

V40/V41 Mini ISO Star Valves

2x3/2, 5/2 and 5/3, Solenoid and
 Pilot Actuated ISO 15407-1 / VDMA 24 563 Size 18 mm

Compact design and high performance

Flexible Sub-base system

True multipressure system

Sandwich regulators and flow controls

Dual spool technology

V40 Glandless spool and sleeve

V41 Softseal spool

Collected pilot exhaust with internal pilot air supply

Easy to convert from internal to external pilot supply

Shut-off plate allows for exchange of valves under pressure



Technical Data

Medium

Compressed air, 40µm 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

Mounting

On sub-bases

Size

ISO 15407-1 / VDMA 24 563, 18 mm

Operating Pressure

Maximum pressure

145 psig (10 bar) V41 models and V40 solenoid pilot actuated valves with internal pilot supply

232 psig (16 bar) V40 solenoid pilot actuated valves with external pilot supply and V40 air pilot actuated valves

Flow Characteristics

Series	Function	Cv	l/min
V40	5/2	0.58	570
V40	5/3	0.62	610
V41*	2x3/2	1.62	610
V41*	5/2	0.66	650
V41*	5/3	0.69	680

Ambient Temperature

5°F* to +122°F (-15°C* to +50°C) V40/V41 sol. and V41 air pilot models

5°F* to +176°F (-15°C* to +80°C) V40 air pilot models

*Consult our Application Engineering for use below 36°F (+2°C)

Materials

Die cast aluminum body and sub-base. Hard anodized spool, Teflon coated, matched aluminum spool and sleeve(V40) or aluminum alloy spool with HNBR Seals (V41). POM plastic parts and NBR static seals. End cover and screws zinc plated, stainless steel springs.

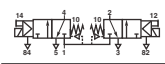
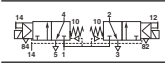
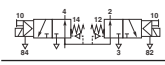
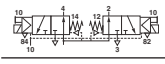
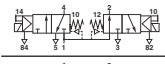
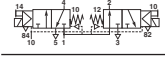
Electrical Details for Solenoid Pilot

Voltage Tolerances	-10% / +15%
Rating	100% Continuous Duty
Inlet orifice	0.8 mm
Electrical Connection	DIN 43 650 table 'C'
Manual Override	Push and turn locking and non-locking
Protection Class	IP 65
	NEMA 4
Materials	PPS (body), Viton and NBR (seals)

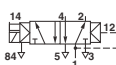
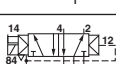
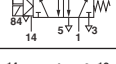
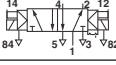
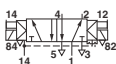
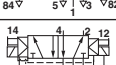
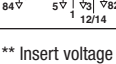
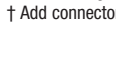
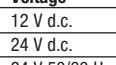
V40/V41 Mini ISO Star Valves

2x3/2, 5/2 and 5/3, Solenoid and Pilot Actuated ISO 15407-1 / VDMA 24 563 Size 18 mm

2x3/2 Solenoid Pilot Actuated Valves (Softseal Spool only)

	Model	Function 2x3/2	Pilot Supply	Pilot Exhaust	Actuation 3/2 Function	Flow Cv	Operating Pres. psig	Pilot Pres. (psig)	Weight lb.	Repair Kit
	V415A11D-C3**†	NC	Internal	Collected	Sol/Spring	0.62	36 - 145	-	0.40	V70447-K50
	V415A22D-C3**†	NC	External	Not Collected	Sol/Spring	0.62	0 - 145	24.7+(0.35 x op.press.)	0.40	V70447-K50
	V415B11D-C3**†	NO	Internal	Collected	Sol/Spring	0.62	36 - 145	-	0.40	V70448-K50
	V415B22D-C3**†	NO	External	Not Collected	Sol/Spring	0.62	0 - 145	24.7+(0.35 x op.press.)	0.40	V70448-K50
	V415C11D-C3**†	NO/NC	Internal	Collected	Sol/Spring	0.62	36 - 145	-	0.40	V70449-K50
	V415C22D-C3**†	NO/NC	External	Not collected	Sol/Spring	0.62	0 - 145	24.7+(0.35 x op.press.)	0.40	V70449-K50

5/2 Solenoid Pilot Actuated Valves

	Model	Spool Techn.	Pilot Supply	Pilot Exhaust	Operator 14	Return 12	Flow Cv	Operating Pres. (psig)	Pilot Pres. (psig)	Weight lb.	Repair Kit
	V405513D-C3**†	GI	Internal	Collected	Solenoid	Air Spring	0.58	14.5 - 145	-	0.26	V70440-K50
	V415513D-C3**†	Ss	Internal	Collected	Solenoid	Air Spring	0.66	14.5 - 145	-	0.29	V70442-K50
	V405523D-C3**†	GI	External	Not collected	Solenoid	Air Spring	0.58	26" Hg - 232	14.5 - 145	0.26	V70440-K50
	V415523D-C3**†	Ss	External	Not collected	Solenoid	Air Spring	0.66	26" Hg - 145	14.5 - 145	0.29	V70442-K50
	V405516D-C3**†	GI	Internal	Collected	Solenoid	Spring & air	0.58	23.2 - 145	-	0.29	V70440-K50
	V415517D-C3**†	Ss	Internal	Collected	Solenoid	Spring	0.66	29 - 145	-	0.29	V70442-K50
	V405526D-C3**†	GI	External	Not collected	Solenoid	Spring & air	0.58	26" Hg - 232	23.2 - 145	0.29	V70440-K50
	V415527D-C3**†	Ss	External	Not collected	Solenoid	Spring	0.66	26" Hg - 145	29 - 145	0.29	V70442-K50
	V405511D-C3**†	GI	Internal	Collected	Solenoid	Solenoid	0.58	29 - 145	-	0.40	V70441-K50
	V415511D-C3**†	Ss	Internal	Collected	Solenoid	Solenoid	0.66	29 - 145	-	0.40	V70443-K50
	V405522D-C3**†	GI	External	Not collected	Solenoid	Solenoid	0.58	26" Hg - 232	29 - 145	0.40	V70441-K50
	V415522D-C3**†	Ss	External	Not collected	Solenoid	Solenoid	0.66	26" Hg - 145	29 - 145	0.40	V70443-K50
	V405591D-C3**†	GI	Internal	Collected	Solenoid (priority)	Solenoid	0.58	29 - 145	-	0.40	V70441-K50
	V405592D-C3**†	GI	External	Not collected	Solenoid (priority)	Solenoid	0.58	26" Hg - 232	29 - 145	0.40	V70441-K50

** Insert voltage code from Table 1 "Voltage Codes and Spare Pilot Valves".

† Add connector code from Table 2 "Connector Codes and Part Number".

Table 1

**Voltage Codes and Spare Pilot Valves

Voltage	Code	Power Inrush / Hold	Pilot Valve Part.-no.
12 V d.c.	12	1.2 W	VZC7L2C1-C312A
24 V d.c.	13	1.2 W	VZC7L2C1-C313A
24 V 50/60 Hz	14	2.1 / 1.5 VA	VZC7L2C1-C314A
48 V 50/60 Hz	16	2.1 / 1.5 VA	VZC7L2C1-C316A
110 V d.c.	17	1 W	VZC7L2C1-C317A
115 V 50/60 Hz	18	2.1 / 1.5 VA	VZC7L2C1-C318A
230 V 50/60 Hz	19	2.1 / 1.5 VA	VZC7L2C1-C319A

Other voltages available on request.

Spare pilot valves are delivered with mounting screws.

Table 2

†Connector Codes and Part Number

Code	Part Number
A = Solenoid without connector	
B = Cable grip	V10027-D00
C = 10 ft. molded cable, 0-240 VAC/VDC	V10013-D03
H = Cable grip w/indicator light, 24 VAC/VDC	V10012-D13
J = Cable grip w/indicator light, 120 VAC/VDC	V10012-D18
5 = 10 ft. molded cable with indicator light, surge suppression, 24 VAC/VDC	V10014-D03
6 = 10 ft. molded cable with indicator light, 110V/50 Hz-120V.60Hz	V10015-D03

V40/V41 Mini ISO Star Valves

2x3/2, 5/2 and 5/3, Solenoid and Pilot Actuated ISO 15407-1 / VDMA 24 563 Size 18 mm

5/3 Solenoid Pilot Actuated Valves

	Model	Spool Techn.	Valve Function	Pilot Supply	Pilot Exhaust	Operator 14	Return 12	Flow Cv	Operating Pres. (psig)	Pilot Pres. (psig)	Weight lb.	Repair Kit
	V405611D-C3**†	GI	APB	Internal	Collected	Solenoid	Solenoid	0.62	29 - 145	-	0.40	V70441-K50
	V415611D-C3**†	Ss	APB	Internal	Collected	Solenoid	Solenoid	0.69	29 - 145	-	0.40	V70444-K50
	V405622D-C3**†	GI	APB	External	Not collected	Solenoid	Solenoid	0.62	26" Hg - 232	29 - 145	0.40	V70441-K50
	V415622D-C3**†	Ss	APB	External	Not collected	Solenoid	Solenoid	0.69	26" Hg - 145	29 - 145	0.40	V70444-K50
	V405711D-C3**†	GI	COE	Internal	Collected	Solenoid	Solenoid	0.62	29 - 145	-	0.40	V70441-K50
	V415711D-C3**†	Ss	COE	Internal	Collected	Solenoid	Solenoid	0.69	29 - 145	-	0.40	V70441-K50
	V405722D-C3**†	GI	COE	External	Not collected	Solenoid	Solenoid	0.62	26" Hg - 232	29 - 145	0.40	V70441-K50
	V415722D-C3**†	Ss	COE	External	Not collected	Solenoid	Solenoid	0.69	26" Hg - 145	29 - 145	0.40	V70445-K50
	V405811D-C3**†	GI	COP	Internal	Collected	Solenoid	Solenoid	0.62	29 - 145	-	0.40	V70441-K50
	V415811D-C3**†	Ss	COP	Internal	Collected	Solenoid	Solenoid	0.69	29 - 145	-	0.40	V70446-K50
	V404822D-C3**†	GI	COP	External	Not collected	Solenoid	Solenoid	0.62	26" Hg - 232	29 - 145	0.40	V70441-K50
	V415822D-C3**†	Ss	COP	External	Not collected	Solenoid	Solenoid	0.69	26" Hg - 145	29 - 145	0.40	V70446-K50

** Insert voltage code from Table 1 "Voltage Codes and Spare Pilot Valves".

† Add connector code from Table 2 "Connector Codes and Part Number".

Table 1
****Voltage Codes and Spare Pilot Valves**

Voltage	Code	Power Inrush / Hold	Pilot Valve Part-no.
12 V d.c.	12	1.2 W	VZC7L2C1-C312A
24 V d.c.	13	1.2 W	VZC7L2C1-C313A
24 V 50/60 Hz	14	2.1 / 1.5 VA	VZC7L2C1-C314A
48 V 50/60 Hz	16	2.1 / 1.5 VA	VZC7L2C1-C316A
110 V d.c.	17	1 W	VZC7L2C1-C317A
115 V 50/60 Hz	18	2.1 / 1.5 VA	VZC7L2C1-C318A
230 V 50/60 Hz	19	2.1 / 1.5 VA	VZC7L2C1-C319A

Other voltages available on request.

Spare pilot valves are delivered with mounting screws.

Table 2
†Connector Codes and Part Number

Code	Part Number
A = Solenoid without connector	
B = Cable grip	V10027-D00
C = 10 ft. molded cable, 0-240 VAC/VDC	V10013-D03
H = Cable grip w/indicator light, 24 VAC/VDC	V10012-D13
J = Cable grip w/indicator light, 120 VAC/VDC	V10012-D18
5 = 10 ft. molded cable with indicator light, surge suppression, 24 VAC/VDC	V10014-D03
6 = 10 ft. molded cable with indicator light, 110V/50 Hz-120V.60Hz	V10015-D03

2x3/2 Air Pilot Actuated Valves (Softseal Spool)

	Model	Function 2x3/2	Actuation 3/2 Function	Flow Cv	Operating Pres. (psig)	Pilot Pres. (psig)	Weight (lb.)	Spares Kit
	V415A33A-X0020	NC	Air/Spring	0.62	0 - 145	24.7 + (0.35 x op. pressure)	0.26	V70447-K50
	V415B33A-X0020	NO	Air/Spring	0.62	0 - 145	24.7 + (0.35 x op. pressure)	0.26	V70448-K50
	V415C33A-X0020	NO/NC	Air/Spring	0.62	0 - 145	24.7 + (0.35 x op. pressure)	0.26	V70449-K50

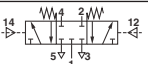
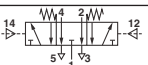
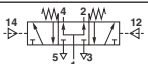
5/2 Air Pilot Actuated Valves

	Model	Spool Techn.	Operator 14	Return 12	Flow Cv	Operating Pres. (psig)	Pilot Pres. (psig)	Weight (lb.)	Repair Kit
	V405537A-X0090	GI	Air	Spring	0.58	26" Hg - 232	23.2 - 232	0.24	V70440-K50
	V415537A-X0090	Ss	Air	Spring	0.66	26" Hg - 145	29 - 145	0.22	V70442-K50
	V405533A-X0020	GI	Air	Air	0.58	26" Hg - 232	29 - 232	0.24	V70441-K50
	V415533A-X0020	Ss	Air	Air	0.66	26" Hg - 145	29 - 145	0.24	V70443-K50
	V405533A-X0020	GI	Air (priority)	Air	0.58	26" Hg - 232	29 - 232	0.24	V70441-K50

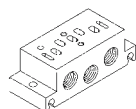
V40/V41 Mini ISO Star Valves

2x3/2, 5/2 and 5/3, Solenoid and Pilot Actuated ISO 15407-1 / VDMA 24 563 Size 18 mm

5/3 Air Pilot Actuated Valves

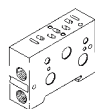
	Model	Spool	Valve Function	Operator 14	Return 12	Flow Cv	Operating Pres. (psig)	Pilot Pres. (psig)	Weight (lb.)	Spares Kit
	V405633A-X0020	GI	APB	Air	Air	0.62	26" Hg - 232	29 - 232	0.24	V70441-K50
	V415633A-X0020	Ss	APB	Air	Air	0.69	26" Hg - 145	36 - 145	0.26	V70444-K50
	V405733A-X0020	GI	COE	Air	Air	0.62	26" Hg - 232	29 - 232	0.24	V70441-K50
	V415733A-X0020	Ss	COE	Air	Air	0.69	26" Hg - 145	36 - 145	0.26	V70445-K50
	V405833A-X0020	GI	COP	Air	Air	0.62	26" Hg - 232	29 - 232	0.24	V70441-K50
	V415833A-X0020	Ss	COP	Air	Air	0.69	26" Hg - 145	36 - 145	0.26	V70446-K50

Bases



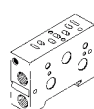
Single Station Sub-base Side Ported w/ Pilot Ports

V70401-P5B	(1/8 NPTF)
V70401-A5B	(G1/8)



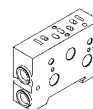
Modular Sub-base Side Ported w/o Pilot Ports

V70425-P5F	(1/8 NPTF)
V70425-A5F	(G1/8)



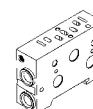
Modular Sub-base Side Ported with Pilot Ports

V70426-P5F	(1/8 NPTF)
V70426-A5F	(G1/8)



Modular Sub-base Side Ported (PIF) w/o Pilot Ports

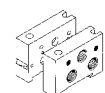
V70425-15F	(ø1/4")
V70425-85F	(ø8 mm)
V70425-65F	(ø6 mm)



Modular Sub-base Side Ported (PIF) with Pilot Ports

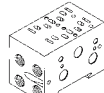
V70426-15F	(ø1/4")
V70426-85F	(ø8 mm)
V70426-65F	(ø6 mm)

*Use with air pilot valves



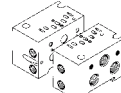
End Plate Kit End Ported

V70424-R5C	(1/4 NPTF)
V70424-B5C	(G1/4)



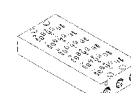
Double Station Modular Sub-base Side Ported without Pilot Ports

V70432-P5F	(1/8 NPTF)
V70432-A5F	(G1/8")



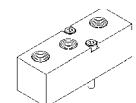
End Plate Kit with 2 Side Ported Valve Stations without Pilot Ports

V70431-P5F	(1/4, 1/8 NPTF)
V70431-A5F	(G1/4, G1/8)



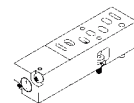
Fixed Length Sub-base Bottom Ported

V704**-P50	(1/8 NPTF)
** = 02,04,06,08,10,12 stations	



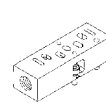
Intermediate Supply/Exhaust Module

V70429-P50	(1/8 NPTF)
V70429-A50	(G1/8)



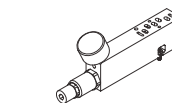
Single Valve Shut-Off Plate

V70430-K50	(Port 1 open/closed)
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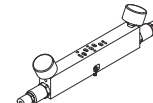
Sandwich Plate with additional Pressure Port 1

V70435-P50	(1/8 NPTF)
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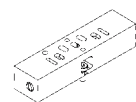
Single Pressure Regulator Plate

V70427-K51	(Port 1 reg.)
V70427-K52	(Port 2 reg.)
V70427-K53	(Port 4 reg.)



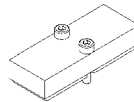
Double Pressure Regulator Plate

V70427-K54	(Ports 2+4 reg.)
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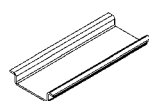
Flow Control Plate

V70428-K50	(Ports 3+5 reg.)
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Blanking Plate for unused Station

V70400-K50	
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DIN EN 50 022 rail (1 metre)

V10009-C00	(35x7.5mm)
V10592-C01	(35x15mm)



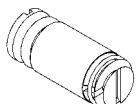
DIN-rail Mounting Kit

V70531-KA0	
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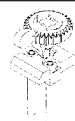
Blanking Disk to Modular Sub-base

V70422-K50	(1 each) (Ports 1,3,5)
V70423-K50	(1 each) (Ports 12+14)



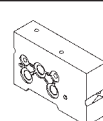
Blanking Plug for

Fixed Length Sub-base	
V70421-K50	(Ports 1,3,5)



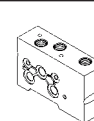
Manual Override Set-Up Kit

V70532-K00	
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Transition Plate #18 mm → #26 mm

V70436-K00	
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Transition Plate #18 mm → #26 mm w/ supply and exhaust ports

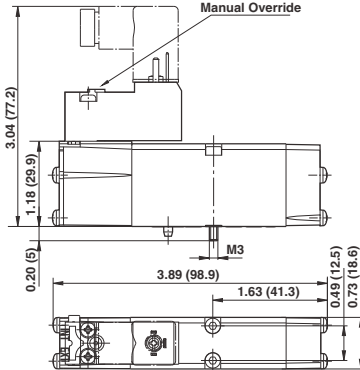
V70436-R00	(1/4 NPTF)
V70436-B00	(G1/4)

V40/V41 Mini ISO Star Valves

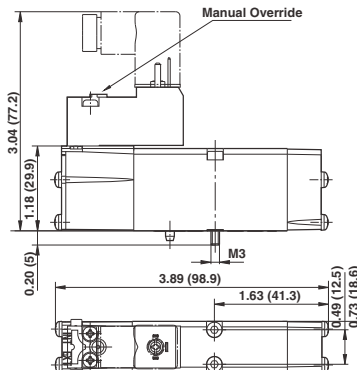
2x3/2, 5/2 and 5/3, Solenoid and Pilot Actuated ISO 15407-1 / VDMA 24 563 Size 18 mm

All Dimensions in Inches (mm)

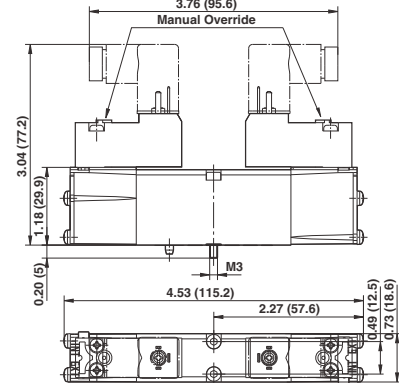
V4055*3D-C3*** and V4155*3D-C3*** Models
5/2 Single Solenoid Pilot Valve
Air Spring Return



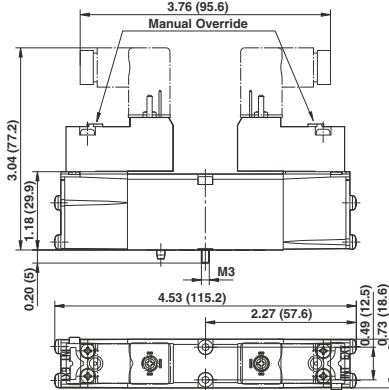
V4055*6D-C3*** and V4155*7D-C3*** Models
5/2 Single Solenoid Pilot Valve
Mechanical (& Air) Spring Return



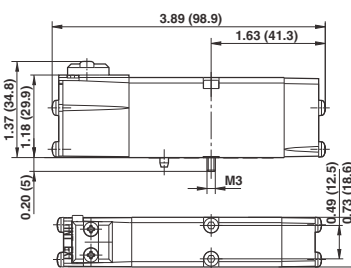
V4055**D-C3*** and
V4155**D-C3*** Models
5/2 Double Solenoid Pilot Valve



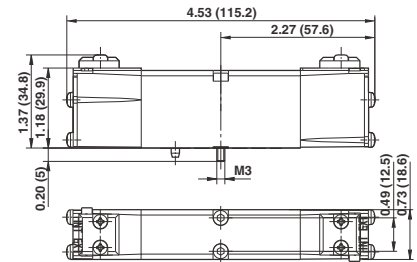
V405***D-C3*** and
V415***D-C3*** Models
2x3/2 + 5/3 Double Solenoid Pilot Valve



V415537A-X0090
5/2 Single Air Pilot Valve



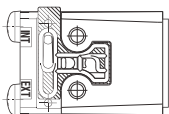
V405537A-X0090 5/2 Single Air Pilot Valve
V405*33A-X00*0 and
V415*33A-X00*0 Models
2x3/2, 5/2 + 5/3 Double Air Pilot Valve



Conversion from internal to external pilot supply / Collected pilot exhaust

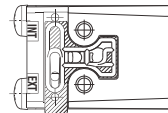
The lowered and captive gasket between valve body and pilot valve defines and indicates pilot air supply as well as pilot exhaust function of the valve.

Solenoid pilot actuated valves



blue gasket

Drawing shows no
pilot valve.



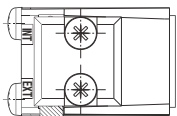
blue gasket

**Internal pilot supply,
pilot exhaust air collected and exhausted via port 14.**

All solenoid pilot valves with code 1 at position 6 in the part number (e.g V41551...) have the gasket mounted in this position on delivery.

Note: Dismounting pilot valve gives access to gasket. Conversion from internal to external pilot supply (or vice versa) by turning the gasket. Caution: In this case part number and symbol on label shows different function. Therefore check gasket position when mounting valve.

Air pilot actuated valves



blue gasket

Air pilot actuated valves
External pilot supply.

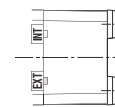
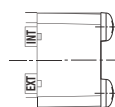
Drawing includes
cover plate.

**External pilot supply from port 14 only, pilot exhaust air not collected
but bleed through valve body.**

All solenoid pilot valves with code 2 at position 6 in the part number (e.g V41552...) have the gasket mounted in this position on delivery.

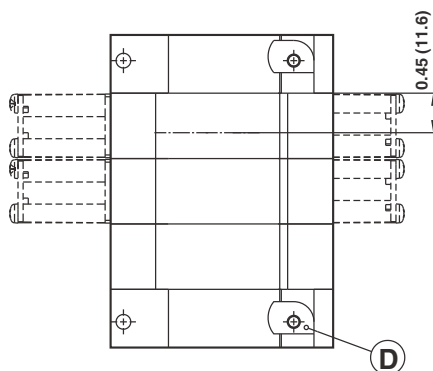
Note: Additional to above described work, gasket between end cap and valve body must be turned too at valves with this function.

5/2 Solenoid pilot actuated valves with air spring return
Drawing shows end cap side 12.

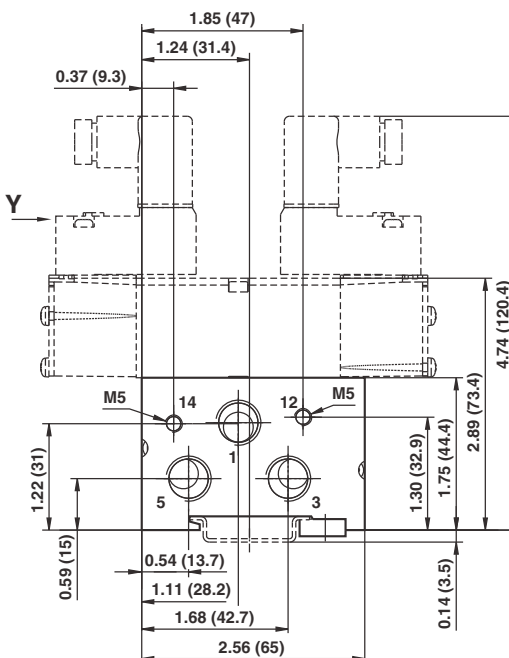


Note: Additional to above described work, gasket between end cap and valve body must be turned too at valves with this function.
For detailed instructions see Installation- and Maintenance Sheet.

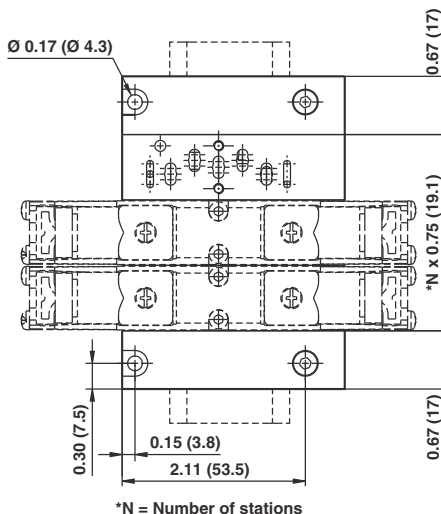
Subbase



Code x	Code y	Ports 2+4	Ports 12+14
A	A	G1/8	M5
P	P	1/8 NPTF	M5
8	—	ø 8 mm PIF	M5
6	—	ø 6 mm PIF	M5
1	—	ø 1/4" PIF	M5



View Y



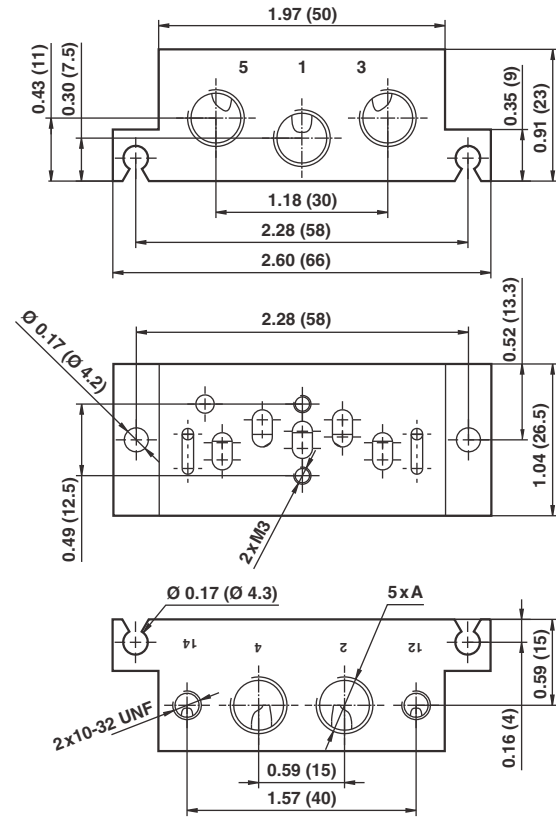
*N = Number of stations

Port 12 is not used, plugging not necessary.

V40/V41 Mini ISO Star Valves

2x3/2, 5/2 and 5/3, Solenoid and Pilot Actuated ISO 15407-1 / VDMA 24 563 Size 18 mm

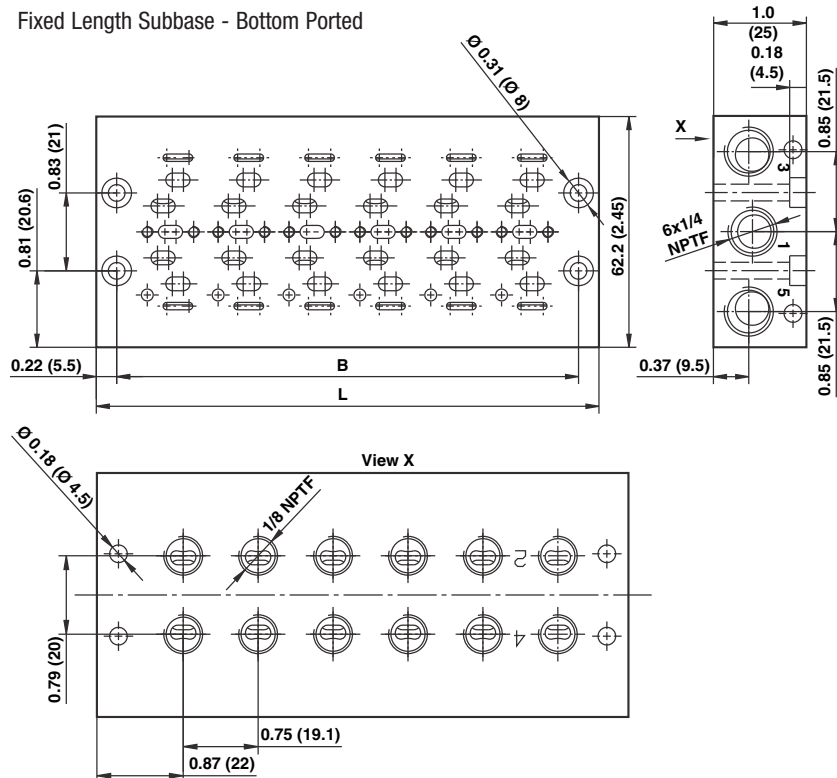
Single Station Subbase - Side Ported with Pilot Ports



Model	Port Size A	Weight lb (kg)
V70401-P5B	1/8NPTF	
	Side Ported with Pilot Ports	0.18
V70401-A5B	G1/8	(0.08)
	Side Ported with Pilot Ports	

Note: Pilot Ports for both types = 10-32 UNF

Fixed Length Subbase - Bottom Ported



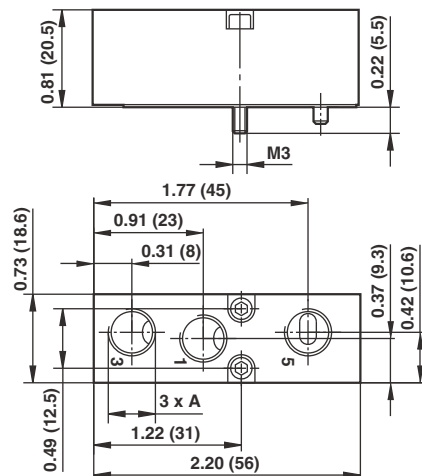
Model	No. of Stations	A inch (mm)	B inch (mm)	Weight lb (kg)
V70402-P50	2	2.33 (59.1)	1.89 (48.1)	0.40 (0.18)
V70404-P50	4	3.83 (97.3)	3.40 (86.3)	0.66 (0.30)
V70406-P50	6	5.34 (135.5)	4.90 (124.5)	0.93 (0.42)
V70408-P50	8	6.84 (173.7)	6.41 (162.7)	1.19 (0.54)
V70410-P50	10	8.34 (211.9)	7.91 (200.9)	1.46 (0.66)
V70412-P50	12	9.85 (250.1)	9.41 (239.1)	1.72 (0.78)

Note: This subbase is suitable for solenoid pilot actuated valves with internal pilot air supply only.

V40/V41 Mini ISO Star Valves

2x3/2, 5/2 and 5/3, Solenoid and Pilot Actuated ISO 15407-1 / VDMA 24 563 Size 18 mm

Intermediate Supply / Exhaust Module



Model	Port Size A	Weight lb (kg)
V70429-P50	1/8NPTF	0.11
V70429-A50	G1/8	(0.05)

Provides additional porting on Modular- or Fixed Length Sub-base.

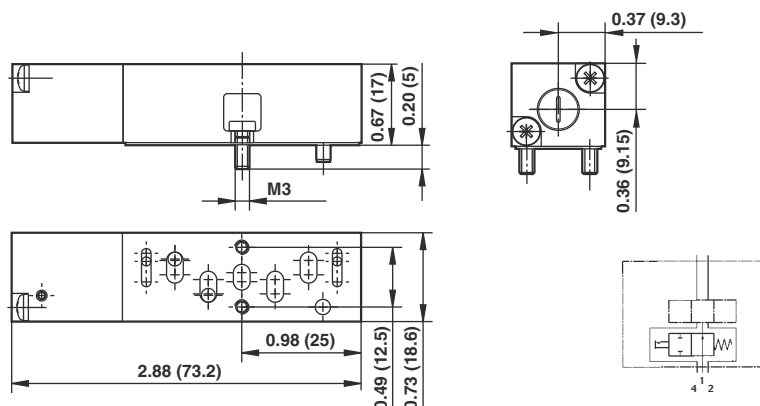
Occupies one valve station.

Supplied with gasket for both sub-bases.

Can be used to:

- Improve supply flow
- Increase exhaust capacity
- Pneumatically separate valves for fail safe emergency
- Multipressure system and system solutions

Single Valve Shut-Off Plate

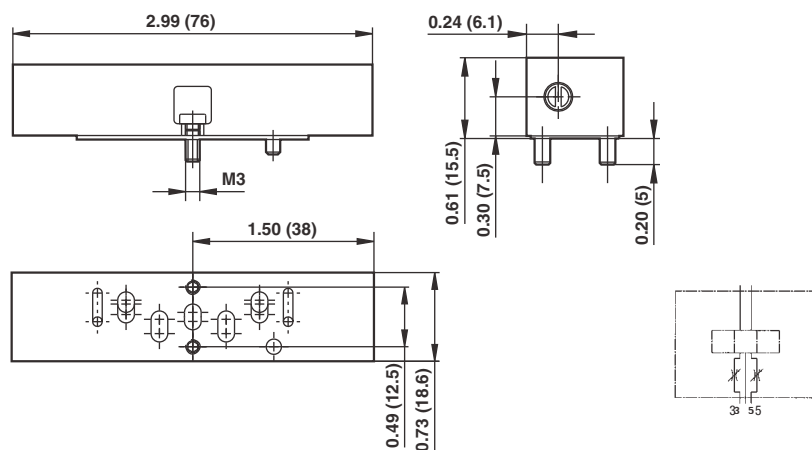


Model	Description	Weight lb (kg)
V70430-K50	Single Shut-Off Plate supplied with gasket	0.13 (0.06)

Allows individual exchange of valve, while valve manifold is pressurized by port 1.

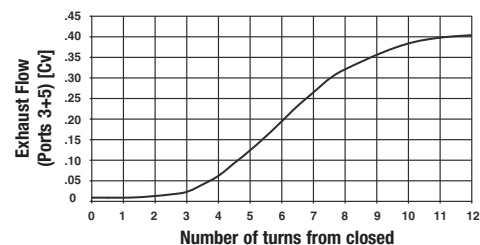
Note: Flow restricted to maximum .24 Cv

Sandwich Flow Control



Model	Description	Weight lb (kg)
V70428-K50	Flow Control supplied with gasket	0.13 (0.06)

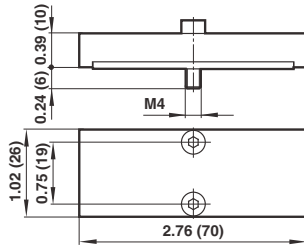
Dual Regulation of Exhaust Ports 3 and 5



Flow: Port 1 → 2 and 1 → 4: remains unchanged
Flow measured at 6 bar inlet, Pressure drop 1 bar

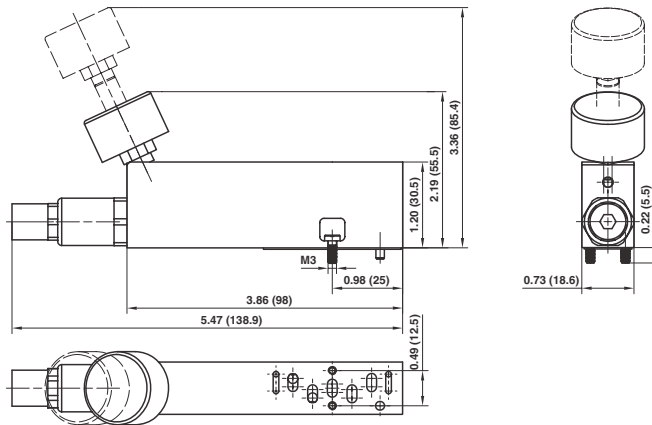
V40/V41 Mini ISO Star Valves

Blanking Plate

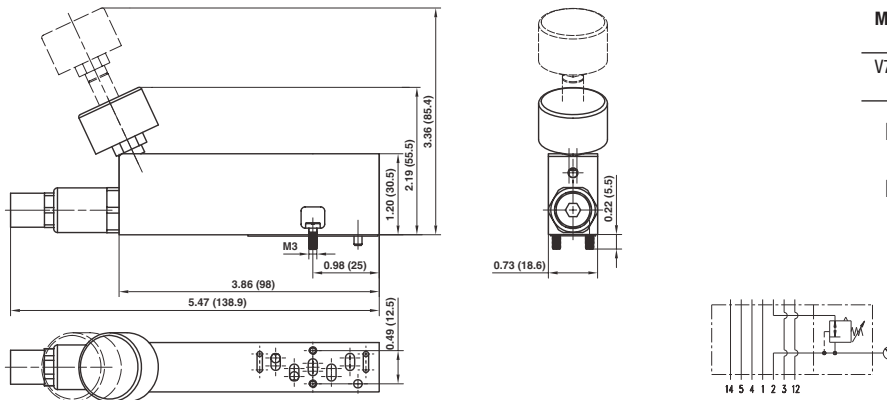


Model	Description	Weight lb (kg)
V70400-K50	Blanking Plate for blocking of unused Stations (supplied with gasket)	0.04 (0.02)

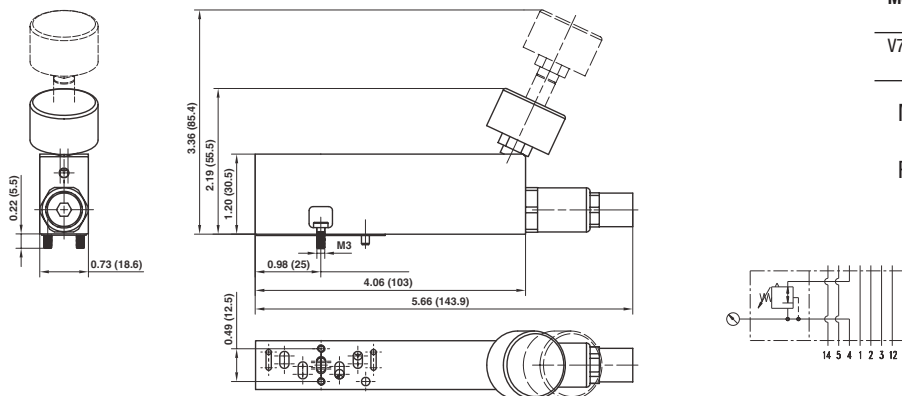
Pressure Regulator Plates (including gauge and adapter tube)



Model	Description	Weight lb (kg)
V70427-K51	Regulation of Port 1	0.46 (0.21)
Maximum inlet pressure	232 psig (16 bar)	
Regulated pressure	14.5–145 psig (1–10 bar)	



Model	Description	Weight lb (kg)
V70427-K52	Regulation of Port 2	0.46 (0.21)
Maximum inlet pressure	232 psig (16 bar)	
Regulated pressure	14.5–145 psig (1–10 bar)	

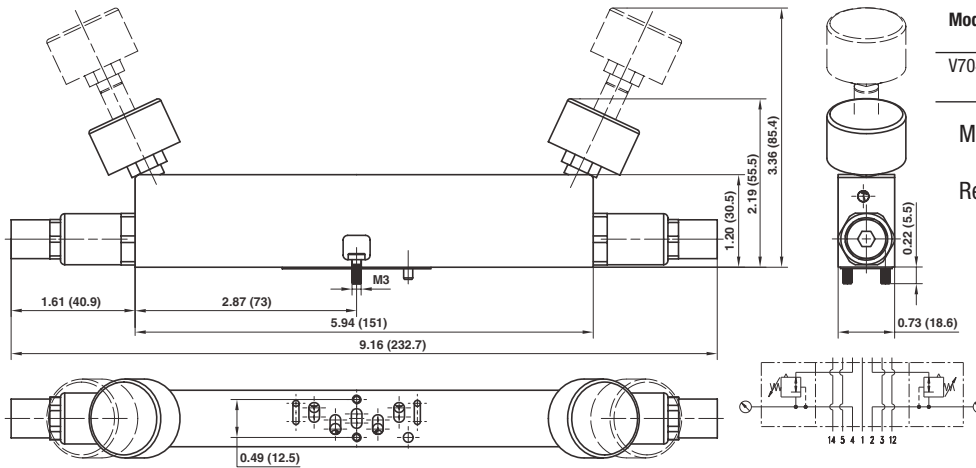


Model	Description	Weight lb (kg)
V70427-K53	Regulation of Port 4	0.46 (0.21)
Maximum inlet pressure	232 psig (16 bar)	
Regulated pressure	14.5–145 psig (1–10 bar)	

V40/V41 Mini ISO Star Valves

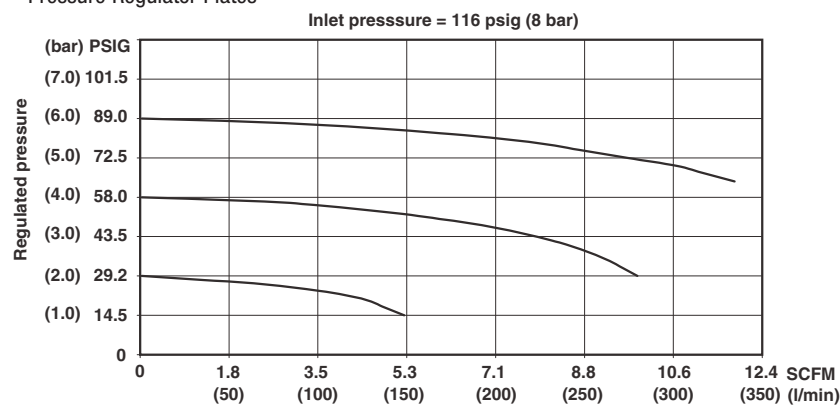
2x3/2, 5/2 and 5/3, Solenoid and Pilot Actuated ISO 15407-1 / VDMA 24 563 Size 18 mm

Dual regulator



Model	Description	Weight lb (kg)
V70427-K54	Regulation of Ports 2+4	0.79 (0.36)
Maximum inlet pressure		232 psig (16 bar)
Regulated pressure		14.5–145 psig (1–10 bar)

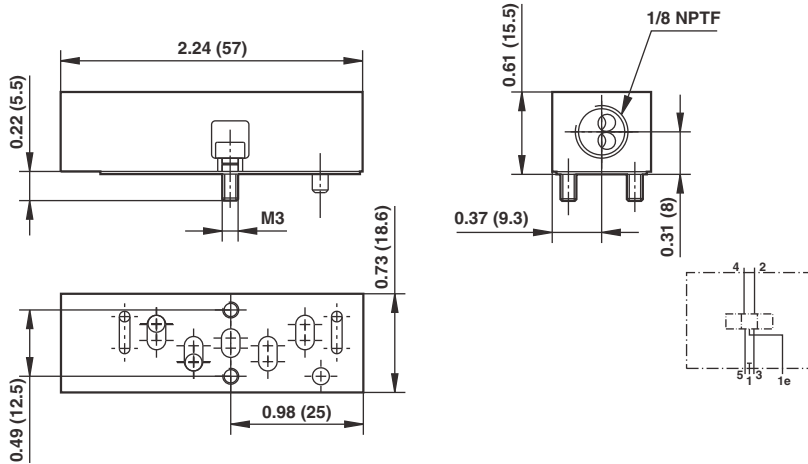
Flow Characteristics for
Pressure Regulator Plates



V40/V41 Mini ISO Star Valves

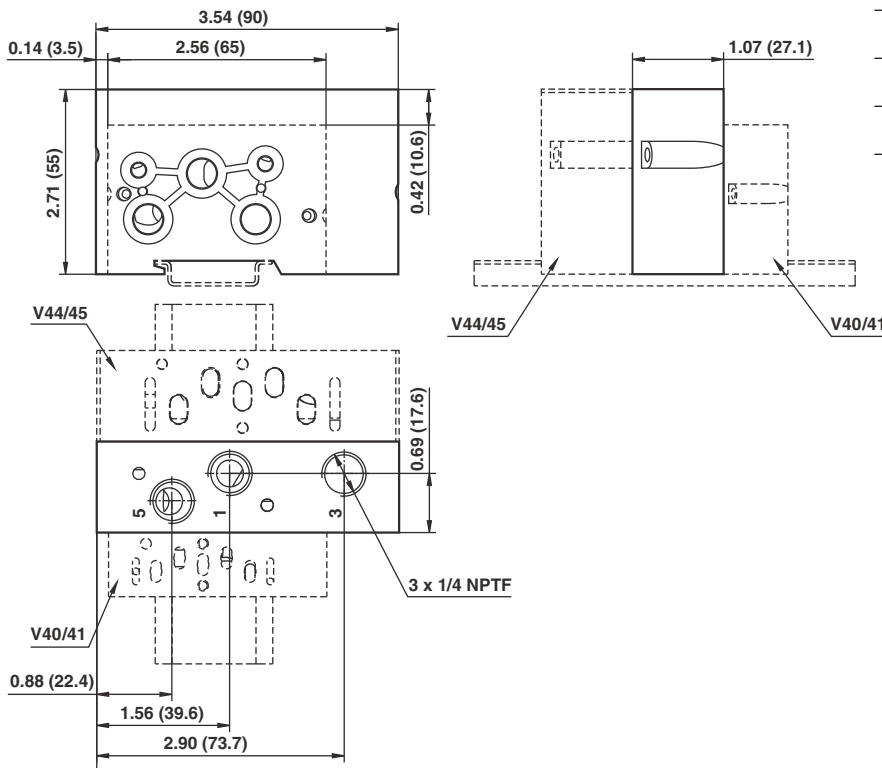
2x3/2, 5/2 and 5/3, Solenoid and Pilot Actuated ISO 15407-1 / VDMA 24 563 Size 18 mm

Sandwich Plate with additional Pressure Port 1



Model	Description	Weight lb (kg)
V70435-P50	Sandwich Plate with additional Port 1, supplied with gasket	0.09 (0.04)

Transition Plate #18 mm to #26 mm



Model	Description	Port 1/3/5	Weight lb (kg)
V70436-K00	Transition Plate # 18 – # 26 mm	without Ports 1/3/5	0.71 (0.32)
V70436-R00	Transition Plate # 18 – # 26 mm	1/4 NPTF	0.68 (0.31)
V70436-B00	Transition Plate # 18 – # 26 mm	G1/4	0.68 (0.31)

- > 2 x 3/2, 5/2 and 5/3 valves, ISO 15407-1/VDMA 24 563, Size 26 mm
- > Solenoid and pilot actuated
- > High performance, compact design
- > Flexible sub-base system
- > Multipressure system capability
- > Dual spool technology:
 - V44 Glandless spool and sleeve (long life)
 - V45 Softseal spool (high flow)
- > Collected pilot exhaust with internal pilot air supply
- > Easy to convert from internal to external pilot supply
- > Valve exchange under pressure



Technical features

Medium:

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

Operation:

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

Flow:

V45 Softseal:			
Function	l/min	Cv	Kv
2x3/2 NC	1100	1,12	0,96
2X3/2 NO	1000	0,98	0,87
5/2	1200	1,22	1,05
5/3	1150	1,17	1,00
V44 Glandless:			
Function	l/min	Cv	Kv
5/2	900	0,92	0,79
5/3	900	0,92	0,79

Mounting:

Sub-base

Operating pressure:

See tables for individual details

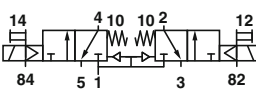
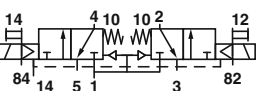
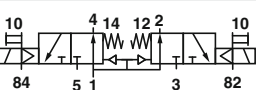
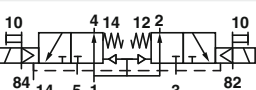
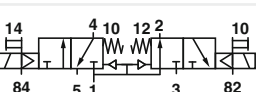
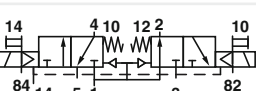
Media/Ambient temperature:

-15 ... +50°C (+5 ... 122°F)
V44/V45 solenoid and V45 air pilot models
-15 ... +80°C (+5 ... 176°F)
V44 air pilot models
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

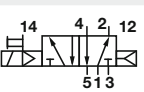
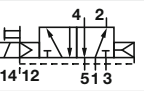
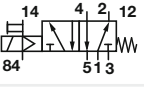
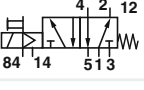
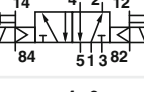
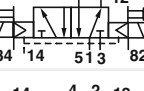
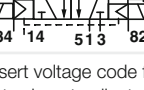
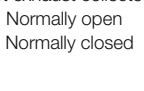
Materials:

Body: die-cast aluminium
Sub-bases: aluminium alloy
Spool and sleeve: hard anodized, Teflon coated, matched aluminium (V44); aluminium alloy spool with HNBR Seals (V45)
Plastic parts: POM
Static seals: NBR
End cover and screws: zinc plated
Springs: stainless steel

2 x 3/2 Solenoid pilot actuated softseal valves

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

5/2 Solenoid pilot actuated glandless and softseal valves

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

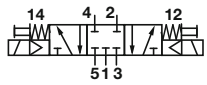
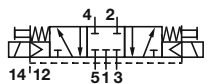
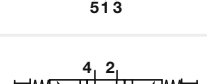
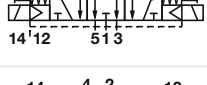
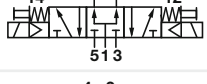
*1) Insert voltage code from tables on page 3

Pilot exhaust collected and exhausted via port 14

NO = Normally open

NC = Normally closed

5/3 Solenoid pilot actuated glandless and softseal valves

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

*2) Insert voltage code from tables below

Pilot exhaust collected and exhausted via port 14

APB = All Ports Blocked

COE = Centre Open Exhaust

COP = Centre open pressure

Electrical details for solenoid operators

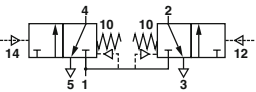
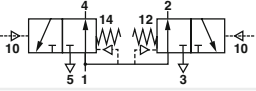
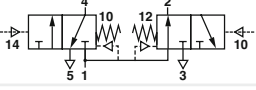
Voltage tolerances	-10%/+15%
Rating	100 % Continuous duty
Inlet orifice	0,8 mm
Electrical connection	15 mm DIN EN 175301-803 (DIN 43 650) Table C
Manual override	Shrouded push button, spring return Convertible into lockable type with set-up kit, part no. V70532-K00 (see next page)
Protection class	IP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

Voltage codes & spare pilots

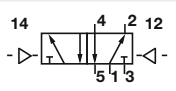
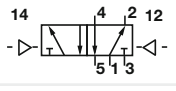
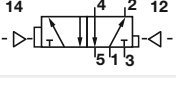
Voltage	Coil code	Current	Spare pilot valve
12 V d.c.	C312A	1 W	VZC7L2C1-C312A
24 V d.c.	C313A	1,2 W	VZC7L2C1-C313A
24 V 50/60 Hz.	C314A	2,1/1,5 VA	VZC7L2C1-C314A
48 V 50/60 Hz	C316A	2,1/1,5 VA	VZC7L2C1-C316A
110 V d.c.	C317A	1 W	VZC7L2C1-C317A
115 V 50/60 Hz	C318A	2,1/1,5 VA	VZC7L2C1-C318A
230 V 50/60 Hz	C319A	2,1/1,5 VA	VZC7L2C1-C319A

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

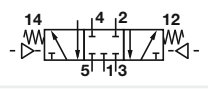
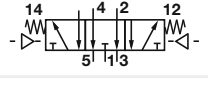
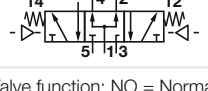
2 x 3/2 Air pilot actuated softseal valves

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

5/2 Air pilot actuated glandless and softseal valves

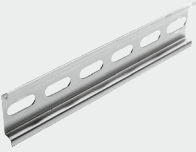
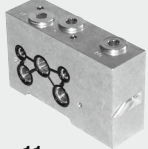
Symbol	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)	Model
	Air	Spring	-0,9 ... 16	1,6 ... 16	Glandless	900	V44A537A-X0090
	Air	Spring	-0,9 ... 10	2 ... 10	Softseal	1200	V45A537A-X0090
	Air	Air	-0,9 ... 16	2 ... 16	Glandless	900	V44A533A-X0020
	Air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

5/3 Air pilot actuated glandless and softseal valves

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

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

Accessories

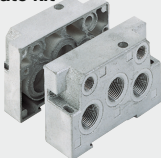
DIN EN 50 022 rail (1 m)	DIN-rail mounting kit	Blanking disc to modular sub-base	Manual override set-up kit	Blanking plate for unused station	Transition plate V40/V41 » V44/V45
					
V10009-C00 (35 x 7,5 mm) V10592-C01 (35 x 15 mm)	V70531-KA0	V70522-K00 (Ports 1,3,5) V70523-K00 (Ports 12 & 14)	V70532-K00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

*3) With supply and exhaust portsg

Sandwich plates

Intermediate supply/exhaust manifold	Single valve shut-off plate	Single pressure regulator plate	Double pressure regulator plate	Flow regulator plate	Sandwich plate with additional pressure port 1
					
Page 10	Page 10	Page 12 & 13	Page 13	Page 10	Page 11
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) V70535-RA0 (1/4 NPTF)

Sub-bases and end plates

Single station sub-base	Single station modular sub-base, side ported	Single station modular sub-base, bottom ported	End plate kit	Fixed length sub-base
				
Page 9	Page 7	Page 7	Page 7	Page 9
V70501-BAB (G1/4) V70501-RAB (1/4 NPTF)	V70525-*AF *4) V70526-*AF *5)	V70525-BAE (G1/4) *4) V70526-BAE (G1/4) *5)	V70524-CAC (G3/8) V70524-SAC (3/8 NPTF)	V705**-BA0 (G1/4) V705**-RA0 (1/4 NPTF)

* = Insert code for port type, see on page 7

** = Insert number of valve stations in sub-base assemblies, see page 8

*4) Without pilot ports

*5) With pilot ports

Connector plug - ordered separately

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



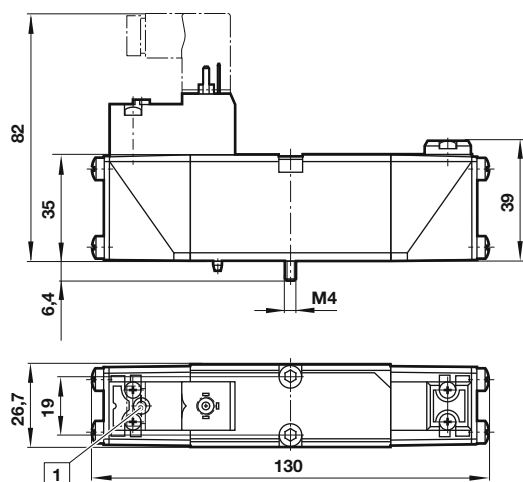
V10027-D00
250 V AC/300 V DC.

Valve dimensions

V44A5*3D-C3***

5/2 Single solenoid pilot valve

Air spring return

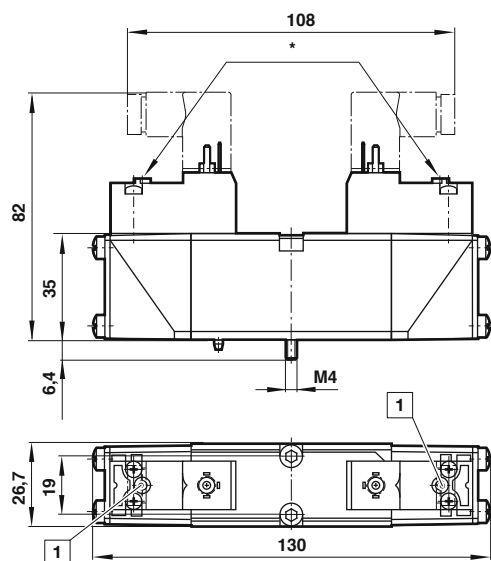


V44A5D-C3*** & V45A5**D-C3*****

5/2 Double solenoid pilot valve

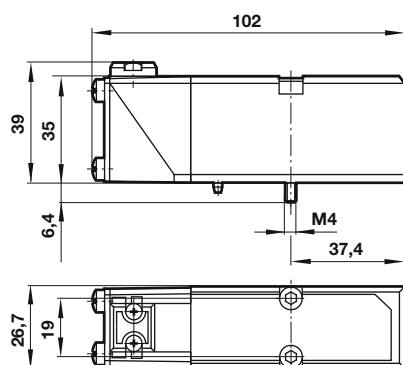
V44A*D-C3*** & V45A***D-C3*****

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



V44A537A-X00*0 & V45A537A-X00*0

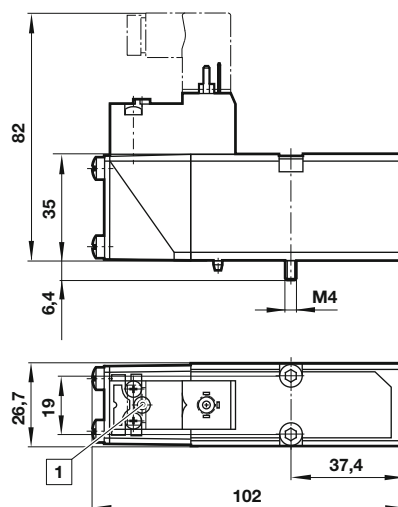
5/2 Single air pilot valve



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

5/2 Single solenoid pilot valve

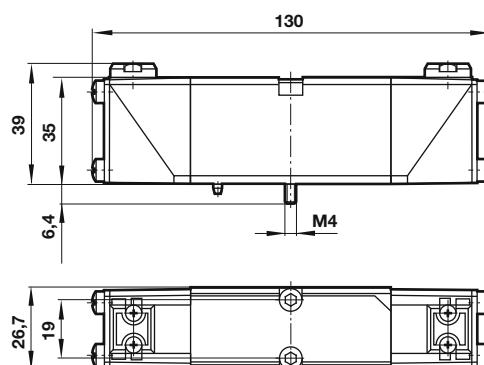
Mechanical spring return



1 Manual override

V44A*33A-X00*0 & V45A*33A-X00*0

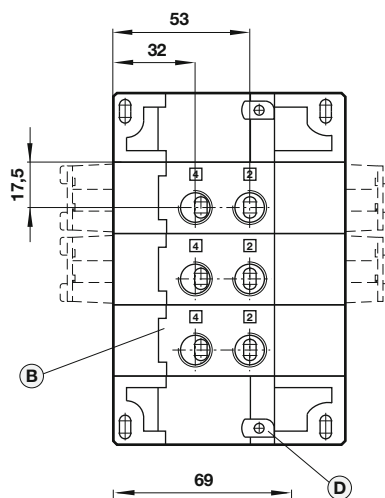
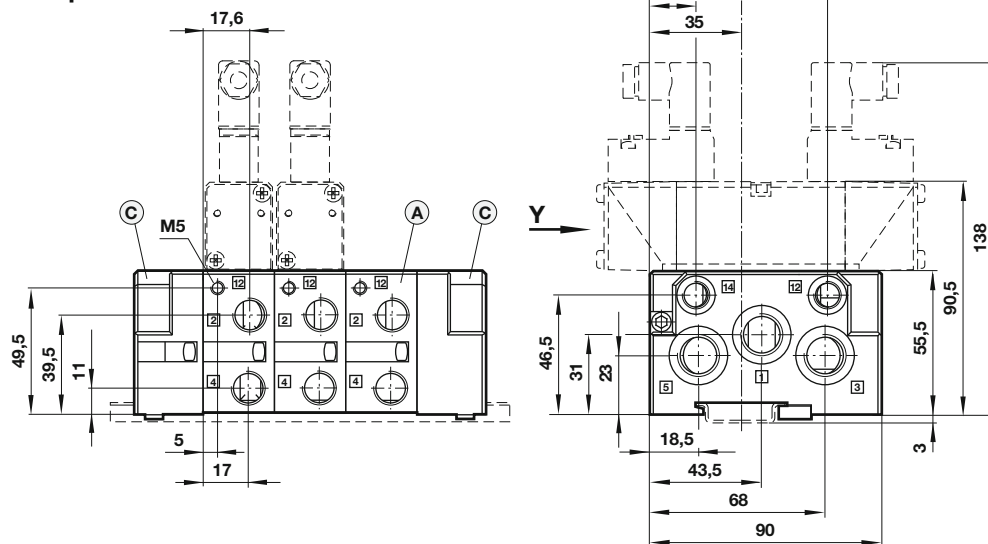
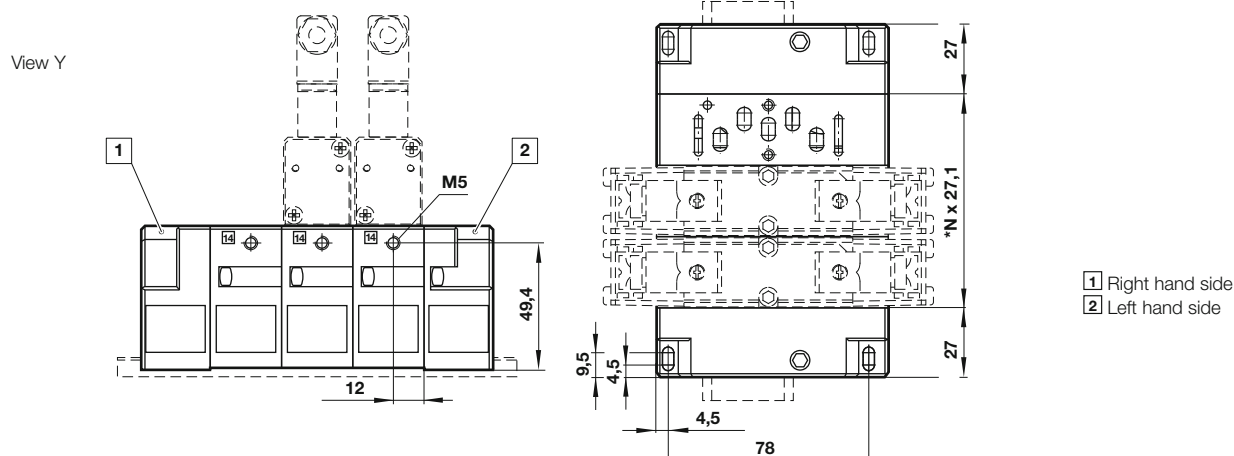
2 x 3/2, 5/2 + 5/3 Double air pilot valve



Dimensions in mm
 Projection/First angle



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

 Dimensions in mm
 Projection/First angle

Side ported sub-base

Bottom and side ported sub-base




Individual components

Modular sub-base (A)	Ports 2+4 on side without pilot ports	Ports 2+4 on side with pilot ports
	Model: V70525-*AF (0,18 kg)	Model: V70526-*AF (0,18 kg)
Modular sub-base (B)	Ports 2+4 on bottom without pilot ports	Ports 2+4 on bottom with pilot ports
	Model: V70525-BAE (G1/4) 0,18 kg	Model: V70526-BAE (G1/4) 0,18 kg
End plate kit (C)		
Side ported	Model: V70524-CAC G3/8, 12 & 14 G1/8) 0,36 kg Model: V70524-SAC (3/8 NPTF 12 & 14 1/8 NPTF)*6) 0,36 kg	

* Insert code for port type, see table on the right hand

*6) End ported end caps 1 left and 1 right hand

N = number of stations

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

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

Port 12 is not used, plugging not necessary.

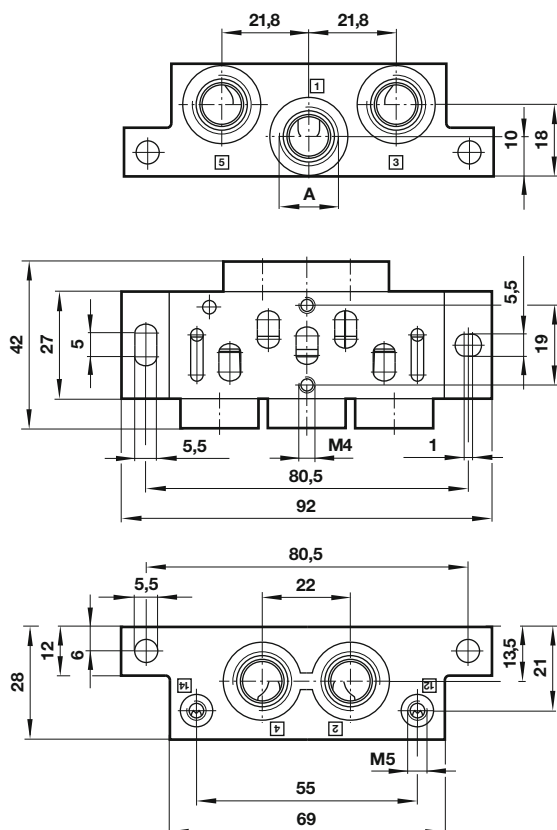
Code	Port size 2 & 4	Port sizes 12/14
B	G1/4	M5
P	1/8 NPTF	M5
R	1/4 NPTF	M5
8	Ø 8 mm PIF	M5
Y	Ø 6 mm PIF	M5
2	Ø 3/8 PIF	M5

Accessories

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

Single station sub-base – side ported with pilot ports

Dimensions in mm
Projection/First angle



Port size A

G1/4 side ported with pilot ports 0,11 kg

NPTF1/4 side ported with pilot ports 0,24 kg

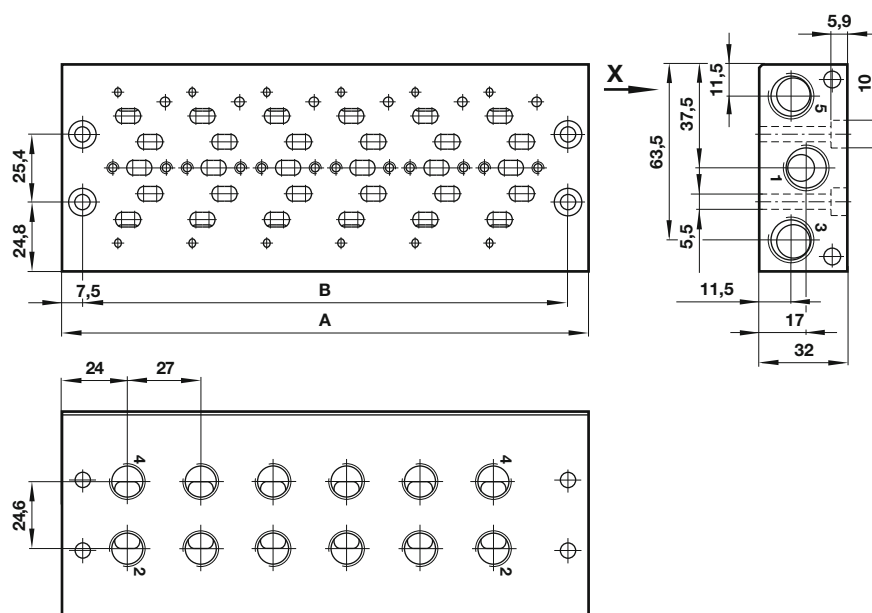
Model

V70501-BAB

V70501-RAB

Note: Pilot ports = M5

Fixed length sub-base - bottom ported



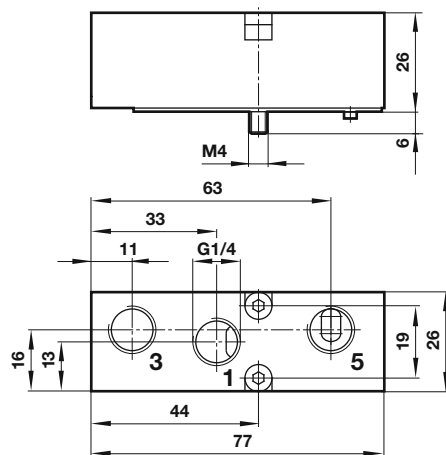
Number of stations	A	B	Weight (kg)	Model
2	83	68	0,4	V70502-xA0
4	137	122	0,65	V70504-xA0
6	191	176	0,91	V70506-xA0
8	245	230	1,15	V70508-xA0
10	299	284	1,41	V70510-xA0
12	353	338	1,66	V70512-xA0

Code	Ports 2 & 4	Ports 1, 3 & 5
B	G1/4	G3/8
R	1/4NPTF	3/8 NPTF

Note: This sub-base is suitable for solenoid pilot actuated valves with internal pilot air supply only

x = Insert port type from table

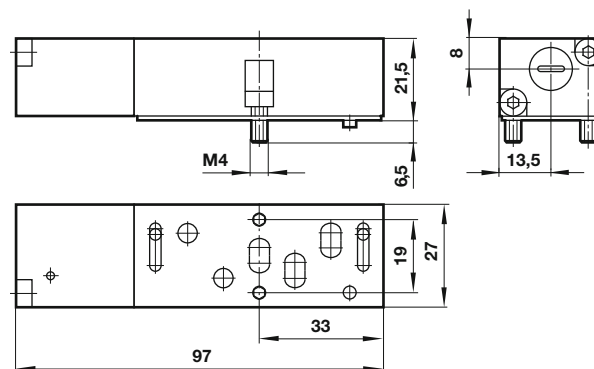
Intermediate supply/exhaust manifold

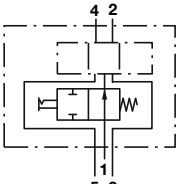


Port size A	Model
G1/4 (0,12 kg)	V70529-BA0

Single valve shut-off plate

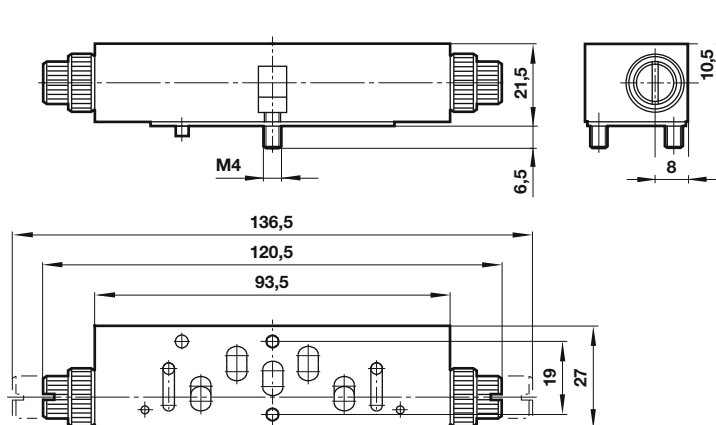
Dimensions in mm
Projection/First angle

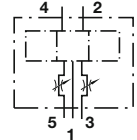


Symbol	Description	Model
	Single shut-off plate supplied with gasket (0,13 kg)	V70530-KA0

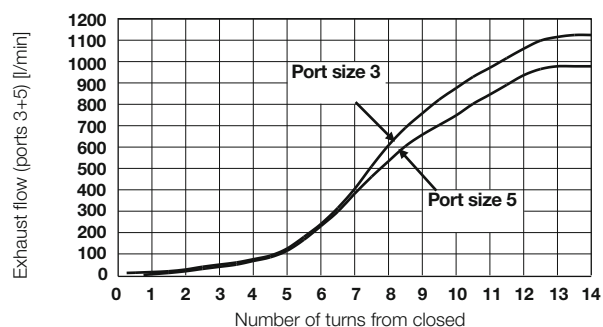
Allows individual exchange of valve, while valve island is pressurised by port 1.
Note: Flow restricted to max. 500 l/min.

Flow regulator plate



Symbol	Description	Model
	Flow regulator supplied with gasket (0,17 kg)	V70528-KA0

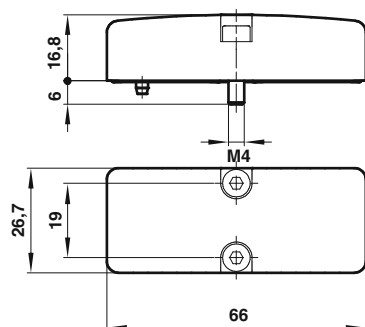
Flow characteristics for pressure regulator plates Dual regulation of exhaust ports 3 & 5



Flow: Port 1 > 2 & 1 > 4: remains unchanged
Flow measured at 6 bar inlet, pressure drop 1 bar

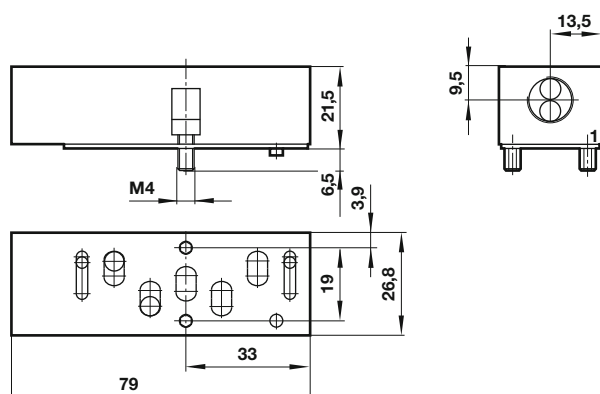
Blanking plate

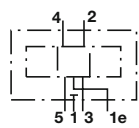
Dimensions in mm
Projection/First angle



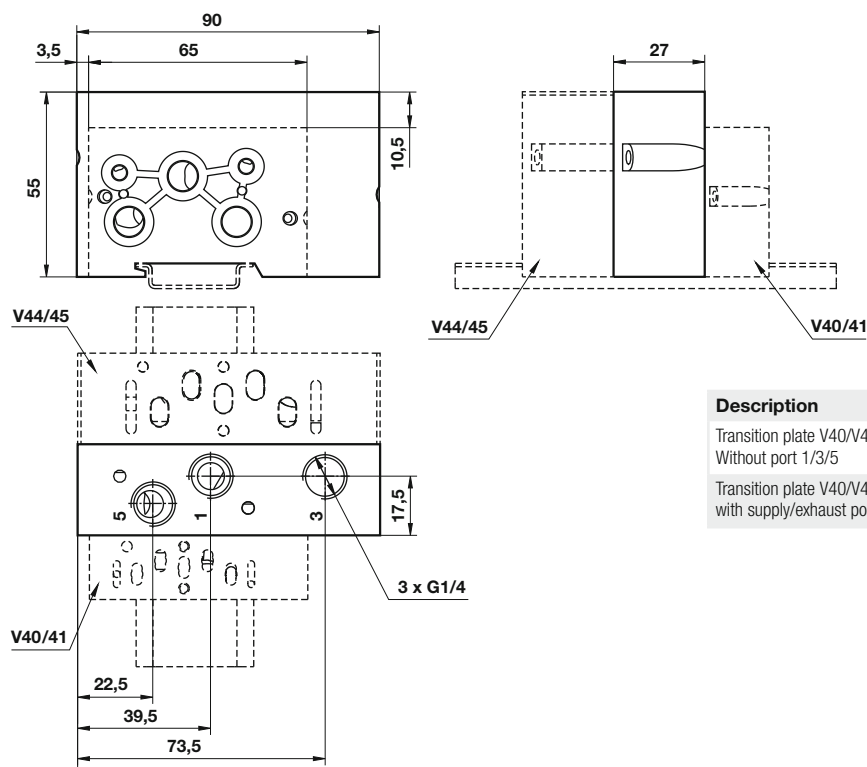
Description	Model
Blanking plate for blocking of unused stations (supplied with gasket, 0,03 kg)	V70500-KA0

Sandwich plate with additional pressure port 1



Symbol	Description	Model
	Sandwich plate with additional port 1 G1/4, supplied with gasket (0,12 kg)	V70535-BA0
	Sandwich plate with additional port 1 G1/4, supplied with gasket (0,12 kg)	V70535-RA0

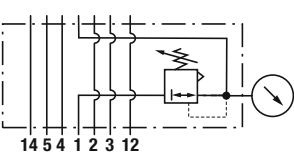
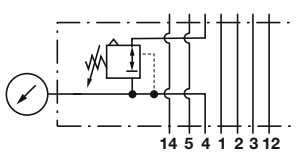
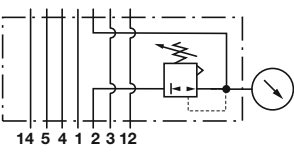
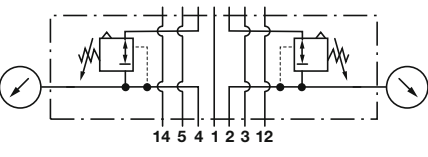
Transition plate #18 mm > #26 mm



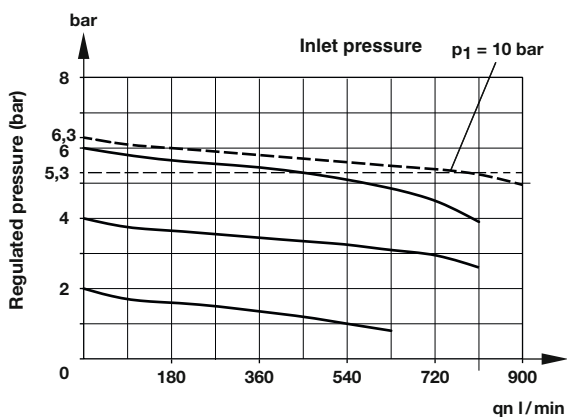
Description	Model
Transition plate V40/V41 » V44/V45 Without port 1/3/5	V70436-K00
Transition plate V40/V41 » V44/V45 with supply/exhaust ports G1/4	V70436-B00

Sandwich plates

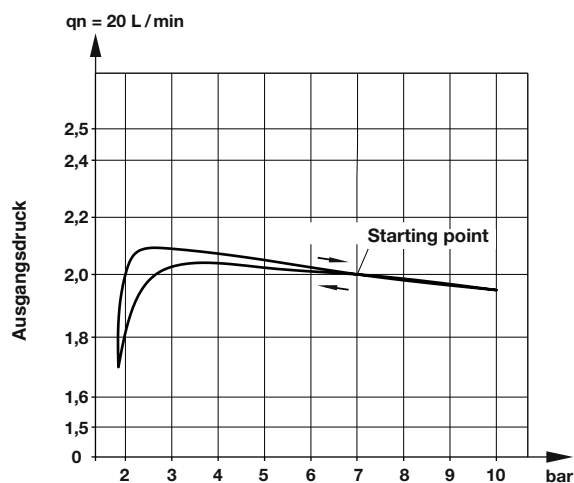
Pressure regulator sandwich plates

Symbol	Model	Description	Symbol	Model	Description
	V70527-KA1	Regulation of port 1, regulator on side 12		V70527-KA3	Regulation of port 4, regulator on side 14
	V70527-KA2	Regulation of port 2, regulator on side 1		V70527-KA4	Regulation of ports 2+4

Flow characteristics for pressure regulator plates

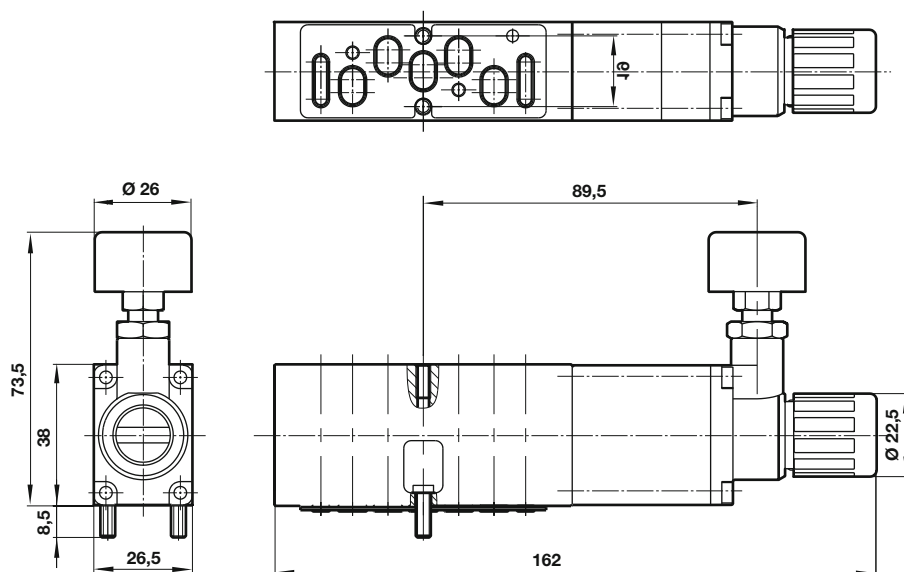


Hysteresis



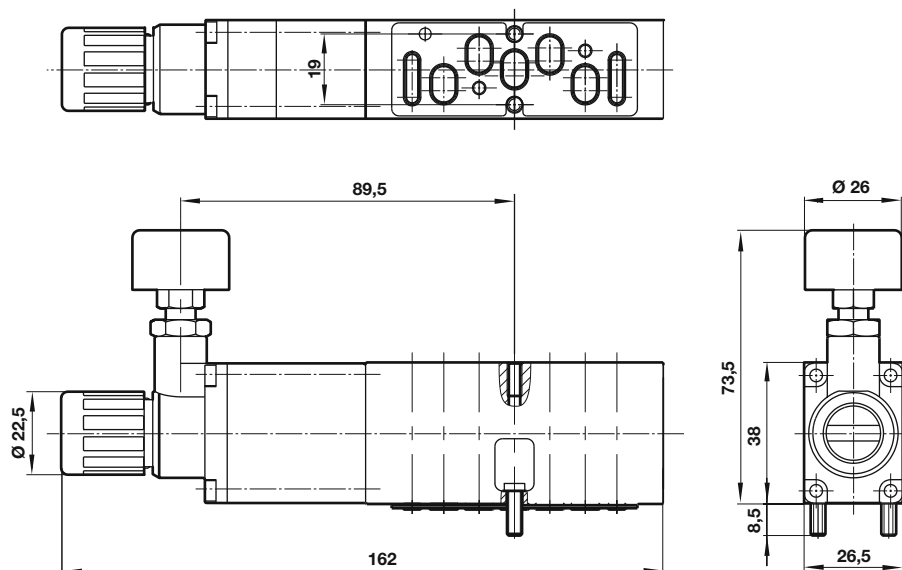
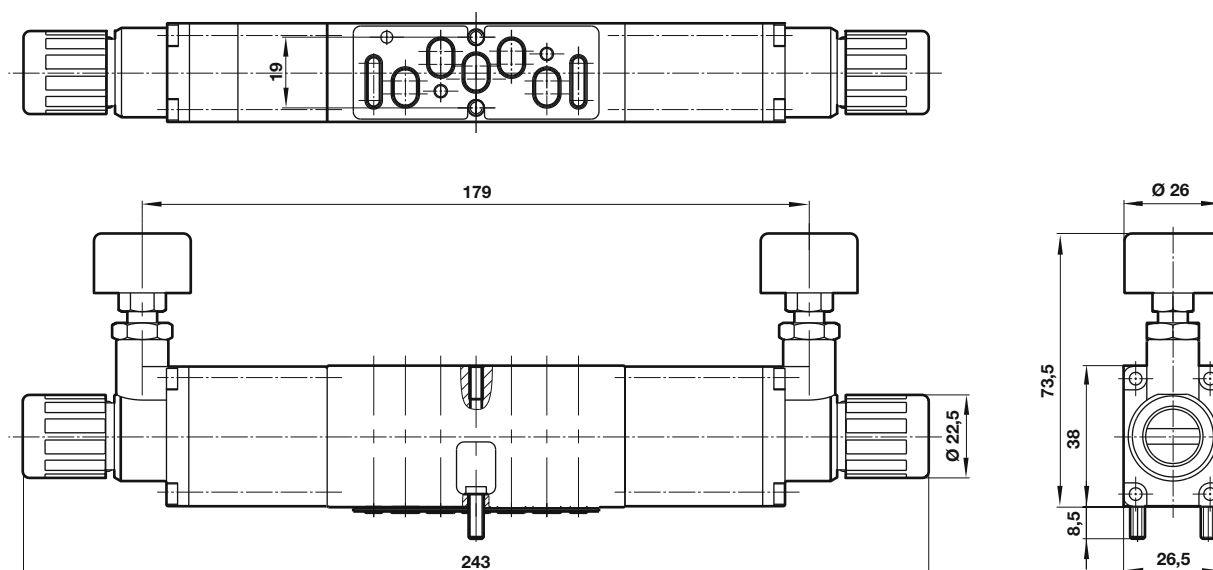
Pressure regulator plates V70527-KA1 & V70527-KA2 (including gauges)

Dimensions in mm
Projection/First angle



**Pressure regulator plate V70527-KA3
(including gauges)**

Dimensions in mm
Projection/First angle


**Pressure regulator plate V70527-KA4
(including gauges)**

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/data**«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI Precision Engineering, IMI International s.r.o.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

- > Valve slices 2 x 3/2, 5/2 and 5/3 with integral push-in fittings $\varnothing$ 3, 4, 6 mm
- > Multipole or individually wired for installation flexibility
- > Interchangeable Fieldbus and Industrial Ethernet modules
- > Fieldbus options available – PROFIBUS DP, DeviceNet and CANopen
- > Industrial Ethernet options available – PROFINET IRT and EtherNet/IP
- > Fieldbus and Industrial Ethernet up to 16 stations (32 solenoids)
- > Compact and lightweight
- > Quick disconnect base (Pneumapole)
- > High flow from 10 mm valve width
- > To configure and order a Valve Island visit – www.imi-precision.com/uk/valve-islands


DeviceNet
EtherNet/IP
CANopen

Technical features

Medium:

Compressed air, filtered, lubricated and non-lubricated

Operation:

Spool valve indirectly actuated

Port sizes:

$\varnothing$ 3, 4, 6 mm Push-in fittings
Imperial versions also available

Operating pressure:

-0,9 ... 8 bar depending on pilot supply – see page 2

Flow:

Function	l/min	Cv	Kv
5/2 ports			
1 to 2 & 1 to 4	430	0,44	0,36
5/2 ports			
2 to 3 & 4 to 5	400	0,41	0,34
3/2 and 5/3	350	0,36	0,29

Insulation protection:

Individually wired: IP40
Multipole, Fieldbus and Industrial Ethernet: IP65

Ambient/Media temperature:

-5 ... +50°C (+23 ... +122°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:

Body, End plates: Engineered PPA co-polymer
Spool: Aluminium
Seals: NBR

Protection classification

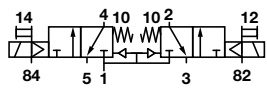
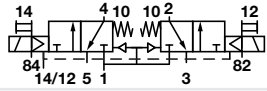
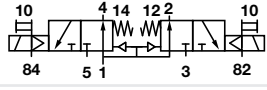
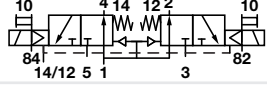
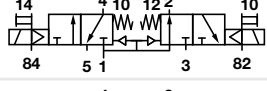
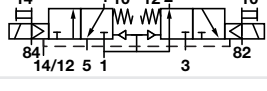
UL/CSA approval

(Industrial Ethernet excluded)

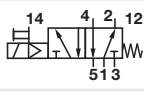
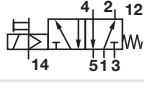
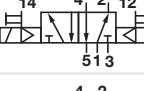
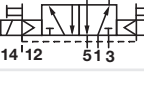
Recognized to UL 429 - 5th edition & CSA 22.2 No.139 – 1982 for Electrically Operated Valves.

Technical data

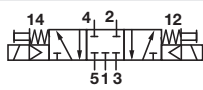
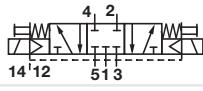
2 x 3/2 Double solenoid actuated valves

Symbol	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (psi)	Pilot pressure (bar)	Pilot pressure (psi)	Weight (kg)	Model
	2 x 3/2 NC	Solenoid/Spring	Internal	Turn & lock	3 ... 8	43 ... 116	—	—	0,054	VM10*A11AB213B
	2 x 3/2 NC	Solenoid/Spring	Internal	Push only	3 ... 8	43 ... 116	—	—	0,054	VM10*A11AB313B
	2 x 3/2 NC	Solenoid/Spring	External	Turn & lock	-0,9 ... 8	-13 ... 116	3 ... 8	43 ... 116	0,054	VM10*A22AB213B
	2 x 3/2 NC	Solenoid/Spring	External	Push only	-0,9 ... 8	-13 ... 116	3 ... 8	43 ... 116	0,054	VM10*A22AB313B
	2 x 3/2 NO	Solenoid/Spring	Internal	Turn & lock	3 ... 8	43 ... 116	—	—	0,054	VM10*B11AB213B
	2 x 3/2 NO	Solenoid/Spring	Internal	Push only	3 ... 8	43 ... 116	—	—	0,054	VM10*B11AB313B
	2 x 3/2 NO	Solenoid/Spring	External	Turn & lock	-0,9 ... 8	-13 ... 116	3 ... 8	43 ... 116	0,054	VM10*B22AB213B
	2 x 3/2 NO	Solenoid/Spring	External	Push only	-0,9 ... 8	-13 ... 116	3 ... 8	43 ... 116	0,054	VM10*B22AB313B
	2 x 3/2 NO/NC	Solenoid/Spring	Internal	Turn & lock	3 ... 8	43 ... 116	—	—	0,054	VM10*C11AB213B
	2 x 3/2 NO/NC	Solenoid/Spring	Internal	Push only	3 ... 8	43 ... 116	—	—	0,054	VM10*C11AB313B
	2 x 3/2 NO/NC	Solenoid/Spring	External	Turn & lock	-0,9 ... 8	-13 ... 116	3 ... 8	43 ... 116	0,054	VM10*C22AB213B
	2 x 3/2 NO/NC	Solenoid/Spring	External	Push only	-0,9 ... 8	-13 ... 116	3 ... 8	43 ... 116	0,054	VM10*C22AB313B

5/2 Single and double solenoid actuated valves

Symbol	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (psi)	Pilot pressure (bar)	Pilot pressure (psi)	Weight (kg)	Model
	5/2	Solenoid/Spring	Internal	Turn & lock	3 ... 8	43 ... 116	—	—	0,044	VM10*517AB213B
	5/2	Solenoid/Spring	Internal	Push only	3 ... 8	43 ... 116	—	—	0,044	VM10*517AB313B
	5/2	Solenoid/Spring	External	Turn & lock	-0,9 ... 8	-13 ... 116	3 ... 8	43 ... 116	0,044	VM10*527AB213B
	5/2	Solenoid/Spring	External	Push only	-0,9 ... 8	-13 ... 116	3 ... 8	43 ... 116	0,044	VM10*527AB313B
	5/2	Solenoid/Solenoid	Internal	Turn & lock	2 ... 8	29 ... 116	—	—	0,054	VM10*511AB213B
	5/2	Solenoid/Solenoid	Internal	Push only	2 ... 8	29 ... 116	—	—	0,054	VM10*511AB313B
	5/2	Solenoid/Solenoid	External	Turn & lock	-0,9 ... 8	-13 ... 116	2 ... 8	29 ... 116	0,054	VM10*522AB213B
	5/2	Solenoid/Solenoid	External	Push only	-0,9 ... 8	-13 ... 116	2 ... 8	29 ... 116	0,054	VM10*522AB313B

5/3 Double solenoid actuated valves

Symbol	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (psi)	Pilot pressure (bar)	Pilot pressure (psi)	Weight (kg)	Model
	5/3 APB	Solenoid/Solenoid	Internal	Turn & lock	3 ... 8	43 ... 116	—	—	0,055	VM10*611AB213B
	5/3 APB	Solenoid/Solenoid	Internal	Push only	3 ... 8	43 ... 116	—	—	0,055	VM10*611AB313B
	5/3 APB	Solenoid/Solenoid	External	Turn & lock	-0,9 ... 8	-13 ... 116	3 ... 8	43 ... 116	0,055	VM10*622AB213B
	5/3 APB	Solenoid/Solenoid	External	Push only	-0,9 ... 8	-13 ... 116	3 ... 8	43 ... 116	0,055	VM10*622AB313B

* For selection of port sizes please see page 3

Note: For 5/3 COE please use 2 x 3/2 NC. For 5/3 COP please use 2 x 3/2 NO

APB = All Ports Blocked COE = Centre Open Exhaust COP = Centre Open Pressure NC = Normally Closed NO = Normally Open

Electrical details

Voltage	24 V d.c. 0,6 W*
Surge suppression	Flywheel diode
Indication	Yellow LED

* 12 V d.c. also available.

Please consult our Technical Service.

Solenoids

Voltage tolerance	± 10%
Rating	100% ED

Option selector - valve slices
VM10★★★★AB★13B

Tube size	Substitute
3 mm PIF	3
4 mm PIF	4
6 mm PIF	6
No PIF (for use with Pneumapole) *1)	7
Valve function	Substitute
5/2	5
5/3 APB	6
2 x 3/2 NC and 5/3 COE	A
2 x 3/2 NO and 5/3 COP	B
2 x 3/2 NC and NO	C

Manual override	Substitute
Turn to lock	2
Push only	3
Actuation/pilot supply	Substitute
Solenoid/solenoid internal pilot	11
Solenoid/spring internal pilot *2)	17
Solenoid/solenoid external pilot	22
Solenoid/spring external pilot *2)	27

Note:
 For 5/3 COE and COP use
 2 x 3/2 APB = All Ports Blocked
 COE = Centre Open Exhaust
 COP = Centre Open Pressure
 NC = Normally Closed
 NO = Normally Open
 For valve island specification see
 page 16 and 17
 *1) Requires Pneumapole sub-base
 *2) Can only be used with 5/2 valve

To order a complete valve island
 please use the configurator at;
www.imi-precision.com/uk/valve-islands

Accessories

Valve blanking station



Page 6

VM106517AQ0300

Pressure zone plate



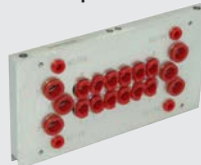
Page 6

VM106517AQ0301 (Port 1 blanked)

VM106517AQ0302 (Ports 3 & 5 blanked)

VM106517AQ0303 (Ports 1, 3 & 5 blanked)

Pneumapole sub-base



Page 13 & 14

Details see page

DIN Rail fixing kit



V11900-C01, 8D

DIN rail



V10009-C00 (1 m)

Label cover kit

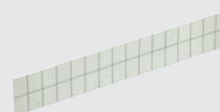


V12016-K36 (4 Station)

V12016-K37 (6 Station)

V12016-K38 (8 Station)

Labels



V12033-L02 (write and seal label)

V12034-L02 (paper label)

Pressure switch for pilot ports 12 and 14



Page 19

VM106517AQ0804 (4 mm)

VM106517AQ0806 (6 mm)

Silencer



Page 19

T45P0006 (6 mm)

T45P0008 (8 mm)

T45P0010 (10 mm)

T45P0012 (12 mm)

Plug



Page 19

C00040600 (6 mm)

C00040800 (8 mm)

C00041000 (10 mm)

C00041200 (12 mm)

Manual override kit Push only



V11574-K30

Rotate by hand, lockable



V11574-K31

D Sub-connector 25 pin, IP65



Page 17

V11569-E01 (1 m)

V11569-E03 (3 m)

V11569-E05 (5 m)

D Sub-connector 44 pin, IP65



Page 17

V11570-E01 (1 m)

V11570-E03 (3 m)

V11570-E05 (5 m)

D Sub-connector 25 pin 90°, IP65



Page 18

V12086-E01 (1 m)

V12086-E03 (3 m)

V12086-E05 (5 m)

D Sub-connector 44 pin 90°, IP65



Page 18

V12088-E01 (1 m)

V12088-E03 (3 m)

V12088-E05 (5 m)

2 Pin connector IP40



V11556-E10 (1 m)

V11556-E03 (0,3 m)

Fieldbus accessories

	Description	Connection	Cable length	Protection class	Short code*	Model
	Fielbus power connector DeviceNet (4 pin, female) CANopen (4 pin, female) PROFIBUS DP (4 pin, female)	M12	Wireable	IP65	R1	V11588-E01
	DeviceNet (5 pin, female) CANopen (5 pin, female)	M12	Wireable	IP65	R2	V11589-E01
	PROFIBUS DP, reverse keyway (5 pin, female)	M12	Wireable	IP65	R3	V11590-E01
	PROFIBUS DP, reverse keyway (5 pin male)	M12	Wireable	IP65	R4	V11591-E01
	PROFIBUS DP connector (9 pin, male with terminating resistor)	D-Sub	Wireable	IP40	R0	V11654-E01
	PROFIBUS DP terminating resistor	M12	-	IP65	R6	V11592-E01

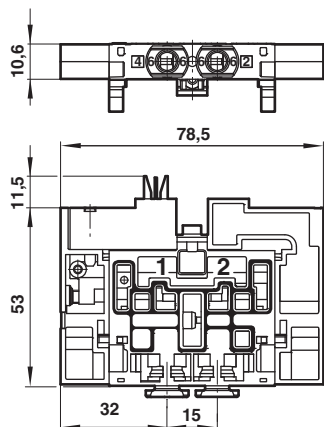
* Short code – used in the Online Configurator

Dimensions

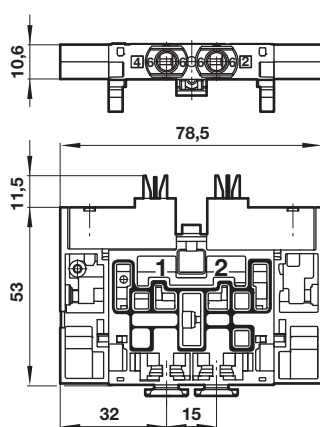
Dimensions in mm
Projection/First angle



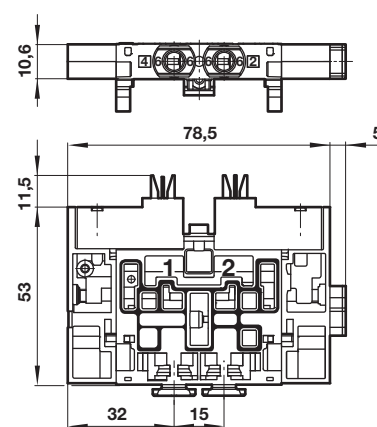
Single solenoid



Double solenoid



5/3 APB, double solenoid



5/2 Single and double solenoid actuated valves

Model	Short code *	Weight (kg)
VM10*517AB213B	NG*T	0,044
VM10*517AB313B	NG*U	0,044
VM10*527AB213B	NH*T	0,044
VM10*527AB313B	NH*U	0,044
VM10*511AB213B	NJ*T	0,054
VM10*511AB313B	NJ*U	0,054
VM10*522AB213B	NK*T	0,054
VM10*522AB313B	NK*U	0,054

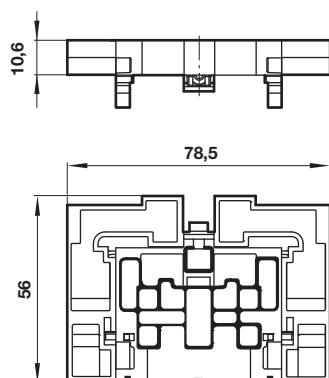
2 x 3/2 Double solenoid actuated valves

Model	Short code *	Weight (kg)
VM10*A11AB213B	NA*T	0,054
VM10*A11AB313B	NA*U	0,054
VM10*A22AB213B	ND*T	0,054
VM10*A22AB313B	ND*U	0,054
VM10*B11AB213B	NB*T	0,054
VM10*B11AB313B	NB*U	0,054
VM10*B22AB213B	NE*T	0,054
VM10*B22AB313B	NE*U	0,054
VM10*C11AB213B	NC*T	0,054
VM10*C11AB313B	NC*U	0,054
VM10*C22AB213B	NF*T	0,054
VM10*C22AB313B	NF*U	0,054

5/3 Double solenoid actuated valves

Model	Short code *	Weight (kg)
VM10*611AB213B	NL*T	0,055
VM10*611AB313B	NL*U	0,055
VM107611AB213B	NLZT	0,055
VM107611AB313B	NLZU	0,055
VM10*622AB213B	NM*T	0,055
VM10*622AB313B	NM*U	0,055
VM107622AB213B	NMZT	0,055
VM107622AB313B	NMZU	0,055

Blanking and pressure zone plates



Blanking and pressure zone plates	Short code *	Weight (kg)
VM106517AQ0300 Blanking plate ports open	B000	0,028
VM106517AQ0301 Pressure zone plate (port 1 blanked)	B100	0,028
VM106517AQ0302 Pressure zone plate (ports 3 & 5 blanked)	B300	0,028
VM106517AQ0303 Pressure zone plate (ports 1, 3 & 5 blanked)	B500	0,028

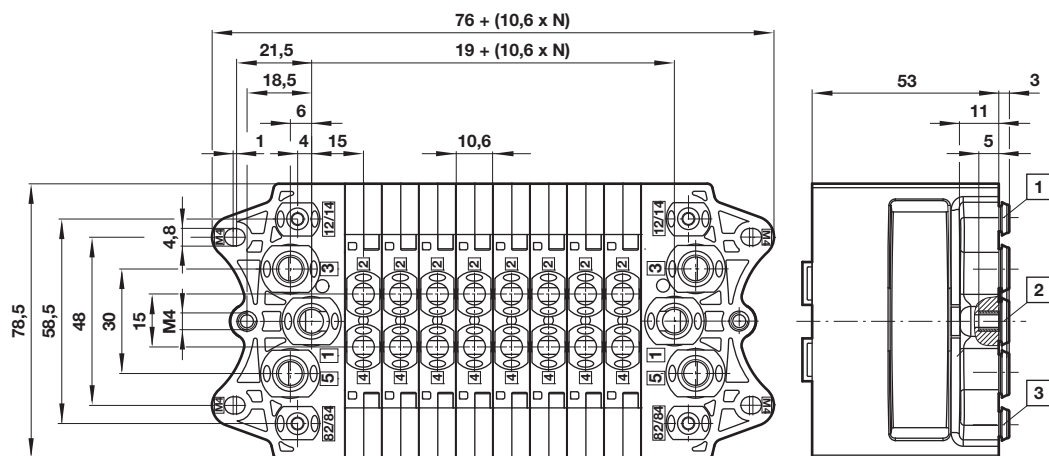
* Short code - used in Online Configurator

Note:

When using a pressure zone plate blanking port 1, it is not possible to use all internal pilot valves on both sides of the zone plate, at least one external pilot valve needs to be used. For further information please contact our technical service.

Valve Island dimensions and port connections

Dimensions in mm
Projection/First angle



- 1 Ports 12/14
- 2 Ports 1, 3 & 5
- 3 Ports 82/84

N = number of stations

Detailed CAD drawings available at:

www.imi-precision.com/uk/valve-islands

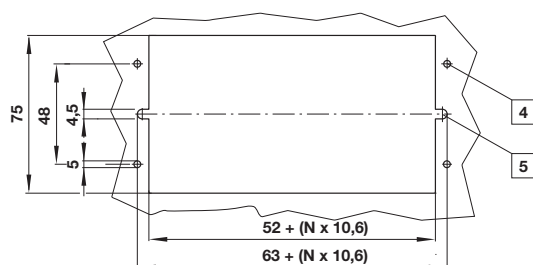
Description	Ports 1, 3 & 5 Tube outside ø	Ports 12/14 & 82/84 Tube outside ø	Ports 2 & 4 Tube outside ø	Short code *1)	Weight (kg)	Model
End plate kit - feed both ends	10	6	6	F100	0,170	VM106517AQ010Y
End plate kit - feed both ends	8	4	4	F800	0,170	VM106517AQ0108
End plate kit - feed left, right blocked	10	6	6	L100	0,170	VM106517AQ011Y
End plate kit - feed left, right blocked	8	4	4	L800	0,170	VM106517AQ0118
End plate kit - feed right, left blocked	10	6	6	R100	0,170	VM106517AQ012Y
End plate kit - feed right, left blocked	8	4	4	R800	0,170	VM106517AQ0128
End plate kit - feed both ends - Pneumapole	no PIF *2)	no PIF *2)	no PIF *2)	FPZ0	0,170	VM106517AQ0131
End plate kit - feed left, right blocked - Pneumapole	no PIF *2)	no PIF *2)	no PIF *2)	RPZ0	0,170	VM106517AQ0132
End plate kit - feed right, left blocked - Pneumapole	no PIF *2)	no PIF *2)	no PIF *2)	LPZ0	0,170	VM106517AQ0133

Available valve port sizes – ø 3 mm, 4 mm and 6 mm

*1) Short code – used in the Online Configurator

*2) No push in fitting for use with pneumapole sub-base

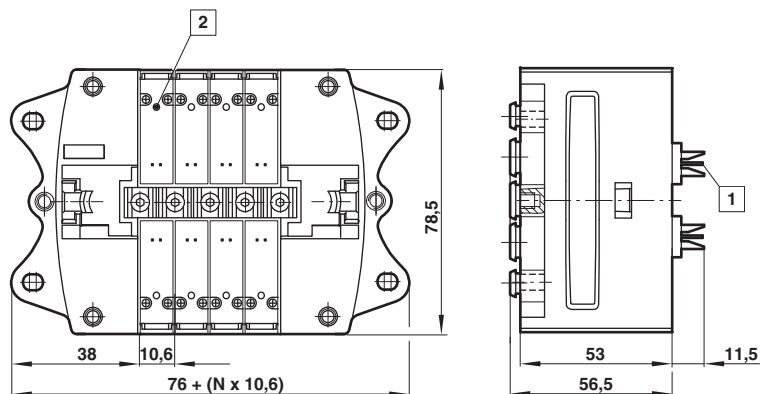
Panel cut-out detail



- 4 For mounting island from outside of panel using M4 threads in valve island end plates
- 5 For using through-mounting holes in valve island end plates

Top cover connections - Individually wired and Multipole
Individually wired IP40 (no top cover)

Dimensions in mm
 Projection/First angle

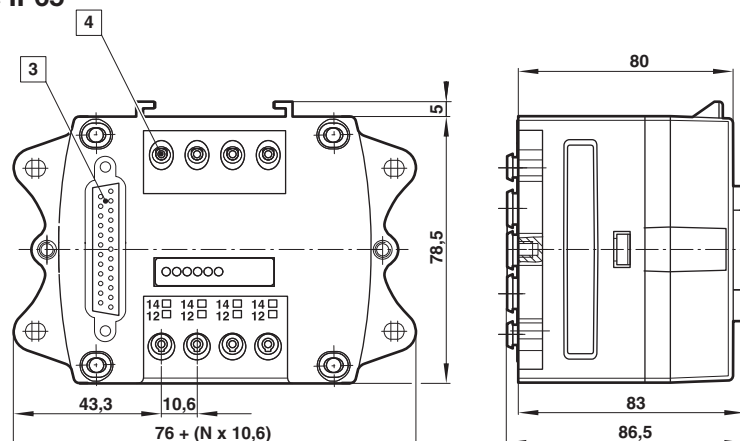


- 1 2 Pin connector
 2 Manual override
 N = number of stations

Individually wired	No. of stations	Max. no. of solenoids	Weight (kg)*
2 Pin connector	2 ... 20	40	0,170

* kg + valves weight

Multipole IP65



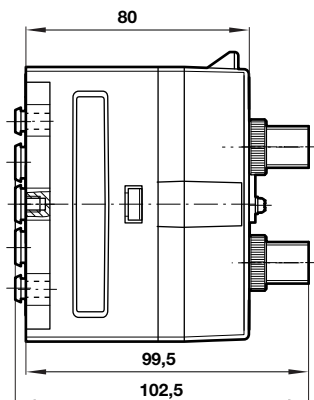
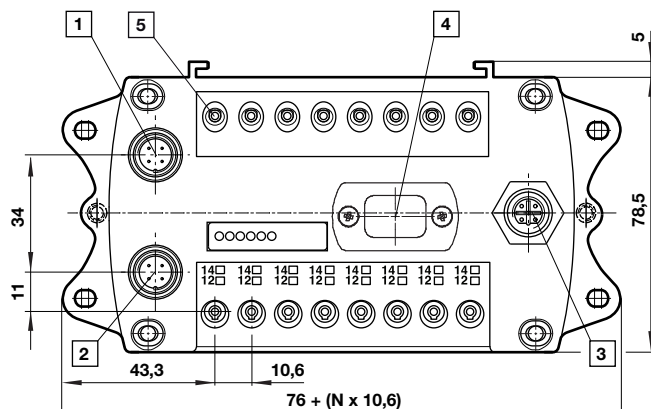
- 3 25 Pin connector for
 4, 6, 8, 10 & 12 station
 44 Pin connector for 12 & 16 station
 4 Manual override, actuate with screw driver
 N = number of stations

Multipole	No. of stations	-ve common Model	Short code *	+ve common Model	Short code *	Max. no. of solenoids	Weight (kg)
25 Pin connector	4	VM106517AQ0404	2N04	VM106517RQ0404	2P04	8	0,116
25 Pin connector	6	VM106517AQ0406	2N06			12	0,122
25 Pin connector	8	VM106517AQ0408	2N08	VM106517RQ0408	2P08	16	0,128
25 Pin connector	10	VM106517AQ0410	2N10			20	0,134
25 Pin connector	12	VM106517AQ0412	2N12	VM106517RQ0412	2P12	24	0,140
44 Pin connector	12	VM106517AQ0512	4N12			24	0,144
44 Pin connector	16	VM106517AQ0516	4N16	VM106517RQ0516	4P16	32	0,160

* Short code – used in the Online Configurator

**Top cover connections - Fieldbus and Industrial Ethernet
PROFIBUS DP (M12 connector IP65)**


Dimensions in mm
Projection/First angle



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

N = number of stations

Standard fieldbus	No. of stations	Max. no. of solenoids	Short code *	Weight (kg)	Model
PROFIBUS DP	08	16	PS08	0,138	VM10DPFNB00082
PROFIBUS DP	10	20	PS10	0,144	VM10DPFNB00102
PROFIBUS DP	12	24	PS12	0,150	VM10DPFNB00122
PROFIBUS DP	16	32	PS16	0,170	VM10DPFNB00162

* Short code – used in the Online Configurator

Connector details
Power connection: M12 4-pin A-coded

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

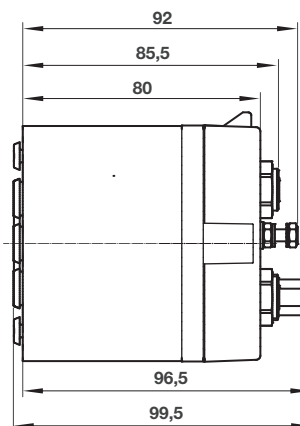
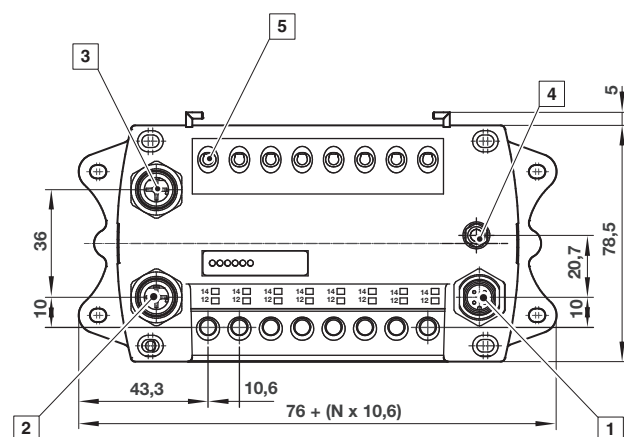
Bus connectors: M12 5-pin B coded

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

PROFINET IRT (M12 connector IP65)



Dimensions for 8 and 10 stations

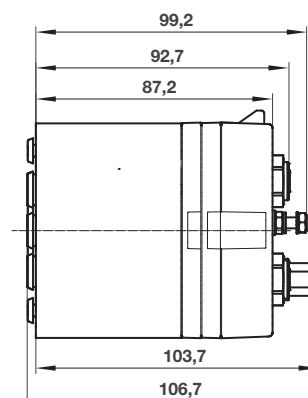
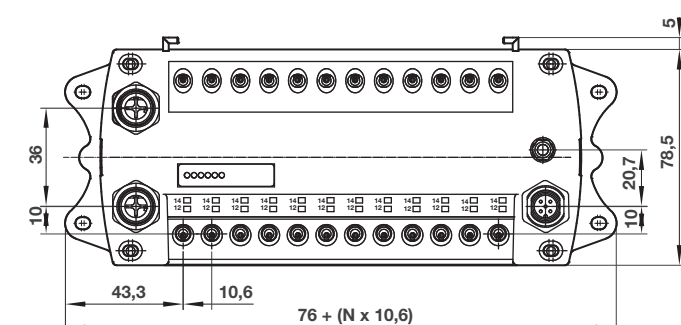


Dimensions in mm
Projection/First angle



- 1 M12 power connector (male)
 - 2 M12 protocol connector (female)
 - 3 M12 protocol connector (female)
 - 4 Functional earth
 - 5 Manual override, actuate with screw driver
- N = number of stations

Dimensions for 12 and 16 stations



Industrial Ethernet protocol	No. of stations	Max. no. of solenoids	Short code *	Weight (kg)	Model
PROFINET IRT	8	16	PN08	0,3	VM10PNIEB00080
PROFINET IRT	10	20	PN10	0,32	VM10PNIEB00100
PROFINET IRT	12	24	PN12	0,35	VM10PNIEB00120
PROFINET IRT	16	32	PN16	0,37	VM10PNIEB00160

* Short code – used in the Online Configurator

Connector details

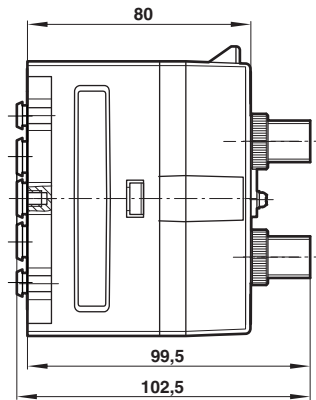
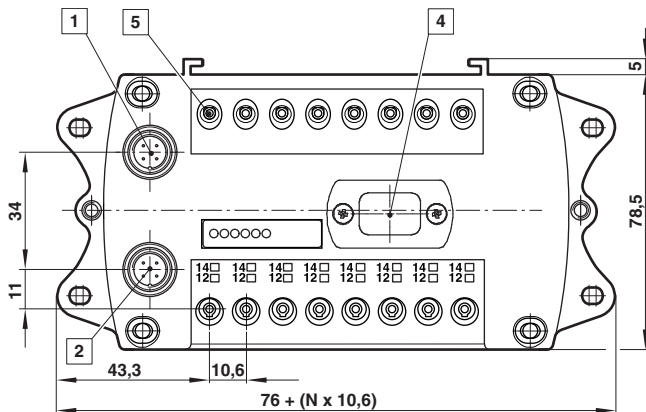
Power connector: M12 5-pin A-coded

Male	Pin no.	Function
	1	L1 (VB+) 24V electronics power supply
	2	N2 (VA-) 0V valves power supply
	3	N1 (VB-) 0V electronics power supply
	4	L2 (VA+) 24V valves power supply
	5	FE (functional earth)

Bus connectors: M12 4-pin D-coded

Female	In Pin no.	Function
	1	Transmission Data + (TD+)
	2	Receive Data + (RD+)
	3	Transmission Data - (TD -)
	4	Receive Data - (RD -)
	housing	(FE) functional earth

DeviceNet and CANopen (M12 connector IP65)
DeviceNet™
CANopen®

 Dimensions in mm
 Projection/First angle


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

N = number of stations

Standard fieldbus	No. of stations	Max. no. of solenoids	Short code *	Weight (kg)	Model
DeviceNet	08	16	DR08	0,138	VM10DNFNB00082
DeviceNet	10	20	DR10	0,144	VM10DNFNB00102
DeviceNet	12	24	DR12	0,150	VM10DNFNB00122
DeviceNet	16	32	DR16	0,170	VM10DNFNB00162
CANopen	08	16	CR08	0,138	VM10CAFN00082
CANopen	10	20	CR10	0,144	VM10CAFN00102
CANopen	12	24	CR12	0,150	VM10CAFN00122
CANopen	16	32	CR16	0,170	VM10CAFN00162

* Short code – used in the Online Configurator

Connector details
Power connection: M12 4-pin A-coded

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

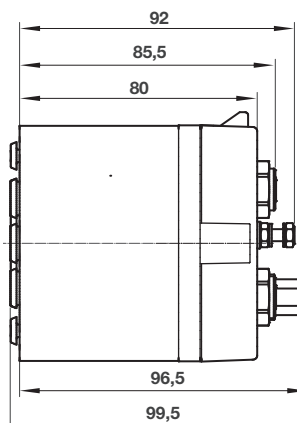
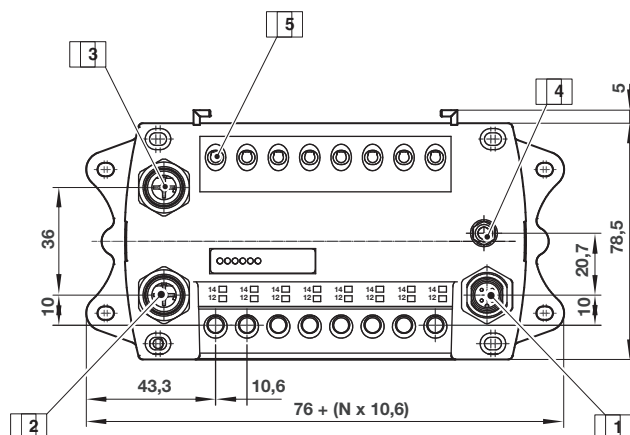
Bus connector: M12 5-pin B-coded

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

EtherNet/IP (M12 connector IP65)

EtherNet/IP™

Dimensions for 8 and 10 stations



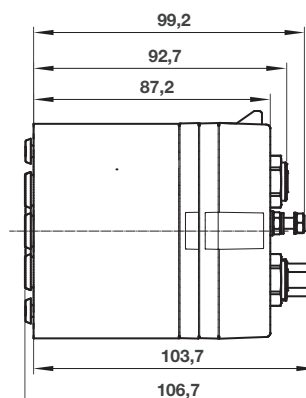
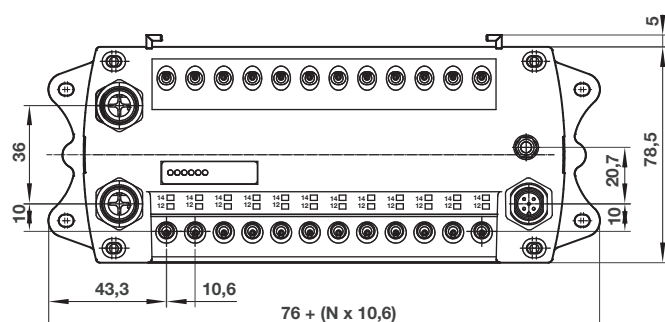
Dimensions in mm
Projection/First angle



- 1 M12 power connector (male)
- 2 M12 protocol connector (female)
- 3 M12 protocol connector (female)
- 4 Functional earth
- 5 Manual override, actuate with screw driver

N = number of stations

Dimensions for 12 and 16 stations



Industrial Ethernet protocol	No. of stations	Max. no. of solenoids	Short code *	Weight (kg)	Model
EtherNet/IP	8	16	EP08	0,3	VM10EPIEB00080
EtherNet/IP	10	20	EP10	0,32	VM10EPIEB00100
EtherNet/IP	12	24	EP12	0,35	VM10EPIEB00120
EtherNet/IP	16	32	EP16	0,37	VM10EPIEB00160

* Short code – used in the Online Configurator

Connector details

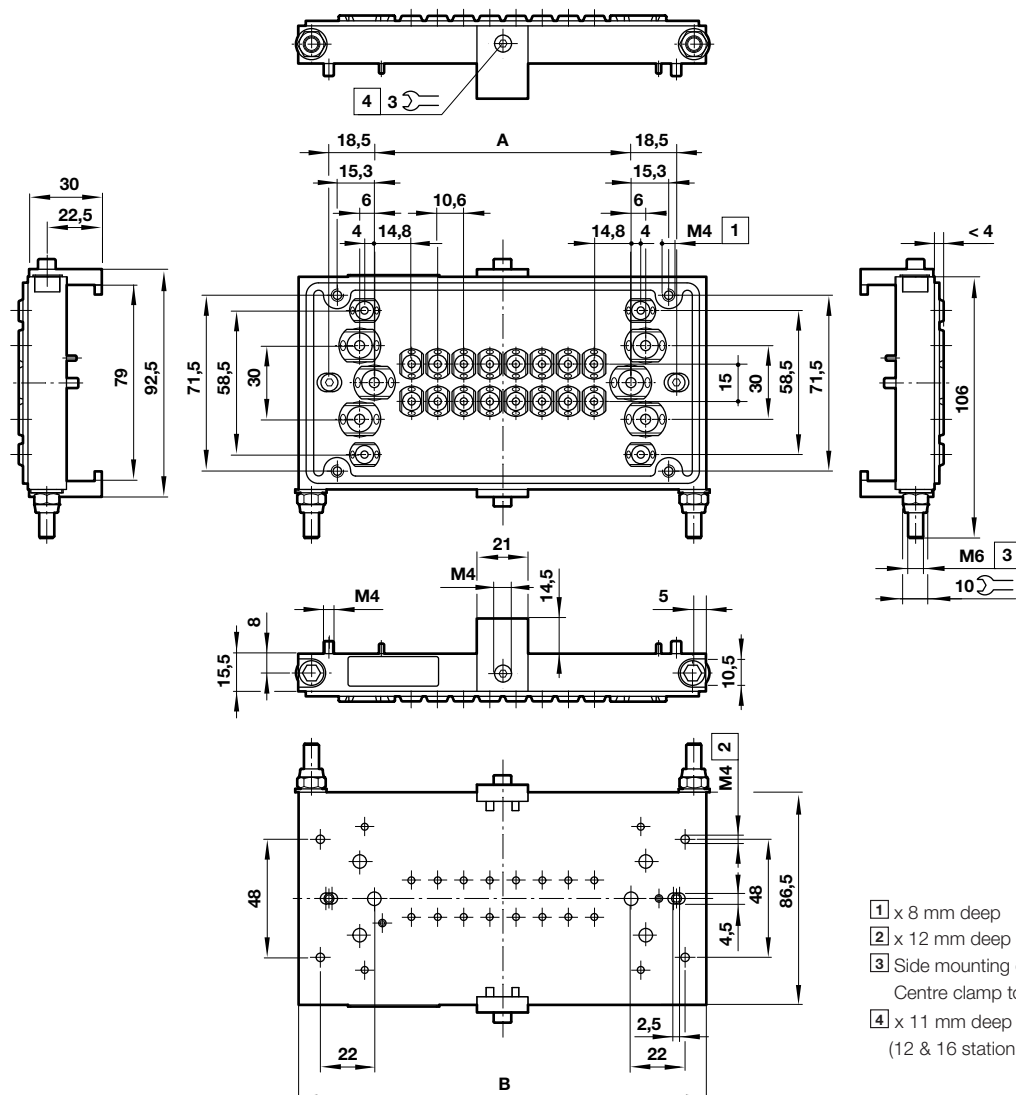
Power connector: M12 5-pin A-coded

Male	Pin no.	Function
	1	L1 (VB+) 24V electronics power supply
	2	N2 (VA-) 0V valves power supply
	3	N1 (VB-) 0V electronics power supply
	4	L2 (VA+) 24V valves power supply
	5	FE (functional earth)

Bus connectors: M12 4-pin D-coded

Female	Pin no.	Function
	1	Transmission Data + (TD+)
	2	Receive Data + (RD+)
	3	Transmission Data - (TD-)
	4	Receive Data - (RD-)
	housing	(FE) functional earth

Pneumapole sub-base – bottom ported

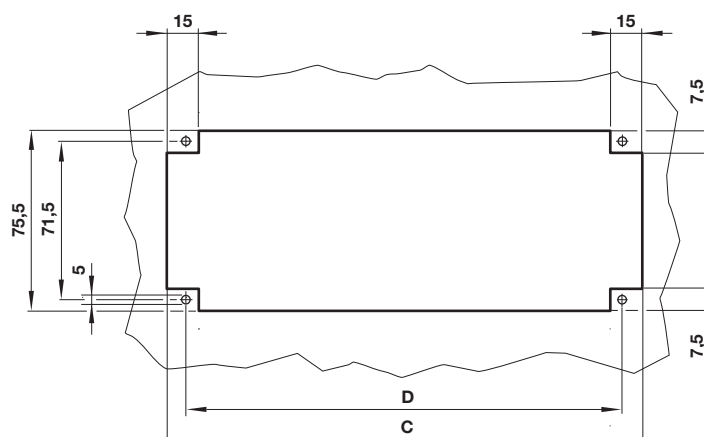
 Dimensions in mm
Projection/First angle


- 1 x 8 mm deep
- 2 x 12 mm deep
- 3 Side mounting option.
Centre clamp to be removed if utilised.
- 4 x 11 mm deep
(12 & 16 station version only)

Description	Ports 1, 3 & 5	Ports 12/14 & 82/84	Ports 2 & 4	Short code *	Model
4 station Pneumapole	10 mm	6 mm	6 mm	6B04	VM106517AQ6604
6 station Pneumapole	10 mm	6 mm	6 mm	6B06	VM106517AQ6606
8 station Pneumapole	10 mm	6 mm	6 mm	6B08	VM106517AQ6608
10 station Pneumapole	10 mm	6 mm	6 mm	6B10	VM106517AQ6610
12 station Pneumapole	10 mm	6 mm	6 mm	6B12	VM106517AQ6612
16 station Pneumapole	10 mm	6 mm	6 mm	6B16	VM106517AQ6616

* Short code – used in the Online Configurator

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

Panel cut-out detail


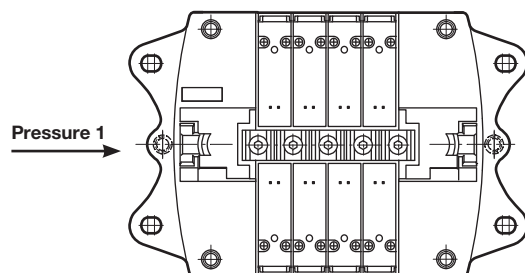
No. of stations	C	D
4	111	92
6	132	113,5
8	153	134,5
10	174	155,5
12	195	177
16	237	219,5



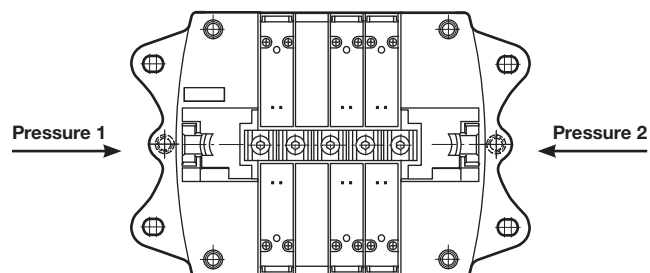
- 1 x 8 mm deep
- 2 x 8 mm deep
- 3 x 10 mm deep
- 4 x 11 mm deep
- (12 & 16 station version only)
- 5 x 4.5 mm deep

Multi-pressure options

Single pressure



Two pressure

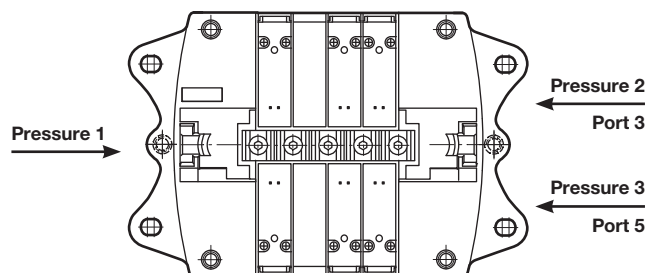


Dimensions in mm
Projection/First angle



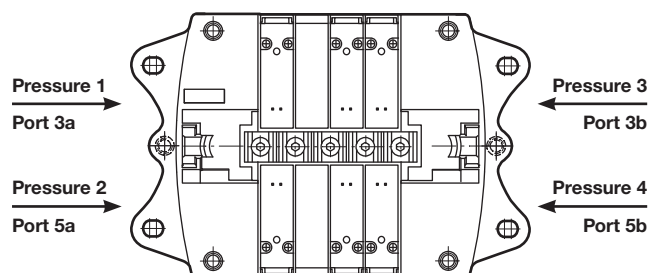
Blanking slice
gallery 1
VM106517AQ0301

Three pressure



Pressure zone plate
ports 1, 3 & 5 blanked
VM106517AQ0303

Four pressure



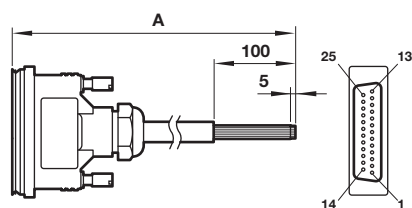
Pressure zone plate
ports 3 & 5 blanked
VM106517AQ0302

Note:

When using a pressure zone plate blanking port 1, it is not possible to use all internal pilot valves on both sides of the zone plate, at least one external pilot valve needs to be used. For further information please contact our technical service.

Three and four pressure zone islands are achieved by using externally piloted 2 x 3/2 valves and reverse porting via ports 3 and 5. By reverse porting the valve's function s also reversed so that a NC becomes NO and NO becomes NC.

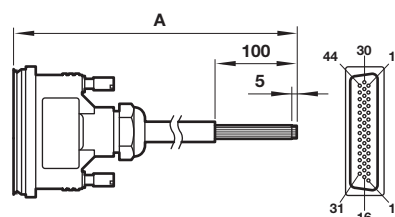
D sub-connector 25 pin
(IP65)



A	Model
1 m	V11569-E01
3 m	V11569-E03
5 m	V11569-E05

D Sub-connector 44 pin
(IP65)

Dimensions in mm
 Projection/First angle

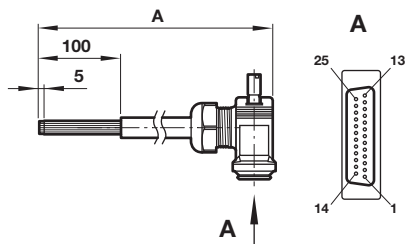


A	Model
1 m	V11570-E01
3 m	V11570-E03
5 m	V11570-E05

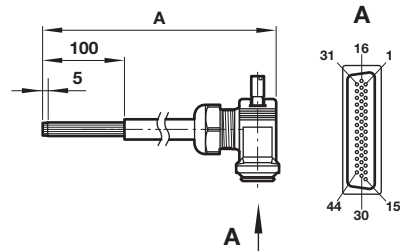
Pin no.	Wire colour	Socket	Pilot	Station
1	White	Solenoid 1-a	14	1
2	Brown	Solenoid 2-a	14	2
3	Green	Solenoid 3-a	14	3
4	Yellow	Solenoid 4-a	14	4
5	Grey	Solenoid 5-a	14	5
6	Pink	Solenoid 6-a	14	6
7	Blue	Solenoid 7-a	14	7
8	Red	Solenoid 8-a	14	8
9	Black	Solenoid 9-a	14	9
10	Violet	Solenoid 10-a	14	10
11	Grey/Pink	Solenoid 11-a	14	11
12	Red/Blue	Solenoid 12-a	14	12
13	White/Green	Common-Ve		—
14	Brown/Green	Solenoid 1-b	12	1
15	White/Yellow	Solenoid 2-b	12	2
16	Yellow/Brown	Solenoid 3-b	12	3
17	White/Grey	Solenoid 4-b	12	4
18	Grey/Brown	Solenoid 5-b	12	5
19	White/Pink	Solenoid 6-b	12	6
20	Pink/Brown	Solenoid 7-b	12	7
21	White/Blue	Solenoid 8-b	12	8
22	Brown/Blue	Solenoid 9-b	12	9
23	White/Red	Solenoid 10-b	12	10
24	Brown/Red	Solenoid 11-b	12	11
25	White/Black	Solenoid 12-b	12	12

Note: Conforms to IEC60757

Pin no.	Wire colour	Socket	Pilot	Station
1	White	Solenoid 1-a	14	1
2	Brown	Solenoid 2-a	14	2
3	Green	Solenoid 3-a	14	3
4	Yellow	Solenoid 4-a	14	4
5	Grey	Solenoid 5-a	14	5
6	Pink	Solenoid 6-a	14	6
7	Blue	Solenoid 7-a	14	7
8	Red	Solenoid 8-a	14	8
9	Black	Solenoid 9-a	14	9
10	Violet	Solenoid 10-a	14	10
11	Grey/Pink	Solenoid 11-a	14	11
12	Red/Blue	Solenoid 12-a	14	12
13	White/Green	Solenoid 13-a	14	13
14	Brown/Green	Solenoid 14-a	14	14
15	White/Yellow	Solenoid 15-a	14	15
16	Yellow/Brown	Solenoid 1-b	12	1
17	White/Grey	Solenoid 2-b	12	2
18	Grey/Brown	Solenoid 3-b	12	3
19	White/Pink	Solenoid 4-b	12	4
20	Pink/Brown	Solenoid 5-b	12	5
21	White/Blue	Solenoid 6-b	12	6
22	Brown/Blue	Solenoid 7-b	12	7
23	White/Red	Solenoid 8-b	12	8
24	Brown/Red	Solenoid 9-b	12	9
25	White/Black	Solenoid 10-b	12	10
26	Brown/Black	Solenoid 11-b	12	11
27	Grey/Green	Solenoid 12-b	12	12
28	Yellow/Grey	Solenoid 13-b	12	13
29	Pink/Green	Solenoid 14-b	12	14
30	Yellow/Pink	Solenoid 15-b	12	15
31	Green/Blue	Solenoid 16-a	14	16
32	Yellow/Blue	Solenoid 16-b	12	16
33	—	Not used	—	—
34	—	Not used	—	—
35	—	Not used	—	—
36	—	Not used	—	—
37	—	Not used	—	—
38	—	Not used	—	—
39	—	Not used	—	—
40	—	Not used	—	—
41	—	Not used	—	—
42	—	Not used	—	—
43	—	Not used	—	—
44	Red/Black Yellow/Black	Common-Ve	—	—

D Sub-connector 25 pin 90°
(IP65)


A	Model
1 m	V12086-E01
3 m	V12086-E03
5 m	V12086-E05

D Sub-connector 44 pin 90°
(IP65)


A	Model
1 m	V12088-E01
3 m	V12088-E03
5 m	V12088-E05

Dimensions in mm
 Projection/First angle



Pin no.	Wire colour	Socket	Pilot	Station
1	White	Solenoid 1-a	14	1
2	Brown	Solenoid 2-a	14	2
3	Green	Solenoid 3-a	14	3
4	Yellow	Solenoid 4-a	14	4
5	Grey	Solenoid 5-a	14	5
6	Pink	Solenoid 6-a	14	6
7	Blue	Solenoid 7-a	14	7
8	Red	Solenoid 8-a	14	8
9	Black	Solenoid 9-a	14	9
10	Violet	Solenoid 10-a	14	10
11	Grey/Pink	Solenoid 11-a	14	11
12	Red/Blue	Solenoid 12-a	14	12
13	White/Green	Common-Ve		—
14	Brown/Green	Solenoid 1-b	12	1
15	White/Yellow	Solenoid 2-b	12	2
16	Yellow/Brown	Solenoid 3-b	12	3
17	White/Grey	Solenoid 4-b	12	4
18	Grey/Brown	Solenoid 5-b	12	5
19	White/Pink	Solenoid 6-b	12	6
20	Pink/Brown	Solenoid 7-b	12	7
21	White/Blue	Solenoid 8-b	12	8
22	Brown/Blue	Solenoid 9-b	12	9
23	White/Red	Solenoid 10-b	12	10
24	Brown/Red	Solenoid 11-b	12	11
25	White/Black	Solenoid 12-b	12	12

Note: Conforms to IEC60757

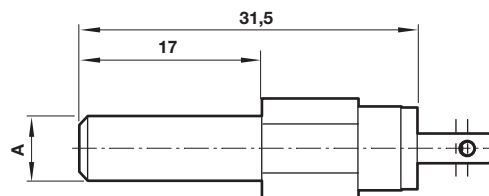
Pin no.	Wire colour	Socket	Pilot	Station
1	White	Solenoid 1-a	14	1
2	Brown	Solenoid 2-a	14	2
3	Green	Solenoid 3-a	14	3
4	Yellow	Solenoid 4-a	14	4
5	Grey	Solenoid 5-a	14	5
6	Pink	Solenoid 6-a	14	6
7	Blue	Solenoid 7-a	14	7
8	Red	Solenoid 8-a	14	8
9	Black	Solenoid 9-a	14	9
10	Violet	Solenoid 10-a	14	10
11	Grey/Pink	Solenoid 11-a	14	11
12	Red/Blue	Solenoid 12-a	14	12
13	White/Green	Solenoid 13-a	14	13
14	Brown/Green	Solenoid 14-a	14	14
15	White/Yellow	Solenoid 15-a	14	15
16	Yellow/Brown	Solenoid 1-b	12	1
17	White/Grey	Solenoid 2-b	12	2
18	Grey/Brown	Solenoid 3-b	12	3
19	White/Pink	Solenoid 4-b	12	4
20	Pink/Brown	Solenoid 5-b	12	5
21	White/Blue	Solenoid 6-b	12	6
22	Brown/Blue	Solenoid 7-b	12	7
23	White/Red	Solenoid 8-b	12	8
24	Brown/Red	Solenoid 9-b	12	9
25	White/Black	Solenoid 10-b	12	10
26	Brown/Black	Solenoid 11-b	12	11
27	Grey/Green	Solenoid 12-b	12	12
28	Yellow/Grey	Solenoid 13-b	12	13
29	Pink/Green	Solenoid 14-b	12	14
30	Yellow/Pink	Solenoid 15-b	12	15
31	Green/Blue	Solenoid 16-a	14	16
32	Yellow/Blue	Solenoid 16-b	12	16
33	—	Not used	—	—
34	—	Not used	—	—
35	—	Not used	—	—
36	—	Not used	—	—
37	—	Not used	—	—
38	—	Not used	—	—
39	—	Not used	—	—
40	—	Not used	—	—
41	—	Not used	—	—
42	—	Not used	—	—
43	—	Not used	—	—
44	Red/Black Yellow/Black	Common -Ve	—	—

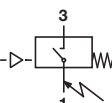
Pressure switch for pilot ports 12 & 14

Dimensions in mm
Projection/First angle

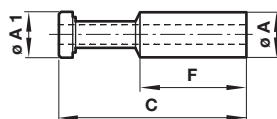


Voltage	24 V d.c.
Pressure range	0 ... 10 bar
Switching point rising pressure	3 ... 5 bar
Switch point falling pressure	2,5 ... 3,7 bar
AMP E-terminals	2,8 x 0,8
Degree of protection	IP00
Adjustment	None



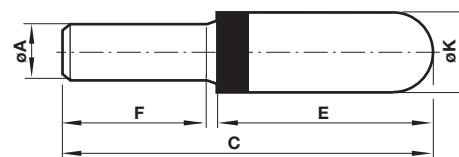
Symbol	A	Short code	Weight (kg)	Model
	4	7A	0,004	VM106517AQ0804
	6	7B	0,004	VM106517AQ0806

Plug C0004



ø A	ø A1	C	F	Model
4	4	30	17,5	C00040400
6	6	34	18,5	C00040600
8	8	38	21	C00040800
10	10	42	24	C00041000

Silencer



ø A	C	E	F	ø K	Model
4	32	16	14	6,5	T45P0004
6	45	24,5	17	12,5	T45P0006
8	43,5	22	19	13,5	T45P0008
10	57,5	31	23	15,5	T45P0010

Part numbering for complete valve islands
VM10★★★★00-★★★★

Number of stations *1)	Substitute
2 stations	2
3 stations	3
4 stations	4
5 stations	5
6 stations	6
7 stations	7
8 stations	8
9 stations	9
10 stations	10
11 stations	11
12 stations	12
13 stations	13
14 stations	14
15 stations	15
16 stations	16
17 stations	17
18 stations	18
19 stations	19
20 stations	20
Electrical connection	Substitute
Individually Wired	IW
Multipole 25 pin	M2
Multipole 44 pin	M4
PROFIBUS DP	PB
PROFINET IRT	PN
DeviceNet	DN
EtherNet/IP	EP
CANopen	CO

To be defined by online Valve Island configurator
based on valve slice selection

*1) Individually wired; 2 to 20 stations
Multipole; 4, 6, 8, 10, 12 and 16 stations
Fieldbus and Industrial Ethernet;
8, 10, 12 and 16 stations

Descriptions and short codes for valve slices used in the Valve Island configurator

Description	Manual override	Short code	Model
2 x 3/2 - 2 x NC - Internal feed valve 3 mm PIF	Turn & lock	NA3T	VM103A11AB213B
2 x 3/2 - 2 x NC - Internal feed valve 3 mm PIF	Push only	NA3U	VM103A11AB313B
2 x 3/2 - 2 x NC - Internal feed valve 4 mm PIF	Turn & lock	NA4T	VM104A11AB213B
2 x 3/2 - 2 x NC - Internal feed valve 4 mm PIF	Push only	NA4U	VM104A11AB313B
2 x 3/2 - 2 x NC - Internal feed valve 6 mm PIF	Turn & lock	NA6T	VM106A11AB213B
2 x 3/2 - 2 x NC - Internal feed valve 6 mm PIF	Push only	NA6U	VM106A11AB313B
2 x 3/2 - 2 x NC - Internal feed valve Pneumapole	Turn & lock	NAZT	VM107A11AB213B
2 x 3/2 - 2 x NC - Internal feed valve Pneumapole	Push only	NAZU	VM107A11AB313B
2 x 3/2 - 2 x NC - External feed valve 3 mm PIF	Turn & lock	ND3T	VM103A22AB213B
2 x 3/2 - 2 x NC - External feed valve 3 mm PIF	Push only	ND3U	VM103A22AB313B
2 x 3/2 - 2 x NC - External feed valve 4 mm PIF	Turn & lock	ND4T	VM104A22AB213B
2 x 3/2 - 2 x NC - External feed valve 4 mm PIF	Push only	ND4U	VM104A22AB313B
2 x 3/2 - 2 x NC - External feed valve 6 mm PIF	Turn & lock	ND6T	VM106A22AB213B
2 x 3/2 - 2 x NC - External feed valve 6 mm PIF	Push only	ND6U	VM106A22AB313B
2 x 3/2 - 2 x NC - External feed valve Pneumapole	Turn & lock	NDZT	VM107A22AB213B
2 x 3/2 - 2 x NC - External feed valve Pneumapole	Push only	NDZU	VM107A22AB313B
2 x 3/2 - 2 x NO - Internal feed valve 3 mm PIF	Turn & lock	NB3T	VM103B11AB213B
2 x 3/2 - 2 x NO - Internal feed valve 3 mm PIF	Push only	NB3U	VM103B11AB313B
2 x 3/2 - 2 x NO - Internal feed valve 4 mm PIF	Turn & lock	NB4T	VM104B11AB213B
2 x 3/2 - 2 x NO - Internal feed valve 4 mm PIF	Push only	NB4U	VM104B11AB313B
2 x 3/2 - 2 x NO - Internal feed valve 6 mm PIF	Turn & lock	NB6T	VM106B11AB213B
2 x 3/2 - 2 x NO - Internal feed valve 6 mm PIF	Push only	NB6U	VM106B11AB313B
2 x 3/2 - 2 x NO - Internal feed valve Pneumapole	Turn & lock	NBZT	VM107B11AB213B
2 x 3/2 - 2 x NO - Internal feed valve Pneumapole	Push only	NBZU	VM107B11AB313B
2 x 3/2 - 2 x NO - External feed valve 3 mm PIF	Turn & lock	NE3T	VM103B22AB213B
2 x 3/2 - 2 x NO - External feed valve 3 mm PIF	Push only	NE3U	VM103B22AB313B
2 x 3/2 - 2 x NO - External feed valve 4 mm PIF	Turn & lock	NE4T	VM104B22AB213B
2 x 3/2 - 2 x NO - External feed valve 4 mm PIF	Push only	NE4U	VM104B22AB313B
2 x 3/2 - 2 x NO - External feed valve 6 mm PIF	Turn & lock	NE6T	VM106B22AB213B
2 x 3/2 - 2 x NO - External feed valve 6 mm PIF	Push only	NE6U	VM106B22AB313B
2 x 3/2 - 2 x NO - External feed valve Pneumapole	Turn & lock	NEZT	VM107B22AB213B
2 x 3/2 - 2 x NO - External feed valve Pneumapole	Push only	NEZU	VM107B22AB313B
2 x 3/2 - 1 x NC + 1 x NO - Internal feed valve 3 mm PIF	Turn & lock	NC3T	VM103C11AB213B
2 x 3/2 - 1 x NC + 1 x NO - Internal feed valve 3 mm PIF	Push only	NC3U	VM103C11AB313B
2 x 3/2 - 1 x NC + 1 x NO - Internal feed valve 4 mm PIF	Turn & lock	NC4T	VM104C11AB213B
2 x 3/2 - 1 x NC + 1 x NO - Internal feed valve 4 mm PIF	Push only	NC4U	VM104C11AB313B
2 x 3/2 - 1 x NC + 1 x NO - Internal feed valve 6 mm PIF	Turn & lock	NC6T	VM106C11AB213B
2 x 3/2 - 1 x NC + 1 x NO - Internal feed valve 6 mm PIF	Push only	NC6U	VM106C11AB313B
2 x 3/2 - 1 x NC + 1 x NO - Internal feed valve Pneumapole	Turn & lock	NCZT	VM107C11AB213B
2 x 3/2 - 1 x NC + 1 x NO - Internal feed valve Pneumapole	Push only	NCZU	VM107C11AB313B
2 x 3/2 - 1 x NC + 1 x NO - External feed valve 3 mm PIF	Turn & lock	NF3T	VM103C22AB213B
2 x 3/2 - 1 x NC + 1 x NO - External feed valve 3 mm PIF	Push only	NF3U	VM103C22AB313B
2 x 3/2 - 1 x NC + 1 x NO - External feed valve 4 mm PIF	Turn & lock	NF4T	VM104C22AB213B
2 x 3/2 - 1 x NC + 1 x NO - External feed valve 4 mm PIF	Push only	NF4U	VM104C22AB313B
2 x 3/2 - 1 x NC + 1 x NO - External feed valve 6 mm PIF	Turn & lock	NF6T	VM106C22AB213B
2 x 3/2 - 1 x NC + 1 x NO - External feed valve 6 mm PIF	Push only	NF6U	VM106C22AB313B
2 x 3/2 - 1 x NC + 1 x NO - External feed valve Pneumapole	Turn & lock	NFZT	VM107C22AB213B
2 x 3/2 - 1 x NC + 1 x NO - External feed valve Pneumapole	Push only	NFZU	VM107C22AB313B



Description	Manual override	Short code	Model
5/2 Solenoid/spring - Internal feed valve 3 mm PIF	Turn & lock	NG3T	VM103517AB213B
5/2 Solenoid/spring - Internal feed valve 3 mm PIF	Push only	NG3U	VM103517AB313B
5/2 Solenoid/spring - Internal feed valve 4 mm PIF	Turn & lock	NG4T	VM104517AB213B
5/2 Solenoid/spring - Internal feed valve 4 mm PIF	Push only	NG4U	VM104517AB313B
5/2 Solenoid/spring - Internal feed valve 6 mm PIF	Turn & lock	NG6T	VM106517AB213B
5/2 Solenoid/spring - Internal feed valve 6mm PIF	Push only	NG6U	VM106517AB313B
5/2 Solenoid/spring - Internal feed valve Pneumapole	Turn & lock	NGZT	VM107517AB213B
5/2 Solenoid/spring - Internal feed valve Pneumapole	Push only	NGZU	VM107517AB313B
5/2 Solenoid/spring - External feed valve 3 mm PIF	Turn & lock	NH3T	VM103527AB213B
5/2 Solenoid/spring - External feed valve 3 mm PIF	Push only	NH3U	VM103527AB313B
5/2 Solenoid/spring - External feed valve 4 mm PIF	Turn & lock	NH4T	VM104527AB213B
5/2 Solenoid/spring - External feed valve 4 mm PIF	Push only	NH4U	VM104527AB313B
5/2 Solenoid/spring - External feed valve 6 mm PIF	Turn & lock	NH6T	VM106527AB213B
5/2 Solenoid/spring - External feed valve 6 mm PIF	Push only	NH6U	VM106527AB313B
5/2 Solenoid/spring - External feed valve Pneumapole	Turn & lock	NHZT	VM107527AB213B
5/2 Solenoid/spring - External feed valve Pneumapole	Push only	NHZU	VM107527AB313B
5/2 Solenoid/solenoid - Internal feed valve 3 mm PIF	Turn & lock	NJ3T	VM103511AB213B
5/2 Solenoid/solenoid - Internal feed valve 3 mm PIF	Push only	NJ3U	VM103511AB313B
5/2 Solenoid/solenoid - Internal feed valve 4 mm PIF	Turn & lock	NJ4T	VM104511AB213B
5/2 Solenoid/solenoid - Internal feed valve 4 mm PIF	Push only	NJ4U	VM104511AB313B
5/2 Solenoid/solenoid - Internal feed valve 6 mm PIF	Turn & lock	NJ6T	VM106511AB213B
5/2 Solenoid/solenoid - Internal feed valve 6 mm PIF	Push only	NJ6U	VM106511AB313B
5/2 Solenoid/solenoid - Internal feed valve Pneumapole	Turn & lock	NJZT	VM107511AB213B
5/2 Solenoid/solenoid - Internal feed valve Pneumapole	Push only	NJZU	VM107511AB313B
5/2 Solenoid/solenoid - External feed valve 3 mm PIF	Turn & lock	NK3T	VM103522AB213B
5/2 Solenoid/solenoid - External feed valve 3 mm PIF	Push only	NK3U	VM103522AB313B
5/2 Solenoid/solenoid - External feed valve 4 mm PIF	Turn & lock	NK4T	VM104522AB213B
5/2 Solenoid/solenoid - External feed valve 4 mm PIF	Push only	NK4U	VM104522AB313B
5/2 Solenoid/solenoid - External feed valve 6 mm PIF	Turn & lock	NK6T	VM106522AB213B
5/2 Solenoid/solenoid - External feed valve 6 mm PIF	Push only	NK6U	VM106522AB313B
5/2 Solenoid/solenoid - External feed valve Pneumapole	Turn & lock	NKZT	VM107522AB213B
5/2 Solenoid/solenoid - External feed valve Pneumapole	Push only	NKZU	VM107522AB313B
5/3 APB Solenoid/solenoid - Internal feed valve 3 mm PIF	Turn & lock	NL3T	VM103611AB213B
5/3 APB Solenoid/solenoid - Internal feed valve 3 mm PIF	Push only	NL3U	VM103611AB313B
5/3 APB Solenoid/solenoid - Internal feed valve 4 mm PIF	Turn & lock	NL4T	VM104611AB213B
5/3 APB Solenoid/solenoid - Internal feed valve 4 mm PIF	Push only	NL4U	VM104611AB313B
5/3 APB Solenoid/solenoid - Internal feed valve 6 mm PIF	Turn & lock	NL6T	VM106611AB213B
5/3 APB Solenoid/solenoid - Internal feed valve 6 mm PIF	Push only	NL6U	VM106611AB313B
5/3 APB Solenoid/solenoid - Internal feed valve Pneumapole	Turn & lock	NLZT	VM107611AB213B
5/3 APB Solenoid/solenoid - Internal feed valve Pneumapole	Push only	NLZU	VM107611AB313B
5/3 APB Solenoid/solenoid - External feed valve 3 mm PIF	Turn & lock	NM3T	VM103622AB213B
5/3 APB Solenoid/solenoid - External feed valve 3 mm PIF	Push only	NM3U	VM103622AB313B
5/3 APB Solenoid/solenoid - External feed valve 4 mm PIF	Turn & lock	NM4T	VM104622AB213B
5/3 APB Solenoid/solenoid - External feed valve 4 mm PIF	Push only	NM4U	VM104622AB313B
5/3 APB Solenoid/solenoid - External feed valve 6 mm PIF	Turn & lock	NM6T	VM106622AB213B
5/3 APB Solenoid/solenoid - External feed valve 6 mm PIF	Push only	NM6U	VM106622AB313B
5/3 APB Solenoid/solenoid - External feed valve Pneumapole	Turn & lock	NMZT	VM107622AB213B
5/3 APB Solenoid/solenoid - External feed valve Pneumapole	Push only	NMZU	VM107622AB313B

Descriptions and short codes for end plates used in the Valve Island configurator

Description	Manual override	Short code	Model
End plate kit - feed both ends	10 mm	F100	VM106517AQ010Y
End plate kit - feed both ends	8 mm	F800	VM106517AQ0108
End plate kit - feed left, right blocked	10 mm	L100	VM106517AQ011Y
End plate kit - feed left, right blocked	8 mm	L800	VM106517AQ0118
End plate kit - feed right, left blocked	10 mm	R100	VM106517AQ012Y
End plate kit - feed right, left blocked	8 mm	R800	VM106517AQ0128
End plate kit - feed both ends - Pneumapole	no PIF	FPZ0	VM106517AQ0131
End plate kit - feed left, right blocked - Pneumapole	no PIF	RPZ0	VM106517AQ0132
End plate kit - feed right, left blocked - Pneumapole	no PIF	LPZ0	VM106517AQ0133

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/data**«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI Precision Engineering, Norgren Ltd.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

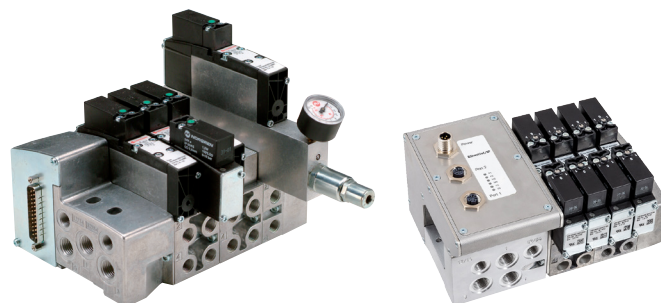
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

VS18 series, 2 x 2/2, 2 x 3/2, 5/2 or 5/3 ISO valve island



- > **Modular system** offering a wide range of configuration options conforming to ISO 15407-2, 18 mm wide valves
- > **24 V d.c. or 115 V a.c.** Multipole and single station sub-base
- > **Integrated Fieldbus, Industrial Ethernet and IO-Link**
- > **Fieldbus expandable with single add-on stations, Industrial Ethernet and IO-Link expandable with double add-on stations.**
- > **Wide range of accessories** including shut off valves enabling non-stop operation
- > **Dual spool technology**
 - Glandless spool and sleeve for long life
 - Softseal spool for high flow
- > **Up to 40 solenoids, operating at 16 bar pressure**
- > **UL and ATEX**



To configure and order a Valve Island visit:
https://www.norgren.com/uk/en/vic_landing.aspx

Technical features

Medium:

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

Operation:

VS18G: Glandless spool valve, solenoid pilot actuated

VS18S: Softseal spool valve, solenoid pilot actuated

Flow:

Softseal

Function	l/min	Cv	Kv
2 x 2/2	550	0,56	0,46
2 x 3/2	600	0,61	0,52
5/2; 5/3	650	0,66	0,57
Glandless			
5/2; 5/3	550	0,56	0,48

Mounting:

Sub-base

Ports 2+4:

G1/8, NPTF 1/8, PIF 8 mm, PIF 6 mm, PIF 1/4

Operating pressure:

Maximum pressure

10 bar (145 psi) VS18S models and VS18G solenoid pilot actuated

valves with internal pilot supply 16 bar (232 psi) VS18G solenoid pilot actuated valves with external pilot supply

Media/Ambient temperature:

-15 ... +50°C (+5 ... 122°F)

(Ambient)

-5 ... +50°C (+23 ... 122°F)

(Media)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:

Body/sub-base:

Die-cast aluminium

Glandless spool & sleeve

(VS18G): Aluminium,

hard anodised, PTFE coated

Softseal spool (VS18S):

Aluminium with HNBR seals

Plastic parts: POM, PA, PPA

Mounting sheets/screws: Steel, zinc coated

Springs: Stainless steel

Sandwich plates: Aluminium

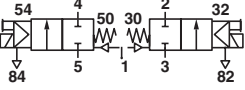
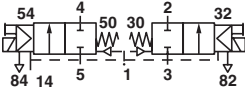
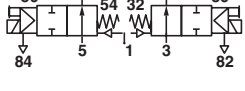
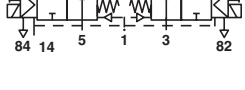
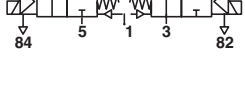
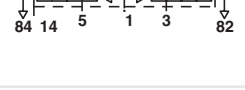
bar material, PA

Electrical contacts: Brass, tin coated

PCB: Glass epoxy

Technical data

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

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

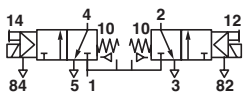
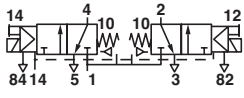
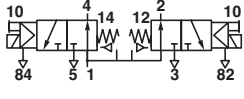
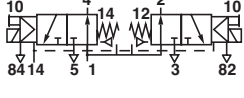
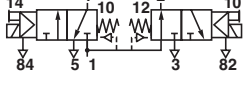
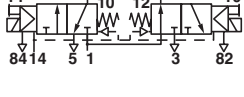
Valve dimensions see page 8

NO = Normally open, NC = Normally closed

*1) Pilot air supply through port 1

*2) Pilot air supply through port 12/14

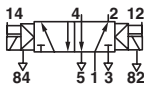
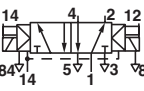
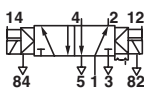
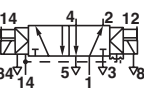
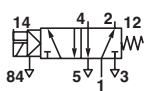
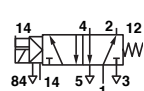
2 x 3/2 Double solenoid actuated softseal valves (flow 600 l/min)

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

Valve dimensions see page 8

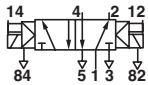
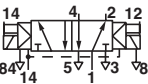
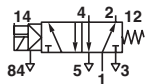
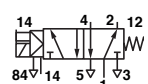
NO = Normally open, NC = Normally closed

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

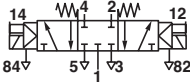
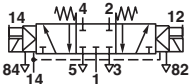
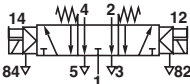
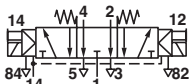
Symbol	Actuation/ return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Model
	Sol/Sol	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	VS18G511DF313A
	Sol/Sol	Internal	–	2 ... 10	Push only	115 V a.c. 1,5 VA	VS18G511DF318A
	Sol/Sol	Internal	–	2 ... 10	Push & turn	24 V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

Valve dimensions see page 8

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

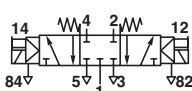
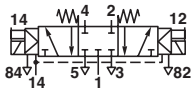
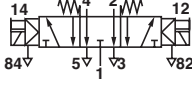
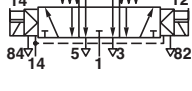
Symbol	Actuation/ return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Model
	Sol/Sol	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	VS18S511DF313A
	Sol/Sol	Internal	–	2 ... 10	Push only	115 V a.c. 1,5 VA	VS18S511DF318A
	Sol/Sol	Internal	–	2 ... 10	Push & turn	24 V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

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

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

Valve dimensions see page 8
 APB = All Ports Blocked
 COE = Centre Open Exhaust

5/3 Double solenoid actuated Softseal valves (flow 650 l/min)

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

Valve dimensions see page 8

APB = All Ports Blocked

COE = Centre Open Exhaust

Options selector for valve slices

Spool technology	Substitute
Glandless spool & sleeve	G
Softseal spool	S
Guiding systems	Substitute
2 x 3/2 NC *3)	A
2 x 3/2 NO *3)	B
2 x 3/2 NO/NC *3)	C
2 x 2/2 NC *3)	E
2 x 2/2 NO *3)	F
2 x 2/2 NO/NC *3)	G
5/2	5
5/3 APB	6
5/3 COE	7

*3) Available with softseal spool only (VS18S).

VS18★★★★DF★★★★

Application	Substitute
Standard environment	A
ATEX approval *6)	E
Voltage	Substitute
24 V d.c. 1,2 W (±10%)	13
115 V a.c. 1,5 VA (-10/+15%)	18
12 V d.c. 1,2 W (±10%)	on request
12 V d.c. 1,5 W (-17/+20%)	on request
24 V d.c. 1,5 W (-17/+20%)	on request
Manual override *5)	Substitute
Push & turn	2
Push only	3
Extended, Push only	5
Actuation/Pilot supply	Substitute
Solenoid/Spring Internal pilot supply	17
Solenoid/Spring External pilot supply	27
Solenoid/Solenoid Internal pilot supply	11
Solenoid/Solenoid External pilot supply	22
Solenoid priority side 14/Solenoid (5/2 only) Internal pilot supply *4)	91
Solenoid priority side 14/Solenoid (5/2 only) External pilot supply *4)	92

*4) Available with glandless spool & sleeve only (VS18G)

*5) Option "without manual override" available on request.

*6) Available with 24 V d.c. 1,2 W (±10%) only

Electrical details for solenoid operators

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

Note: Alternative voltage and voltage tolerances see option selector on page 6

Protection classification (IP Code):

All VS18 valve islands fulfill IP65 and NEMA4 ratings.

Power supply and precautions:

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

UL approval:

Recognized to UL 429 for Electrically Operated Valves (not applicable for Industrial Ethernet, IO-Link and Fieldbus options).

ATEX:

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



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

IO-Link
II 3G Ex ec IIC T4 Gc
II 3D Ex tc IIIB T135°C Dc

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

Equipment group, category, type of protection:

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

Note:

Please refer to the corresponding ATEX installation instructions and the maximum permissible operating conditions for valve islands in the ATEX zone.

The maximum allowed power consumption for ATEX is 20W. This corresponds to 16 simultaneously energized pilot valves. If a configuration consists of more than 16 pilot valves the user must undertake external actions (e.g. power-limited power supplies) to make sure that the power consumption of 20W is not exceeded.

This does not apply to IO-Link versions. Up to 40 pilot valves can be operated at IO-Link versions.

Accessories

Electrical Connection and base accessories for Multipole, Fieldbus, IO-Link and Industrial Ethernet

Spare valve identification labels *7)



VS2672905-KG00 (10 pcs.)

Blanking plug for base connector hole *8)



VS2672914-KG00

Blanking disc to modular sub-base



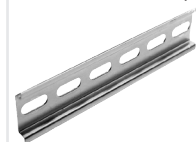
VS1872405-KF00 (Ports 1, 3, 5)
 VS1872406-KF00 (Port 12/14)

Manual override set-up kit



VS2672906-KG00

DIN EN 50 022 rail (1 m)



V10009-C00 (35 x 7,5 mm)

DIN-rail mounting kit



V70531-KA0 *9)
 VS2672971-KG00 *11)

Intermediate supply/exhaust module



Page 18
 VS1872402-AF00 (G1/8)
 VS1872402-PF00 (NPTF 1/8)

Blanking plate



Page 18
 VS1872404-KF00 *10)
 VS1872407-KF00 *12)

*7) When purchasing assembled valve islands from IMI Norgren, valve identification labels are already included.

*8) When V44/V45 valves are fitted on VS26 bases.

*9) Not suitable for Industrial Ethernet.

*10) Not suitable for IO-Link and Industrial Ethernet.

*11) Industrial Ethernet (only)

*12) IO-Link and Industrial Ethernet (only)

Sandwich plates

Single pressure regulator plate



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VS1872400-KF10 (Port 1)
VS1872400-KF20 (Port 2)
VS1872400-KF30 (Port 4)

Double pressure regulator plate



Page 13

VS1872400-KF40 (Ports 2+4)

Flow regulator plate



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VS1872401-KF00 (Ports 3+5)

Sandwich plate with additional pressure port 1



Page 14

VS1872428-KFG00 (G1/8)

Single valve shut-off plate



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VS1872403-KF00 (Port 1)

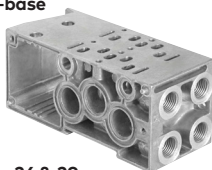
Sub-bases and end plates

Single station sub-base



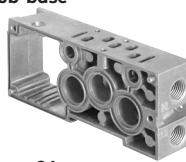
Page 9

Double station modular sub-base



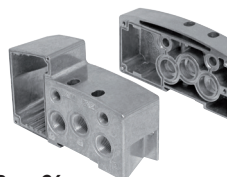
Page 26 & 29

Single station modular sub-base



Page 26

End plate kit

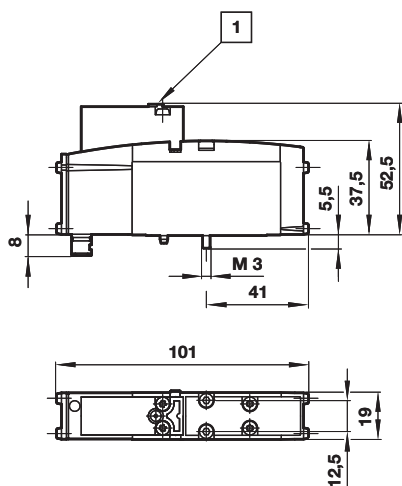


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Valve dimensions

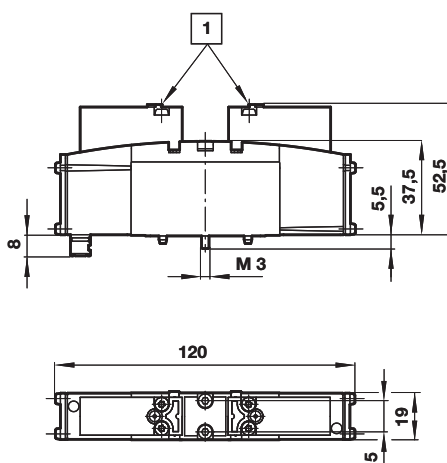
VS18*5*7DF*1**

5/2 Single solenoid pilot valve, mechanical spring return



VS18***DF*1**

2 x 2/2, 2 x 3/2, 5/2 and 5/3 Double solenoid, pilot valve



Dimensions in mm
Projection/First angle



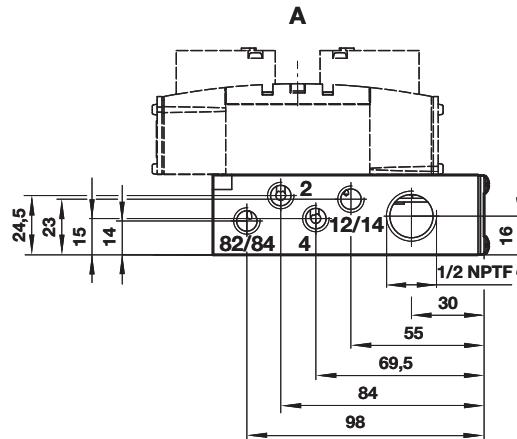
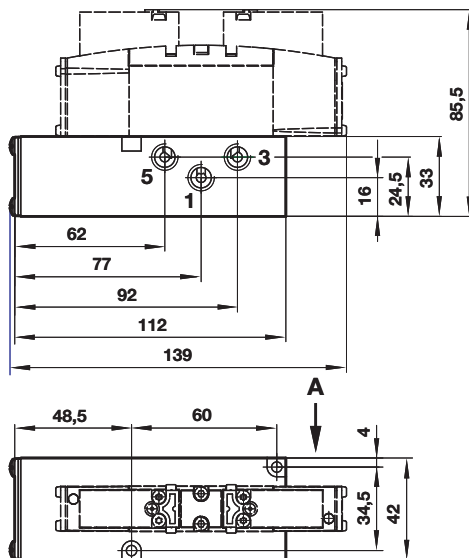
1 Manual override

Single station sub-base

Description	Ports 1, 3 & 5	Ports 12/14 & 82/84	Ports 2 & 4	Connector type	Model
Single station sub-base for 24 V d.c.	G1/8	G1/8	G1/8	M12	VS1872010-AF00
Single station sub-base for 24 V d.c.	NPTF 1/8	NPTF 1/8	NPTF 1/8	M12	VS1872010-PF00
Single station sub-base for 24 V d.c. and 115 V a.c.	NPTF 1/8	NPTF 1/8	NPTF 1/8	NPTF1/2 conduit	VS1872011-PF00

Connector type: NPTF 1/2 conduit with flying leads

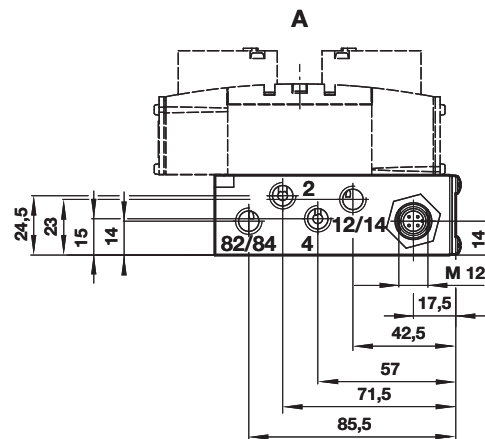
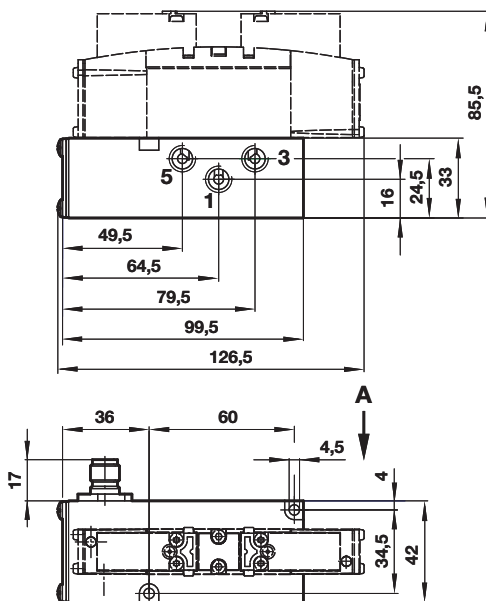
Dimensions in mm
Projection/First angle



Wiring information

Wire colour	Function
Green	Earth
Yellow	Signal for solenoid 12
Black	Common for solenoid 12 and 14
Red	Signal for solenoid 14

Connector type: M12



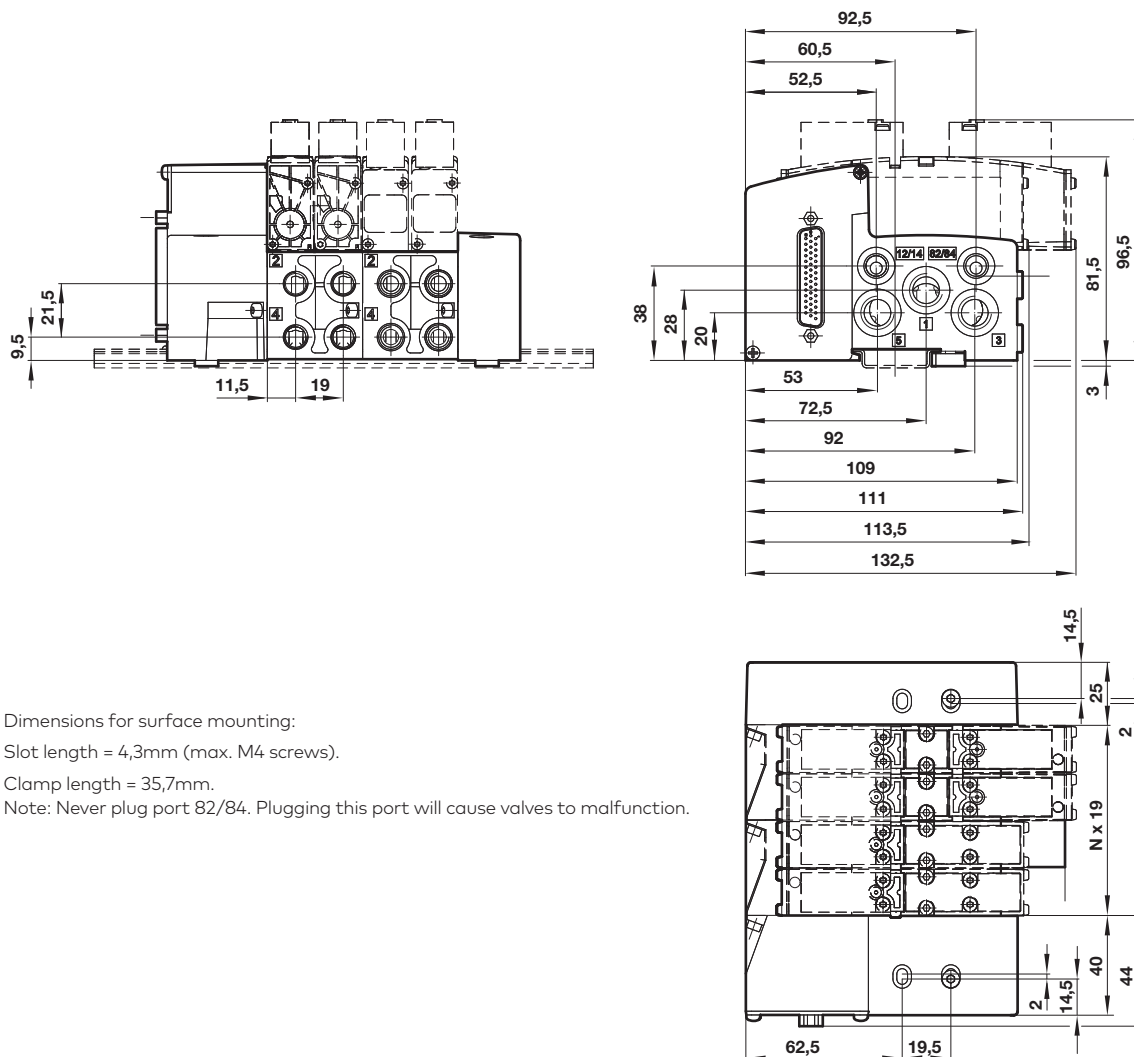
Pin assignment (conforming to DIN ISO 20401)

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

Valve island dimensions - Multipole and Fieldbus

See page 25 and 26 for sub-base and end plate kit ordering information

Dimensions in mm
Projection/First angle



Dimensions for surface mounting:

Slot length = 4,3mm (max. M4 screws).

Clamp length = 35,7mm.

Note: Never plug port 82/84. Plugging this port will cause valves to malfunction.

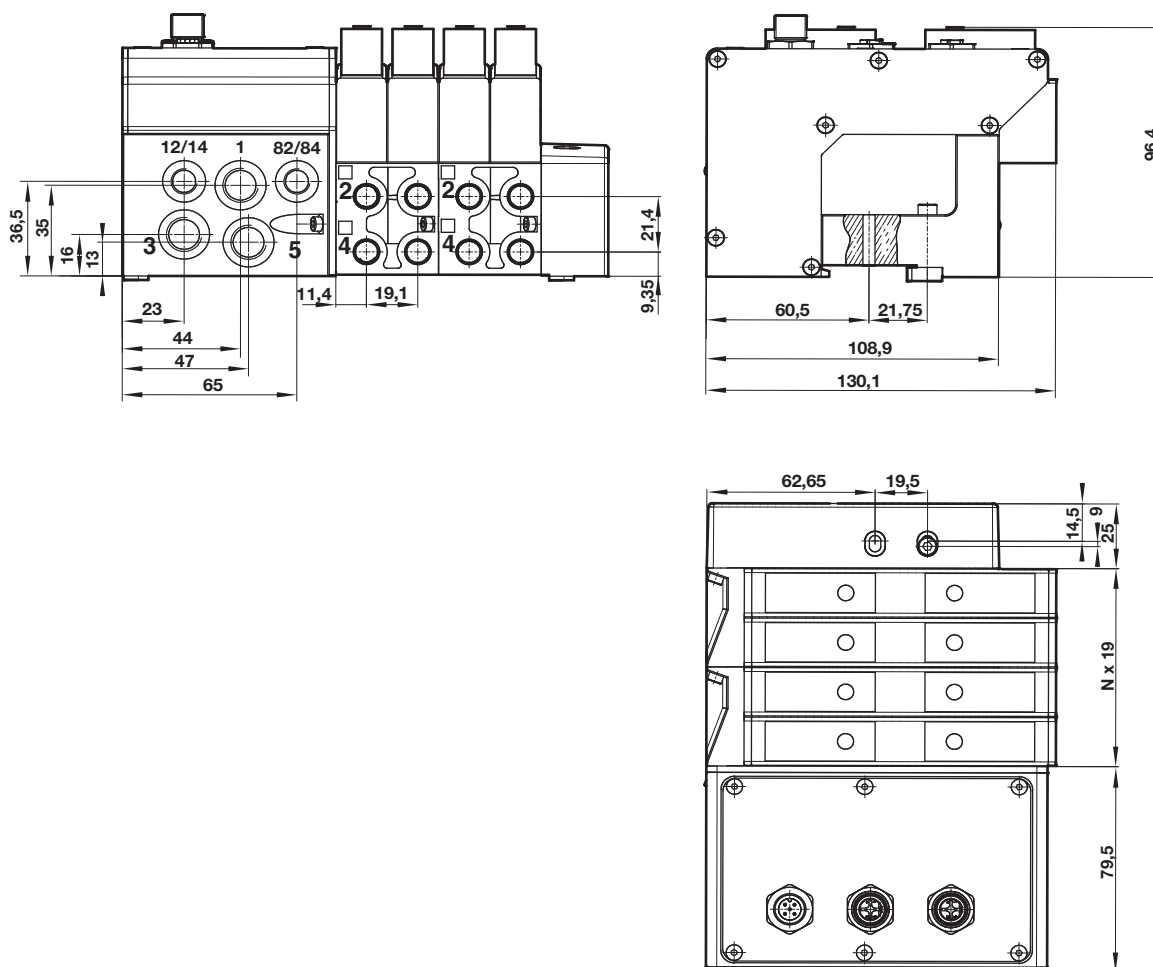
N Number of stations

Electrical connection	Min. no. of valve stations	Max. no. of valve stations	For details see page
Multipole	2	20	17
Fieldbus protocols	4	16	20

Valve island dimensions - Industrial Ethernet

See page 29 for sub-base and end plate kit ordering information

Dimensions in mm
Projection/First angle



N Number of stations

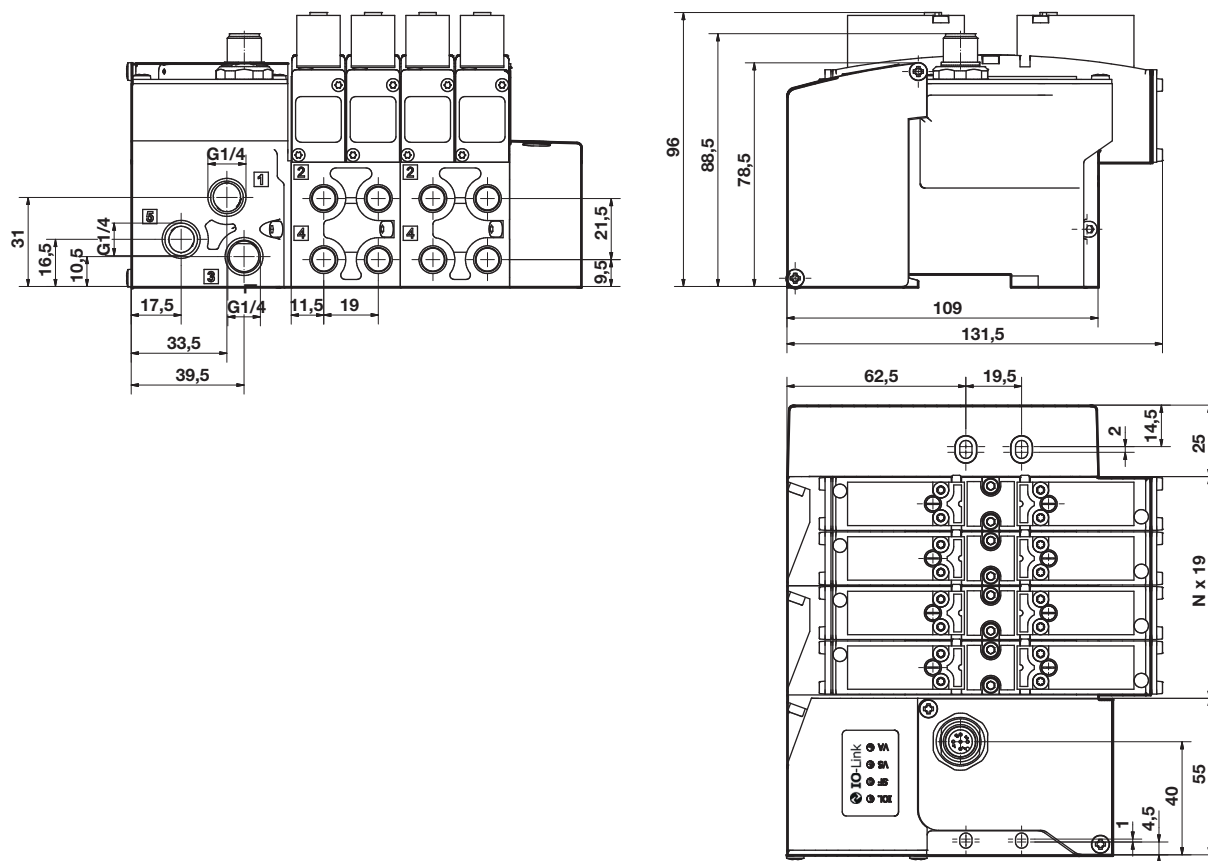
Electrical connection	Min. no. of valve stations	Max. no. of valve stations	For details see page
Industrial Ethernet protocols	4	20	21 and 22

Valve island dimensions - IO-Link

See page 29 for sub-base and end plate kit ordering information

Abmessungen in mm

Projection / First angle

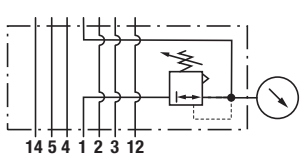
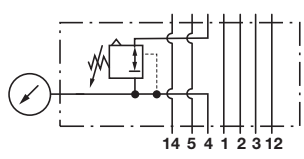
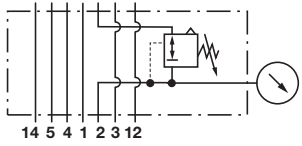
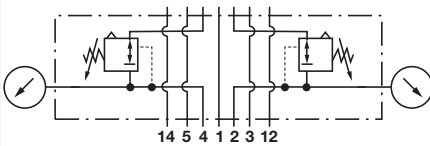


N Number of stations

Electrical connection	Min. no. of valve stations	Max. no. of valve stations	For details see page
IO-Link	2	20	23

Sandwich plates

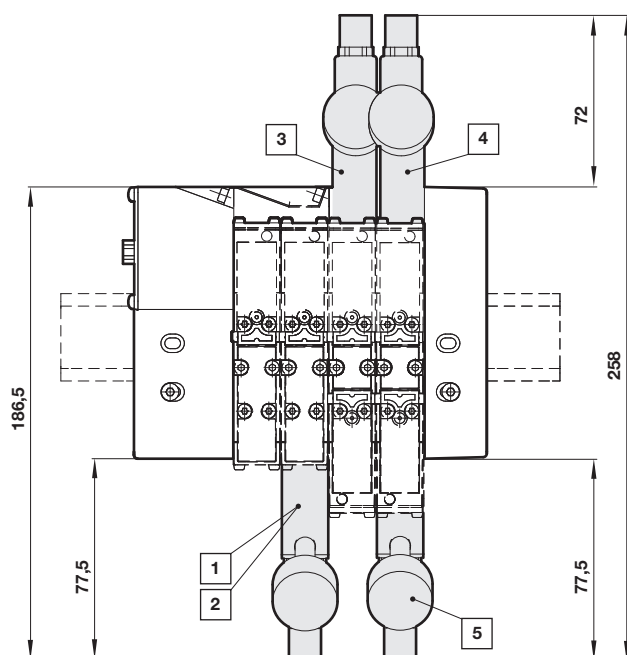
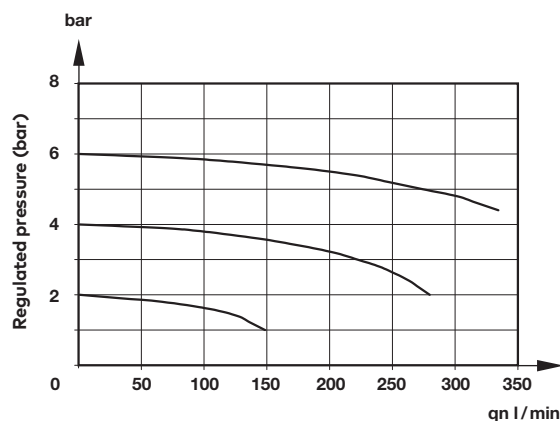
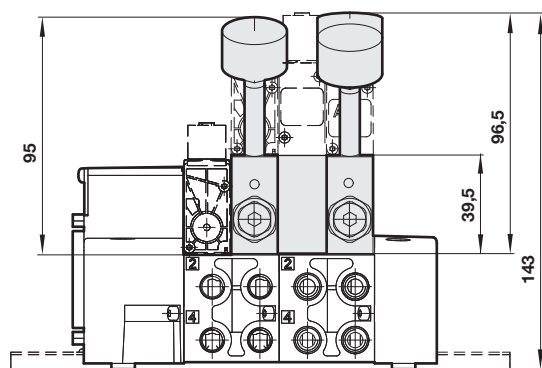
Pressure regulator sandwich plates

Symbol	Model	Description	Symbol	Model	Description
	VS1872400-KF10	Regulation of port 1, regulator on side 12		VS1872400-KF30	Regulation of port 4, regulator on side 14
	VS1872400-KF20	Regulation of port 2, regulator on side 12		VS1872400-KF40	Regulation of ports 2+4

Dimensions in mm
Projection/First angle



Flow characteristics for pressure regulator plates

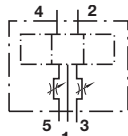


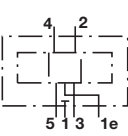
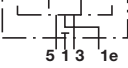
- 1 Regulation of port 1
- 2 Regulation of port 2
- 3 Regulation of port 4
- 4 Regulation of port 2+4
- 5 Gauge

Spare part number for gauge: V70534-500

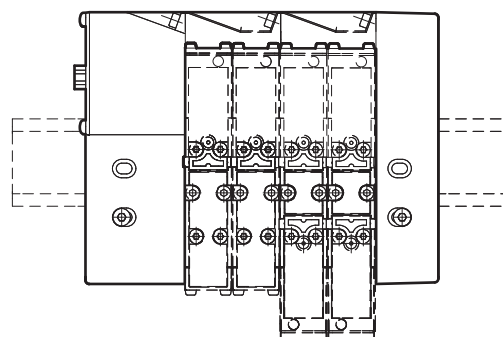
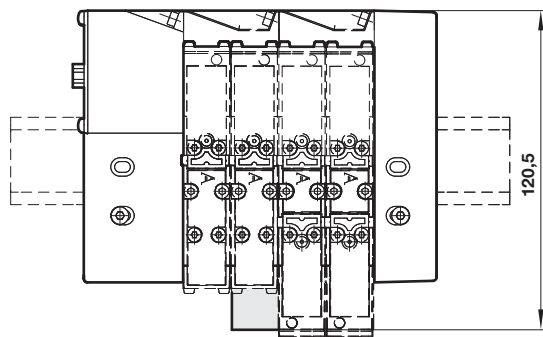
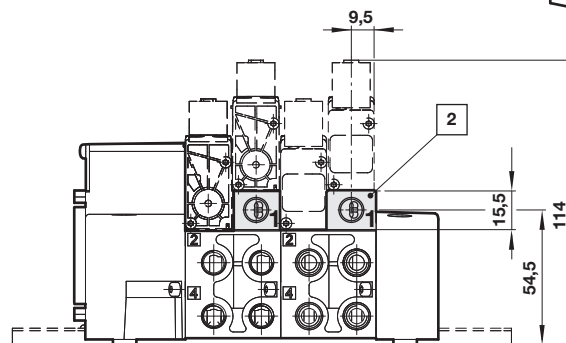
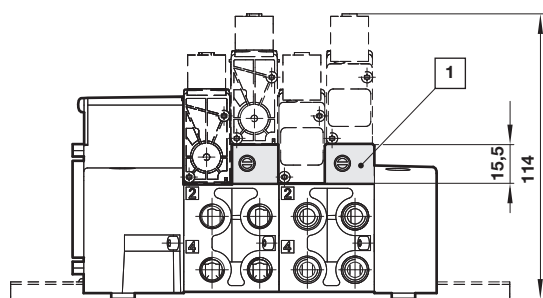
Sandwich plates

Flow regulator & additional pressure

Symbol	Model	Description
	VS1872401-KF00	Flow regulator supplied with gasket, dual regulation of exhaust ports 3 and 5

Symbol	Model	Description
	VS1872428-KF00	Sandwich plate with additional pressure port 1 (G1/8), supplied with gasket
	VS1872429-KF00	Sandwich plate with additional pressure port 1 (NPTF 1/8), supplied with gasket

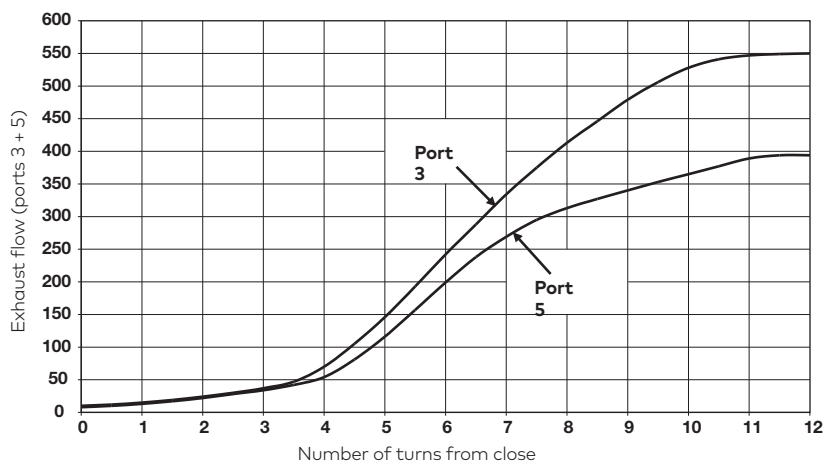
Dimensions in mm
Projection/First angle



- 1 Flow regulator plate
- 2 Sandwich plate with additional pressure port 1

Flow characteristics

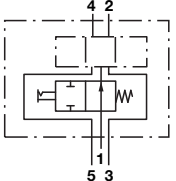
Dual regulation of exhaust ports 3 and 5



Flow: Port 1>2 and 1>4: remains unchanged.

Flow measured at 6 bar inlet, pressure drop 1 bar

Sandwich plates–Single valve shut-off plate

Symbol	Model	Description
	VS1872403-KF00	Single valve shut-off plate supplied with gasket

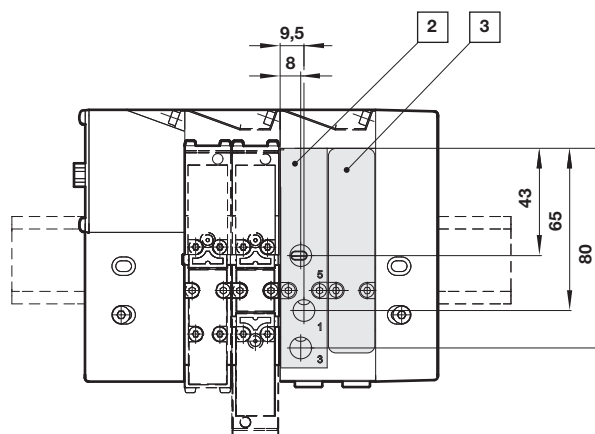
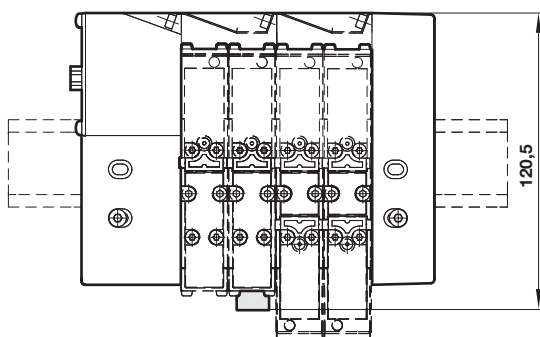
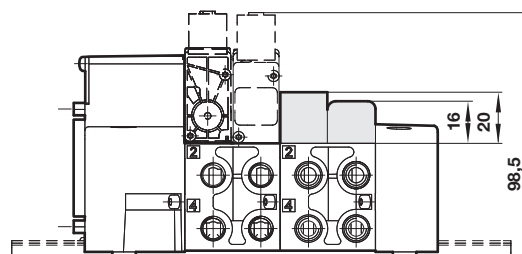
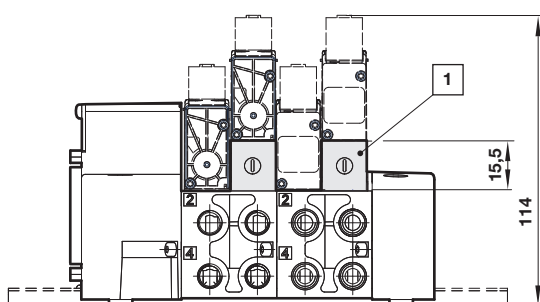
Allows individual exchange of valve while valve island is pressurised by port 1 - enabling unbroken production in a continuously operating process.
Flow restricted to max. 240 l/min.

Base accessories

Model	Description
VS1872402-AF00	Intermediate supply/exhaust module, port size G1/8 *9)
VS1872402-PF00	Intermediate supply/exhaust module, port size NPTF 1/8 *9)
VS1872404-KF00	Blanking plate for blocking of unused stations (supplied with gasket)

*9) for use see page 16

Dimensions in mm
Projection/First angle



- 1 Single valve shut-off plate
- 2 Intermediate supply/exhaust module
- 3 Blanking plate

Multi pressure configurations

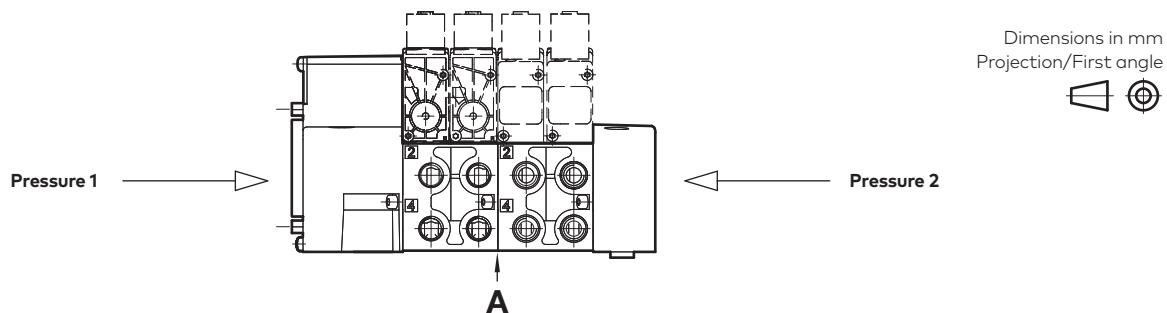
A

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

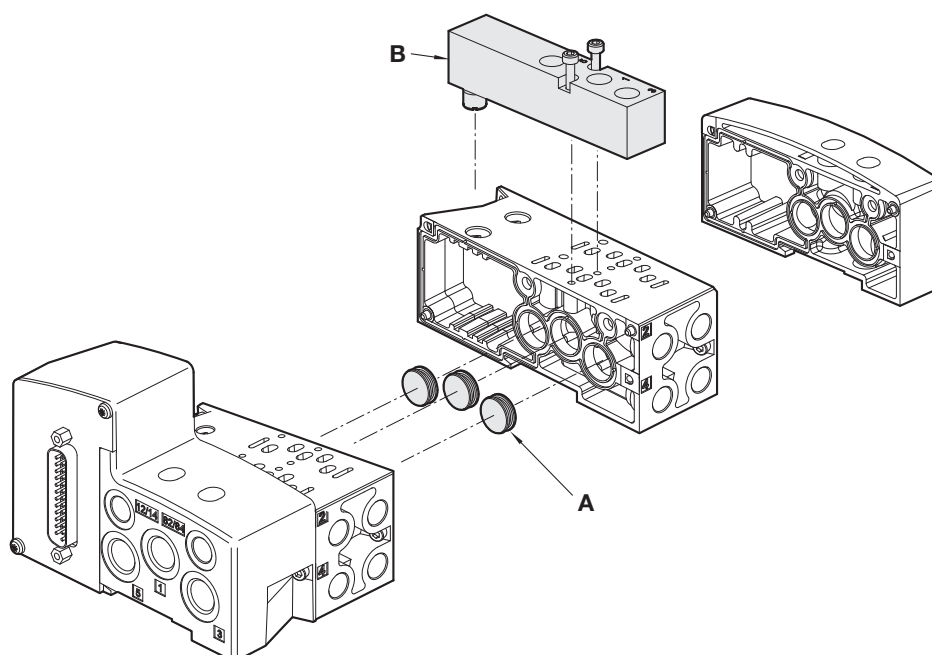
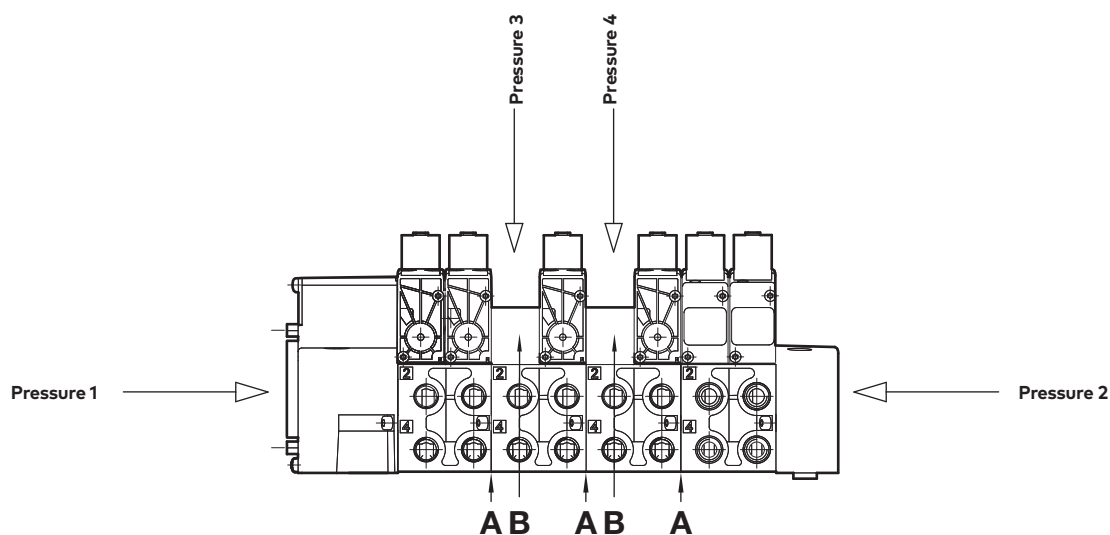
B

Intermediate supply/exhaust module	Type
VS1872402-AF00	G1/8
VS1872402-PF00	NPTF 1/8

Dual pressure



Multi pressure

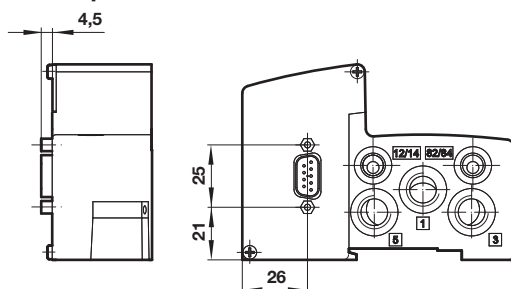


Multipole options

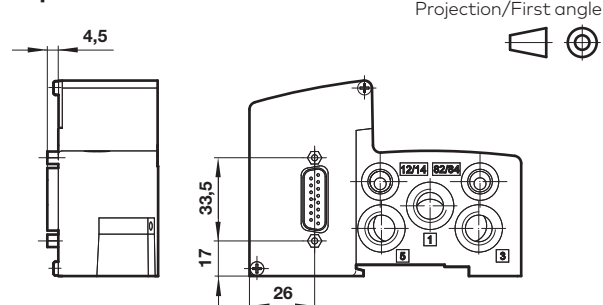
Connector type	Voltage	No. of stations	Max. no. solenoids
D-Sub 9-pin	24 V d.c.	02/03/04	8
D-Sub 15-pin	24 V d.c.	02/03/04/05/06/07	14
D-Sub 25-pin	24 V d.c.	02/03/04/05/06/07/08/09/10/11/12	24
D-Sub 44-pin	24 V d.c.	08/09/10/11/12/13/14/15/16/17/18/19/20	40
M23 19-pin	115 V a.c., 24 V d.c.	02/03/04/05/06/07/08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

For valve islands with 17 ... 20 valve stations, please contact our customer service. For details of single parts see pages 26 to 29.

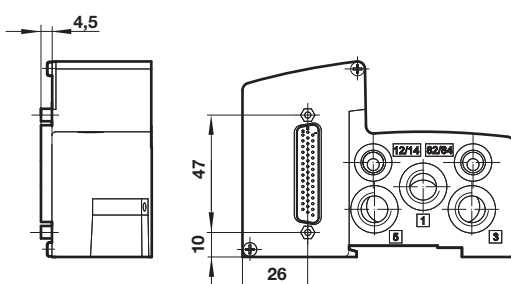
D-Sub 9-pin



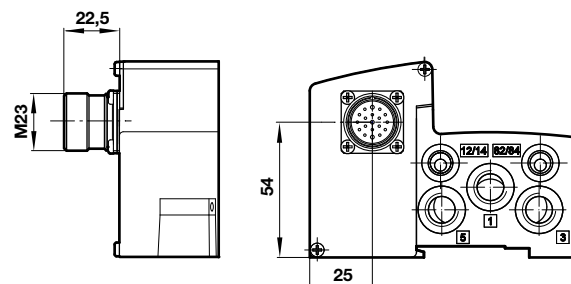
D-Sub 15-pin



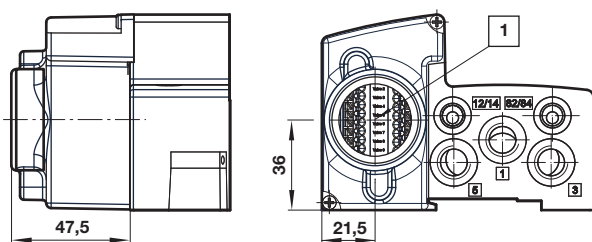
D-Sub 25- / 44 -pin



M23 19-pin



NPTF1 Conduit entry with terminals



1 Maximum wire size AWG18

Multipole accessories

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

For cable length longer than 5 m please contact customer service.

D-Sub connector 9-pin *11)

Pin no.	Wire colour	Socket	Pilot	Station
1	White	Solenoid 1-a	14	1
2	Brown	Solenoid 2-a	14	2
3	Green	Solenoid 3-a	14	3
4	Yellow	Solenoid 4-a	14	4
5	Grey	Solenoid 1-b	12	1
6	Pink	Solenoid 2-b	12	2
7	Blue	Solenoid 3-b	12	3
8	Red	Solenoid 4-b	12	4
9	Black	Common	-	-

D-Sub connector 15-pin *11)

Pin no.	Wire colour	Socket	Pilot	Station
1	White	Solenoid 1-a	14	1
2	Brown	Solenoid 2-a	14	2
3	Green	Solenoid 3-a	14	3
4	Yellow	Solenoid 4-a	14	4
5	Grey	Solenoid 5-a	14	5
6	Pink	Solenoid 6-a	14	6
7	Blue	Solenoid 7-a	14	7
8	Red	Solenoid 1-b	12	1
9	Black	Solenoid 2-b	12	2
10	Violet	Solenoid 3-b	12	3
11	Grey/Pink	Solenoid 4-b	12	4
12	Red/Blue	Solenoid 5-b	12	5
13	White/Green	Solenoid 6-b	12	6
14	Brown/Green	Solenoid 7-b	12	7
15	White/Yellow	Common	-	-

*11) According to IEC60757

D-Sub connector 25-pin *11)

Pin no.	Wire colour	Socket	Pilot	Station
1	White	Solenoid 1-a	14	1
2	Brown	Solenoid 2-a	14	2
3	Green	Solenoid 3-a	14	3
4	Yellow	Solenoid 4-a	14	4
5	Grey	Solenoid 5-a	14	5
6	Pink	Solenoid 6-a	14	6
7	Blue	Solenoid 7-a	14	7
8	Red	Solenoid 8-a	14	8
9	Black	Solenoid 9-a	14	9
10	Violet	Solenoid 10-a	14	10
11	Grey/Pink	Solenoid 11-a	14	11
12	Red/Blue	Solenoid 12-a	14	12
13	White/Green	Common	-	-
14	Brown/Green	Solenoid 1-b	12	1
15	White/Yellow	Solenoid 2-b	12	2
16	Yellow/Brown	Solenoid 3-b	12	3
17	White/Grey	Solenoid 4-b	12	4
18	Grey/Brown	Solenoid 5-b	12	5
19	White/Pink	Solenoid 6-b	12	6
20	Pink/Brown	Solenoid 7-b	12	7
21	White/Blue	Solenoid 8-b	12	8
22	Brown/Blue	Solenoid 9-b	12	9
23	White/Red	Solenoid 10-b	12	10
24	Brown/Red	Solenoid 11-b	12	11
25	White/Black	Solenoid 12-b	12	12

D-Sub connector 44-pin *11)

Pin no.	Wire colour	Socket	Pilot	Station
1	White	Solenoid 1-a	14	1
2	Brown	Solenoid 2-a	14	2
3	Green	Solenoid 3-a	14	3
4	Yellow	Solenoid 4-a	14	4
5	Grey	Solenoid 5-a	14	5
6	Pink	Solenoid 6-a	14	6
7	Blue	Solenoid 7-a	14	7
8	Red	Solenoid 8-a	14	8
9	Black	Solenoid 9-a	14	9
10	Violet	Solenoid 10-a	14	10
11	Grey/Pink	Solenoid 11-a	14	11
12	Red/Blue	Solenoid 12-a	14	12
13	White/Green	Solenoid 13-a	14	13
14	Brown/Green	Solenoid 14-a	14	14
15	White/Yellow	Solenoid 15-a	14	15
16	Yellow/Brown	Solenoid 1-b	12	1
17	White/Grey	Solenoid 2-b	12	2
18	Grey/Brown	Solenoid 3-b	12	3
19	White/Pink	Solenoid 4-b	12	4
20	Pink/Brown	Solenoid 5-b	12	5
21	White/Blue	Solenoid 6-b	12	6
22	Brown/Blue	Solenoid 7-b	12	7
23	White/Red	Solenoid 8-b	12	8
24	Brown/Red	Solenoid 9-b	12	9
25	White/Black	Solenoid 10-b	12	10
26	Brown/Black	Solenoid 11-b	12	11
27	Grey/Green	Solenoid 12-b	12	12
28	Yellow/Grey	Solenoid 13-b	12	13
29	Pink/Green	Solenoid 14-b	12	14
30	Yellow/Pink	Solenoid 15-b	12	15
31	Green/Blue	Solenoid 16-a	14	16
32	Yellow/Blue	Solenoid 16-b	12	16
33	-	Not used	-	-
34	-	Not used	-	-
35	-	Not used	-	-
36	-	Not used	-	-
37	-	Not used	-	-
38	-	Not used	-	-
39	-	Not used	-	-
40	-	Not used	-	-
41	-	Not used	-	-
42	-	Not used	-	-
43	Blue/Black *12)	Common	-	-
44	Red/Black *12)	Common	-	-

*11) According to IEC60757

*12) The IMI Norgren D-Sub 44-pin cables (see part numbers on page 18) do not have 44 wires, but only 34 wires. Therefore, the wires associated with pins 1 through 32 are according to IEC60757, wires 43 and 44 differ from the standard and are coloured in green/black and yellow/black.

M23 connector 19-pin

Pin no.	Wire colour	Socket	Pilot	Station
1	White	Solenoid 8-a	14	8
2	Green/Brown	Solenoid 6-a	14	6
3	Green	Solenoid 4-a	14	4
4	Yellow	Solenoid 2-b	12	2
5	Grey	Solenoid 2-a	14	2
6	Blue(thick)	Common	-	-
7	White/Grey	Solenoid 1-b	12	1
8	Red	Solenoid 3-b	12	3
9	Black	Solenoid 5-b	12	5
10	Violet	Solenoid 7-b	12	7
11	Grey/Pink	Solenoid 7-a	14	7
12	Yellow/Green	Earth	-	-
13	White/Green	Solenoid 6-b	12	6
14	Brown/Green	Solenoid 4-b	12	4
15	White/Yellow	Solenoid 1-a	14	1
16	Yellow/Brown	Solenoid 3-a	14	3
17	Pink	Solenoid 5-a	14	5
18	Red/Blue	Solenoid 8-b	12	8
19	Brown(thick)	Not used	-	-

NPTF1 Conduit entry with terminals *13)

Pin no.	Socket	Pilot	Station
C1	Solenoid 1-a	14	1
C2	Solenoid 2-a	14	2
C3	Solenoid 3-a	14	3
C4	Solenoid 4-a	14	4
C5	Solenoid 5-a	14	5
C6	Solenoid 6-a	14	6
C7	Solenoid 7-a	14	7
C8	Solenoid 8-a	14	8
C9	Solenoid 9-a	14	9
C10	Solenoid 10-a	14	10
C11	Solenoid 11-a	14	11
C12	Solenoid 12-a	14	12
C13	Solenoid 1-b	12	1
C14	Solenoid 2-b	12	2
C15	Solenoid 3-b	12	3
C16	Solenoid 4-b	12	4
C17	Solenoid 5-b	12	5
C18	Solenoid 6-b	12	6
C19	Solenoid 7-b	12	7
C20	Solenoid 8-b	12	8
C21	Solenoid 9-b	12	9
C22	Solenoid 10-b	12	10
C23	Solenoid 11-b	12	11
C24	Solenoid 12-b	12	12
C25	Common	-	-
C26	Common	-	-
C27	Earth	-	-
C28	Earth	-	-

*13) Max.wire size AWG18

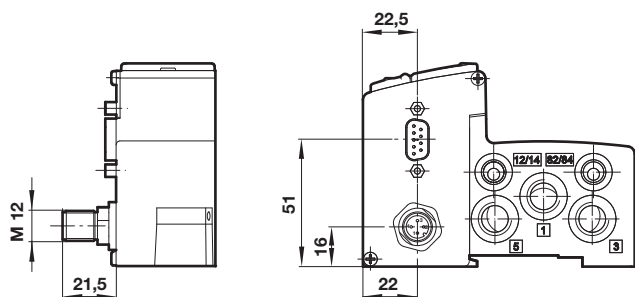
Fieldbus, IO-Link and Industrial Ethernet options: Overview

Protocol	Communications Connector	Power connector	No. of stations	Max. no. solenoids
PROFIBUS DP	1 x D-Sub; 9-pin	M12; 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
	2 x M12; 5-pin	M12; 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
	2 x M12; 5-pin	7/8; 5-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
PROFINET IRT	2 x M12; 4-pin	M12; 5-pin	04/06/08/10/12/14/16/18/20	40
DeviceNet	1 x M12; 5-pin	M12; 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
EtherNet/IP	2 x M12; 4-pin	M12; 5-pin	04/06/08/10/12/14/16/18/20	40
CANopen	1 x M12; 5-pin	M12; 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
IO-Link	1 x M12; 5-pin	over comm. connector	02/04/06/08/10/12/14/16/18/20	40

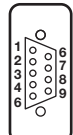
For parts and assembly instructions of Fieldbus and Industrial Ethernet components, consult our technical service.

Fieldbus protocol: PROFIBUS DP

Connector: 1 x D-Sub 9-pin / 1 x M12 4-pin



Bus connector: D-Sub 9-pin

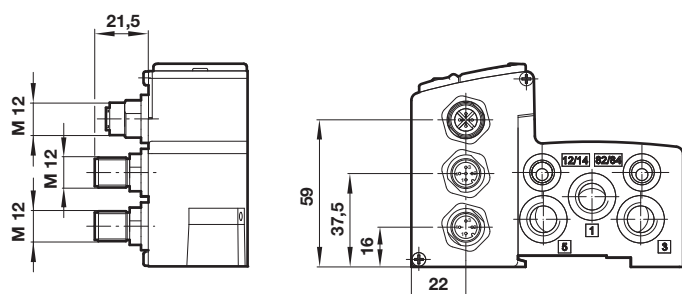
Female Bus in/out	Pin no.	Function
	1	Shield
	2	N/C
	3	B-line (red) Rx/D / Tx/D-P
	4	N/C
	5	DGND (OVI) isolated
	6	VP (5V) isolated
	7	N/C
	8	A-line (green) Rx/D / Tx/D-N
	9	N/C

Power connector: M12 4-pin A-coded

Male	Pin no.	Function	Tolerance	Max. current
	1	24 VB logic circuit supply	±25%	300 mA
	2	24 VA valves	±10%	*14)
	3	0 V	–	*15)
	4	Earth	–	–

Fieldbus protocol: PROFIBUS DP

Connector: 2 x M12 5-pin / 1 x M12 4-pin



Bus connector: M12 5-pin B-coded

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

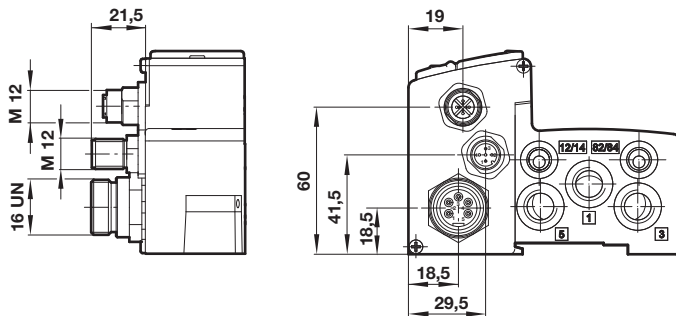
Power connector: M12 4-pin A-coded

Male	Pin no.	Function	Tolerance	Max. current
	1	24 VB logic circuit supply	±25%	300 mA
	2	24 VA valves	±10%	*14)
	3	0 V	–	*15)
	4	Earth	–	–

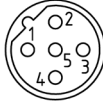
*14) $I_{max} = 10 \text{ mA} + n \cdot 60 \text{ mA}$
 n = number of energized solenoids

*15) $I_{max} = I_{VA} + I_{VB}$

Fieldbus protocol: PROFIBUS DP
Connector: 2 x M12 5-pin / 1 x 7/8 5-pin



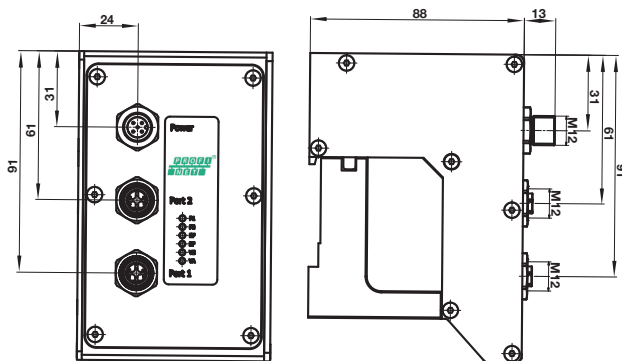
Bus connector: M12 5-pin B-coded

Male Bus in	Female Bus out	Pin no.	Function
		1	SVI isolated
		2	A-line (green)
		3	OVI isolated
		4	B-line (red)
		5	Shield
		Threaded joint	Shield

Power connector: 7/8 5-pin

Male	Pin no.	Function	Tolerance	Max. current
	1	-	-	-
	2	0 V	-	*17)
	3	Earth	-	-
	4	24 VA valves	±10%	*16)
	5	24 VB logic circuit supply	±25%	300 mA

Industrial Ethernet protocol: PROFINET IRT
Connector: 2 x M12 4-pin / 1 x M12 5-pin



Bus connector: M12 4-pin D-coded

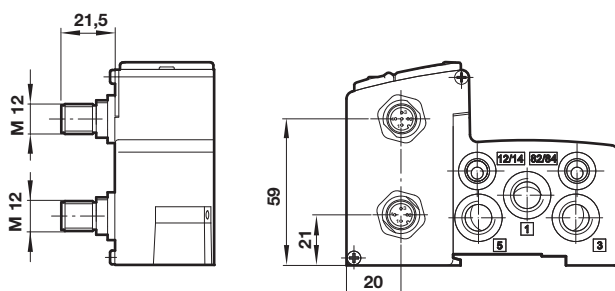
Female	Pin no.	Function
	1	Transmission data + (TD +)
	2	Receive data + (RD+)
	3	Transmission data - (TD-)
	4	Receive data - (RD-)
	Housing	FE (functional earth)

Power connector: M12 5-pin A-coded

Male	Pin no.	Function	Tolerance	Max. current
	1	L1 (VB+) 24 V electronics power supply	30%	max. 250 mA
	2	N2 (VA-) 0V valves power supply	-	-
	3	N1 (VB-) 0V electronics power supply	-	-
	4	L2 (VA+) 24 V valves power supply	10%	max. 25 mA + 70 mA x n
	5	FE (functional earth)	-	-

(n = number of switched valves)

Fieldbus protocol: DeviceNet
Connector: 1 x M12 5-pin / 1 x M12 4-pin



Bus connector: M12 5-pin A-coded

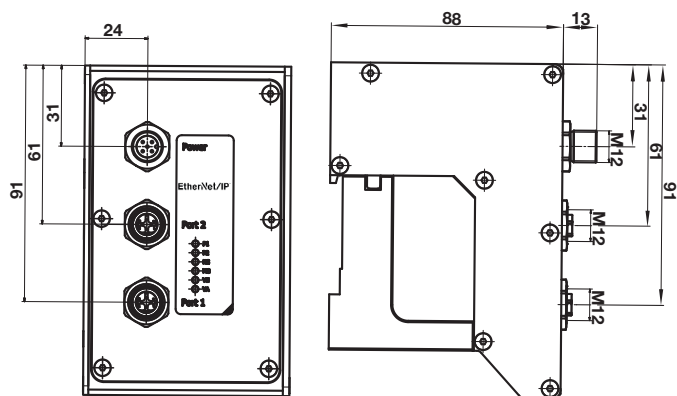
Male Bus in/out	Pin no.	Function	Tolerance	Max. current
	1	Drain	-	-
	2	V+ 24 V *22)	±25%	200mA
	3	V- 0 V *22)	-	-
	4	CAN_H	-	-
	5	CAN_L	-	-

Power connector: M12 4-pin A-coded

Male	Pin no.	Function	Tolerance	Max. current
	1	-	-	-
	2	24 VA valves	±10%	*20)
	3	0 V	-	*21)
	4	Earth	-	-

Industrial Ethernet protocol: EtherNet/IP

Connector: 2 x M12 4-pin / 1 x M12 5-pin

Bus connector: M12 4-pin D-coded

Female	Pin no.	Function
	1	Transmission data + (TD +)
	2	Receive data + (RD+)
	3	Transmission data - (TD-)
	4	Receive data - (RD-)
	Housing	FE (functional earth)

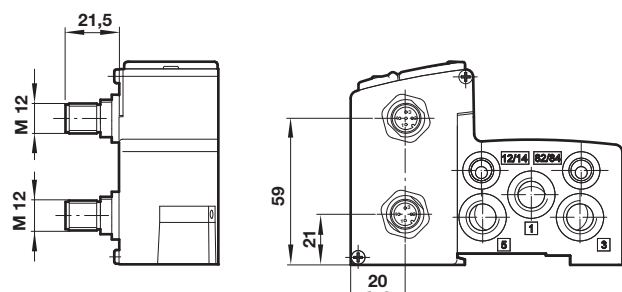
Power connector: M12 5-pin A-coded

Male	Pin no.	Function	Tolerance	Max. current
	1	L1 (VB+) 24 V electronics power supply	30%	max. 250 mA
	2	N2 (VA-) 0V valves power supply	-	-
	3	N1 (VB-) 0V electronics power supply	-	-
	4	L2 (VA+) 24 V valves power supply	10%	max. 25 mA + 70 mA x n
	5	FE (functional earth)		

(n = number of switched valves)

Fieldbus protocol: CANopen

Connector: 1 x M12 5-pin / 1 x M12 4-pin

Bus connector: M12 5-pin A-coded

Male Bus in/out	Pin no.	Function	Tolerance	Max. current
	1	Drain	-	-
	2	V+ 24 V *22)	±25%	200mA
	3	V- 0 V *22)	-	-
	4	CAN_H	-	-
	5	CAN_L	-	-

Power connector: M12 4-pin A-coded

Male	Pin no.	Function	Tolerance	Max. current
	1	-	-	-
	2	24 VA valves	±10%	*20)
	3	0 V	-	*21)
	4	Earth	-	-

*20) $I_{max} = 10 \text{ mA} + n \cdot 60 \text{ mA}$

*21) $I_{max} = I_{VA} + I_{VB}$

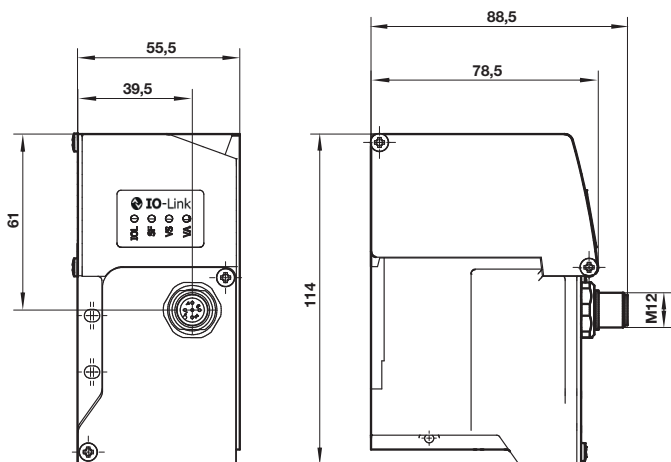
*22) Must be galvanic isolated to 24 VA valves

n = number of energized solenoids

IO-Link (Port Class B): Connector: 1 x M12 5-pin



Connector: M12 5-pin A-coded



Male	Pin no.	Function	Tolerance	Max. current
	1	L+ (VS+) 24V electronics power supply	30%	max. 250 mA
	2	2L+ (VA+) 24V valves power supply	10%	max 25 mA + 70 mA x n
	3	L- (VS-) 0V electronics power supply		
	4	C/Q IO-Link communication		
	5	2M (VA-) 0V valves power supply		

n = number of energized solenoids

Fieldbus accessories

Fieldbus power connector	Description	Connection	Cable length	Protection class	Model
	PROFIBUS DP (4-pin, female) DeviceNet (4-pin, female) CANopen (4-pin, female)	M12	Wireable	IP65	V11588-E01
	PROFIBUS DP (5-pin, female)	7/8	Wireable	IP65	VS2672907-KG00
Communication cable and connector					
	DeviceNet (5-pin, female) CANopen (5-pin, female)	M12	Wireable	IP65	V11589-E01
	PROFIBUS DP, reverse keyway (5-pin, female)	M12	Wireable	IP65	V11590-E01
	PROFIBUS DP, reverse keyway (5-pin, male)	M12	Wireable	IP65	V11591-E01
	PROFIBUS DP connector (9-pin, male) with terminating resistor	D-Sub	Wireable	IP40	V11654-E01
	PROFIBUS DP terminating resistor (male)	M12	-	IP65	V11592-E01

Industrial Ethernet accessories

Industrial Ethernet power connector	Description	Connection	Cable length	Protection class	Model
	Industrial Ethernet power connector (5-pin, female)	M12	Wireable	IP65	V11589-E01

Industrial Ethernet - Cable and Connectors

Bus cable: 4-pin D-coded M12 - M12 		Bus cable: 4-pin D-coded M12 - flying lead 		Bus connector RJ45 Wireable 		Power cable: 5-pin A-coded M12 - flying lead 	
Model	Cable length (m)	Model	Cable length (m)	NC-RJ450-0000000		Model	Cable length (m)
NC-124MS-1244SGA	0,5	NC-124MS-00000G2	2,0			NC-125FS-00000-5	5,0
NC-124MS-1244SG2	2,0	NC-124MS-00000G5	5,0				
NC-124MS-1244SG5	5,0						

IO-Link - Cables

Cable 5-pin A-code M12 - M12 		Cable 5-pin A-code M12 - flying lead 	
Model	Cable length (m)	Model	Cable length (m)
NC-084FS-124MS-A	0,6	NC-084FS-00000-5	5,0
NC-084FS-124MS-1	1,0		
NC-084FS-124MS-2	2,0		
NC-084FS-124MS-5	5,0		

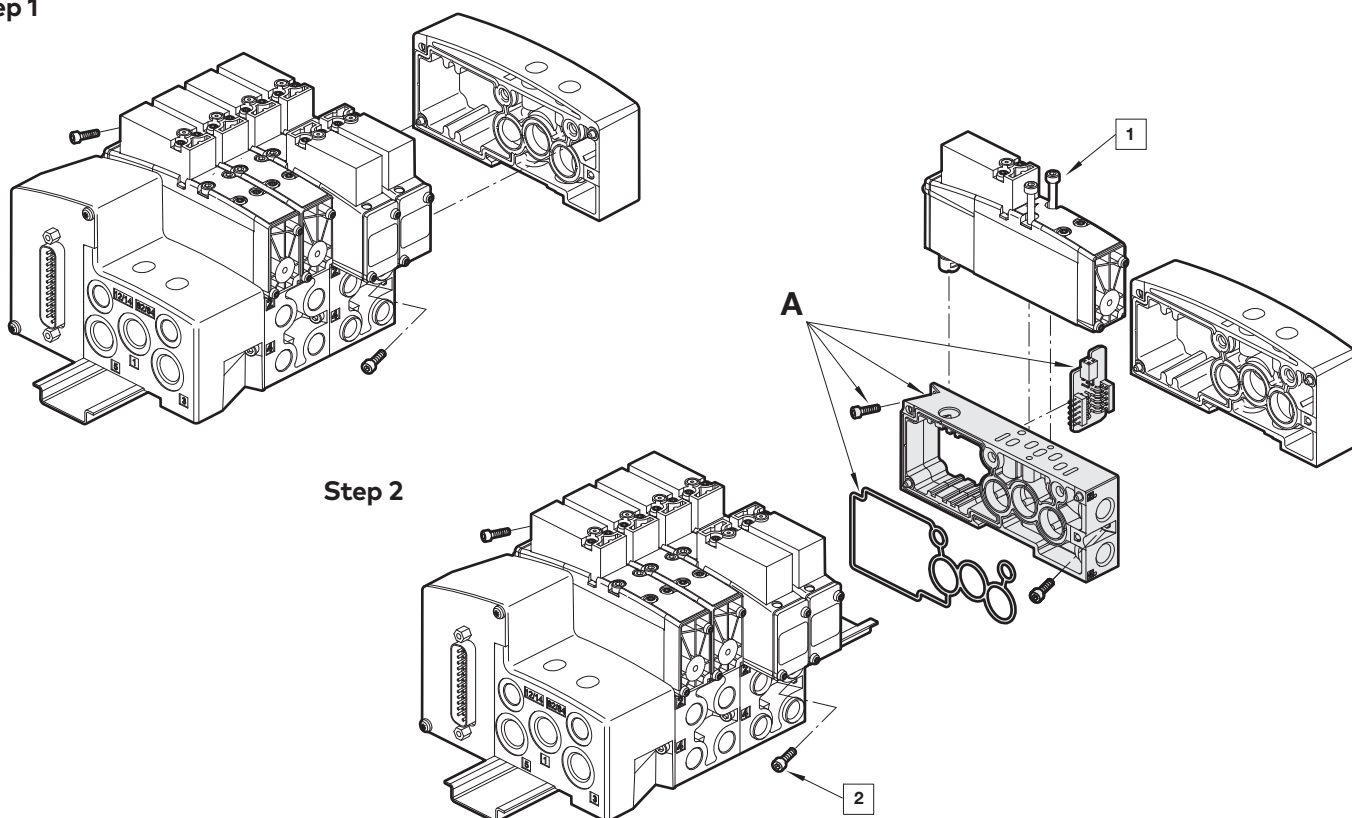
Multipole and Fieldbus component parts

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

Ports 2 & 4	Description	Model
G1/8	Add-on station for D-Sub connectors and Fieldbus	VS1872004-AFF0
NPTF 1/8	Add-on station for D-Sub connectors and Fieldbus	VS1872004-PFF0
PIF6 mm	Add-on station for D-Sub connectors and Fieldbus	VS1872004-6FF0
PIF8 mm	Add-on station for D-Sub connectors and Fieldbus	VS1872004-8FF0
PIF1/4	Add-on station for D-Sub connectors and Fieldbus	VS1872004-1FF0
G1/8	Add-on station for Conduit entry and M23 connector	VS1872005-AFF0
NPTF 1/8	Add-on station for Conduit entry and M23 connector	VS1872005-PFF0
PIF6 mm	Add-on station for Conduit entry and M23 connector	VS1872005-6FF0
PIF8 mm	Add-on station for Conduit entry and M23 connector	VS1872005-8FF0
PIF1/4	Add-on station for Conduit entry and M23 connector	VS1872005-1FF0

Valves and accessories to be ordered separately, see pages 2 ... 8

Step 1



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

2 Torque = 0,8 ... 0,9 Nm
Screwdriver speed = max. 1100 r.p.m

For detailed assembly instructions, please see maintenance & instruction booklet

Multipole and Fieldbus component parts

End plate kits, sub-bases (without PCB's) including screws and gaskets

A-End plate kit

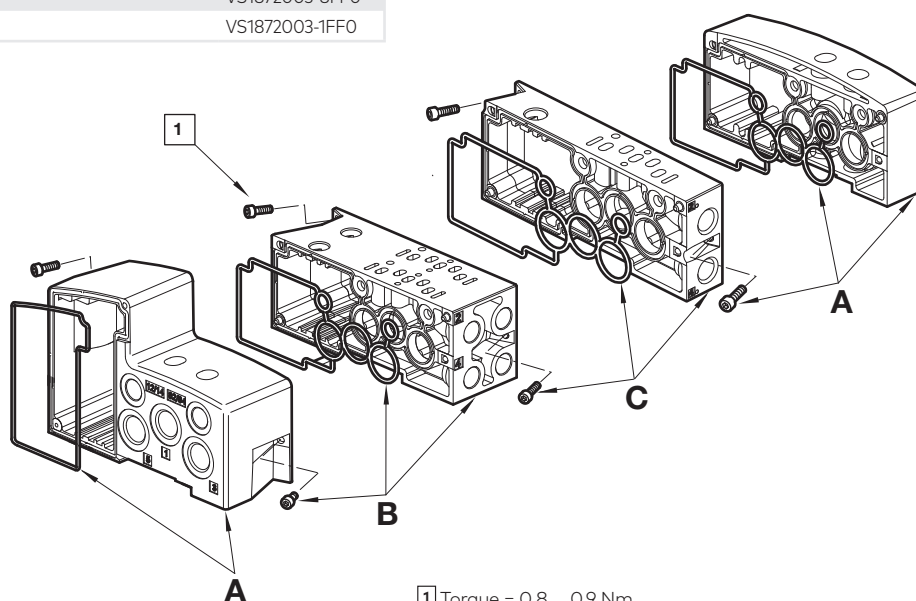
Description	Ports 1, 3 + 5	Ports 12/14 + 82/84	Model
End plate kit for Multipole	G1/4	G1/8	VS1872000-BFCO
End plate kit for Multipole	NPTF1/4	NPTF 1/8	VS1872000-RFCO
End plate kit for Fieldbus	G1/4	G1/8	VS1872001-BFCO
End plate kit for Fieldbus	NPTF1/4	NPTF 1/8	VS1872001-RFCO

B-Double station modular sub-base

Ports 2 + 4	Model
G1/8	VS1872002-AFFO
NPTF 1/8	VS1872002-PFFO
PIF6 mm	VS1872002-6FFO
PIF8 mm	VS1872002-8FFO
PIF1/4	VS1872002-1FFO

C-Single station modular sub-base

Ports 2 + 4	Model
G1/8	VS1872003-AFFO
NPTF 1/8	VS1872003-PFFO
PIF6 mm	VS1872003-6FFO
PIF8 mm	VS1872003-8FFO
PIF1/4	VS1872003-1FFO



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

Note: Never plug port 82/84. Plugging this port will cause valves to malfunction.
For detailed assembly instructions, please see maintenance & instruction booklet.

Spare parts

Quantity per slice	Description	Model
2	Hexagon socket screw M3 x 10	77.31055
1	Gasket	94.01015
1	Connector-kit gasket on end plate	94.00816

Multipole component parts

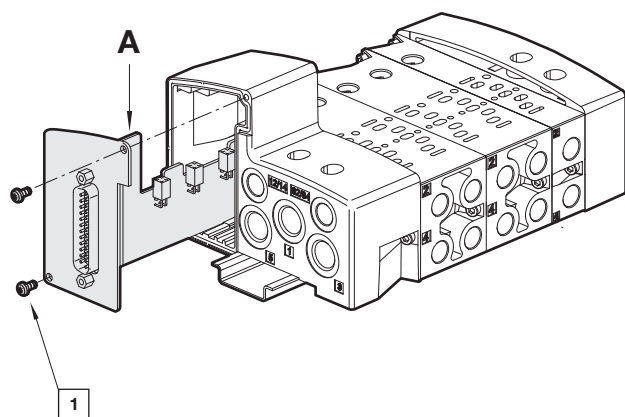
A-Output boards with D-Sub connectors

Connector type	Description	Expandable to max. x no. of stations	Voltage	Model
D-Sub 9-pin	Multipole PCB 2 stations	4	24 V d.c.	VS1872217-KF00
D-Sub 15-pin	Multipole PCB 2 stations	6	24 V d.c.	VS1872218-KF00
D-Sub 15-pin	Multipole PCB 4 stations	7	24 V d.c.	VS1872205-KF00
D-Sub 25-pin	Multipole PCB 2 stations	6	24 V d.c.	VS1872219-KF00
D-Sub 25-pin	Multipole PCB 4 stations	8	24 V d.c.	VS1872200-KF00
D-Sub 25-pin	Multipole PCB 6 stations	10	24 V d.c.	VS1872201-KF00
D-Sub 25-pin	Multipole PCB 8 stations	12	24 V d.c.	VS1872202-KF00
D-Sub 44-pin	Multipole PCB 8 stations	12	24 V d.c.	VS1872203-KF00
D-Sub 44-pin	Multipole PCB 10 stations	14	24 V d.c.	VS1872206-KF00
D-Sub 44-pin	Multipole PCB 12 stations	16	24 V d.c.	VS1872204-KF00
D-Sub 44-pin	Multipole PCB 16 stations	20	24 V d.c.	VS1872207-KF00

Valves and accessories to be ordered separately, see pages 2 ... 8

Expansion output boards for D-Sub connectors

Description	Voltage	Model
Multipole PCB 1 station	24 V d.c.	VS1872255-KF00
Multipole PCB 2 stations	24 V d.c.	VS1872213-KF00



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

For detailed assembly instructions, please see maintenance & instruction booklet

Multipole and conduit entry component parts including screws and gaskets

A-End plate kit

Description	Voltage	Model
E-Connector-kit NPTF1 Conduit entry	115 V a.c., 24 V d.c.	VS2672742-KG00

Expansion output boards for conduit entry and M23 connector

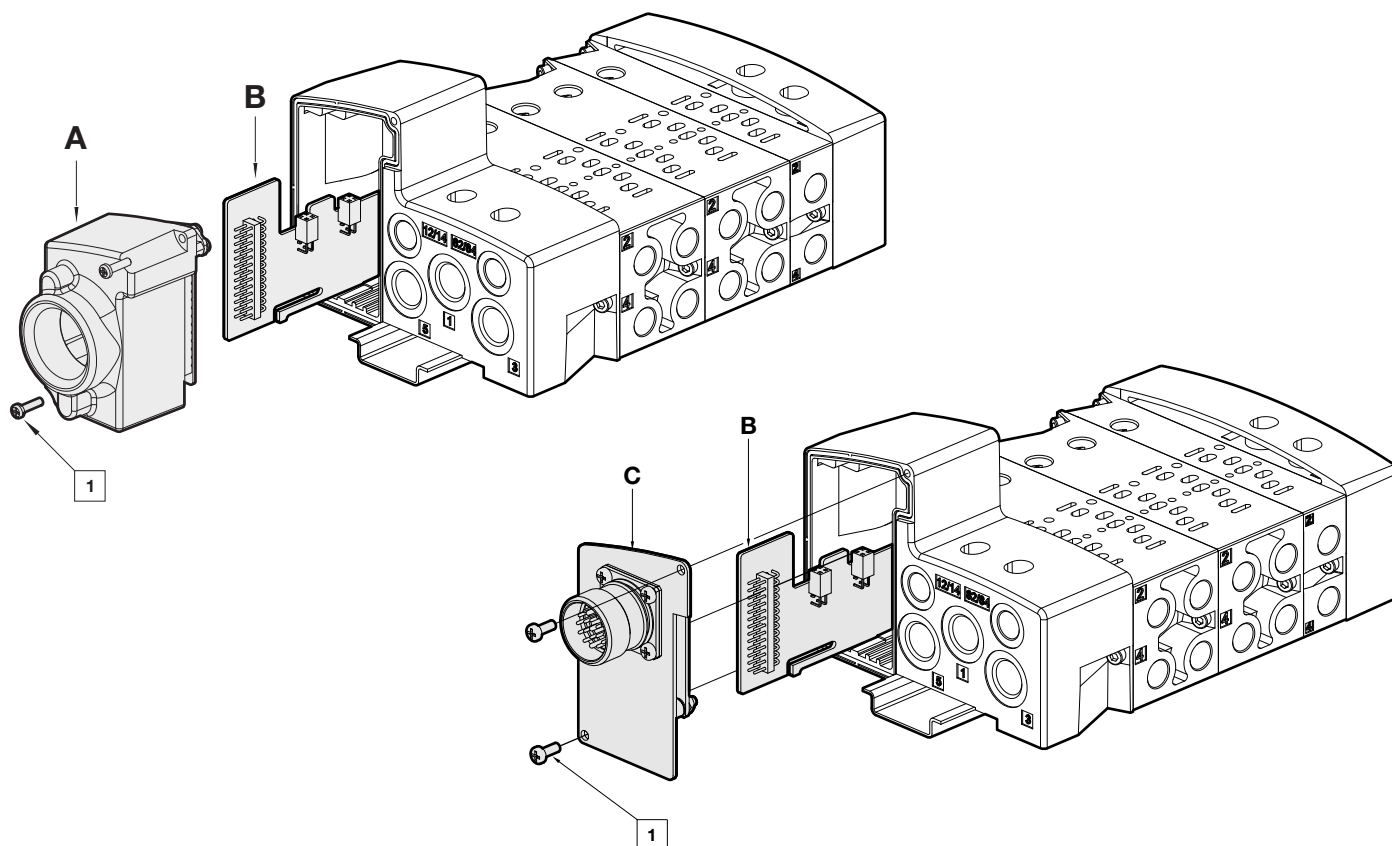
Description	Voltage	Model
Multipole PCB 1 station	115 V a.c., 24 V d.c.	VS1872256-KF00
Multipole PCB 2 stations	115 V a.c., 24 V d.c.	VS1872215-KF00

B-Output boards for conduit entry and M23 connector

Description	Expandable to max. x no. of stations	Voltage	Model
Multipole PCB 2 stations	6	115 V a.c., 24 V d.c.	VS1872208-KF00
Multipole PCB 4 stations	8	115 V a.c., 24 V d.c.	VS1872209-KF00
Multipole PCB 6 stations	10	115 V a.c., 24 V d.c.	VS1872210-KF00
Multipole PCB 8 stations	12	115 V a.c., 24 V d.c.	VS1872211-KF00

C-Connector-kit for M23 connector

Description	Voltage	Model
E-Connector-kit M23 connector 19-pin	115 V a.c., 24 V d.c.	VS2672743-KG00



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

For detailed assembly instructions, please see maintenance & instruction booklet

Industrial Ethernet and IO-Link expansion

A–Two station PCB

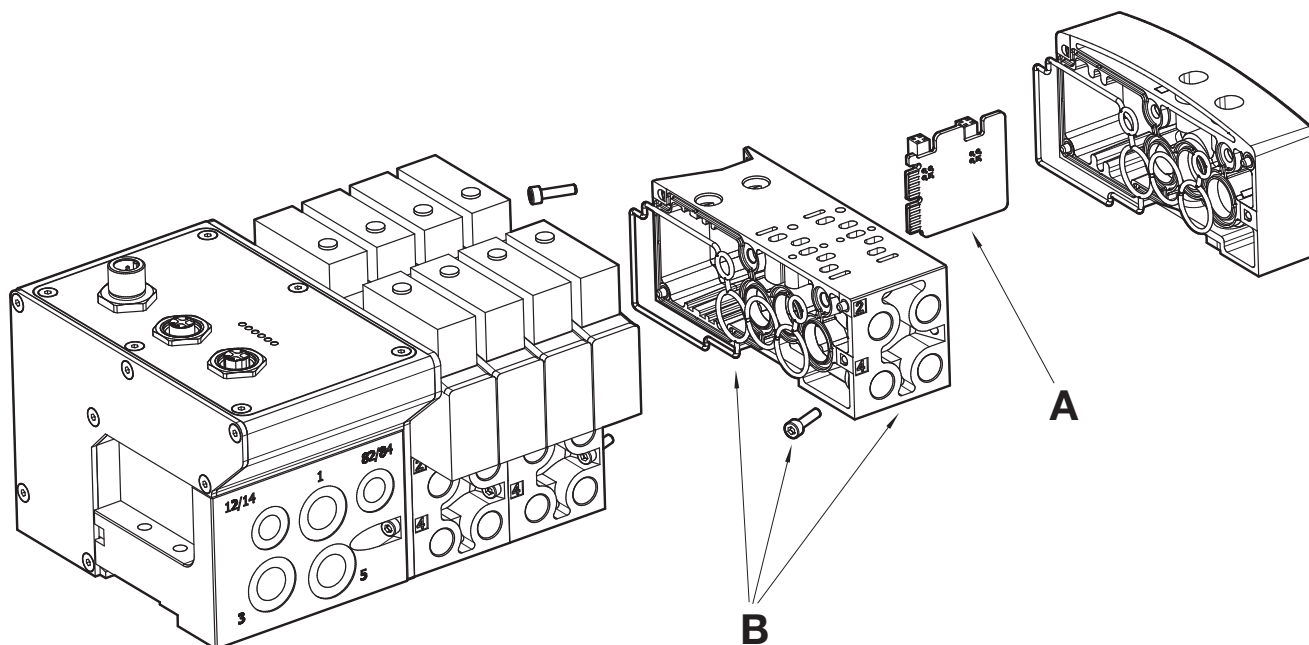
Description	Model
Double station end- and extension PCB	VS1872264-KF00

B–Double station modular sub-base

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

Additionally available PCBs

Description	Model
Four station end- and extension PCB	VS1872262-KF00
Single station blank PCB (no valve connections)	VS1872263-KF00



Part numbering for complete valve islands

VS18★★★★00-★★★★

Number of stations*	Substitute
1 stations	01
2 stations	02
3 stations	03
4 stations	04
5 stations	05
6 stations	06
7 stations	07
8 stations	08
9 stations	09
10 stations	10
11 stations	11
12 stations	12
13 stations	13
14 stations	14
15 stations	15
16 stations	16
17 stations	17
18 stations	18
19 stations	19
20 stations	20
Electrical connection	Substitute
Single Station	SS
Multipole D-Sub 9 pin	M9
Multipole D-Sub 15 pin	M1
Multipole D-Sub 25 pin	M2
Multipole M23 19 pin	M3
Multipole D-Sub 44 pin	M4
Conduit NPT	CD
PROFIBUS DP	PB
PROFINET IRT	PN
DeviceNet	DN
EtherNet/IP	EP
CANopen	CO
IO-Link	IL

To be defined by online Valve Island configurator based on valve slice selection

To configure and order a valve island visit - https://www.norgren.com/uk/en/vic_landing.aspx

* Multipole: 2 to 20 stations
 Fieldbus: 2 to 16 stations
 Industrial Ethernet: 4 to 20 stations
 IO-Link: 2 to 20 stations

Descriptions and short codes for valve slices used in the Valve Island configurator

Function 2 x 2/2 softseal	Actuation / return	Pilot supply	Manual override	Voltage	Short code	Model	ATEX Short code	ATEX Model
NC	Sol/Spring	Internal	Push only	24 V d.c. 1,2 W	STU	VS18SE11DF313A	XTU	VS18SE11DF313E
NC	Sol/Spring	Internal	Push only	115 V a.c. 1,5 VA	TTU	VS18SE11DF318A	-	-
NC	Sol/Spring	Internal	Push & turn	24 V d.c. 1,2 W	STT	VS18SE11DF213A	XTT	VS18SE11DF213E
NC	Sol/Spring	Internal	Push & turn	115 V a.c. 1,5 VA	TTT	VS18SE11DF218A	-	-
NC	Sol/Spring	Internal	Extended, Push only	24 V d.c. 1,2 W	STE	VS18SE11DF513A	XTE	VS18SE11DF513E
NC	Sol/Spring	Internal	Extended, Push only	115 V a.c. 1,5 VA	TTE	VS18SE11DF518A	-	-
NC	Sol/Spring	External	Push only	24 V d.c. 1,2 W	SWU	VS18SE22DF313A	XWU	VS18SE22DF313E
NC	Sol/Spring	External	Push only	115 V a.c. 1,5 VA	TWU	VS18SE22DF318A	-	-
NC	Sol/Spring	External	Push & turn	24 V d.c. 1,2 W	SWT	VS18SE22DF213A	XWT	VS18SE22DF213E
NC	Sol/Spring	External	Push & turn	115 V a.c. 1,5 VA	TWT	VS18SE22DF218A	-	-
NC	Sol/Spring	External	Extended, Push only	24 V d.c. 1,2 W	SWE	VS18SE22DF513A	XWE	VS18SE22DF513E
NC	Sol/Spring	External	Extended, Push only	115 V a.c. 1,5 VA	TWE	VS18SE22DF518A	-	-
NO	Sol/Spring	Internal	Push only	24 V d.c. 1,2 W	SUU	VS18SF11DF313A	XUU	VS18SF11DF313E
NO	Sol/Spring	Internal	Push only	115 V a.c. 1,5 VA	TUU	VS18SF11DF318A	-	-
NO	Sol/Spring	Internal	Push & turn	24 V d.c. 1,2 W	SUT	VS18SF11DF213A	XUT	VS18SF11DF213E
NO	Sol/Spring	Internal	Push & turn	115 V a.c. 1,5 VA	TUT	VS18SF11DF218A	-	-
NO	Sol/Spring	Internal	Extended, Push only	24 V d.c. 1,2 W	SUE	VS18SF11DF513A	XUE	VS18SF11DF513E
NO	Sol/Spring	Internal	Extended, Push only	115 V a.c. 1,5 VA	TUE	VS18SF11DF518A	-	-
NO	Sol/Spring	External	Push only	24 V d.c. 1,2 W	SXU	VS18SF22DF313A	XXU	VS18SF22DF313E
NO	Sol/Spring	External	Push only	115 V a.c. 1,5 VA	TXU	VS18SF22DF318A	-	-
NO	Sol/Spring	External	Push & turn	24 V d.c. 1,2 W	SXT	VS18SF22DF213A	XXT	VS18SF22DF213E
NO	Sol/Spring	External	Push & turn	115 V a.c. 1,5 VA	TXT	VS18SF22DF218A	-	-
NO	Sol/Spring	External	Extended, Push only	24 V d.c. 1,2 W	SXE	VS18SF22DF513A	XXE	VS18SF22DF513E
NO	Sol/Spring	External	Extended, Push only	115 V a.c. 1,5 VA	TXE	VS18SF22DF518A	-	-
NO/NC	Sol/Spring	Internal	Push only	24 V d.c. 1,2 W	SVU	VS18SG11DF313A	XVU	VS18SG11DF313E
NO/NC	Sol/Spring	Internal	Push only	115 V a.c. 1,5 VA	TVU	VS18SG11DF318A	-	-
NO/NC	Sol/Spring	Internal	Push & turn	24 V d.c. 1,2 W	SVT	VS18SG11DF213A	XVT	VS18SG11DF213E
NO/NC	Sol/Spring	Internal	Push & turn	115 V a.c. 1,5 VA	TVT	VS18SG11DF218A	-	-
NO/NC	Sol/Spring	Internal	Extended, Push only	24 V d.c. 1,2 W	SVE	VS18SG11DF513A	XVE	VS18SG11DF513E
NO/NC	Sol/Spring	Internal	Extended, Push only	115 V a.c. 1,5 VA	TVE	VS18SG11DF518A	-	-
NO/NC	Sol/Spring	External	Push only	24 V d.c. 1,2 W	SYU	VS18SG22DF313A	XYU	VS18SG22DF313E
NO/NC	Sol/Spring	External	Push only	115 V a.c. 1,5 VA	TYU	VS18SG22DF318A	-	-
NO/NC	Sol/Spring	External	Push & turn	24 V d.c. 1,2 W	SYT	VS18SG22DF213A	XYT	VS18SG22DF213E
NO/NC	Sol/Spring	External	Push & turn	115 V a.c. 1,5 VA	TYT	VS18SG22DF218A	-	-
NO/NC	Sol/Spring	External	Extended, Push only	24 V d.c. 1,2 W	SYE	VS18SG22DF513A	XYE	VS18SG22DF513E
NO/NC	Sol/Spring	External	Extended, Push only	115 V a.c. 1,5 VA	TYE	VS18SG22DF518A	-	-

Function 2 x 3/2 softseal	Actuation / return	Pilot supply	Manual override	Voltage	Short code	Model	ATEX Short code	ATEX Model
NC	Sol/Spring	Internal	Push only	24 V d.c. 1,2 W	SAU	VS18SA11DF313A	XAU	VS18SA11DF313E
NC	Sol/Spring	Internal	Push only	115 V a.c. 1,5 VA	TAU	VS18SA11DF318A	-	-
NC	Sol/Spring	Internal	Push & turn	24 V d.c. 1,2 W	SAT	VS18SA11DF213A	XAT	VS18SA11DF213E
NC	Sol/Spring	Internal	Push & turn	115 V a.c. 1,5 VA	TAT	VS18SA11DF218A	-	-
NC	Sol/Spring	Internal	Extended, Push only	24 V d.c. 1,2 W	SAE	VS18SA11DF513A	XAE	VS18SA11DF513E
NC	Sol/Spring	Internal	Extended, Push only	115 V a.c. 1,5 VA	TAE	VS18SA11DF518A	-	-
NC	Sol/Spring	External	Push only	24 V d.c. 1,2 W	SDU	VS18SA22DF313A	XDU	VS18SA22DF313E
NC	Sol/Spring	External	Push only	115 V a.c. 1,5 VA	TDU	VS18SA22DF318A	-	-
NC	Sol/Spring	External	Push & turn	24 V d.c. 1,2 W	SDT	VS18SA22DF213A	XDT	VS18SA22DF213E
NC	Sol/Spring	External	Push & turn	115 V a.c. 1,5 VA	TDT	VS18SA22DF218A	-	-
NC	Sol/Spring	External	Extended, Push only	24 V d.c. 1,2 W	SDE	VS18SA22DF513A	XDE	VS18SA22DF513E
NC	Sol/Spring	External	Extended, Push only	115 V a.c. 1,5 VA	TDE	VS18SA22DF518A	-	-
NO	Sol/Spring	Internal	Push only	24 V d.c. 1,2 W	SBU	VS18SB11DF313A	XBU	VS18SB11DF313E
NO	Sol/Spring	Internal	Push only	115 V a.c. 1,5 VA	TBU	VS18SB11DF318A	-	-
NO	Sol/Spring	Internal	Push & turn	24 V d.c. 1,2 W	SBT	VS18SB11DF213A	XBT	VS18SB11DF213E
NO	Sol/Spring	Internal	Push & turn	115 V a.c. 1,5 VA	TBT	VS18SB11DF218A	-	-
NO	Sol/Spring	Internal	Extended, Push only	24 V d.c. 1,2 W	SBE	VS18SB11DF513A	XBE	VS18SB11DF513E
NO	Sol/Spring	Internal	Extended, Push only	115 V a.c. 1,5 VA	TBE	VS18SB11DF518A	-	-
NO	Sol/Spring	External	Push only	24 V d.c. 1,2 W	SEU	VS18SB22DF313A	XEU	VS18SB22DF313E
NO	Sol/Spring	External	Push only	115 V a.c. 1,5 VA	TEU	VS18SB22DF318A	-	-
NO	Sol/Spring	External	Push & turn	24 V d.c. 1,2 W	SET	VS18SB22DF213A	XET	VS18SB22DF213E
NO	Sol/Spring	External	Push & turn	115 V a.c. 1,5 VA	TET	VS18SB22DF218A	-	-
NO	Sol/Spring	External	Extended, Push only	24 V d.c. 1,2 W	SEE	VS18SB22DF513A	XEE	VS18SB22DF513E
NO	Sol/Spring	External	Extended, Push only	115 V a.c. 1,5 VA	TEE	VS18SB22DF518A	-	-
NO/NC	Sol/Spring	Internal	Push only	24 V d.c. 1,2 W	SCU	VS18SC11DF313A	XCU	VS18SC11DF313E
NO/NC	Sol/Spring	Internal	Push only	115 V a.c. 1,5 VA	TCU	VS18SC11DF318A	-	-
NO/NC	Sol/Spring	Internal	Push & turn	24 V d.c. 1,2 W	SCT	VS18SC11DF213A	XCT	VS18SC11DF213E
NO/NC	Sol/Spring	Internal	Push & turn	115 V a.c. 1,5 VA	TCT	VS18SC11DF218A	-	-
NO/NC	Sol/Spring	Internal	Extended, Push only	24 V d.c. 1,2 W	SCE	VS18SC11DF513A	XCE	VS18SC11DF513E
NO/NC	Sol/Spring	Internal	Extended, Push only	115 V a.c. 1,5 VA	TCE	VS18SC11DF518A	-	-
NO/NC	Sol/Spring	External	Push only	24 V d.c. 1,2 W	SFU	VS18SC22DF313A	XFU	VS18SC22DF313E
NO/NC	Sol/Spring	External	Push only	115 V a.c. 1,5 VA	TFU	VS18SC22DF318A	-	-
NO/NC	Sol/Spring	External	Push & turn	24 V d.c. 1,2 W	SFT	VS18SC22DF213A	XFT	VS18SC22DF213E
NO/NC	Sol/Spring	External	Push & turn	115 V a.c. 1,5 VA	TFT	VS18SC22DF218A	-	-
NO/NC	Sol/Spring	External	Extended, Push only	24 V d.c. 1,2 W	SFE	VS18SC22DF513A	XFE	VS18SC22DF513E
NO/NC	Sol/Spring	External	Extended, Push only	115 V a.c. 1,5 VA	TFE	VS18SC22DF518A	-	-

Function 5/2 softseal	Actuation / return	Pilot supply	Manual override	Voltage	Short code	Model	ATEX Short code	ATEX Model
BI	Sol/Sol	Internal	Push only	24 V d.c. 1,2 W	SJU	VS18S511DF313A	XJU	VS18S511DF313E
BI	Sol/Sol	Internal	Push only	115 V a.c. 1,5 VA	TJU	VS18S511DF318A	-	-
BI	Sol/Sol	Internal	Push & turn	24 V d.c. 1,2 W	SJT	VS18S511DF213A	XJT	VS18S511DF213E
BI	Sol/Sol	Internal	Push & turn	115 V a.c. 1,5 VA	TJT	VS18S511DF218A	-	-
BI	Sol/Sol	Internal	Extended, Push only	24 V d.c. 1,2 W	SJE	VS18S511DF513A	XJE	VS18S511DF513E
BI	Sol/Sol	Internal	Extended, Push only	115 V a.c. 1,5 VA	TJE	VS18S511DF518A	-	-
BI	Sol/Sol	External	Push only	24 V d.c. 1,2 W	SKU	VS18S522DF313A	XKU	VS18S522DF313E
BI	Sol/Sol	External	Push only	115 V a.c. 1,5 VA	TKU	VS18S522DF318A	-	-
BI	Sol/Sol	External	Push & turn	24 V d.c. 1,2 W	SKT	VS18S522DF213A	XKT	VS18S522DF213E
BI	Sol/Sol	External	Push & turn	115 V a.c. 1,5 VA	TKT	VS18S522DF218A	-	-
BI	Sol/Sol	External	Extended, Push only	24 V d.c. 1,2 W	SKE	VS18S522DF513A	XKE	VS18S522DF513E
BI	Sol/Sol	External	Extended, Push only	115 V a.c. 1,5 VA	TKE	VS18S522DF518A	-	-
MO	Sol/Spring	Internal	Push only	24 V d.c. 1,2 W	SGU	VS18S517DF313A	XGU	VS18S517DF313E
MO	Sol/Spring	Internal	Push only	115 V a.c. 1,5 VA	TGU	VS18S517DF318A	-	-
MO	Sol/Spring	Internal	Push & turn	24 V d.c. 1,2 W	SGT	VS18S517DF213A	XGT	VS18S517DF213E
MO	Sol/Spring	Internal	Push & turn	115 V a.c. 1,5 VA	TGT	VS18S517DF218A	-	-
MO	Sol/Spring	Internal	Extended, Push only	24 V d.c. 1,2 W	SGE	VS18S517DF513A	XGE	VS18S517DF513E
MO	Sol/Spring	Internal	Extended, Push only	115 V a.c. 1,5 VA	TGE	VS18S517DF518A	-	-
MO	Sol/Spring	External	Push only	24 V d.c. 1,2 W	SHU	VS18S527DF313A	XHU	VS18S527DF313E
MO	Sol/Spring	External	Push only	115 V a.c. 1,5 VA	THU	VS18S527DF318A	-	-
MO	Sol/Spring	External	Push & turn	24 V d.c. 1,2 W	SHT	VS18S527DF213A	XHT	VS18S527DF213E
MO	Sol/Spring	External	Push & turn	115 V a.c. 1,5 VA	THT	VS18S527DF218A	-	-
MO	Sol/Spring	External	Extended, Push only	24 V d.c. 1,2 W	SHE	VS18S527DF513A	XHE	VS18S527DF513E
MO	Sol/Spring	External	Extended, Push only	115 V a.c. 1,5 VA	THE	VS18S527DF518A	-	-
Function 5/2 glandless	Actuation / return	Pilot supply	Manual override	Voltage	Short code	Model	ATEX Short code	ATEX Model
BI	Sol/Sol	Internal	Push only	24 V d.c. 1,2 W	GJU	VS18G511DF313A	LJU	VS18G511DF313E
BI	Sol/Sol	Internal	Push only	115 V a.c. 1,5 VA	HJU	VS18G511DF318A	-	-
BI	Sol/Sol	Internal	Push & turn	24 V d.c. 1,2 W	GJT	VS18G511DF213A	LJT	VS18G511DF213E
BI	Sol/Sol	Internal	Push & turn	115 V a.c. 1,5 VA	HJT	VS18G511DF218A	-	-
BI	Sol/Sol	Internal	Extended, Push only	24 V d.c. 1,2 W	GJE	VS18G511DF513A	LJE	VS18G511DF513E
BI	Sol/Sol	Internal	Extended, Push only	115 V a.c. 1,5 VA	HJE	VS18G511DF518A	-	-
BI	Sol/Sol	External	Push only	24 V d.c. 1,2 W	GKU	VS18G522DF313A	LKU	VS18G522DF313E
BI	Sol/Sol	External	Push only	115 V a.c. 1,5 VA	HKU	VS18G522DF318A	-	-
BI	Sol/Sol	External	Push & turn	24 V d.c. 1,2 W	GKT	VS18G522DF213A	LKT	VS18G522DF213E
BI	Sol/Sol	External	Push & turn	115 V a.c. 1,5 VA	HKT	VS18G522DF218A	-	-
BI	Sol/Sol	External	Extended, Push only	24 V d.c. 1,2 W	GKE	VS18G522DF513A	LKE	VS18G522DF513E
BI	Sol/Sol	External	Extended, Push only	115 V a.c. 1,5 VA	HKE	VS18G522DF518A	-	-
BI	Sol(Priority)/Sol	Internal	Push only	24 V d.c. 1,2 W	GSU	VS18G591DF313A	LSU	VS18G591DF313E
BI	Sol(Priority)/Sol	Internal	Push only	115 V a.c. 1,5 VA	HSU	VS18G591DF318A	-	-
BI	Sol(Priority)/Sol	Internal	Push & turn	24 V d.c. 1,2 W	GST	VS18G591DF213A	LST	VS18G591DF213E
BI	Sol(Priority)/Sol	Internal	Push & turn	115 V a.c. 1,5 VA	HST	VS18G591DF218A	-	-
BI	Sol(Priority)/Sol	Internal	Extended, Push only	24 V d.c. 1,2 W	GSE	VS18G591DF513A	LSE	VS18G591DF513E
BI	Sol(Priority)/Sol	Internal	Extended, Push only	115 V a.c. 1,5 VA	HSE	VS18G591DF518A	-	-
BI	Sol(Priority)/Sol	External	Push only	24 V d.c. 1,2 W	GTU	VS18G592DF313A	LTU	VS18G592DF313E
BI	Sol(Priority)/Sol	External	Push only	115 V a.c. 1,5 VA	HTU	VS18G592DF318A	-	-
BI	Sol(Priority)/Sol	External	Push & turn	24 V d.c. 1,2 W	GTT	VS18G592DF213A	LTT	VS18G592DF213E
BI	Sol(Priority)/Sol	External	Push & turn	115 V a.c. 1,5 VA	HTT	VS18G592DF218A	-	-
BI	Sol(Priority)/Sol	External	Extended, Push only	24 V d.c. 1,2 W	GTE	VS18G592DF513A	LTE	VS18G592DF513E
BI	Sol(Priority)/Sol	External	Extended, Push only	115 V a.c. 1,5 VA	HTE	VS18G592DF518A	-	-
MO	Sol/Spring	Internal	Push only	24 V d.c. 1,2 W	GGU	VS18G517DF313A	LGU	VS18G517DF313E
MO	Sol/Spring	Internal	Push only	115 V a.c. 1,5 VA	HGU	VS18G517DF318A	-	-
MO	Sol/Spring	Internal	Push & turn	24 V d.c. 1,2 W	GGT	VS18G517DF213A	LGT	VS18G517DF213E
MO	Sol/Spring	Internal	Push & turn	115 V a.c. 1,5 VA	HGT	VS18G517DF218A	-	-
MO	Sol/Spring	Internal	Extended, Push only	24 V d.c. 1,2 W	GGE	VS18G517DF513A	LGE	VS18G517DF513E
MO	Sol/Spring	Internal	Extended, Push only	115 V a.c. 1,5 VA	HGE	VS18G517DF518A	-	-
MO	Sol/Spring	External	Push only	24 V d.c. 1,2 W	GHU	VS18G527DF313A	LHU	VS18G527DF313E
MO	Sol/Spring	External	Push only	115 V a.c. 1,5 VA	HHU	VS18G527DF318A	-	-
MO	Sol/Spring	External	Push & turn	24 V d.c. 1,2 W	GHT	VS18G527DF213A	LHT	VS18G527DF213E
MO	Sol/Spring	External	Push & turn	115 V a.c. 1,5 VA	HHT	VS18G527DF218A	-	-
MO	Sol/Spring	External	Extended, Push only	24 V d.c. 1,2 W	GHE	VS18G527DF513A	LHE	VS18G527DF513E
MO	Sol/Spring	External	Extended, Push only	115 V a.c. 1,5 VA	HHE	VS18G527DF518A	-	-

Function 5/3 softseal	Actuation/ return	Pilot supply	Manual override	Voltage	Short code	Model	ATEX Short code	ATEX Model
APB	Sol/Sol	Internal	Push only	24 V d.c. 1,2 W	SLU	VS18S611DF313A	XLU	VS18S611DF313E
APB	Sol/Sol	Internal	Push only	115 V a.c. 1,5 VA	TLU	VS18S611DF318A	-	-
APB	Sol/Sol	Internal	Push & turn	24 V d.c. 1,2 W	SLT	VS18S611DF213A	XLT	VS18S611DF213E
APB	Sol/Sol	Internal	Push & turn	115 V a.c. 1,5 VA	TLT	VS18S611DF218A	-	-
APB	Sol/Sol	Internal	Extended, Push only	24 V d.c. 1,2 W	SLE	VS18S611DF513A	XLE	VS18S611DF513E
APB	Sol/Sol	Internal	Extended, Push only	115 V a.c. 1,5 VA	TLE	VS18S611DF518A	-	-
APB	Sol/Sol	External	Push only	24 V d.c. 1,2 W	SMU	VS18S622DF313A	XMU	VS18S622DF313E
APB	Sol/Sol	External	Push only	115 V a.c. 1,5 VA	TMU	VS18S622DF318A	-	-
APB	Sol/Sol	External	Push & turn	24 V c.c. 1,2 W	SMT	VS18S622DF213A	XMT	VS18S622DF213E
APB	Sol/Sol	External	Push & turn	115 V a.c. 1,5 VA	TMT	VS18S622DF218A	-	-
APB	Sol/Sol	External	Extended, Push only	24 V d.c. 1,2 W	SME	VS18S622DF513A	XME	VS18S622DF513E
APB	Sol/Sol	External	Extended, Push only	115 V a.c. 1,5 VA	TME	VS18S622DF518A	-	-
COE	Sol/Sol	Internal	Push only	24 V d.c. 1,2 W	SQU	VS18S711DF313A	XQU	VS18S711DF313E
COE	Sol/Sol	Internal	Push only	115 V a.c. 1,5 VA	TQU	VS18S711DF318A	-	-
COE	Sol/Sol	Internal	Push & turn	24 V d.c. 1,2 W	SQT	VS18S711DF213A	XQT	VS18S711DF213E
COE	Sol/Sol	Internal	Push & turn	115 V a.c. 1,5 VA	TQT	VS18S711DF218A	-	-
COE	Sol/Sol	Internal	Extended, Push only	24 V d.c. 1,2 W	SQE	VS18S711DF513A	XQE	VS18S711DF513E
COE	Sol/Sol	Internal	Extended, Push only	115 V a.c. 1,5 VA	TQE	VS18S711DF518A	-	-
COE	Sol/Sol	External	Push only	24 V d.c. 1,2 W	SRU	VS18S722DF313A	XRU	VS18S722DF313E
COE	Sol/Sol	External	Push only	115 V a.c. 1,5 VA	TRU	VS18S722DF318A	-	-
COE	Sol/Sol	External	Push & turn	24 V d.c. 1,2 W	SRT	VS18S722DF213A	XRT	VS18S722DF213E
COE	Sol/Sol	External	Push & turn	115 V a.c. 1,5 VA	TRT	VS18S722DF218A	-	-
COE	Sol/Sol	External	Extended, Push only	24 V d.c. 1,2 W	SRE	VS18S722DF513A	XRE	VS18S722DF513E
COE	Sol/Sol	External	Extended, Push only	115 V a.c. 1,5 VA	TRE	VS18S722DF518A	-	-
Function 5/3 glandless	Actuation/ return	Pilot supply	Manual override	Voltage	Short code	Model	ATEX Short code	ATEX Model
APB	Sol/Sol	Internal	Push only	24 V d.c. 1,2 W	GLU	VS18G611DF313A	LLU	VS18G611DF313E
APB	Sol/Sol	Internal	Push only	115 V a.c. 1,5 VA	HLU	VS18G611DF318A	-	-
APB	Sol/Sol	Internal	Push & turn	24 V d.c. 1,2 W	GLT	VS18G611DF213A	LLT	VS18G611DF213E
APB	Sol/Sol	Internal	Push & turn	115 V a.c. 1,5 VA	HLT	VS18G611DF218A	-	-
APB	Sol/Sol	Internal	Extended, Push only	24 V d.c. 1,2 W	GLE	VS18G611DF513A	LLE	VS18G611DF513E
APB	Sol/Sol	Internal	Extended, Push only	115 V a.c. 1,5 VA	HLE	VS18G611DF518A	-	-
APB	Sol/Sol	External	Push only	24 V d.c. 1,2 W	GMU	VS18G622DF313A	LMU	VS18G622DF313E
APB	Sol/Sol	External	Push only	115 V a.c. 1,5 VA	HMU	VS18G622DF318A	-	-
APB	Sol/Sol	External	Push & turn	24 V d.c. 1,2 W	GMT	VS18G622DF213A	LMT	VS18G622DF213E
APB	Sol/Sol	External	Push & turn	115 V a.c. 1,5 VA	HMT	VS18G622DF218A	-	-
APB	Sol/Sol	External	Extended, Push only	24 V d.c. 1,2 W	GME	VS18G622DF513A	LME	VS18G622DF513E
APB	Sol/Sol	External	Extended, Push only	115 V a.c. 1,5 VA	HME	VS18G622DF518A	-	-
COE	Sol/Sol	Internal	Push only	24 V d.c. 1,2 W	GQU	VS18G711DF313A	LQU	VS18G711DF313E
COE	Sol/Sol	Internal	Push only	115 V a.c. 1,5 VA	HQU	VS18G711DF318A	-	-
COE	Sol/Sol	Internal	Push & turn	24 V d.c. 1,2 W	GQT	VS18G711DF213A	LQT	VS18G711DF213E
COE	Sol/Sol	Internal	Push & turn	115 V a.c. 1,5 VA	HQT	VS18G711DF218A	-	-
COE	Sol/Sol	Internal	Extended, Push only	24 V d.c. 1,2 W	GQE	VS18G711DF513A	LQE	VS18G711DF513E
COE	Sol/Sol	Internal	Extended, Push only	115 V a.c. 1,5 VA	HQE	VS18G711DF518A	-	-
COE	Sol/Sol	External	Push only	24 V d.c. 1,2 W	GRU	VS18G722DF313A	LRU	VS18G722DF313E
COE	Sol/Sol	External	Push only	115 V a.c. 1,5 VA	HRU	VS18G722DF318A	-	-
COE	Sol/Sol	External	Push & turn	24 V d.c. 1,2 W	GRT	VS18G722DF213A	LRT	VS18G722DF213E
COE	Sol/Sol	External	Push & turn	115 V a.c. 1,5 VA	HRT	VS18G722DF218A	-	-
COE	Sol/Sol	External	Extended, Push only	24 V d.c. 1,2 W	GRE	VS18G722DF513A	LRE	VS18G722DF513E
COE	Sol/Sol	External	Extended, Push only	115 V a.c. 1,5 VA	HRE	VS18G722DF518A	-	-

Warning

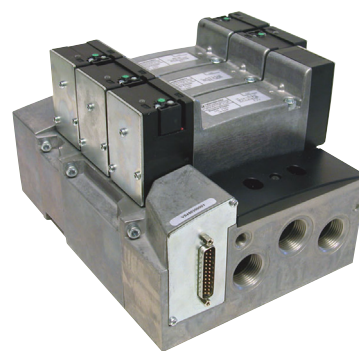
These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/data**«. Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI Precision Engineering. Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

- > **2x3/2, 5/2 and 5/3 valves**
Size 45 mm
- > **24 V d.c. Multipole**
- > **Integrated Fieldbus**
- > **Field expandable with single add-on stations**
- > **Dual spool technology**
 - **VS45G Glandless spool and sleeve for long life**
 - **VS45S Softseal spool for high flow**
- > **Wide range of accessories**
- > **Universal PNP/NPN 24 V d.c. Multipole**



Technical features

Medium:

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

Operation:

VS45G: Glandless spool valve, solenoid pilot actuated

VS45S: Softseal spool valve, solenoid pilot actuated

Flow:

Series	Function	l/min	Cv
VS45G	5/2	3200	3,2
VS45G	5/3	2900	2,9
VS45S	2x3/2	3900	3,9
VS45S	5/2	4200	4,2
VS45S	5/3	3700	3,7

Mounting:

Sub-base

Ports 2+4:

G 3/8, G 1/2

Ports 1, 3, 5:

G 3/4

Operating pressure:

Maximum pressure
10 bar (145 psi) VS45S models and VS45G solenoid pilot actuated valves with internal pilot supply
16 bar (232 psi) VS45G solenoid pilot actuated valves with external pilot supply. Details of minimum and maximum pilot pressure see overleaf

Ambient/Media temperature:

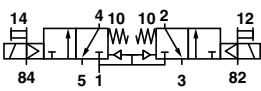
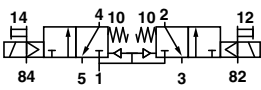
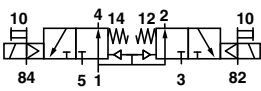
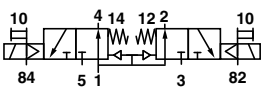
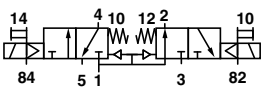
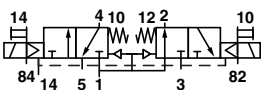
Ambient
-15 ... +50°C (+5 ... +122°F)
Media
-5 ... +50°C +23 ... +122°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:

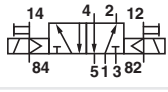
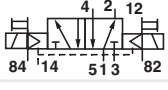
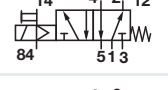
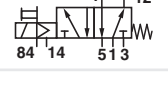
Body/sub-base: die-cast aluminium
Glandless spool & sleeve (VS45G): aluminium, hard anodised, PTFE coated
Softseal spool (VS45S): aluminium with HNBR seals
Plastic parts: POM, PA, PPA, TPE, PBT
Mounting sheets/screws: steel, zinc coated
Springs: stainless steel
Sandwich plates: aluminium bar material
Electrical contacts: brass, tin/gold coated
PCB: glass reinforced epoxy

Plug-in connection, solenoid actuated valves

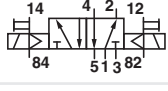
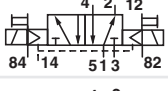
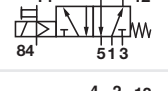
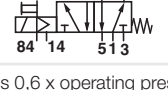
2x3/2 Double solenoid actuated softseal valves (flow 3900 l/min)

Symbol	Function 2x2/2	Actuation/ return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code	Model
	2x3/2 NC or 5/3 COE	Solenoid/Spring	Internal	–	3 ... 10	Push only	24 V d.c. 1,2 W	SAU	VS45SA11DF313A
	2x3/2 NC or 5/3 COE	Solenoid/Spring	Internal	–	3 ... 10	Push & turn	24 V d.c. 1,2 W	SAT	VS45SA11DF213A
	2x3/2 NC or 5/3 COE	Solenoid/Spring	External	1,7*1)	0 ... 10	Push only	24 V d.c. 1,2 W	SDU	VS45SA22DF313A
	2x3/2 NC or 5/3 COE	Solenoid/Spring	External	1,7*1)	0 ... 10	Push & turn	24 V d.c. 1,2 W	SDT	VS45SA22DF213A
	2x3/2 NO or 5/3 COP	Solenoid/Spring	Internal	–	3 ... 10	Push only	24 V d.c. 1,2 W	SBU	VS45SB11DF313A
	2x3/2 NO or 5/3 COP	Solenoid/Spring	Internal	–	3 ... 10	Push & turn	24 V d.c. 1,2 W	SBT	VS45SB11DF213A
	2x3/2 NO or 5/3 COP	Solenoid/Spring	External	1,7*1)	0 ... 10	Push only	24 V d.c. 1,2 W	SEU	VS45SB22DF313A
	2x3/2 NO or 5/3 COP	Solenoid/Spring	External	1,7*1)	0 ... 10	Push & turn	24 V d.c. 1,2 W	SET	VS45SB22DF213A
	2x3/2 NO/NC	Solenoid/Spring	Internal	–	3 ... 10	Push only	24 V d.c. 1,2 W	SCU	VS45SC11DF313A
	2x3/2 NO/NC	Solenoid/Spring	Internal	–	3 ... 10	Push & turn	24 V d.c. 1,2 W	SCT	VS45SC11DF213A
	2x3/2 NO/NC	Solenoid/Spring	External	1,7*1)	0 ... 10	Push only	24 V d.c. 1,2 W	SFU	VS45SC22DF313A
	2x3/2 NO/NC	Solenoid/Spring	External	1,7*1)	0 ... 10	Push & turn	24 V d.c. 1,2 W	SFT	VS45SC22DF213A

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

Symbol	Function	Actuation/ return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code	Model
	5/2	Solenoid/Solenoid	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	GJU	VS45G511DF313A
	5/2	Solenoid/Solenoid	Internal	–	2 ... 10	Push & turn	24 V d.c. 1,2 W	GJT	VS45G511DF213A
	5/2	Solenoid/Solenoid	External	2 ... 10	-0,9 ... 16	Push only	24 V d.c. 1,2 W	GKU	VS45G522DF313A
	5/2	Solenoid/Solenoid	External	2 ... 10	-0,9 ... 16	Push & turn	24 V d.c. 1,2 W	GKT	VS45G522DF213A
	5/2	Solenoid/Spring	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	GGU	VS45G517DF313A
	5/2	Solenoid/Spring	Internal	–	2 ... 10	Push & turn	24 V d.c. 1,2 W	GGT	VS45G517DF213A
	5/2	Solenoid/Spring	External	2 ... 10	-0,9 ... 16	Push only	24 V d.c. 1,2 W	GHU	VS45G527DF313A
	5/2	Solenoid/Spring	External	2 ... 10	-0,9 ... 16	Push & turn	24 V d.c. 1,2 W	GHT	VS45G527DF213A

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

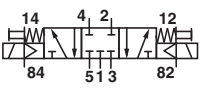
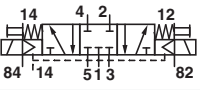
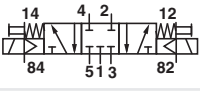
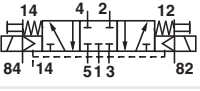
Symbol	Function	Actuation/ return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code	Model
	5/2	Solenoid/Solenoid	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	SJU	VS45S511DF313A
	5/2	Solenoid/Solenoid	Internal	–	2 ... 10	Push & turn	24 V d.c. 1,2 W	SJT	VS45S511DF213A
	5/2	Solenoid/Solenoid	External	2 ... 10	-0,9 ... 10	Push only	24 V d.c. 1,2 W	SKU	VS45S522DF313A
	5/2	Solenoid/Solenoid	External	2 ... 10	-0,9 ... 10	Push & turn	24 V d.c. 1,2 W	SKT	VS45S522DF213A
	5/2	Solenoid/Spring	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	SGU	VS45S517DF313A
	5/2	Solenoid/Spring	Internal	–	2 ... 10	Push & turn	24 V d.c. 1,2 W	SGT	VS45S517DF213A
	5/2	Solenoid/Spring	External	2 ... 10	-0,9 ... 10	Push only	24 V d.c. 1,2 W	SHU	VS45S527DF313A
	5/2	Solenoid/Spring	External	2 ... 10	-0,9 ... 10	Push & turn	24 V d.c. 1,2 W	SHT	VS45S527DF213A

*1) plus 0,6 x operating pressure

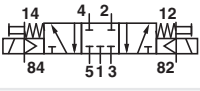
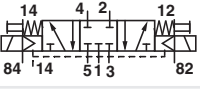
NO = Normally Open, NC = Normally Closed, COE = Central Open Exhaust, COP = Central Open Pressure

Valve dimensions see page 8

Plug-in connection, solenoid actuated valves
5/2 Single and double solenoid actuated glandless valves (flow 3200 l/min)

Symbol	Function	Actuation/ return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code	Model
	5/3 APB	Solenoid/Solenoid	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	GLU	VS45G611DF313A
	5/3 APB	Solenoid/Solenoid	Internal	–	2 ... 10	Push & turn	24 V d.c. 1,2 W	GLT	VS45G611DF213A
	5/3 APB	Solenoid/Solenoid	External	2 ... 10	-0,9 ... 16	Push only	24 V d.c. 1,2 W	GMU	VS45G622DF313A
	5/3 APB	Solenoid/Solenoid	External	2 ... 10	-0,9 ... 16	Push & turn	24 V d.c. 1,2 W	GMT	VS45G622DF213A
	5/3 COE	Solenoid/Solenoid	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	GQU	VS45G711DF313A
	5/3 COE	Solenoid/Solenoid	Internal	–	2 ... 10	Push & turn	24 V d.c. 1,2 W	GQT	VS45G711DF213A
	5/3 COE	Solenoid/Solenoid	External	2 ... 10	-0,9 ... 16	Push only	24 V d.c. 1,2 W	GRU	VS45G722DF313A
	5/3 COE	Solenoid/Solenoid	External	2 ... 10	-0,9 ... 16	Push & turn	24 V d.c. 1,2 W	GRT	VS45G722DF213A

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

Symbol	Function	Actuation/ return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code	Model
	5/3 APB	Solenoid/Solenoid	Internal	–	2,5 ... 10	Push only	24 V d.c. 1,2 W	SLU	VS45S611DF313A
	5/3 APB	Solenoid/Solenoid	Internal	–	2,5 ... 10	Push & turn	24 V d.c. 1,2 W	SLT	VS45S611DF213A
	5/3 APB	Solenoid/Solenoid	External	2,5 ... 10	-0,9 ... 10	Push only	24 V d.c. 1,2 W	SMU	VS45S622DF313A
	5/3 APB	Solenoid/Solenoid	External	2,5 ... 10	-0,9 ... 10	Push & turn	24 V d.c. 1,2 W	SMT	VS45S622DF213A

Valve dimensions see page 8

APB = All Ports Blocked, COE = Centre Open Exhaust

Options selector

VS45★★★★DF★13A			
Spool technology	Substitute	Manual override *3)	Substitute
Glandless spool & sleeve	G	Push & turn	2
Softseal spool	S	Push only	3
Guiding systems	Substitute	Extended, push only	5
2x3/2 Normally closed *1)	A	Actuation/Pilot supply	Substitute
2x3/2 Normally open *1)	B	Solenoid/Spring	17
2x3/2 Normally open/Normally closed *1)	C	Internal pilot supply	
5/2	5	Solenoid/Spring	27
5/3 All ports blocked	6	External pilot supply	
5/3 Centre open exhaust	7	Solenoid/Solenoid	11
		Internal pilot supply	
		Solenoid/Solenoid	22
		External pilot supply	

*1) Available with softseal spool only (VS45S).

*2) Available with glandless spool only (VS45G).

*3) On request

Electrical details for solenoid operators

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

Protection classification (IP Code):

All VS45 valve islands fulfill IP65 and NEMA4 ratings.

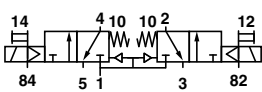
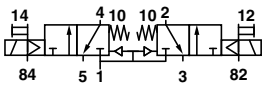
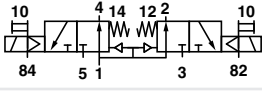
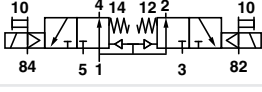
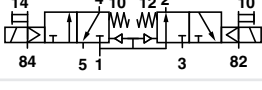
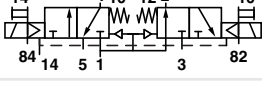
Power supply and precautions:

All VS45 24 V d.c products are designed to be used with a protective extra low voltage (PELV) power supply.

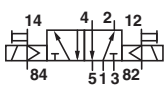
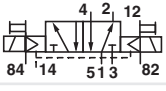
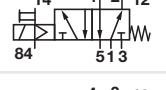
All VS45 115 V a.c products correspond to the protection class I. Connection of the protective earth (PE) ground is required.

Individually wired, solenoid actuated valves

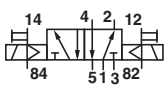
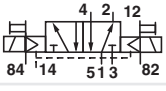
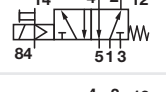
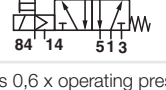
2x3/2 Double solenoid actuated softseal valves (flow 3900 l/min)

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

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

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

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

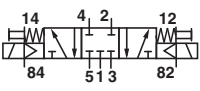
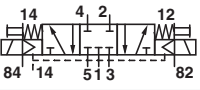
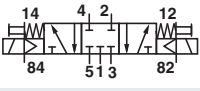
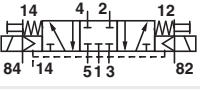
Symbol	Function	Actuation/ return	Pilot supply	Pilot pressure (bar)	Operating pres- sure (bar)	Manual override	Model
	5/2	Solenoid/Solenoid	Internal	–	2 ... 10	Push only	VS45S511DC3**#
	5/2	Solenoid/Solenoid	Internal	–	2 ... 10	Push & turn	VS45S511DC2**#
	5/2	Solenoid/Solenoid	External	2 ... 10	-0,9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

*1) plus 0,6 x operating pressure

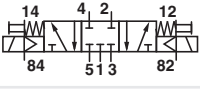
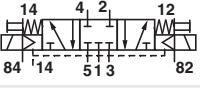
NO = Normally Open, NC = Normally Closed, COE = Central Open Exhaust, COP = Central Open Pressure

Valve dimensions see page 8

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

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

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

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

** Please insert voltage codes at first, # Please insert connector codes

APB = All Ports Blocked COE = Centre Open Exhaust

Valve dimensions see page 8

**** Voltage codes and spare pilot valves**

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

Connector codes and part numbers

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

Options selector

Spool technology	Substitute
Glandless spool & sleeve	G
Softseal spool	S
Guiding systems	Substitute
2x3/2 Normally closed *1)	A
2x3/2 Normally open *1)	B
2x3/2 Normally open/Normally closed *1)	C
5/2	5
5/3 All ports blocked	6
5/3 Centre open exhaust	7

VS45★★★★DC★★★A

*1) Available with softseal spool only (VS45S).

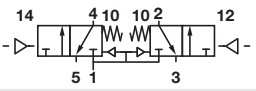
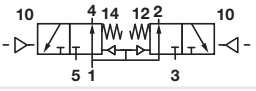
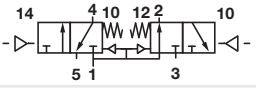
*2) Available with glandless spool only (VS45G).

*3) On request

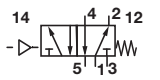
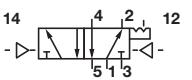
Voltage	Substitute
24 V d.c 1,2 W	13
115 V a.c 1,5 VA	18
Manual override *3)	Substitute
Push & turn	2
Push only	3
Extended, push only *3)	5
Actuation/Pilot supply	Substitute
Solenoid/Spring Internal pilot supply	17
Solenoid/Spring External pilot supply	27
Solenoid/Solenoid Internal pilot supply	11
Solenoid/Solenoid External pilot supply	22

Air pilot actuated valves

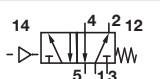
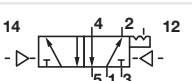
2x3/2 Double pilot actuated softseal valves (flow 3900 l/min)

Symbol	Function	Actuation/ return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Model
	2x3/2 NC or 5/3 COE	Air/air	External	1,7 *1)	3 ... 10	VS45SADDAX900A
	2x3/2 NO or 5/3 COP	Air/air	External	1,7 *1)	3 ... 10	VS45SDDAX900A
	2x3/2 NO/NC	Air/air	External	1,7 *1)	3 ... 10	VS45SCDDAX900A

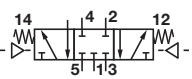
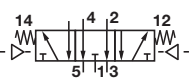
5/2 Single and double pilot actuated glandless valves (flow 3200 l/min)

Symbol	Function	Actuation/ return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Model
	VS45G5D7AX900A	05. Feb	Air/spring	External	2 ... 10	1,6 ... 10
	VS45G5DDAX900A	05. Feb	Air/air	External	2 ... 10	2 ... 10

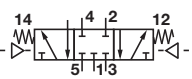
5/2 Single and double pilot actuated softseal valves (flow 4200 l/min)

Symbol	Function	Actuation/ return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Model
	VS45S5D7AX900A	05. Feb	Air/spring	External	2 ... 10	2 ... 10
	VS45S5DDAX900A	05. Feb	Air/air	External	2 ... 10	2 ... 10

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

Symbol	Function	Actuation/ return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Model
	VS45G5DDAX900A	APB	Air/Air	External	2 ... 10	-0,9 ... 16
	VS45G7DDAX900A	COE	Air/Air	External	2 ... 10	-0,9 ... 16

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

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

*1) plus 0,6 x operating pressure

Valve dimensions see page 8

Options selector

VS45★★D★AX900A

Spool technology	Substitute	Actuation/return	Substitute
Glandless spool & sleeve	G	Air/Spring	7
Softseal spool	S	Air/Air	D
Guiding systems	Substitute	Manual override *3)	Substitute
2x3/2 Normally closed *1)	A	5/2	5
2x3/2 Normally open *1)	B	5/3 All ports blocked	6
2x3/2 Normally open/Normally closed *1)	C	5/3 Centre open exhaust	7

*1) Available with softseal spool only (VS45S).

*2) Available with glandless spool only (VS45G).

*3) On request

Accessories

Base accessories

Intermediate supply/exhaust module



Page 13

VS4540416-BG00 (G1/2)

Blanking plate



Page 13

VS4540415-KG00

Port blanking discs for modular sub-base



V40414-K00 (Ports 1, 3, 5)

Sandwich plates

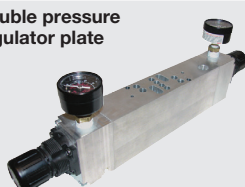
Single pressure regulator plate



Page 11

VS4540410-KG10 (Port 1)

Double pressure regulator plate



Page 11

VS4540410-KG40 (Ports 2+4)

Flow regulator plate



Page 12

VS4540408-KG00

Replacement gauge



18-015-212

Replacement Solenoids

Plug-in replacement solenoids



VS45DF313-KG00	24V DC 1.2W	Push only
VS45DF213-KG00	24V DC 1.2W	Push & turn
VS45DF513-KG00	24V DC 1.2W	Extended, push only

Individually wired replacement solenoids



VS45DC313-KG00	24V DC 1.2W	Push only
VS45DC213-KG00	24V DC 1.2W	Push & turn
VS45DC318-KG00	110/120 Vac	Push only
VS45DC218-KG00	110/120 Vac	Push & turn

Air pilot replacement operator



VS45AX900-KG00

Kits include screws, gasket and V ring.

Cables

D Sub-connector
25 pin, IP65



Page 13

V11569-E01 (1 m)
V11569-E03 (3 m)
V11569-E05 (5 m)

D Sub-connector
44 pin, IP65



Page 13

V11570-E01 (1 m)
V11570-E03 (3 m)
V11570-E05 (5 m)

D Sub-connector
25 pin 90°, IP65



Page 14

V12086-E01 (1 m)
V12086-E03 (3 m)
V12086-E05 (5 m)

D Sub-connector
44 pin 90°, IP65



Page 14

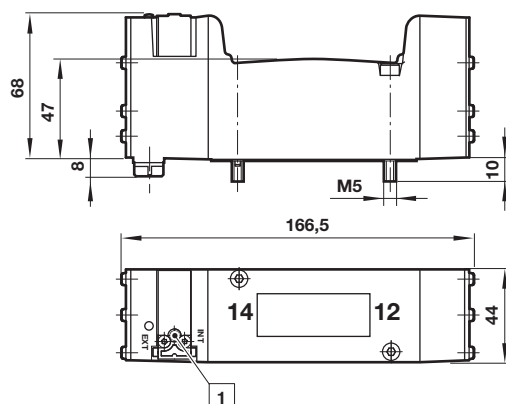
V12088-E01 (1 m)
V12088-E03 (3 m)
V12088-E05 (5 m)

Valve dimensions

Plug-in connection

VS45*5*7DF*13A models

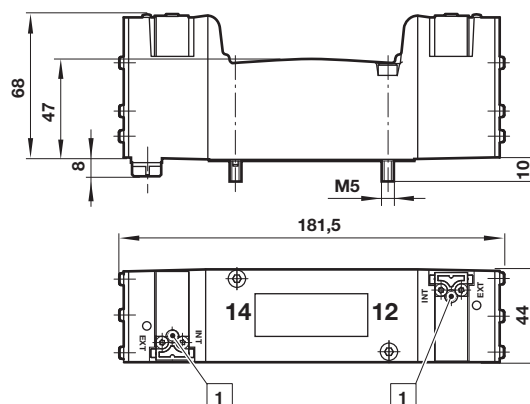
5/2 Single solenoid valve, spring return



Plug-in connection

VS45****DF*13A models

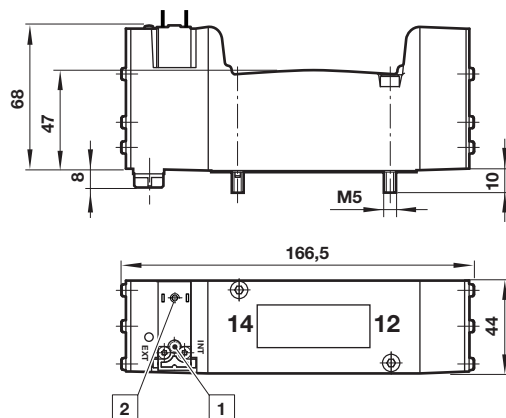
2x3/2, 5/2 and 5/3 Double solenoid valve



Individually wired connection

VS45*5*7DC*1*A models

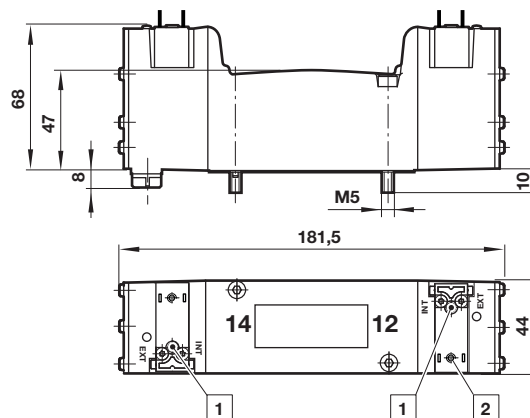
5/2 Single solenoid valve, spring return



Individually wired connection

VS45****DC*1*A models

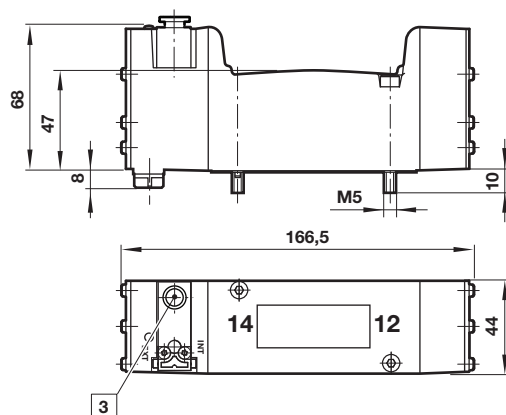
2x3/2, 5/2 and 5/3 Double solenoid valve



Air pilot

VS45*5D*AX900A models

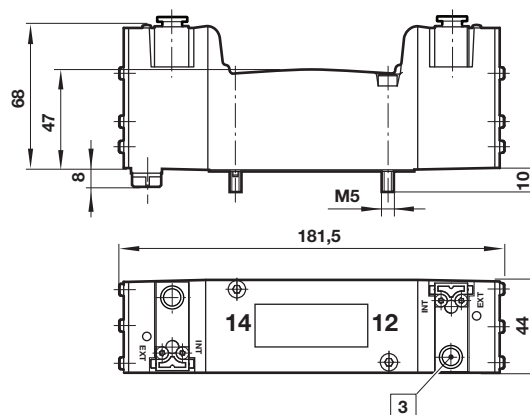
5/2 Single air pilot valve, spring return



Air pilot

VS45****AX900A models

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

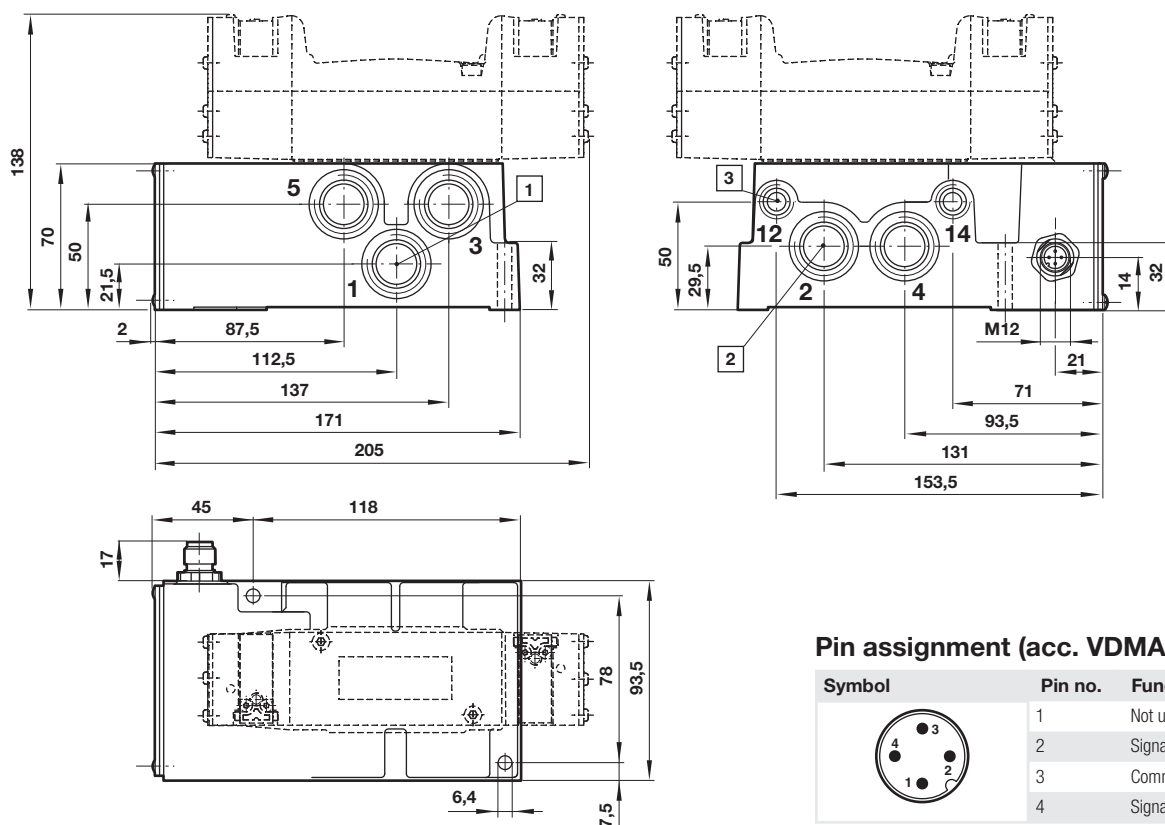


- 1 Manual override
- 2 Electrical connection
- 3 Pilot port $\varnothing$ 4 mm

Single station sub-base, connector type: M12

Description	Ports 1, 3 & 5	Ports 12/14	Ports 2 & 4	Model
Stand alone, single subbase for 24 V d.c.	G1/2	G1/8	G1/2	VS4540438-DG00
Stand alone, single subbase for 24 V d.c.	G3/4	G1/8	G3/4	VS4540438-EG00

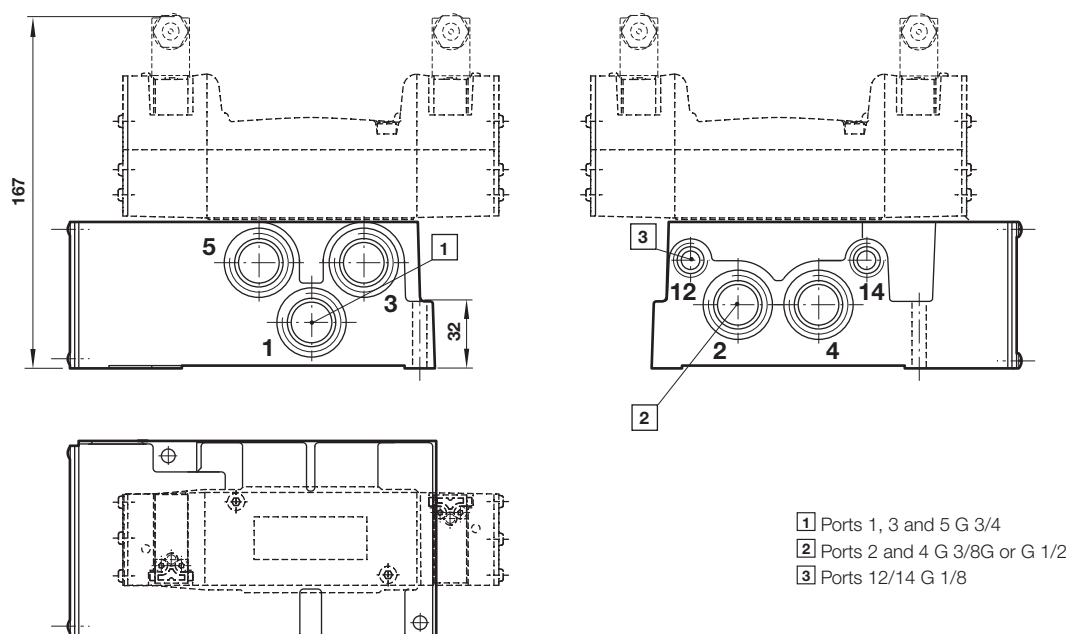
Dimensions in mm
Projection/First angle


Pin assignment (acc. VDMA 24571)

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

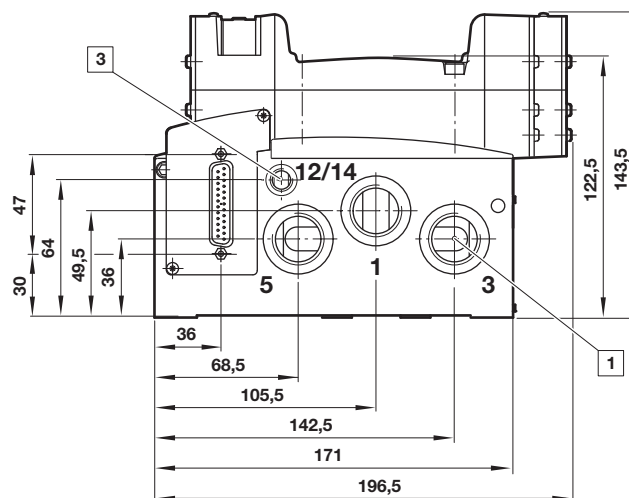
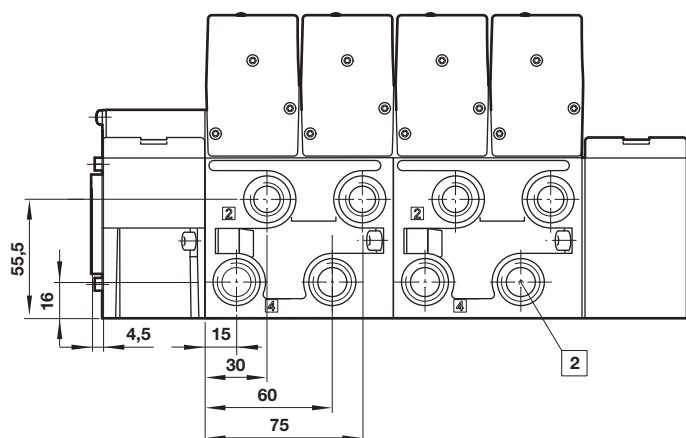
Single station sub-base, connector type: M12

Description	Ports 1, 3 & 5	Ports 12/14	Ports 2 & 4	Model
Stand alone, single station subbase, individually wired & air pilot	G1/2	G1/8	G1/2	VS4540438-DG01
Stand alone, single station subbase, individually wired & air pilot	G3/4	G1/8	G3/4	VS4540438-EG01



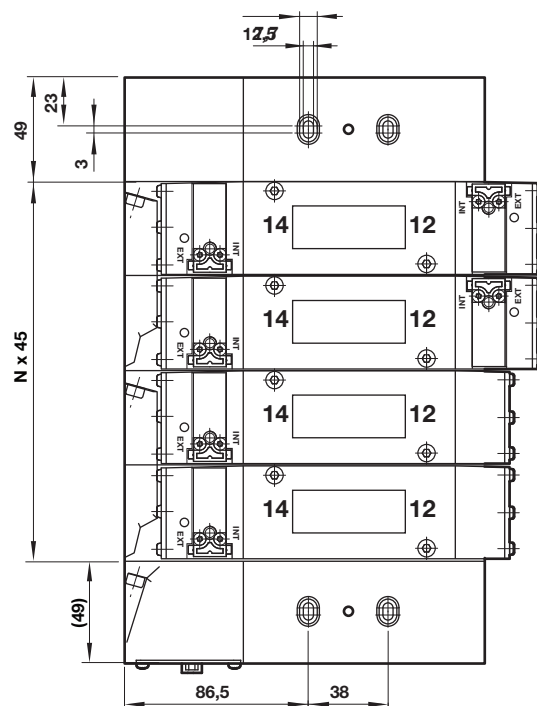
Valve island dimensions, multipole/fieldbus connection
See page 24 for sub-base and end plate kit ordering information.

Dimensions in mm
 Projection/First angle



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

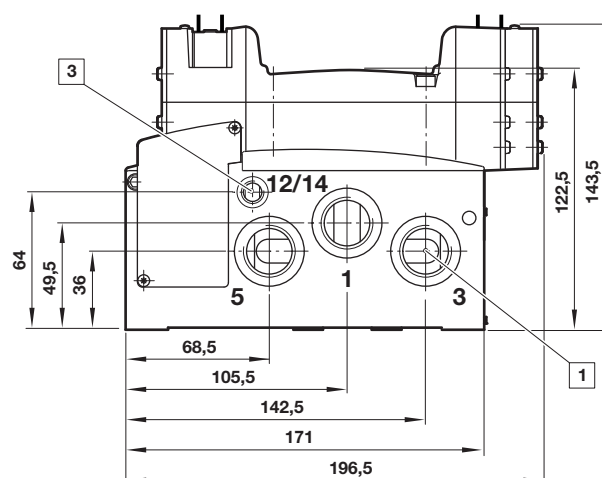
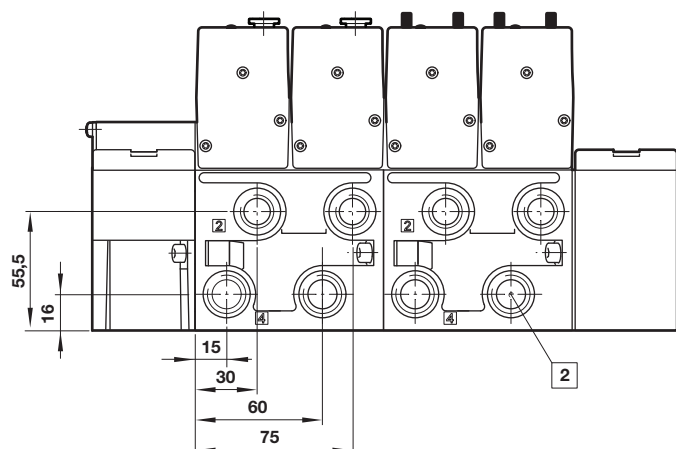
N Number of stations



Electrical connection	Min. no. of valve stations	Max. no. of valve stations	For details see page
Multipole	2	16	15
Other Fieldbus protocols	4	16	18

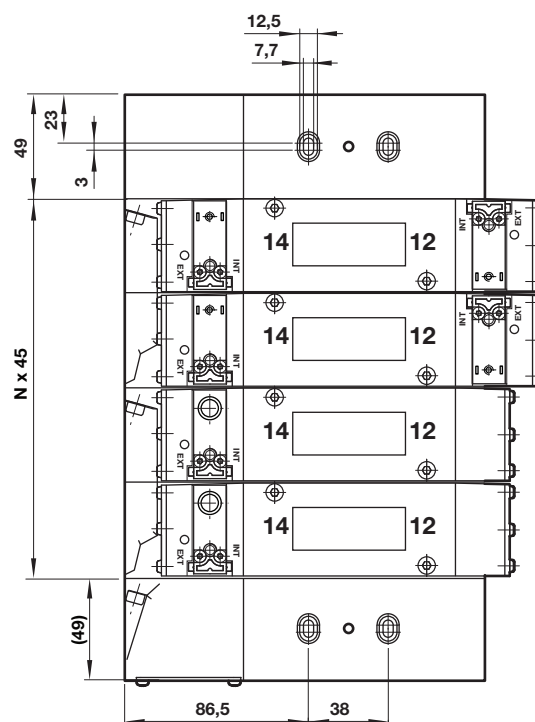
Valve island dimensions, individually wired & air pilot
See page 24 for sub-base and end plate kit ordering information.

Dimensions in mm
Projection/First angle



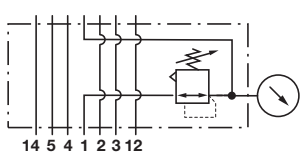
- 1 Ports 1, 3 and 5 G 3/4
- 2 Ports 2 and 4 G 3/8G or G 1/2
- 3 Ports 12/14 G 1/8

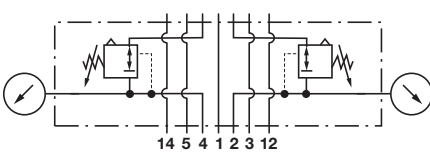
N Number of stations



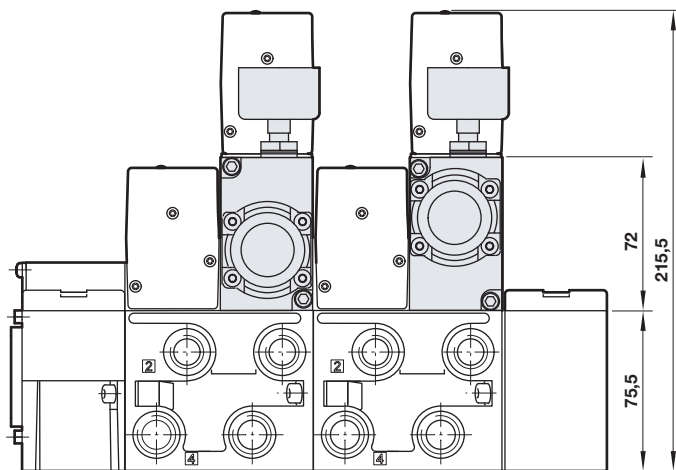
Sandwich plates

Pressure regulator sandwich plates

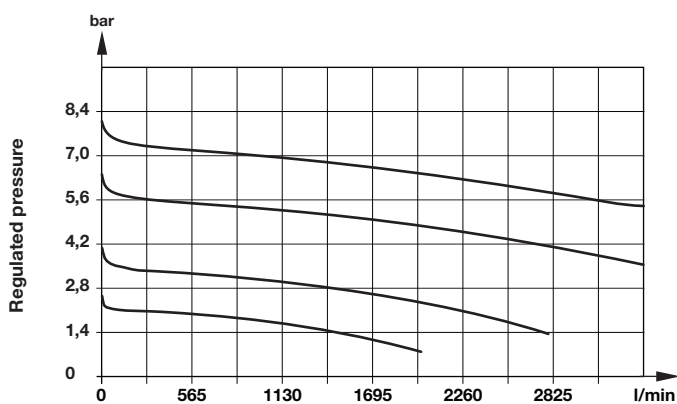
Symbol	Model	Description
	VS4540410-KG10	Regulation of port 1, regulator on side 12

Symbol	Model	Description
	VS4540410-KG40	Regulation of port 2 & 4,

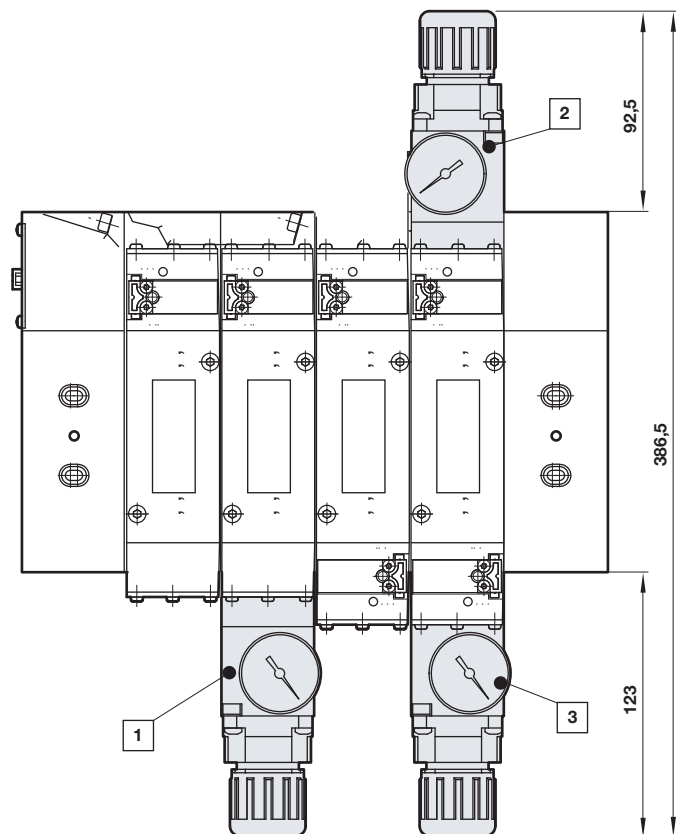
Dimensions in mm
Projection/First angle



Flow characteristics for pressure regulator plates

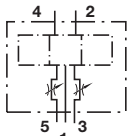


- 1 Regulation of port 1
- 2 Regulation of port 2+4
- 3 Gauge



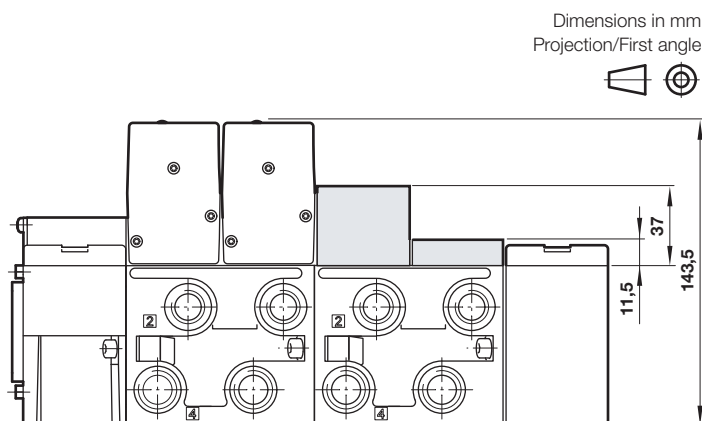
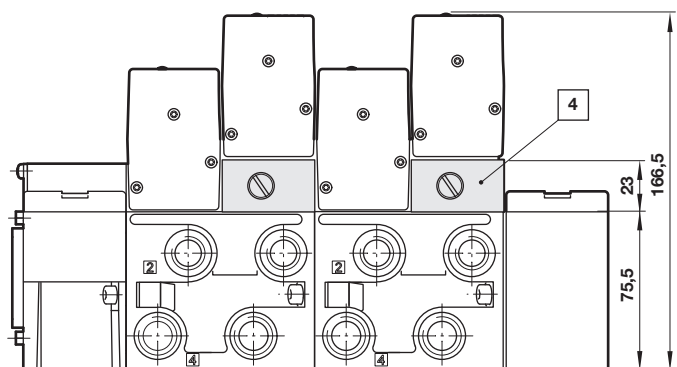
Sandwich plates

Flow regulator sandwich plates

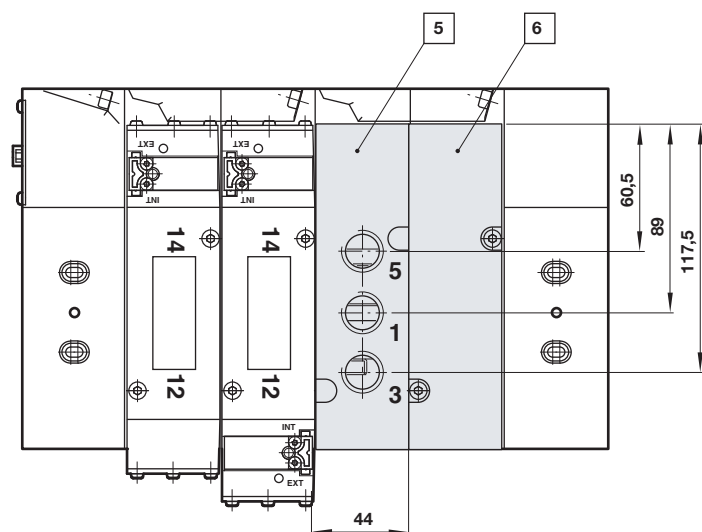
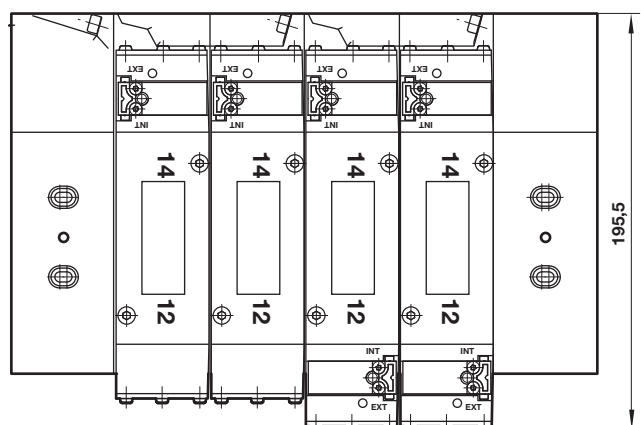
Symbol	Model	Description
	VS4540408-KG00	Flow regulator supplied with gasket, dual regulation of exhaust ports 3 and 5

Model	Description
VS4540416-BG00	Intermediate supply & exhaust manifold (ISEM), port size G 1/4 *1)
VS4540415-KG00	Blanking plate for blocking of unused stations (supplied with gasket)

*1) For use see page 14

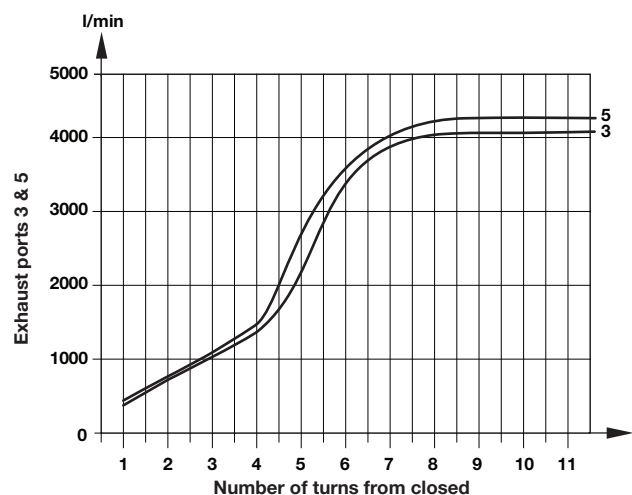


Dimensions in mm
Projection/First angle



Flow characteristics

Dual regulation of exhaust ports 3 and 5



- 4 Flow regulator plate
- 5 Intermediate supply & exhaust manifold (ISEM)
- 6 Blanking plate

Flow: port 1 > 2 and 1 > 4: remains unchanged.
Flow measured at 6 bar inlet, pressure drop 1 bar

Multi pressure configurations

Dimensions in mm
Projection/First angle

A

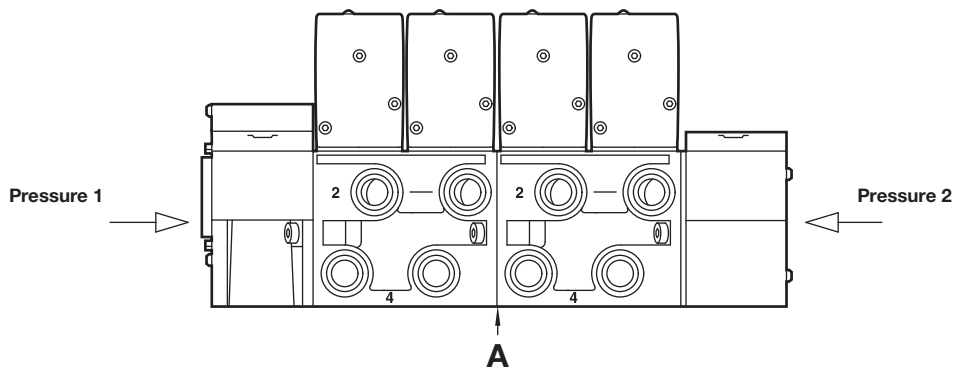
Blanking disc	Type
V40414-K00	Suitable for ports 1, 3 and/or 5

B

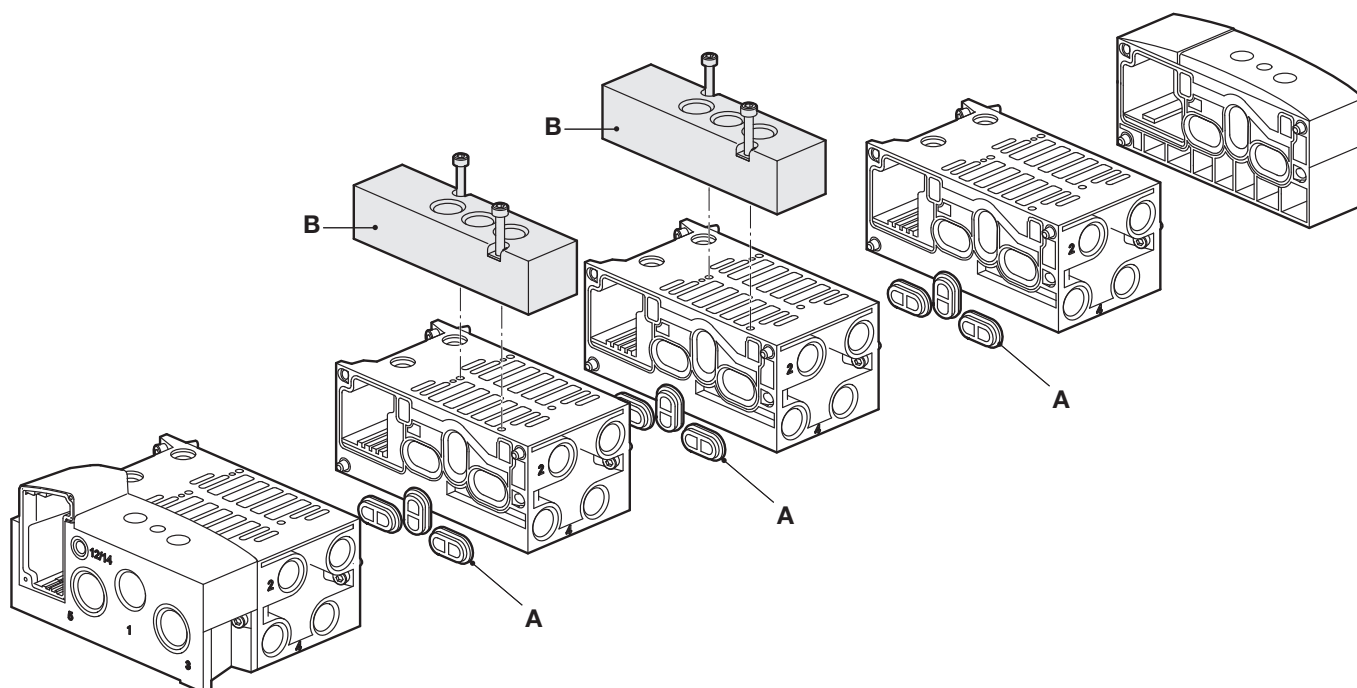
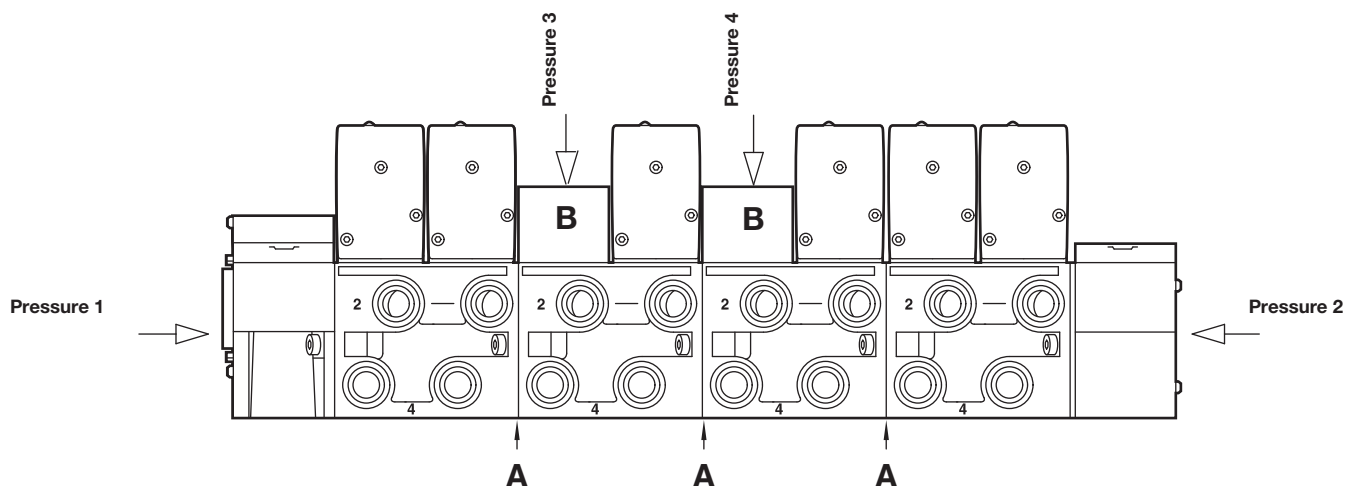
Intermediate supply & exhaust manifold (ISEM)	Type
VS4540416-BG00	G 1/4



Dual pressure



Multi pressure

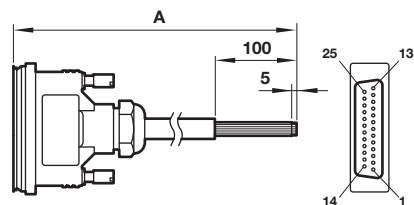


Multipole options

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

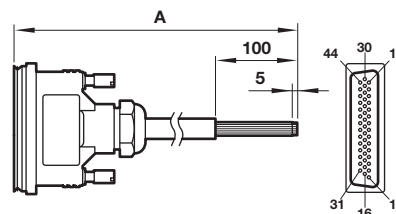
For details of single parts see pages 21

D sub-connector 25 pin (IP65)



A	Model
1 m	V11569-E01
3 m	V11569-E03
5 m	V11569-E05

D Sub-connector 44 pin (IP65)



Dimensions in mm
Projection/First angle



A	Model
1 m	V11570-E01
3 m	V11570-E03
5 m	V11570-E05

Pin no.	Wire colour	Socket	Pilot	Station
1	White	Solenoid 1-a	14	1
2	Brown	Solenoid 2-a	14	2
3	Green	Solenoid 3-a	14	3
4	Yellow	Solenoid 4-a	14	4
5	Grey	Solenoid 5-a	14	5
6	Pink	Solenoid 6-a	14	6
7	Blue	Solenoid 7-a	14	7
8	Red	Solenoid 8-a	14	8
9	Black	Solenoid 9-a	14	9
10	Violet	Solenoid 10-a	14	10
11	Grey/Pink	Solenoid 11-a	14	11
12	Red/Blue	Solenoid 12-a	14	12
13	White/Green	Common-Ve		—
14	Brown/Green	Solenoid 1-b	12	1
15	White/Yellow	Solenoid 2-b	12	2
16	Yellow/Brown	Solenoid 3-b	12	3
17	White/Grey	Solenoid 4-b	12	4
18	Grey/Brown	Solenoid 5-b	12	5
19	White/Pink	Solenoid 6-b	12	6
20	Pink/Brown	Solenoid 7-b	12	7
21	White/Blue	Solenoid 8-b	12	8
22	Brown/Blue	Solenoid 9-b	12	9
23	White/Red	Solenoid 10-b	12	10
24	Brown/Red	Solenoid 11-b	12	11
25	White/Black	Solenoid 12-b	12	12

Note: Conforms to DIN 47100

Pin no.	Wire colour	Socket	Pilot	Station
1	White	Solenoid 1-a	14	1
2	Brown	Solenoid 2-a	14	2
3	Green	Solenoid 3-a	14	3
4	Yellow	Solenoid 4-a	14	4
5	Grey	Solenoid 5-a	14	5
6	Pink	Solenoid 6-a	14	6
7	Blue	Solenoid 7-a	14	7
8	Red	Solenoid 8-a	14	8
9	Black	Solenoid 9-a	14	9
10	Violet	Solenoid 10-a	14	10
11	Grey/Pink	Solenoid 11-a	14	11
12	Red/Blue	Solenoid 12-a	14	12
13	White/Green	Solenoid 13-a	14	13
14	Brown/Green	Solenoid 14-a	14	14
15	White/Yellow	Solenoid 15-a	14	15
16	Yellow/Brown	Solenoid 1-b	12	1
17	White/Grey	Solenoid 2-b	12	2
18	Grey/Brown	Solenoid 3-b	12	3
19	White/Pink	Solenoid 4-b	12	4
20	Pink/Brown	Solenoid 5-b	12	5
21	White/Blue	Solenoid 6-b	12	6
22	Brown/Blue	Solenoid 7-b	12	7
23	White/Red	Solenoid 8-b	12	8
24	Brown/Red	Solenoid 9-b	12	9
25	White/Black	Solenoid 10-b	12	10
26	Brown/Black	Solenoid 11-b	12	11
27	Grey/Green	Solenoid 12-b	12	12
28	Yellow/Grey	Solenoid 13-b	12	13
29	Pink/Green	Solenoid 14-b	12	14
30	Yellow/Pink	Solenoid 15-b	12	15
31	Green/Blue	Solenoid 16-a	14	16
32	Yellow/Blue	Solenoid 16-b	12	16
33	—	Not used	—	—
34	—	Not used	—	—
35	—	Not used	—	—
36	—	Not used	—	—
37	—	Not used	—	—
38	—	Not used	—	—
39	—	Not used	—	—
40	—	Not used	—	—
41	—	Not used	—	—
42	—	Not used	—	—
43	—	Not used	—	—
44	Red/Black Yellow/Black	Common -Ve	—	—

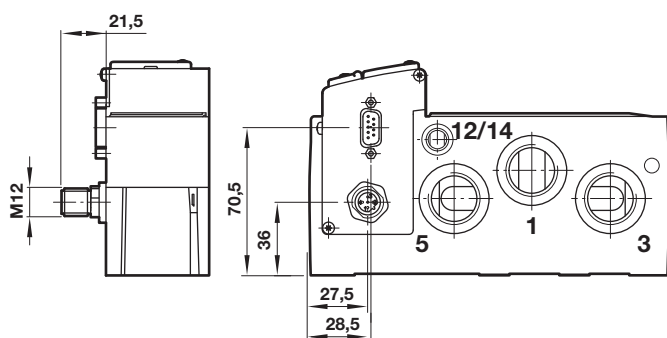
Fieldbus options: Overview

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

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

Fieldbus protocol: Profibus DP

Connector: 1 x D-Sub 9-pin / M12 4-pin



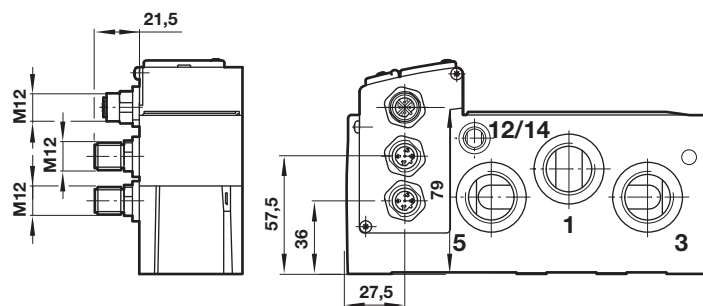
Bus connector: D-Sub 9-pin

Female Communication in/out	Pin no.	Function
	1	Shield
	2	N/C
	3	B-line (red) Rx/D / Tx/D-P
	4	N/C
	5	DGND (OVI) isolated
	6	VP (5V) isolated
	7	N/C
	8	A-line (green) Rx/D / Tx/D-N N/C
	9	N/C

Power connector: M12 4-pin

Male	Pin no.	Function	Tolerance	Max. current
	1	24 VB logic circuit supply	±25%	300 mA
	2	24 VA valves	±10%	*1)
	3	0 V	—	*2)
	4	Earth	—	—

Connector: 2 x M12 5-pin / M12 4-pin



Bus connector: M12 5-pin (B-coded)

Male Communication in	Female Communication out	Pin no.	Function
		1	5V Opto isolated
		2	A-line (green)
		3	OVI Opto isolated
		4	B-line (red)
		5	Shield
		Threaded joint	Shield

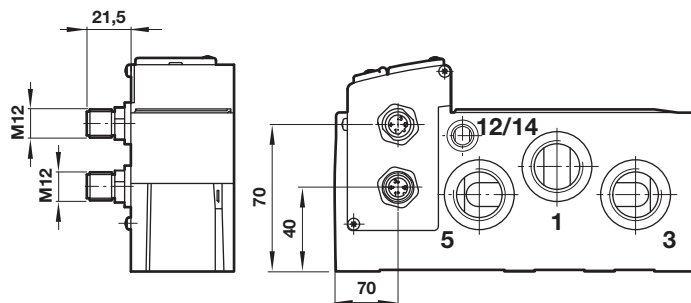
Power connector: M12 4-pin

Male	Pin no.	Function	Tolerance	Max. current
	1	24 VB logic circuit supply	±25%	300 mA
	2	24 VA valves	±10%	*1)
	3	0 V	—	*2)
	4	Earth	—	—

*1) $I_{max} = 10 \text{ mA} + n \cdot 60 \text{ mA}$

n = number of energized solenoids

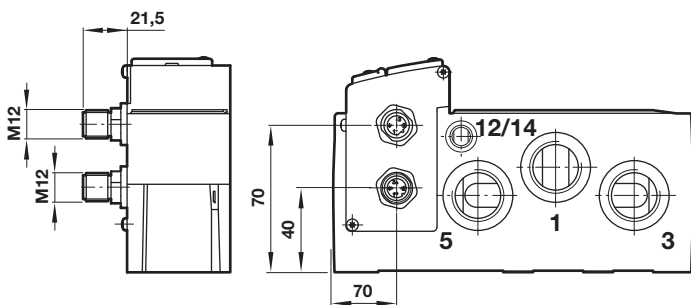
*2) $I_{max} = I_{VA} + I_{VB}$

Fieldbus protocol: DeviceNet
Connector: 1 x M12 5-pin / M12 4-pin

Bus connector: M12 5-pin (A-coded)

Male communication in	Pin no.	Function	Tolerance	Max. current
	1	Drain	—	—
	2	V+ 24 V *3)	±25%	200mA
	3	V- 0 V *3)	—	—
	4	CAN_H	—	—
	5	CAN_L	—	—

Power connector: M12 4-pin

Male	Pin no.	Function	Tolerance	Max. current
	1	-	-	-
	2	24 VA valves	±10%	*1)
	3	0 V	—	*2)
	4	Earth	—	—

Fieldbus protocol: CANopen
Connector: 1 x M12 5-pin / M12 4-pin

Bus connector: M12 5-pin (A-coded)

Male communication in	Pin no.	Function	Tolerance	Max. current
	1	Drain	—	—
	2	V+ 24 V *3)	±25%	200mA
	3	V- 0 V *3)	—	—
	4	CAN_H	—	—
	5	CAN_L	—	—

Power connector: M12 4-pin

Male	Pin no.	Function	Tolerance	Max. current
	1	-	-	-
	2	24 VA valves	±10%	*1)
	3	0 V	—	*2)
	4	Earth	—	—

*1) $I_{max} = 10 \text{ mA} + n \cdot 60 \text{ mA}$

n = number of energized solenoids

*2) $I_{max} = I_{VA} + I_{VB}$

*3) Must be galvanic isolated to 24 VA valves.

Fieldbus accessories

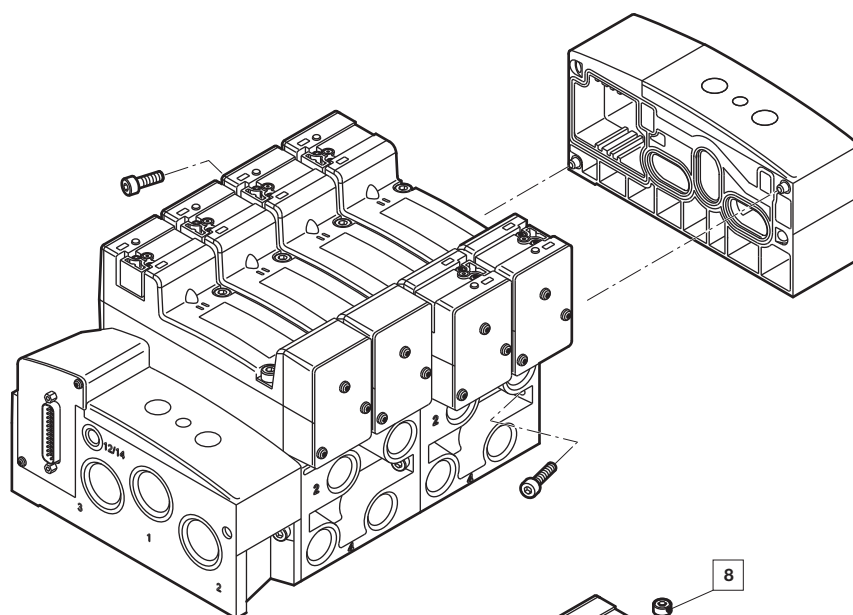
Fieldbus power connector	Description	Connection	Cable length	Protection class	Model
	Profibus DP (4-pin, female) Interbus-S (4-pin, female) DeviceNet (4-pin, female) CANopen (4-pin, female) AB RIO (4-pin, female)	M12	Wireable	IP65 Required for ATEX	V11588-E01
Communication cable and connector					
	DeviceNet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

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

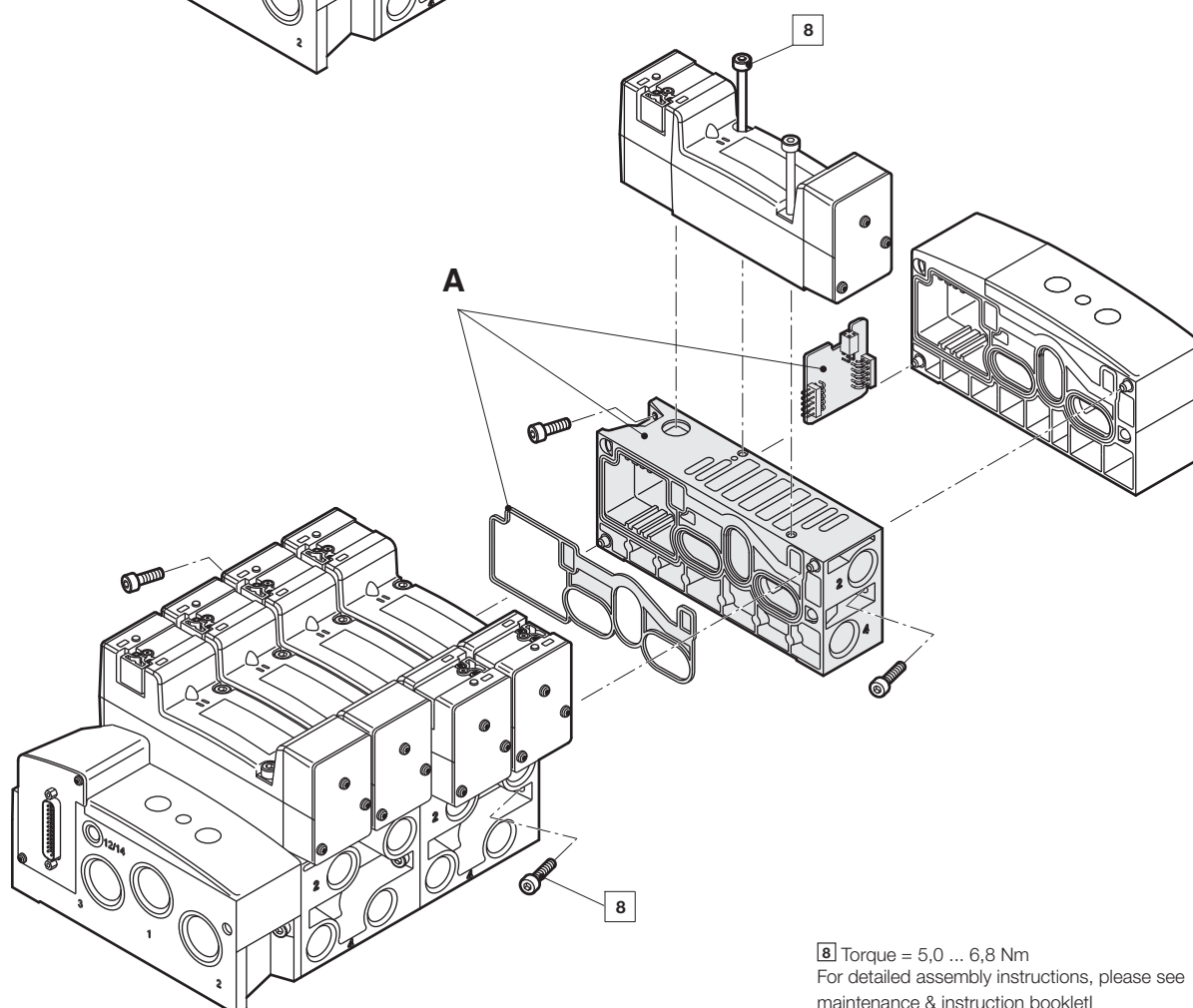
Ports 2 & 4	Description	Model
G3/8	Add-on station for D-Sub connectors and Fieldbus	VS4540400-CGC1
G1/2	Add-on station for D-Sub connectors and Fieldbus	VS4540400-CGC1

Valves and accessories to be ordered separately, see pages 2 ... 7

Step 1



Step 2



8 Torque = 5,0 ... 6,8 Nm
For detailed assembly instructions, please see
maintenance & instruction booklet!

Sub-bases and end plates (without PCB's) including screws and gaskets

A – End plate kit

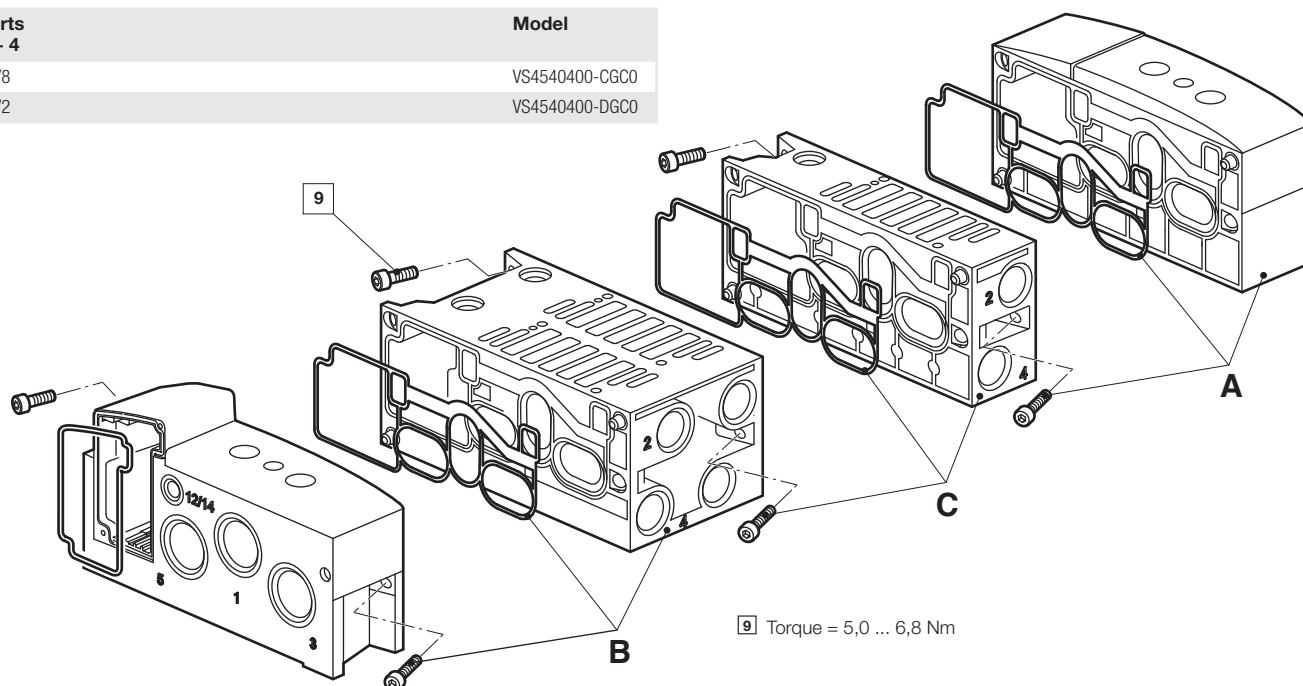
Description	Ports 1, 3 + 5	Ports 12/14	Model
End plate kit for Multipole	G3/4	G1/8	VS4540403-EGC0
End plate kit for Multipole	G3/4	G1/8	VS4540403-EGC1

B – Double station modular sub-base

Ports 2 + 4	Model
G3/8	VS4540401-CGC0
G1/2	VS4540401-DGC0

C – Single station modular sub-base

Ports 2 + 4	Model
G3/8	VS4540400-CGC0
G1/2	VS4540400-DGC0



Multipole components

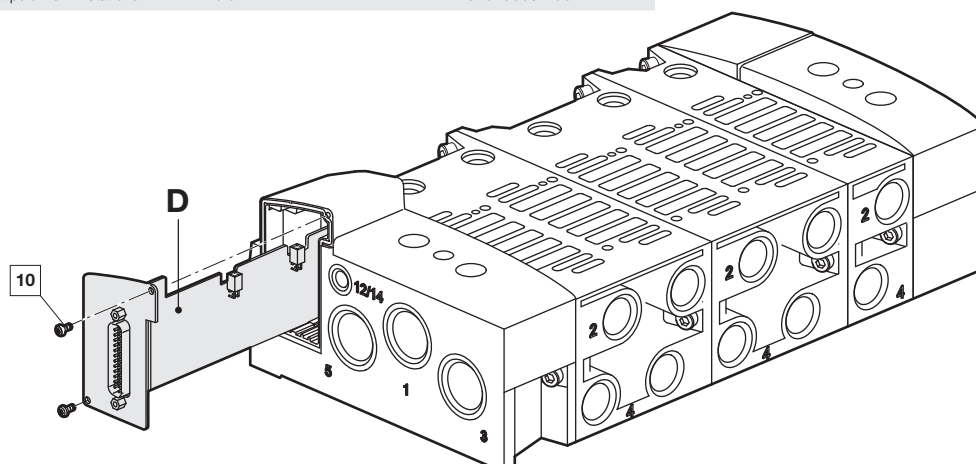
D – Output boards with D-Sub connectors

Connector type	Description	Expandable to max. x no. of stations 1*)	Voltage	Model
D-Sub 25-pin	Multipole PCB 2 stations	6	24 V d.c.	VS4540550-KG00
D-Sub 25-pin	Multipole PCB 4 stations	8	24 V d.c.	VS4540550-KG01
D-Sub 25-pin	Multipole PCB 6 stations	10	24 V d.c.	VS4540550-KG02
D-Sub 44-pin	Multipole PCB 8 stations	12	24 V d.c.	VS4540550-KG03
D-Sub 44-pin	Multipole PCB 10 stations	14	24 V d.c.	VS4540550-KG04
D-Sub 44-pin	Multipole PCB 12 stations	16	24 V d.c.	VS4540550-KG05

1) Using expansion output boards below.2

Expansion output boards for D-Sub connectors

Description	Voltage	Model
Multipole PCB 1 station	24 V d.c.	VS4540553-KG00
Multipole PCB 2 stations	24 V d.c.	VS4540553-KG01



**Sub-bases and end plates (without PCB's)
including screws and gaskets**

A – End plate kit

Description	Ports 1, 3 + 5	Ports 12/14	Model
End plate kit for Multipole	G3/4	G1/8	VS4540403-EGC0

C – Single station modular sub-base

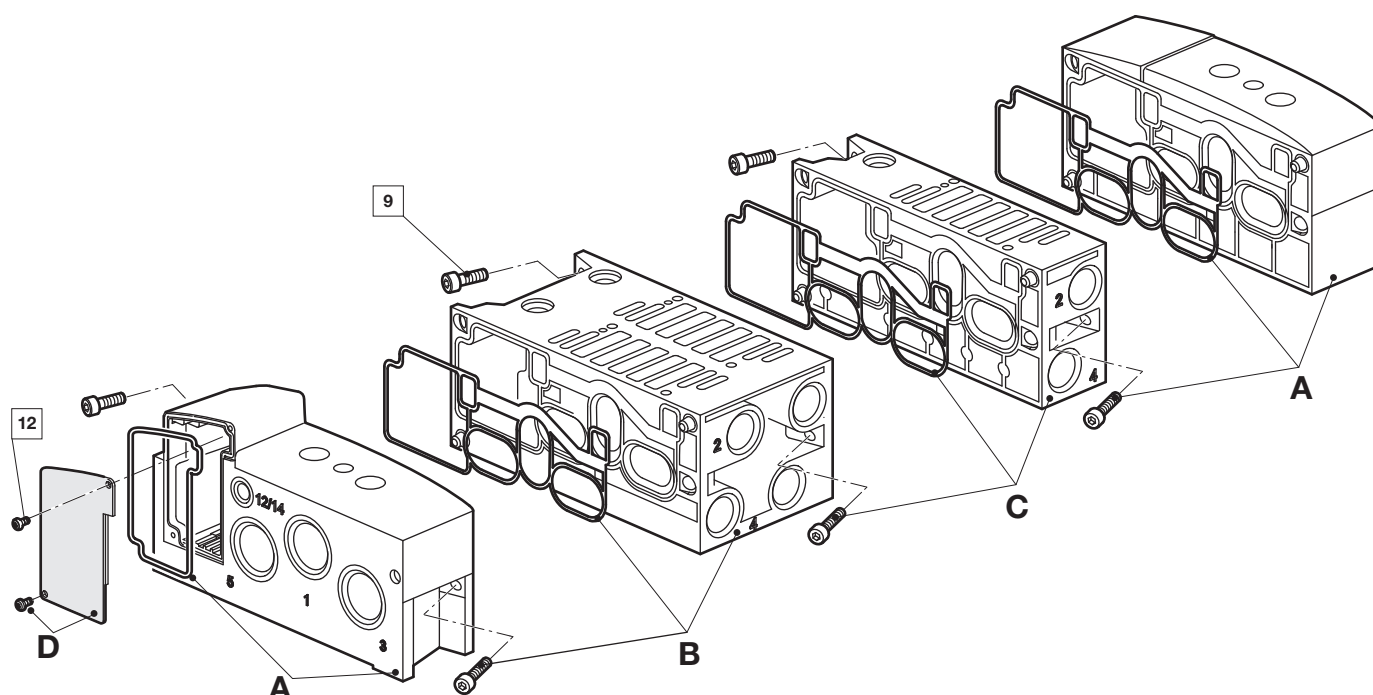
Ports 2 + 4	Model
G3/8	VS4540400-CGC0
G1/2	VS4540400-DGC0

B – Double station modular sub-base

Ports 2 + 4	Model
G3/8	VS4540401-CGC0
G1/2	VS4540401-DGC0

D – Wireway cover

Description	Model
Cover plate	VS4540442-KG00



9 Torque = 5 ... 6,8 Nm

12 Torque = 0,8 ... 0,9 Nm

Screwdriver speed = max. 1100 r.p.m

For detailed assembly instructions, please see maintenance & instruction booklet

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under

»Technical features/data«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI Precision Engineering, Norgren GmbH.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.