bar

### Ambient temperature:

–20°C to +80°C (Alternative models to 150°C)

Consult our Technical Service for use below +2°C

## MATERIALS

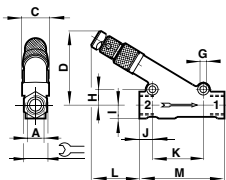
### S/836, M/837, M/839

Body, adjusting knob and locking ring: brass

### M/840, M/855

Body, adjusting knob and locking ring: aluminium



Seals: nitrile rubber.



## Dimensions

Model	A	D max.	Ø G	H	I	J	K	L	M	⌀
S/836	G1/8	38	5,1	8,5	8	5	24,5	27,5 max.	46	13
M/837	G1/4	37,5	5,2	11	9,5	6	41	25 max.	60	17
M/839	G1/2	80	8,3	17	16	13	57	53 max.	95	28
M/840	G3/4	104	8,3	21,5	17,5	20,5	76	66 max.	118	32
M/855	G1	147	13	26	24	23	90	107 max.	150	48

## Models

BSP Model	Function	Port size	Max. regulated flow factor C**	CV	Free flow factor C**	CV
		G1/8	0,7	0,17	2,1	0,6
M/837		G1/4	2	0,49	4,3	1
M/839		G1/2	12	2,9	17	4,1
M/840		G3/4	18	4,4	38	9,3
M/855		G1	36	8,8	45	11

\*\* C measured in dm<sup>3</sup>/(s.bar)

# EXHAUST FLOW REGULATOR/SILENCERS

## T20 & 0405 series

M5, G1/8 ... G1/2



Compact, integral flow regulator and silencer units

Captive regulating needle will not blow out when unscrewed

Reduced dimensions



### TECHNICAL DATA

#### Medium:

Compressed air, filtered, lubricated and non-lubricated, inert gases

#### Operating pressure:

0 to 10 bar

#### Ambient temperature:

-20°C to +80°C.

Consult our Technical Service for use below +2°C.

### MATERIALS

#### T20:

Body and washer: nylon

Silencer: porous polyethylene

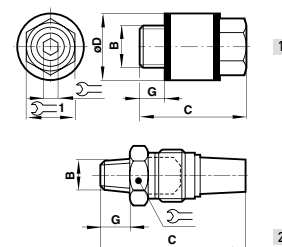
Adjusting screw: high tensile zinc electroplated steel

#### 0405:

Body and nut: brass

Needle: plastic

Silencer: sintered bronze


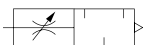


### Dimensions

Model	B	C	G	Ø D	1	1	Drawing No.
T20M0500	M5	16	5	-	1,5	8	1
T20C1800	G1/8	20,5	6	15	2,5	13	1
T20C2800	G1/4	29	7	18	4	15	1
T20C3800	G3/8	38	8	24	6	20	1
T20C4800	G1/2	50	10	30	8	25	1

Model	B	C	G	1	Drawing No.
04057100	R1/8	44,5	9,5	15	2
04057200	R1/4	46	10,5	15	2
04057300	R3/8	67,5	12,5	24	2
04057400	R1/2	69,5	16	24	2

### Models

Model	Function	Thread	Port size	Max. regulated flow factor C**	
				CV	
					
T20M0500		Metric	M5	0,3	0,07
T20C1800		BSPP	1/8	1,6	0,4
04057100		BSPT	1/8	1,78	0,44
T20C2800		BSPP	1/4	3,2	0,8
04057200		BSPT	1/4	1,78	0,44
04059200		BSPP (female)	1/4 Silencer only	-	-
T20C3800		BSPP	3/8	6,9	1,7
04057300		BSPT	3/8	8,9	2,2
T20C4800		BSPP	1/2	10	2,4
04057400		BSPT	1/2	8,9	2,2

\*\* C measured in dm<sup>3</sup>/(s.bar)

# QUICK EXHAUST VALVES T70, S/511, S/513, S/514 series

G1/8 ... G1/2



- Enables air to be exhausted quickly from air reservoirs and cylinders
- Allows higher cylinder speeds to be achieved
- Simple, compact design and construction
- Very reliable in operation

## TECHNICAL DATA

### Medium:

Compressed air, filtered, lubricated and non-lubricated

### Operating pressure:

0,5 to 10 bar (T70)

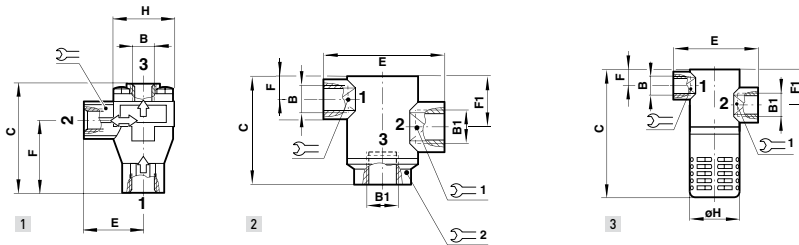
0,7 to 10 bar (S/511)

0,7 to 7 bar (S/513, S/514)

### Ambient temperature:

-20°C to +80°C

Consult our Technical Service for use below +2°C



## Dimensions

Model	B	C	E	F		Drawing No.
T70C1800	G1/8	53	28	35,5	19	1
T70C2800	G1/4	53	28	35,5	19	1
T70C3800	G3/8	73,5	40	48	30	1
T70C4800	G1/2	73,5	40	48	30	1

Model	B/B1	C	E	F/F1				Drawing No.
S/511	G1/2 / G3/4	86	100	17/48	30	36	32	2

Model	B/B1	C	E	F/F1	Ø H		Drawing No.
S/513	G1/4 / G3/8	86,5	58	10 / 23	34	21 / 23	3
S/514	G1/2 / G3/4	134	100	17 / 48	47,5	30 / 36	3

## MATERIALS

Body &amp; cover: zinc alloy (T70\*1800 &amp; T70\*2800, S/513), aluminium alloy (T70\*3800 &amp; T70\*4800, S/511, S/514)

Seals: nitrile (T70), polyurethane (S/51\*)

O-ring: nitrile

Element: porous plastic (S/513, S/514)

## Models

Model	Function	Port size BSP	Flow (1...2)**		Flow (1...2)**	
			C*	Cv	C*	Cv



T70C1800		G1/8	3,8	0,9	7,3	1,8
T70C2800		G1/4	7,7	1,9	10	2,5
T70C3800		G3/8	15,5	3,8	22,5	5,5
T70C4800		G1/2	21,5	5,3	24	5,9
S/511		G1/2	5,7	1,9	44	10,8
S/513		G1/4	3,9	0,8	11	2,7
S/514		G1/2	5,7	1,9	32	7,8

\* C = dm<sup>3</sup>/(s.bar) \*\* Flow factor measured at 6 bar inlet pressure

## EXPRESS PLUS

### S/513 & S/514 Quick Exhaust Valves

Come complete with integral silencer.



# ADDITIONAL RANGES

## T50 PIF NON-RETURN VALVES

- Allow free flow in one direction only
- Simple reliable design
- Low weight
- Low cracking pressure
- High operating pressure



### Models

Model	O/D tube
T50P0004	4
T50P0006	6
T50P0008	8
T50P0010	10
T50P0012	12

## SHUTTLE VALVES

- 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



### Models

Model	Port size
T65C1800	G1/8
T65C2800	G1/4

## PRECISION FLOW REGULATORS

- Line mounted general purpose regulators
- Captive regulating needle will not blow out when unscrewed
- Calibrated adjusting knob, can be locked
- Brass body



### Models

Model	Port size	Type
S/636	G1/8	Heavy duty, panel mount
M/650*	G1/8	Precision for time delay circuits
M/677*	G1/8	Precision for time delay circuits
M/637	G1/4	Heavy duty, panel mount
M/639	G1/2	Heavy duty, panel mount

\*The M/650 features an exhaust and when a time delay has been achieved, removal of the supply to the inlet releases the non-return valve enabling the pressure in a reservoir to be discharged quickly to atmosphere, thus removing the signal. The M/677 is similar except that reverse flow is allowed to pass back through the regulator instead of being discharged to atmosphere.

## S/520 HEAVY DUTY NON-RETURN VALVES

- Allows free flow in one direction only
- Simple reliable design
- High operating pressure and temperature
- Spares kit available



### Models

Model	Port size BSPP
S/520	G1/8
S/521	G1/4
S/532	G3/8
S/522	G1/2

## 15mm Plugs according to DIN EN175301-803 Form C

Valve	Connector	Model	Connector type	Cable length	Voltage		Features	Suppression	Protection class	Gland size	Power consumption
					a.c.	d.c.					
V50, V40/V41, V44/V45	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	-
		0588666	DIN EN175301-803	-	-	-	-	-	IP 65	Pg 7	-
Indicator plug	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	Indicator plug with moulded cable	V10014-D01	DIN EN175301-803	1000 mm	24 V	24 V	LED,VDR	•	IP 65	Pg 7	0,25W
		V10014-D03	DIN EN175301-803	3000 mm	24 V	24 V	LED,VDR	•	IP 65	Pg 7	0,25W
		V10015-D01	DIN EN175301-803	1000 mm	110 V	110 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-D01	DIN EN175301-803	1000 mm	220 V	220 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
Light emitting gasket	Light emitting gasket	V10037-E13	DIN EN175301-803	-	12 ... 24 V	12 ... 24 V	Green LED	•	IP 65	-	0,25W
		V10037-E18	DIN EN175301-803	-	110 ... 120 V	110 ... 120 V	Green LED	•	IP 65	-	1W
		V10037-E19	DIN EN175301-803	-	220 ... 240 V	220 ... 240 V	Green LED	•	IP 65	-	1W

## 22mm Plugs according to Industrial Standard or DIN EN175301-803 Form B

Valve	Connector	Model	Connector type	Cable length	Voltage		Features	Suppression	Protection class	Gland size	Power consumption
					a.c.	d.c.					
97300, V51/V53, Excel 22, V60/V63, ISO★STAR, UM/22000, 97100	Plug with moulded cable	M/P43313/1	22mm Industrial std.	1000 mm	-	-	-	-	IP 65	Pg 9	-
		M/P43313/3	22mm Industrial std.	3000 mm	-	-	-	-	IP 65	Pg 9	-
	Plug with cable gland	M/P19063	22mm Industrial std.	-	-	-	-	-	IP 65	Pg 9	-
Indicator plug	Indicator plug	M/P24121/1	22mm Industrial std.	-	12 ... 24 V	12 ... 24 V	LED,VDR	•	IP 65	Pg 9	0,25W
		M/P24121/2	22mm Industrial std.	-	110 V	110 V	LED,VDR	•	IP 65	Pg 9	0,25W
		M/P24121/3	22mm Industrial std.	-	220 V	220 V	LED,VDR	•	IP 65	Pg 9	0,25W
Indicator plug with moulded cable	Indicator plug with moulded cable	M/P43314/11	22mm Industrial std.	1000 mm	24 V	24 V	LED,VDR	•	IP 65	Pg 9	0,25W
		M/P43314/13	22mm Industrial std.	3000 mm	24 V	24 V	LED,VDR	•	IP 65	Pg 9	0,25W
		M/P43314/21	22mm Industrial std.	1000 mm	110 V	110 V	LED,VDR	•	IP 65	Pg 9	0,25W
		M/P43314/23	22mm Industrial std.	3000 mm	110 V	110 V	LED,VDR	•	IP 65	Pg 9	0,25W
		M/P43314/31	22mm Industrial std.	1000 mm	220 V	220 V	LED,VDR	•	IP 65	Pg 9	0,25W
		M/P43314/33	22mm Industrial std.	3000 mm	220 V	220 V	LED,VDR	•	IP 65	Pg 9	0,25W
Light emitting gasket	Light emitting gasket	M/P40859	22mm Industrial std.	-	12 ... 24 V	12 ... 24 V	Green LED	•	IP 65	-	0,25W
		M/P40886	22mm Industrial std.	-	110 ... 120 V	110 ... 120 V	Green LED	•	IP 65	-	1W
		M/P40860	22mm Industrial std.	-	220 ... 240 V	220 ... 240 V	Green LED	•	IP 65	-	1W
Plug with cable gland	Plug with cable gland	0680003	DIN EN175301-803	-	12 ... 250 V	12 ... 250 V	-	•	IP 65	Pg 9	0,25W
		0664811	DIN EN175301-803	-	-	24 V	Green LED	•	IP 65	Pg 9	1W
		0664812	DIN EN175301-803	-	250 V	-	Green LED	•	IP 65	Pg 9	1W

## 30mm Plugs according to DIN EN175301-803 Form A

Valve	Connector	Model	Connector type	Cable length	Voltage		Features	Suppression	Protection class	Gland size	Power consumption
					a.c.	d.c.					
ISO★STAR, 97300, 24011, V04, V05, Excelon 32, 80200, XSz,	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	-
VP10, 18D, 95000, 96000, 97100	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	-
		0570275	DIN EN175301-803	-	250 V	300 V	-	-	IP 65	Pg 11	-
		0663303	DIN EN175301-803	-	12 ... 250 V	12 ... 250 V	-	-	IP 65	Pg 11	-
		0570110	DIN EN175301-803	-	12 ... 240 V	12 ... 240 V	-	-	IP 65	Pg 11	-
Indicator plug	Indicator plug	M/P24120/1	DIN EN175301-803	-	10 ... 50 V	10 ... 50 V	Lamp	•	IP 65	Pg 11	0,25W
		M/P24120/2	DIN EN175301-803	-	70 ... 115 V	70 ... 115 V	Neon	•	IP 65	Pg 11	0,25W
		M/P24120/3	DIN EN175301-803	-	150 ... 240 V	150 ... 240 V	Neon	•	IP 65	Pg 11	0,25W
Indicator plug with moulded cable	Indicator plug with moulded cable	M/P43316/11	DIN EN175301-803	1000 mm	24 V	24 V	LED,VDR	•	IP 65	Pg 11	0,25W
		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/P43316/31	DIN EN175301-803	1000 mm	220 V	220 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
Light emitting gasket	Light emitting gasket	M/P40861	DIN EN175301-803	-	12 ... 24 V	12 ... 24 V	Green LED	•	IP 65	-	0,25W
		M/P40880	DIN EN175301-803	-	110 ... 120 V	110 ... 120 V	Green LED	•	IP 65	-	0,25W
		M/P40862	DIN EN175301-803	-	220 ... 240 V	220 ... 240 V	Green LED	•	IP 65	-	0,25W

# CLASSIC RANGE

## 3/2 POPPET VALVE MANUAL/MECHANICAL

### Martonair S/666

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 or hydraulic fluid

**Operation:**

Poppet valves, directly actuated

**Mounting:**

Through-holes in valve body

**Port Size:**

G1/8

**Operating Pressure:**

2 ... 10 bar

**Flow (to CETOP RP50P):**

'C' - Conductance dm<sup>3</sup>/s/bar 0,66 S/666/40

'b' - Critical pressure ratio 0,29 S/666/40

Cv 0,20 S/666/40

'C' - Conductance dm<sup>3</sup>/s/bar 0,66 S/667/40

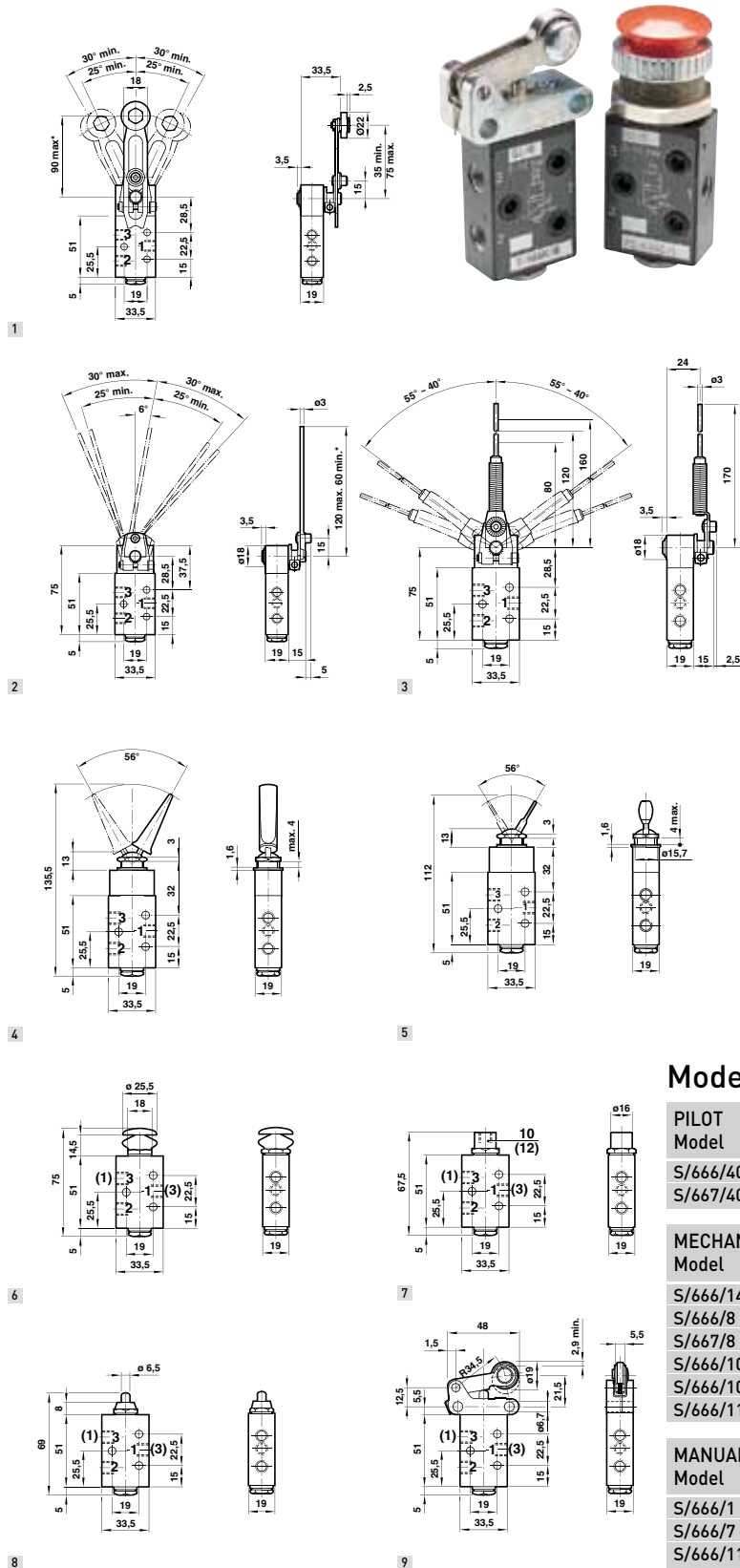
'b' - Critical pressure ratio 0,15 S/667/40

Cv 0,18 S/667/40

**Operating Temperature:**

-20°C ... +80°C

Consult our Technical Service for use below +2°C



### Models

PILOT			
Model	Function	Actuation	Drawing No.
S/666/40	3/2 NC	Pilot/Spring	7
S/667/40	3/2 NO	Pilot/Spring	7
MECHANICAL			
Model	Function	Actuation	Drawing No.
S/666/14	3/2 NC	Plunger/Spring	8
S/666/8	3/2 NC	Roller/Spring	9
S/667/8	3/2 NO	Roller/Spring	9
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			
Model	Function	Actuation	Drawing No.
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

CLASSIC VALVES

3

# CLASSIC RANGE

## 3/2 POPPET VALVE MANUAL/MECHANICAL

### Martonair S/1340

G1/4

Very rugged, heavy duty valves

Corrosion resistant

Adjustable lever operators, may be rotated at 90° intervals

Integral alternative ports

#### TECHNICAL DATA

**Medium:**

Compressed air, filtered, lubricated and non-lubricated

**Operation:**

Poppet valves, directly actuated

**Mounting:**

Through-holes in valve body

**Port Size:**

G1/4

**Operating Pressure:**

0,7 ... 10 bar

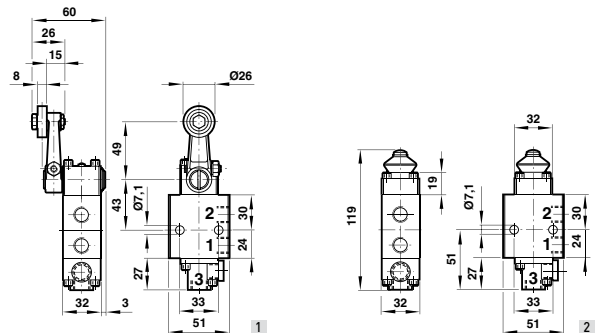
**Flow:**

1300 l/min

**Operating Temperature:**

-5°C ... +75°C

Consult our Technical Service for use below +2°C



#### Models

Model	Actuation	Drawing No.
S/1340/14	Plunger/Spring	1
S/1340/8	Roller/Spring	2

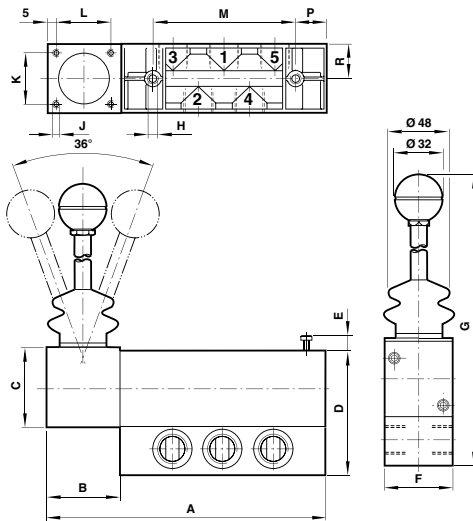


## CLASSIC RANGE

## 5/2, 5/3 MANUAL IN-LINE VALVE

## Martonair M/1700

G1/4, G1/2



## 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

## 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/Spring	-
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

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

Consult our Technical Service for use below +2°C

## MATERIALS

## Body and sub-base:

Pressure die-cast zinc alloy

## Spool:

Aluminium

## Seals:

Nitrile

# CLASSIC RANGE

## 3/2 POPPET VALVE MANUAL/MECHANICAL

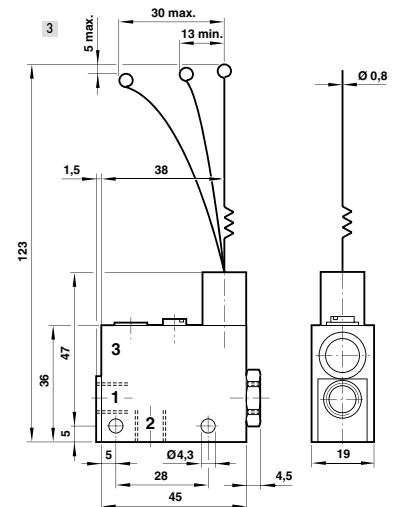
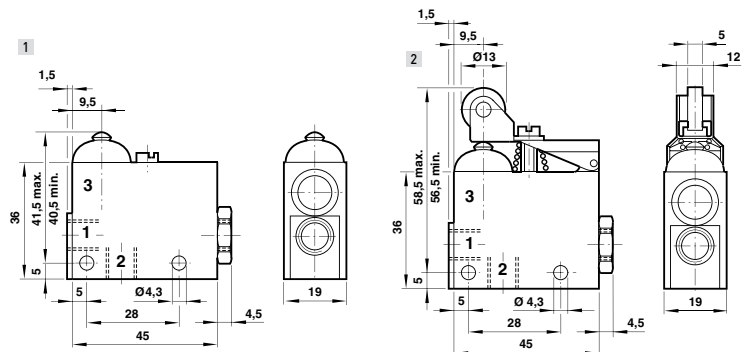
### Martonair M/21

G1/8

- Light, compact body
- Very low pilot pressure
- Air bleed principle
- Exhaust port protected by filter disc
- Low operating force – highly sensitive

#### TECHNICAL DATA

- Medium:**  
Compressed air, filtered, lubricated and non-lubricated
- Operation:**  
Poppet valve, bleed actuated
- Mounting:**  
Through-holes in valve body
- Port Size:**  
G1/8
- Operating Pressure:**  
4 ... 10 bar
- Flow:**  
158 l/min
- Operating Temperature:**  
+5°C ... +80°C



#### MATERIALS

- Body:**  
Die-cast zinc alloy
- Piston:**  
Steel
- Seals:**  
Nitrile

#### Models

Model	Function	Actuation	Drawing No.
M/21/41	3/2	Plunger (internal supply)/Air	1
M/21/11	3/2	Roller (internal supply)/Air	2
M/21/70	3/2	Antenna (internal supply)/Air	3

# CLASSIC RANGE

## 3/2 POPPET VALVE MECHANICAL

### Martonair M/1553

M5

Extremely compact bodies  
Very light operating forces  
Substantially non-corrodible construction  
Manual versions also available

#### TECHNICAL DATA

**Medium:**

Compressed air, filtered, lubricated and non-lubricated

**Operation:**

Poppet valves, directly actuated

**Mounting:**

Through-holes in valve body

**Port Size:**

M5

**Operating Pressure:**

2 ... 10 bar

**Flow:**

59 l/min

**Operating Temperature:**

-20°C ... +80°C

Consult our Technical Service for use below +2°C

#### MATERIALS

**Body:**

Plastic

**Roller operator:**

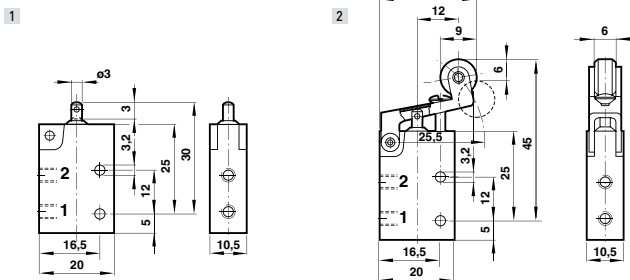
Plastic

**Plunger:**

Brass

**Seals:**

Nitrile



#### Models

Model	Function	Actuation	Drawing No.
M/1553/14	3/2	Plunger/Spring	1
M/1553/8	3/2	Roller/Spring	2

# CLASSIC RANGE

## 3/2, 5/2 IN-LINE VALVE

### Enots Super X

G1/8, G1/4

High performance from proven design  
Internal pilot feed on solenoid operated valves  
Manual override as standard on solenoid operators



#### TECHNICAL DATA

##### Medium:

Compressed air, filtered, lubricated and non-lubricated

##### Operating pressure:

2 ... 10 bar, 930 mbar vacuum – 10 bar (pilot models)

##### Flow:

Size U/min

G1/8 335

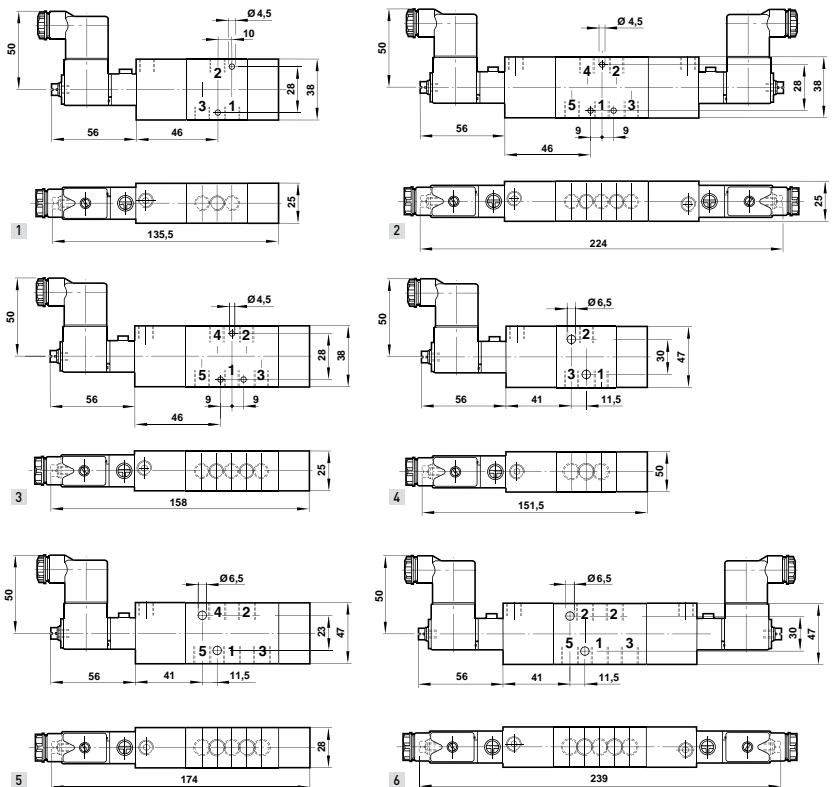
G1/4 965

##### Ambient temperature:

0°C ... +70°C (pilot models)

0°C ... +50°C (solenoid models)

Consult our Technical Service for use below +2°C



#### MATERIALS

##### Body:

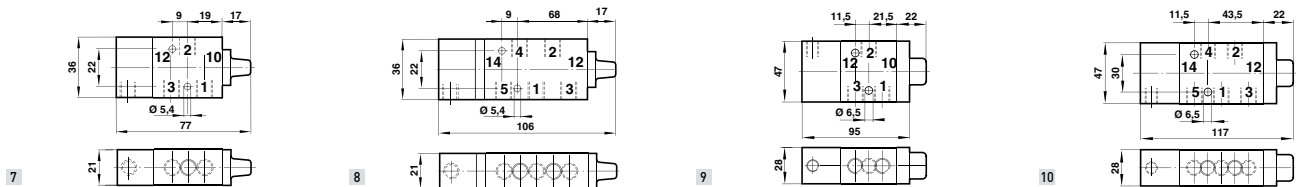
Die-cast zinc alloy

##### End cover:

Aluminium or glass filled nylon

##### Seals:

Nitrile



#### Models

SOLENOID ACTUATED 24 V d.c.				
Model	Port	Function	Actuation	Drawing No.
1418350G024	G1/8	3/2 NC	Sol/Spring	1
X418550G024	G1/8	5/2	Sol/Spring	3
X418580G024	G1/8	5/2	Sol/Sol	2
1428350G024	G1/4	3/2 NC	Sol/Spring	4
X428550G024	G1/4	5/2	Sol/Spring	5
X428580G024	G1/4	5/2	Sol/Sol	6

PILOT ACTUATED					
Model	Port	Function	Actuation	Pilot pressure (bar)	Drawing No.
03040102	G1/8	3/2 NC	Pilot/Spring	4-10	7
03041302	G1/8	3/2 NC	Pilot/Spring	2-10	7
X3044102	G1/8	5/2	Pilot/Spring	3-10	8
03060102	G1/4	3/2 NC	Pilot/Spring	2-10	9
03061302	G1/4	3/2 NC	Pilot/Spring	4-10	9
X3064102	G1/4	5/2	Pilot/Spring	3-10	10

Other options available please call your Express Team

# CLASSIC RANGE 3/2, 5/2 & 5/3 IN-LINE VALVE

## Martonair M/20000

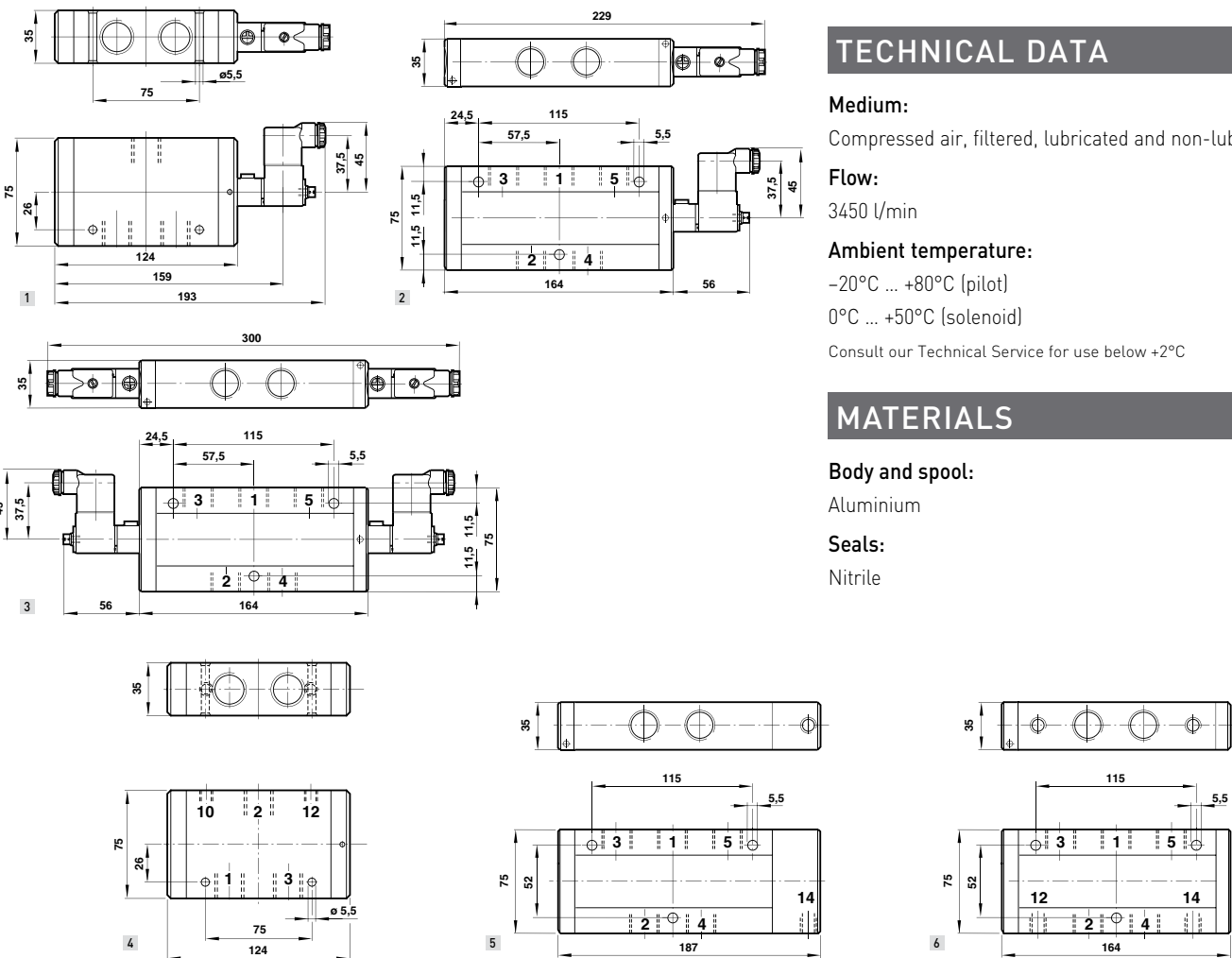
G1/2



Steel reinforced spool seals – for stability and reliability

In-line ports – allows pipework to be kept neat and tidy

Manual override fitted as standard



### TECHNICAL DATA

**Medium:**

Compressed air, filtered, lubricated and non-lubricated

**Flow:**

3450 l/min

**Ambient temperature:**

-20°C ... +80°C (pilot)

0°C ... +50°C (solenoid)

Consult our Technical Service for use below +2°C

### MATERIALS

**Body and spool:**

Aluminium

**Seals:**

Nitrile

### Models

SOLENOID ACTUATED 24 V d.c.				
Model	Function	Actuation	Operating pressure (bar)	Drawing No.
M/20134/122/MDZ83J	3/2 NC	Sol/Spring	2,5-10	1
M/20154/172/MDZ83J	5/2	Sol/Spring	2,5-10	2
M/20154/6123/MDZ83J	5/3 APB	Sol/Spring/Sol	2,8-10	3

PILOT ACTUATED					
Model	Function	Actuation	Operating pressure (bar)	Pilot pressure (bar)	Drawing No.
M/20134/40	3/2 NC	Pilot/Spring	2-10	2+ (0,1xOP)	4
M/20134/3	3/2 NC	Pilot/Pilot	1,3-10	1,3+ (0,1xOP)	4
M/20154/40	5/2	Pilot/Spring	2-10	2+ (0,1xOP)	5
M/20154/3	5/2	Pilot/Pilot	1,7-10	1,7+ (0,2xOP)	6
M/20154/63	5/3 APB	Pilot/Spring/Pilot	2,8-10	2,8+ (0,1xOP)	6

Other options available please call your Express Team

# CLASSIC RANGE

## IN-LINE SOLENOID VALVE

### Herion 26360, 80207

3/2, 5/2, G1/4

For double-acting actuators

Crossover-free switching

Safety function in the event of power failure provided by mechanical return spring

Suitable for use in exposed locations with severe environmental conditions



### TECHNICAL DATA

#### Medium:

Solenoid valve for filtered, lubricated or oil-free compressed air, instrument air, nitrogen and other neutral fluids

#### Operating pressure:

1 ... 10 bar

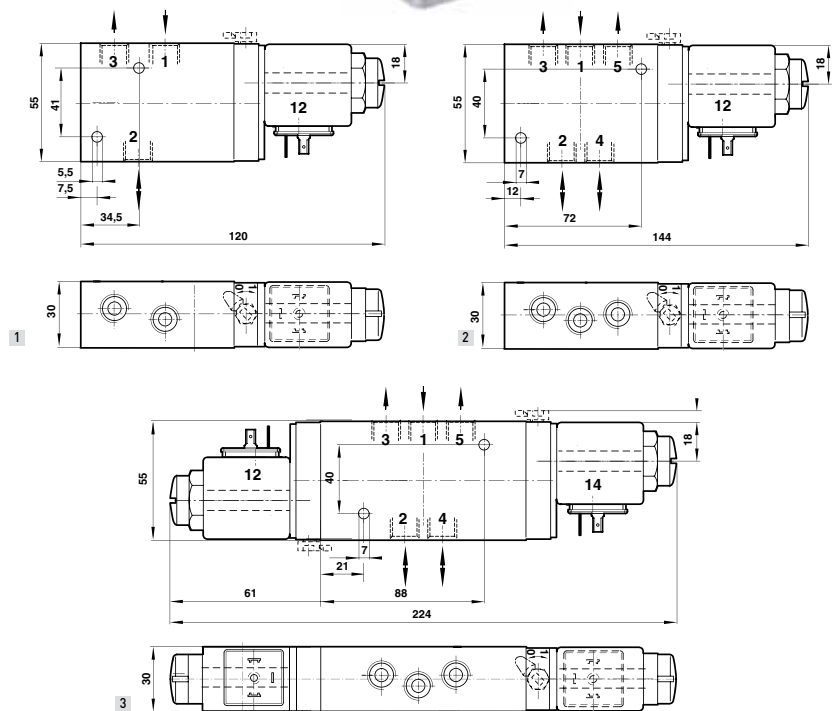
#### Flow:

1200 l/min

#### Temperatures:

Valve: -20 °C ... +60 °C

With minus temperatures, use conditioned dry air.  
 If installed in the open protect all connections against the penetration of moisture



### Models

Model 24 V d.c.	Model 230 V a.c.	Port size	Function	Actuation	Flow (l/min)	Operating pressure (bar)	Drawing No.
8020765024202400	8020765024523050	G1/4	3/2	Sol/Air spring	1200	1...10	1
8020765421002400	8020765421123050	G1/4	3/2	Sol/Air spring	1200	1...10	1
2636065024202400	2636065024523050	G1/4	5/2	Sol/Air spring	1200	1...10	2
2636065421002400	2636065421123050	G1/4	5/2	Sol/Air spring	1200	1...10	2
2636265024202400	2636265024523050	G1/4	5/2	Sol/Sol	1200	1...10	3
2636265421002400	2636265421123050	G1/4	5/2	Sol/Sol	1200	1...10	3

For valves without coil replace last 9 digits with 00000000 Other options available please call your Express Team.

### Solenoid details

Type	Power consumption		Current		Protection class	Temperatures ambient/fluid °C	Electrical connection
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (mA)	230 V a.c. (mA)			
0242	2,7	-	113	-	IP65 (with plug)	-25...+60, Fluid: max. 80	DIN EN 175301-803, Form A
0245	-	4,2	-	-	IP65 (with plug)	-25...+60, Fluid: max. 80	DIN EN 175301-803, Form A
4210	3,9	-	162	-	EEx me II T4, IP66 T110°C	-40...+55 [T6], -40...+80 [T4]	M20 x 1,5
4211	-	5,3	-	23	EEx me II T6/T4, IP66 T130°C	-40...+55 [T6], -40...+80 [T4]	M20 x 1,5

Other options available please call your Express Team

# CLASSIC RANGE IN-LINE SOLENOID VALVE

## Herion 26230

5/2, 5/3, G1/4, G1/2



- Standard manual override with detent
- Compact design
- High flow rate
- Simple design of soft spool seal system
- Maintenance-free
- Easily interchangeable solenoid system

### TECHNICAL DATA

**Medium:**

Compressed air, filtered, lubricated and non-lubricated

**Operating pressure:**

1 ... 10 bar

**Flow:**

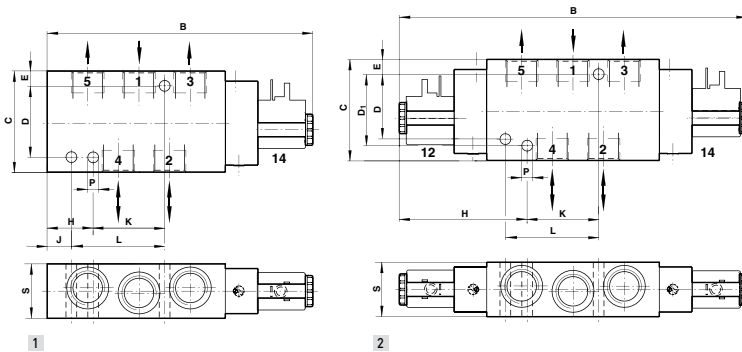
1200 ... 3000 l/min

**Ambient temperature:**

-10°C ... 50 °C

For temperatures below 0°C use conditioned dry air. If installed outdoors protect all connections against the penetration of moisture

Consult our Technical Service for use below +2°C



### Dimensions

Type	Drawing No.	B	C	D	E	H	J	K	L	ØP	S
5/2, G1/4	1	139,5	55	40	7,5	-	5	-	67	7	30
5/2, G1/2	1	171,5	65	46	9,5	30	16	46	60	7	35

Type	Drawing No.	B	C	D	D1	E	H	K	L	ØP	S
5/2, G1/4	2	214,5	55	40	40	7,5	77,5	67	-	7	30
5/2, G1/2	2	223,5	65	46	46	9,5	82,5	46	60	7	35
5/3, G1/4	2	232,5	55	40	40	7,5	88	67	-	7	30
5/3, G1/2	2	289	70	46	50	10	-	50	60	7	40

### Models

Model	24 V d.c.	230 V a.c.	Port size	Actuation	Flow (l/min)	Operating pressure (bar)	Electrical connection	Drawing No.
2623000305202400	-	-	G1/4	5/2 Sol/Spring	1200	1...10	DIN EN 175301-803 Form B	1
-	-	2623000303023050	G1/4	5/2 Sol/Spring	1200	1...10	DIN EN 175301-803 Form A	1
2623500305202400	-	-	G1/2	5/2 Sol/Spring	3000	2...10	DIN EN 175301-803 Form B	1
-	-	2623500303023050	G1/2	5/2 Sol/Spring	3000	2...10	DIN EN 175301-803 Form A	1
2623100305202400	-	-	G1/4	5/2 Sol/Sol	1200	1...10	DIN EN 175301-803 Form B	2
-	-	2623100303023050	G1/4	5/2 Sol/Sol	1200	1...10	DIN EN 175301-803 Form A	2
-	-	2623600303023050	G1/2	5/2 Sol/Sol	3000	2...10	DIN EN 175301-803 Form A	2
2623300305202400	-	-	G1/4	5/3 APB	900	3... 10	DIN EN 175301-803 Form B	2
-	-	2623300303023050	G1/4	5/3 APB	900	3... 10	DIN EN 175301-803 Form A	2
-	-	2623800303023050	G1/2	5/3 APB	2200	2,5... 10	DIN EN 175301-803 Form A	2
-	-	2623200303023050	G1/4	5/3 COE	900	3... 10	DIN EN 175301-803 Form A	2
-	-	2623700303023050	G1/2	5/3 COE	2200	2,5... 10	DIN EN 175301-803 Form A	2
-	-	2623400303023050	G1/4	5/3 COP	900	3... 10	DIN EN 175301-803 Form A	2

For valves without coil replace last 9 digits with 000000000

Other options available please call your Express Team.

# CLASSIC RANGE

## IN-LINE SOLENOID VALVE

### Herion 26220

4/2, G1/8, G1/4

LABS-free

Standard manual override with detent

Compact design

High flow rate

Maintenance-free

### TECHNICAL DATA

#### Medium:

Solenoid valve for filtered, lubricated \*1)

or non-lubricated air

#### Operating pressure:

Maximum 10 bar

#### Flow:

700 ... 1400 l/min

#### Temperature range:

-10\* ... +60 °C

\* With minus temperatures, use conditioned dry air.

If installed in the open protect all connections against the penetration of moisture!

\*1) Oil recommendation: Shell Hydrol DO 32, Esso Febis (as of July 1992) or comparable oils with DVI values <8 (DIN 53521) and ISO viscosity class 32-46 (DIN 51519).

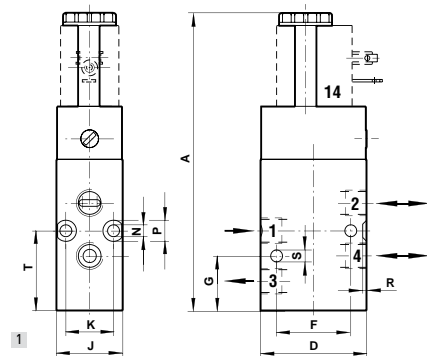
### MATERIALS

#### Body:

Aluminium

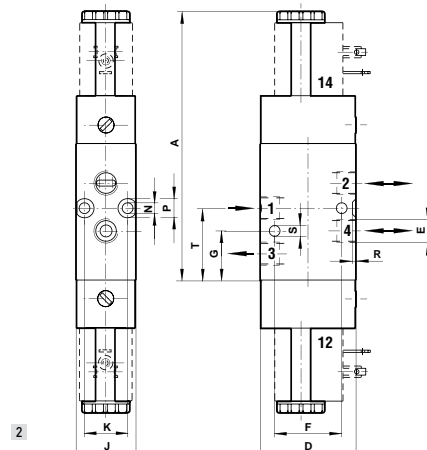
#### Seals:

NBR (Perbunan)



### Dimensions

Type	A	D	F	G	J	K	ØN	ØP	R	ØS	T
26220**	112,5	40	28	20,5	25	18	4,5	8	2	4,5	30
26222**	127,5	55	32	28,5	30	23	4,5	-	-	5,5	40,5



### Dimensions

Type	A	D	F	G	J	K	ØN	ØP	R	ØS	T
26221**	172	40	28	25	25	18	4,5	8	2	4,5	34,5
26223**	191	55	32	36	30	23	4,5	-	-	5,5	48

### Models

SOLENOID ACTUATED 24 V d.c.											
Model 24 V d.c.	Port size	Function	Actuation	Flow (l/min)	Operating pressure (bar)	Current draw (W)	Electrical connection	Drawing No.			
2622000305202400	G1/8	4/2	Sol/Spring	700	1,5... 10	<5	DIN EN 175301-803 Form B	1			
2622200305202400	G1/4	4/2	Sol/Spring	1400	1,5... 10	<5	DIN EN 175301-803 Form B	1			
2622100305202400	G1/8	4/2	Sol/Sol	700	1,5... 10	<5	DIN EN 175301-803 Form B	2			
2622300305202400	G1/4	4/2	Sol/Sol	1400	1,5... 10	<5	DIN EN 175301-803 Form B	2			
2622001305002400	G1/8	4/2	Sol/Spring	700	2... 8	<2	DIN EN 175301-803 Form B	1			
2622201305002400	G1/4	4/2	Sol/Spring	1400	2... 8	<2	DIN EN 175301-803 Form B	1			
2622101305002400	G1/8	4/2	Sol/Sol	700	2... 8	<2	DIN EN 175301-803 Form B	2			
2622301305002400	G1/4	4/2	Sol/Sol	1400	2... 8	<2	DIN EN 175301-803 Form B	2			

For valves without coil replace last 9 digits with 000000000

Other options available please call your Express Team.