

Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves

ISO 15407-2, Size 18 mm

24V DC or 115V AC Multipole

Integrated Fieldbus

Field expandable with single add-on stations

Dual spool technology

VS18G Glandless spool and sleeve for long life

VS18S Softseal spool for high flow

Wide range of accessories

ATEX

Universal PNP/NPN 24V DC Multipole

Technical data

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

Mounting

Sub-base

Ports 2+4

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

Operating pressure

Maximum pressure

145 psi (10 bar) VS18S models and VS18G solenoid pilot actuated valves with internal pilot supply

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

Details of minimum and maximum pilot pressure see overleaf.

Flow characteristics

Series	Function	Cv	L/min
VS18G	5/2	0.56	550
VS18G	5/3	0.56	550
VS18S	2x2/2	0.56	550
VS18S	2x3/2	0.61	600
VS18S	5/2	0.66	650
VS18S	5/3	0.66	650

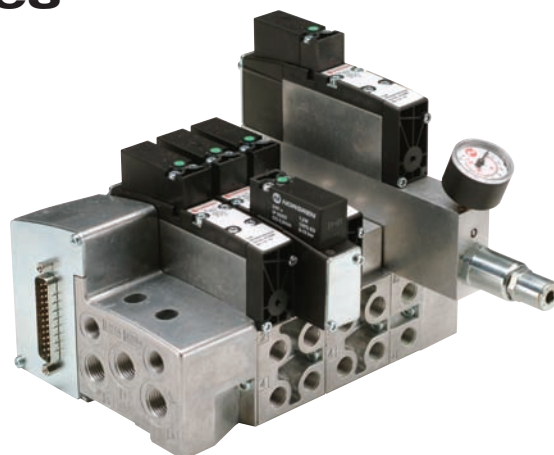
Ambient temperature:

5°F to 122°F (-15°C to +50°C)

Medium temperature:

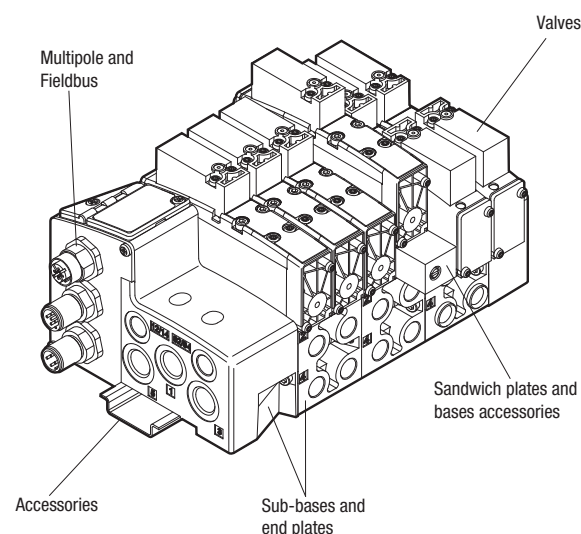
23°F to 122°F (-5°C to +50°C)

Consult our technical service for use below 35°F (+2°C).



To order please use valve island configurator available at www.norgren.com

Alternatively contact Norgren for a configurator on CD or use our worksheet.



Materials

Body / sub-base: die-cast aluminum

Glandless spool & sleeve (VS18G): aluminum, hard anodised, teflon coated

Softseal spool (VS18S): aluminum with HNBR seals

Plastic parts: POM, PA, PPA

Mounting sheets / screws: steel, zinc coated

Springs: stainless steel

Sandwich plates: aluminum bar material

Electrical contacts: brass, tin/gold coated

PCB: glasepoxy

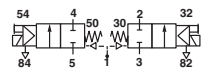
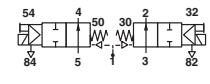
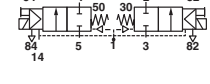
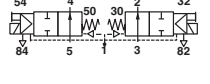
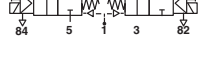
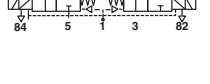
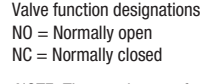
Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2,

Size 18 mm

2x2/2 Double solenoid actuated softseal valves flow = 0.56 Cv (550 l/min)

	Model	Function 2 x 2/2	Actuation	Pilot supply	Pilot pressure psi (bar)	Operating pressure psi (bar)	Manual override	Voltage
	VS18SE11DF313A	NC	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Push only	24 V DC 1.2 W
	VS18SE11DF318A	NC	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Push only	115 V AC 1.5 VA
	VS18SE11DF213A	NC	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Push & turn	24 V DC 1.2 W
	VS18SE11DF218A	NC	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Push & turn	115 V AC 1.5 VA
	VS18SE11DF513A	NC	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Extended, push only	24 V DC 1.2 W
	VS18SE11DF518A	NC	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Extended, push only	115 V AC 1.5 VA
	VS18SF11DF313A	NO	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Push only	24 V DC 1.2 W
	VS18SF11DF318A	NO	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Push only	115 V AC 1.5 VA
	VS18SF11DF213A	NO	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Push & turn	24 V DC 1.2 W
	VS18SF11DF513A	NO	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Extended, push only	24 V DC 1.2 W
	VS18SF11DF518A	NO	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Extended, push only	115 V AC 1.5 VA
	VS18SF11DF218A	NO	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Push & turn	115 V AC 1.5 VA
	VS18SE22DF313A	NC	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Push only	24 V DC 1.2 W
	VS18SE22DF318A	NC	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Push only	115 V AC 1.5 VA
	VS18SE22DF213A	NC	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Push & turn	24 V DC 1.2 W
	VS18SE22DF218A	NC	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Push & turn	115 V AC 1.5 VA
	VS18SE22DF513A	NC	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Extended, push only	24 V DC 1.2 W
	VS18SE22DF518A	NC	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Extended, push only	115 V AC 1.5 VA
	VS18SF22DF313A	NO	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Push only	24 V DC 1.2 W
	VS18SF22DF318A	NO	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Push only	115 V AC 1.5 VA
	VS18SF22DF213A	NO	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Push & turn	24 V DC 1.2 W
	VS18SF22DF218A	NO	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Push & turn	115 V AC 1.5 VA
	VS18SF22DF513A	NO	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Extended, push only	24 V DC 1.2 W
	VS18SF22DF518A	NO	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Extended, push only	115 V AC 1.5 VA
	VS18SG11DF313A	NO/NC	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Push only	24 V DC 1.2 W
	VS18SG11DF318A	NO/NC	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Push only	115 V AC 1.5 VA
	VS18SG11DF213A	NO/NC	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Push & turn	24 V DC 1.2 W
	VS18SG11DF218A	NO/NC	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Push & turn	115 V AC 1.5 VA
	VS18SG11DF513A	NO/NC	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Extended, push only	24 V DC 1.2 W
	VS18SG11DF518A	NO/NC	Sol/spring	Internal	36 to 145 (2.5 to 10) ¹	26" Hg to 145 (-0.9 to 10)	Extended, push only	115 V AC 1.5 VA
	VS18SG22DF313A	NO/NC	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Push only	24 V DC 1.2 W
	VS18SG22DF318A	NO/NC	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Push only	115 V AC 1.5 VA
	VS18SG22DF213A	NO/NC	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Push & turn	24 V DC 1.2 W
	VS18SG22DF218A	NO/NC	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Push & turn	115 V AC 1.5 VA
	VS18SG22DF513A	NO/NC	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Extended, push only	24 V DC 1.2 W
	VS18SG22DF518A	NO/NC	Sol/spring	External	25 + (0.5 x press. port 1) ²	26" Hg to 145 (-0.9 to 10)	Extended, push only	115 V AC 1.5 VA

¹ Pilot air supply through port 1

² Pilot air supply through port 12/14

Valve function designations

NO = Normally open

NC = Normally closed

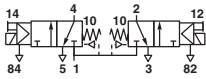
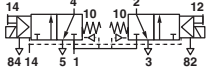
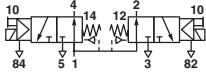
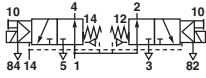
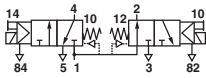
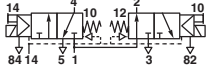
NOTE: The supply ports for the 2x2/2 valves are port 3 & 5 on the end plate. Therefore the flow path is from port 3 to port 2 or port 5 to port 4. Port 1 is only used to supply internal pilot pressure. Therefore care must be used when selecting other valves to be used on the same manifold as the 2x2/2's. You may be required to use isolation plugs in ports 3 & 5 to ensure proper operation.

Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2, Size 18 mm

2x3/2 Double solenoid actuated Softseal valves flow = 0.61 Cv (600 l/min)

	Model	Function 2x3/2	Actuation	Pilot supply	Pilot pressure psi	Operating pressure psi (bar)	Manual override	Voltage
	VS18SA11DF313A	NC	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Push only	24V DC 1.2W
	VS18SA11DF318A	NC	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Push only	115V AC 1.5VA
	VS18SA11DF213A	NC	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Push & turn	24V DC 1.2W
	VS18SA11DF218A	NC	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Push & turn	115V AC 1.5VA
	VS18SA11DF513A	NC	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Extended, push only	24V DC 1.2W
	VS18SA11DF518A	NC	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Extended, push only	115V AC 1.5VA
	VS18SA22DF313A	NC	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Push only	24V DC 1.2W
	VS18SA22DF318A	NC	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Push only	115V AC 1.5VA
	VS18SA22DF213A	NC	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Push & turn	24V DC 1.2W
	VS18SA22DF218A	NC	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Push & turn	115V AC 1.5VA
	VS18SA22DF513A	NC	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Extended, push only	24V DC 1.2W
	VS18SA22DF518A	NC	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Extended, push only	115V AC 1.5VA
	VS18SB11DF313A	NO	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Push only	24V DC 1.2W
	VS18SB11DF318A	NO	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Push only	115V AC 1.5VA
	VS18SB11DF213A	NO	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Push & turn	24V DC 1.2W
	VS18SB11DF218A	NO	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Push & turn	115V AC 1.5VA
	VS18SB11DF513A	NO	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Extended, push only	24V DC 1.2W
	VS18SB11DF518A	NO	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Extended, push only	24V DC 1.2W
	VS18SB22DF313A	NO	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Push only	115V AC 1.5VA
	VS18SB22DF318A	NO	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Push only	115V AC 1.5VA
	VS18SB22DF213A	NO	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Push & turn	24V DC 1.2W
	VS18SB22DF218A	NO	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Push & turn	115V AC 1.5VA
	VS18SB22DF513A	NO	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Extended, push only	24V DC 1.2W
	VS18SB22DF518A	NO	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Extended, push only	115V AC 1.5VA
	VS18SC11DF313A	NO/NC	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Push only	115V AC 1.5VA
	VS18SC11DF213A	NO/NC	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Push & turn	24V DC 1.2W
	VS18SC11DF218A	NO/NC	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Push & turn	115V AC 1.5VA
	VS18SC11DF513A	NO/NC	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Extended, push only	24V DC 1.2W
	VS18SC11DF518A	NO/NC	Sol/spring	Internal	-	36 to 145 (2.5 to 10)	Extended, push only	115V AC 1.5VA
	VS18SC22DF313A	NO/NC	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Push only	24V DC 1.2W
	VS18SC22DF318A	NO/NC	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Push only	115V AC 1.5VA
	VS18SC22DF213A	NO/NC	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Push & turn	24V DC 1.2W
	VS18SC22DF218A	NO/NC	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Push & turn	115V AC 1.5VA
	VS18SC22DF513A	NO/NC	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Extended, push only	24V DC 1.2W
	VS18SC22DF518A	NO/NC	Sol/spring	External	25 + (0.5 x op. press)	0 to 145 (0 to 10)	Extended, push only	115V AC 1.5VA

Valve functions designations:

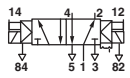
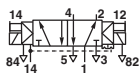
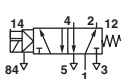
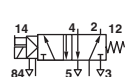
NO = Normally open

NC = Normally closed

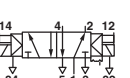
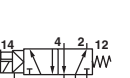
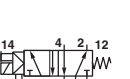
Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

5/2 Single and double solenoid actuated
Glandless valves flow = 0.56 Cv (550 l/min)

	Model	Function	Actuation	Pilot supply	Pilot pressure psi (bar)	Operating pressure psi (bar)	Manual override	Voltage
	VS18G511DF313A	5/2	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push only	24V DC 1.2W
	VS18G511DF318A	5/2	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push only	115V AC 1.5VA
	VS18G511DF213A	5/2	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push & turn	24V DC 1.2W
	VS18G511DF218A	5/2	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push & turn	115V AC 1.5VA
	VS18G511DF513A	5/2	Sol/sol	Internal	-	29 to 145 (2 to 10)	Extended, push only	24V DC 1.2W
	VS18G511DF518A	5/2	Sol/sol	Internal	-	29 to 145 (2 to 10)	Extended, push only	115V AC 1.5VA
	VS18G522DF313A	5/2	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Push only	24V DC 1.2W
	VS18G522DF318A	5/2	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Push only	115V AC 1.5VA
	VS18G522DF213A	5/2	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Push & turn	24V DC 1.2W
	VS18G522DF218A	5/2	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Push & turn	115V AC 1.5VA
	VS18G522DF513A	5/2	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Extended, push only	24V DC 1.2W
	VS18G522DF518A	5/2	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Extended, push only	115V AC 1.5VA
	VS18G517DF313A	5/2	Sol/spring	Internal	-	23 to 145 (1.6 to 10)	Push only	24V DC 1.2W
	VS18G517DF318A	5/2	Sol/spring	Internal	-	23 to 145 (1.6 to 10)	Push only	115V AC 1.5VA
	VS18G517DF213A	5/2	Sol/spring	Internal	-	23 to 145 (1.6 to 10)	Push & turn	24V DC 1.2W
	VS18G517DF218A	5/2	Sol/spring	Internal	-	23 to 145 (1.6 to 10)	Push & turn	115V AC 1.5VA
	VS18G517DF513A	5/2	Sol/spring	Internal	-	23 to 145 (1.6 to 10)	Extended, push only	24V DC 1.2W
	VS18G517DF518A	5/2	Sol/spring	Internal	-	23 to 145 (1.6 to 10)	Extended, push only	115V AC 1.5VA
	VS18G527DF313A	5/2	Sol/spring	External	23 to 145 (1.6 to 10)	26" Hg to 232 (-0.9 to 16)	Push only	24V DC 1.2W
	VS18G527DF318A	5/2	Sol/spring	External	23 to 145 (1.6 to 10)	26" Hg to 232 (-0.9 to 16)	Push only	115V AC 1.5VA
	VS18G527DF213A	5/2	Sol/spring	External	23 to 145 (1.6 to 10)	26" Hg to 232 (-0.9 to 16)	Push & turn	24V DC 1.2W
	VS18G527DF218A	5/2	Sol/spring	External	23 to 145 (1.6 to 10)	26" Hg to 232 (-0.9 to 16)	Push & turn	115V AC 1.5VA
	VS18G527DF513A	5/2	Sol/spring	External	23 to 145 (1.6 to 10)	26" Hg to 232 (-0.9 to 16)	Extended, push only	24V DC 1.2W
	VS18G527DF518A	5/2	Sol/spring	External	23 to 145 (1.6 to 10)	26" Hg to 232 (-0.9 to 16)	Extended, push only	115V AC 1.5VA

5/2 Single and double solenoid actuated
Softseal valves flow = 0.66 Cv (650 l/min)

	Model	Function	Actuation	Pilot supply	Pilot pressure psi (bar)	Operating pressure psi (bar)	Manual override	Voltage
	VS18S511DF313A	5/2	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push only	24V DC 1.2W
	VS18S511DF318A	5/2	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push only	115V AC 1.5VA
	VS18S511DF213A	5/2	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push & turn	24V DC 1.2W
	VS18S511DF218A	5/2	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push & turn	115V AC 1.5VA
	VS18S511DF513A	5/2	Sol/sol	Internal	-	29 to 145 (2 to 10)	Extended, push only	24V DC 1.2W
	VS18S511DF518A	5/2	Sol/sol	Internal	-	29 to 145 (2 to 10)	Extended, push only	115V AC 1.5VA
	VS18S522DF313A	5/2	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Push only	24V DC 1.2W
	VS18S522DF318A	5/2	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Push only	115V AC 1.5VA
	VS18S522DF213A	5/2	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Push & turn	24V DC 1.2W
	VS18S522DF218A	5/2	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Push & turn	115V AC 1.5VA
	VS18S522DF513A	5/2	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Extended, push only	24V DC 1.2W
	VS18S522DF518A	5/2	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Extended, push only	115V AC 1.5VA
	VS18S517DF313A	5/2	Sol/spring	Internal	-	29 to 145 (2 to 10)	Push only	24V DC 1.2W
	VS18S517DF318A	5/2	Sol/spring	Internal	-	29 to 145 (2 to 10)	Push only	115V AC 1.5VA
	VS18S517DF213A	5/2	Sol/spring	Internal	-	29 to 145 (2 to 10)	Push & turn	24V DC 1.2W
	VS18S517DF218A	5/2	Sol/spring	Internal	-	29 to 145 (2 to 10)	Push & turn	115V AC 1.5VA
	VS18S517DF513A	5/2	Sol/spring	Internal	-	29 to 145 (2 to 10)	Extended, push only	24V DC 1.2W
	VS18S517DF518A	5/2	Sol/spring	Internal	-	29 to 145 (2 to 10)	Extended, push only	115V AC 1.5VA
	VS18S527DF313A	5/2	Sol/spring	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Push only	24V DC 1.2W
	VS18S527DF318A	5/2	Sol/spring	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Push only	115V AC 1.5VA
	VS18S527DF213A	5/2	Sol/spring	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Push & turn	24V DC 1.2W
	VS18S527DF218A	5/2	Sol/spring	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Push & turn	115V AC 1.5VA
	VS18S527DF513A	5/2	Sol/spring	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Extended, push only	24V DC 1.2W
	VS18S527DF518A	5/2	Sol/spring	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Extended, push only	115V AC 1.5VA

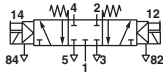
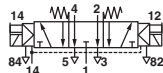
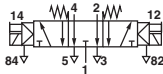
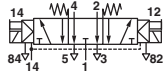
Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2, Size 18 mm

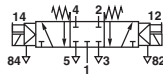
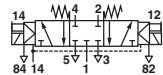
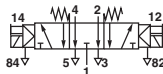
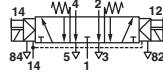
5/3 Double solenoid actuated

Glandless valves flow = 0.56 Cv (550 l/min)

	Model	Function 5/3	Actuation	Pilot supply	Pilot pressure psi (bar)	Operating pressure psi (bar)	Manual override	Voltage
	VS18G611DF313A	APB	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push only	24V DC 1.2W
	VS18G611DF318A	APB	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push only	115V AC 1.5VA
	VS18G611DF213A	APB	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push & turn	24V DC 1.2W
	VS18G611DF218A	APB	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push & turn	115V AC 1.5VA
	VS18G611DF513A	APB	Sol/sol	Internal	-	29 to 145 (2 to 10)	Extended, push only	24V DC 1.2W
	VS18G611DF518A	APB	Sol/sol	Internal	-	29 to 145 (2 to 10)	Extended, push only	115V AC 1.5VA
	VS18G622DF313A	APB	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Push only	24V DC 1.2W
	VS18G622DF318A	APB	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Push only	115V AC 1.5VA
	VS18G622DF213A	APB	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Push & turn	24V DC 1.2W
	VS18G622DF218A	APB	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Push & turn	115V AC 1.5VA
	VS18G622DF513A	APB	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Extended, push only	24V DC 1.2W
	VS18G622DF518A	APB	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Extended, push only	115V AC 1.5VA
	VS18G711DF313A	COE	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push only	24V DC 1.2W
	VS18G711DF318A	COE	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push only	115V AC 1.5VA
	VS18G711DF213A	COE	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push & turn	24V DC 1.2W
	VS18G711DF218A	COE	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push & turn	115V AC 1.5VA
	VS18G711DF513A	COE	Sol/sol	Internal	-	29 to 145 (2 to 10)	Extended, push only	24V DC 1.2W
	VS18G711DF518A	COE	Sol/sol	Internal	-	29 to 145 (2 to 10)	Extended, push only	115V AC 1.5VA
	VS18G722DF313A	COE	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Push only	24V DC 1.2W
	VS18G722DF318A	COE	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Push only	115V AC 1.5VA
	VS18G722DF213A	COE	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Push & turn	24V DC 1.2W
	VS18G722DF218A	COE	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Push & turn	115V AC 1.5VA
	VS18G722DF513A	COE	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Extended, push only	24V DC 1.2W
	VS18G722DF518A	COE	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 232 (-0.9 to 16)	Extended, push only	115V AC 1.5VA

5/3 Double solenoid actuated

Softseal valves flow = 0.66 Cv (650 l/min)

	Model	Function 5/3	Actuation	Pilot supply	Pilot pressure psi (bar)	Operating pressure psi (bar)	Manual override	Volatage
	VS18S611DF313A	APB	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push only	24V DC 1.2W
	VS18S611DF318A	APB	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push only	115V AC 1.5VA
	VS18S611DF213A	APB	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push & turn	24V DC 1.2W
	VS18S611DF218A	APB	Sol/sol	Internal	-	29 to 145 (2 to 10)	Push & turn	115V AC 1.5VA
	VS18S611DF513A	APB	Sol/sol	Internal	-	29 to 145 (2 to 10)	Extended, push only	24V DC 1.2W
	VS18S611DF518A	APB	Sol/sol	Internal	-	29 to 145 (2 to 10)	Extended, push only	115V AC 1.5VA
	VS18S622DF313A	APB	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Push only	24V DC 1.2W
	VS18S622DF318A	APB	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Push only	115V AC 1.5VA
	VS18S622DF213A	APB	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Push & turn	24V DC 1.2W
	VS18S622DF218A	APB	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Push & turn	115V AC 1.5VA
	VS18S622DF513A	APB	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Extended, push only	24V DC 1.2W
	VS18S622DF518A	APB	Sol/sol	External	29 to 145 (2 to 10)	26" Hg to 145 (-0.9 to 10)	Extended, push only	115V AC 1.5VA
	VS18S711DF313A	COE	Sol/sol	Internal	-	36 to 145 (2.5 to 10)	Push only	24V DC 1.2W
	VS18S711DF318A	COE	Sol/sol	Internal	-	36 to 145 (2.5 to 10)	Push only	115V AC 1.5VA
	VS18S711DF213A	COE	Sol/sol	Internal	-	36 to 145 (2.5 to 10)	Push & turn	24V DC 1.2W
	VS18S711DF218A	COE	Sol/sol	Internal	-	36 to 145 (2.5 to 10)	Push & turn	115V AC 1.5VA
	VS18S711DF513A	COE	Sol/sol	Internal	-	36 to 145 (2.5 to 10)	Extended, push only	24V DC 1.2W
	VS18S711DF518A	COE	Sol/sol	Internal	-	36 to 145 (2.5 to 10)	Extended, push only	115V AC 1.5VA
	VS18S722DF313A	COE	Sol/sol	External	36 to 145 (2.5 to 10)	26" Hg to 145 (-0.9 to 10)	Push only	24V DC 1.2W
	VS18S722DF318A	COE	Sol/sol	External	36 to 145 (2.5 to 10)	26" Hg to 145 (-0.9 to 10)	Push only	115V AC 1.5VA
	VS18S722DF213A	COE	Sol/sol	External	36 to 145 (2.5 to 10)	26" Hg to 145 (-0.9 to 10)	Push & turn	24V DC 1.2W
	VS18S722DF218A	COE	Sol/sol	External	36 to 145 (2.5 to 10)	26" Hg to 145 (-0.9 to 10)	Push & turn	115V AC 1.5VA
	VS18S722DF513A	COE	Sol/sol	External	36 to 145 (2.5 to 10)	26" Hg to 145 (-0.9 to 10)	Extended, push only	24V DC 1.2W
	VS18S722DF518A	COE	Sol/sol	External	36 to 145 (2.5 to 10)	26" Hg to 145 (-0.9 to 10)	Extended, push only	115V AC 1.5VA

Valve functions designations:

APB = All ports blocked

COE = Centre open exhaust

Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2,

Size 18 mm

Valve part number breakdown

VS18****DF****A

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
2x2/2 Normally closed ¹⁾	E
2x2/2 Normally open ¹⁾	F
2x2/2 Normally open/Normally closed ¹⁾	G
5/2	5
5/3 All ports blocked	6
5/3 Center open exhaust	7

¹⁾ Available with softseal spool only

Voltage	Substitute
24V DC 1.2W	13
115V AC 1.5VA	18

Manual override	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

Electrical details for solenoid operators

Voltage tolerances	(24V DC) +/- 10%
Voltage tolerances	(115V AC) +15%/-10%
Rating	100 % Continuous duty
Inlet orifice	0.8 mm
Indication	LED green
Surge suppression	Transil diode
Materials	PPS (body), Viton and NBR (seal)

Protection classification (IP Code)

All VS18 valve manifolds 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.

ATEX

The 24 V d.c Multipole and Fieldbus valve manifolds fulfil the requirement of the standard 94/9/EC for intended use in hazardous locations.

Equipment group, category, type of protection:



The Declaration of Conformity of the valve islands was conducted by Electrosuisse, who issued number SEV 04 ATEX 0114 X.

Please review all ATEX data and notes in the maintenance and instruction booklet to eliminate any risks, allowing for safe function of the valve manifolds.

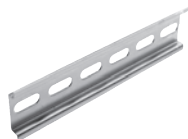
Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2, Size 18 mm

Accessories

DIN EN 50 022 rail (1 meter)



V10009-C00 (35 x 7.5 mm)

V10592-C01 (35 x 15 mm)

DIN-rail mounting kit



V70531-KA0

Blanking disc to modular sub-base



VS1872405-KF00 (Ports 1, 3, 5)

VS1872406-KF00 (Port 12/14)

Manual override set-up kit



VS2673606-KG00

Extended manual override kit



VS2672960-KG00

Spare valve identification labels 1)



VS2672905-KG00 (10 pcs)

Blanking plug for base connector hole 2)



VS2672914-KG00

1) When purchasing assembled valve manifolds from Norgren, valve identification labels are already included.

2) When V40/V41 valves are fitted on VS18 bases.

Base accessories

Intermediate supply/exhaust module



VS1872402-AF00 (G 1/8)

VS1872402-PF00 (NPTF 1/8)

Blanking plate



VS1872404-KF00

Replacement gauge



V70534-500

Pilot valves

Part no.	Description*	Voltage	Manual override
VS2672930-KG00	Pilot valve	24V DC 1.2W	Push only
VS2672932-KG00	Pilot valve	24V DC 1.2W	Push & turn
VS2672934-KG00	Pilot valve	24V DC 1.2W	Extended, push only
VS2672931-KG00	Pilot valve	115V AC 1.5VA	Push only
VS2672933-KG00	Pilot valve	115V AC 1.5VA	Push & turn
VS2672935-KG00	Pilot valve	115V AC 1.5VA	Extended, push only

* Kit includes screws, gasket and V-ring

Sandwich plates

Single pressure regulator plate



VS1872400-KF10 (Port 1)

VS1872400-KF20 (Port 2)

VS1872400-KF30 (Port 4)

Double pressure regulator plate



VS1872400-KF40 (Ports 2+4)

Sandwich flow control



VS1872401-KF00 (Ports 3+5)

Sandwich plate with additional pressure port 1



VS1872428-KF00 (G1/8)

VS1872429-KF00 (NPTF 1/8)

Single valve shut-off plate



VS1872403-KF00 (Port 1)

Sub-bases and end plates

Single station sub-base



See page VAL-10

Double station modular sub-base

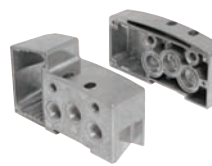


Single station modular sub-base



See page VAL-24 for additional information

End plate kit



Valve Manifolds VS18 Series

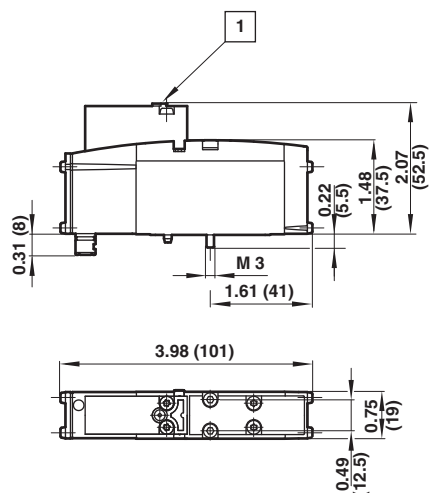
Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2,

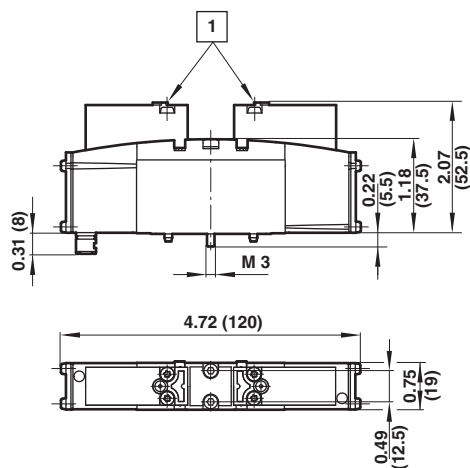
Size 18 mm

Valve dimensions

VS18*5*7DF*1*A models
5/2 Single solenoid pilot valve
Mechanical spring return



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



1 Manual override

Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

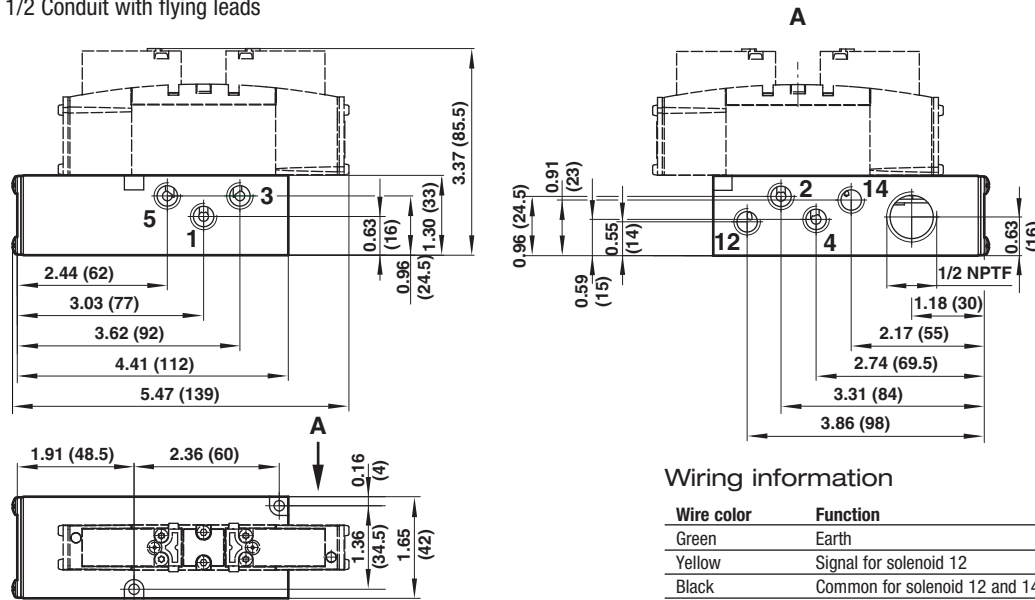
2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2, Size 18 mm

Dimensions in inches (mm)

Single station sub-base

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

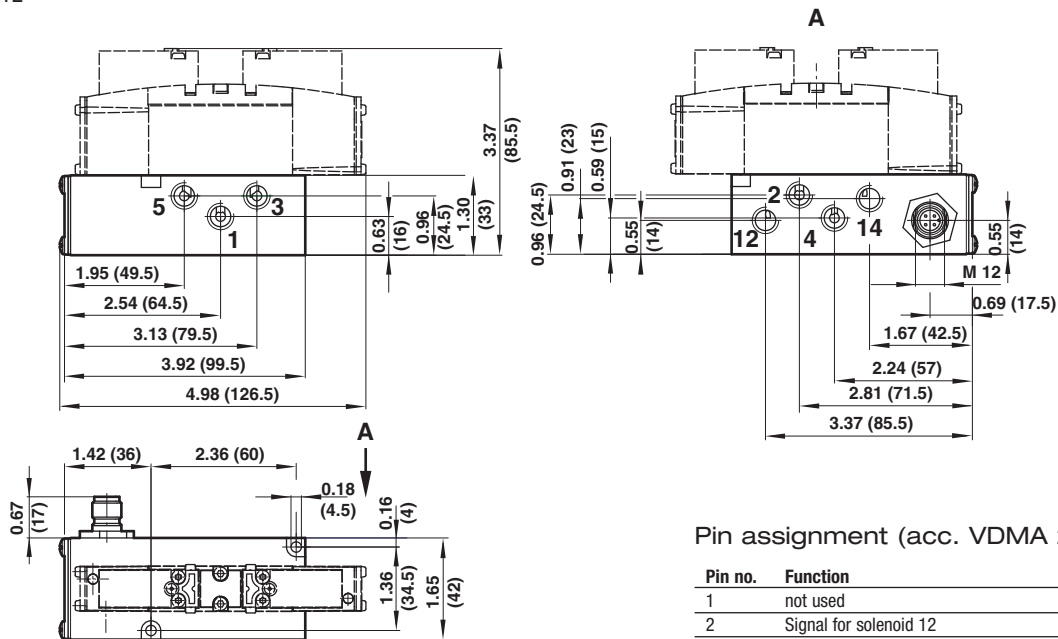
Connector type: NPTF 1/2 Conduit with flying leads



Wiring information

Wire color	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 (acc. VDMA 24571)

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



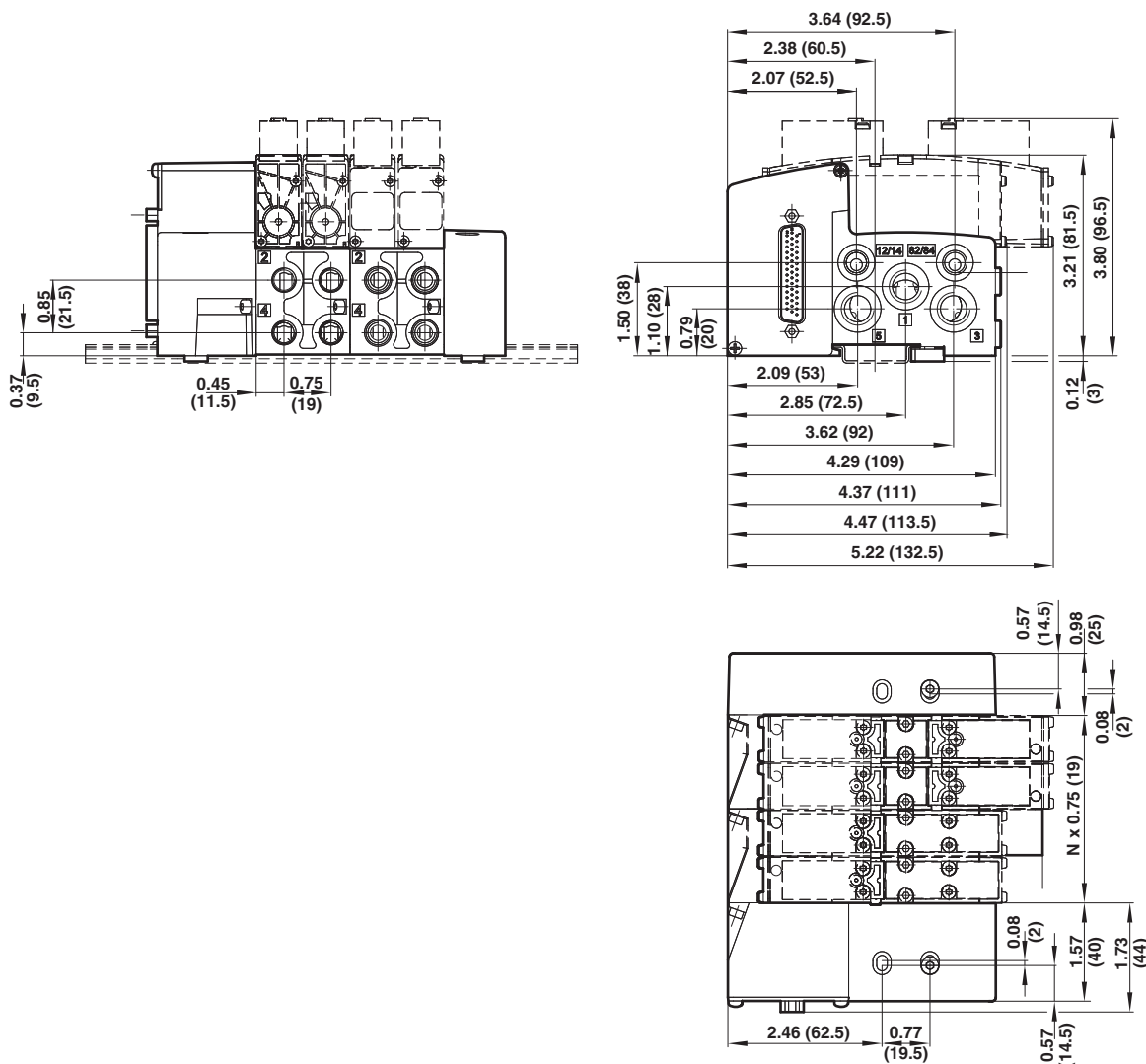
Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2,

Size 18 mm

Valve manifolds dimensions



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

N Number of station

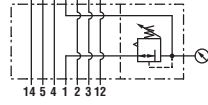
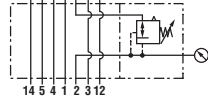
Valve Manifolds VS18 Series

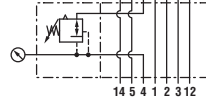
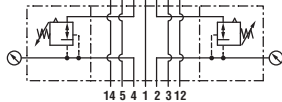
Plug-in Mini ISO Valves

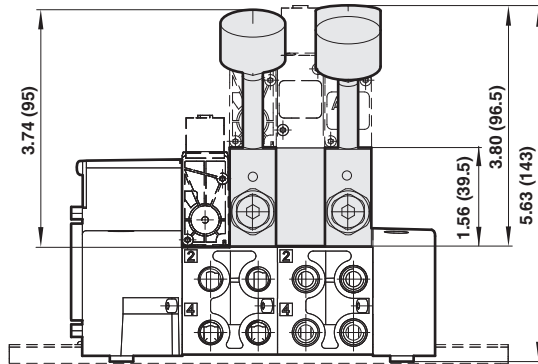
2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2, Size 18 mm

Sandwich plates

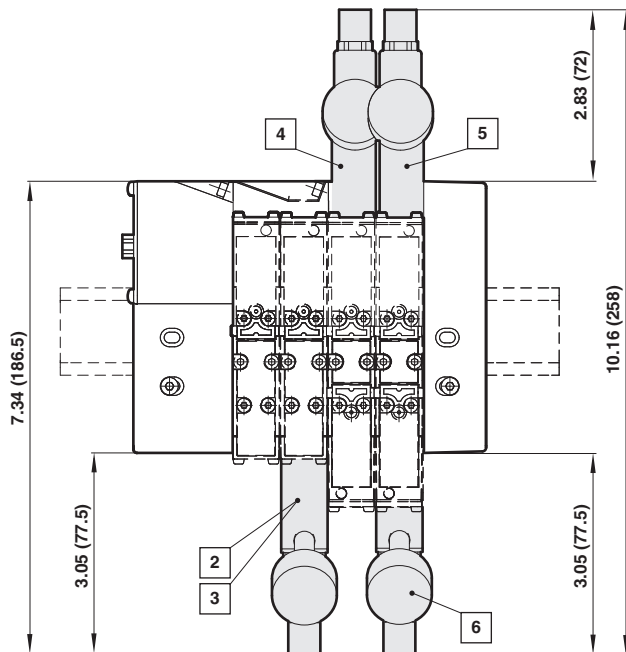
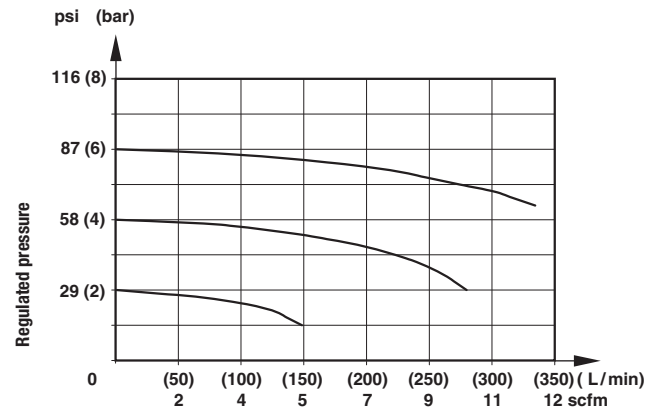
Pressure regulator sandwich plates

Symbol	Model	Description
	VS1872400-KF10	Regulation of port 1, regulator on side 12
	VS1872400-KF20	Regulation of port 2, regulator on side 12

Symbol	Model	Description
	VS1872400-KF30	Regulation of port 4, regulator on side 14
	VS1872400-KF40	Regulation of port 2+4



Flow characteristics for pressure regulator plates



Gauge part number = V70534-500

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

Valve Manifolds VS18 Series

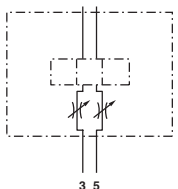
Plug-in Mini ISO Valves

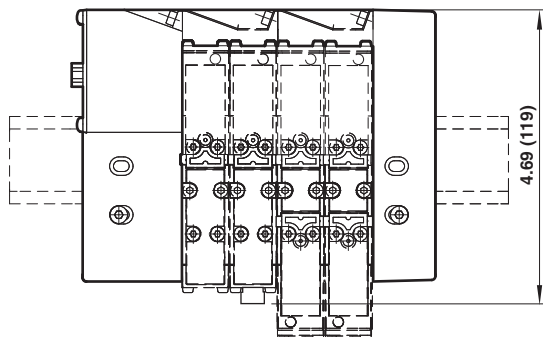
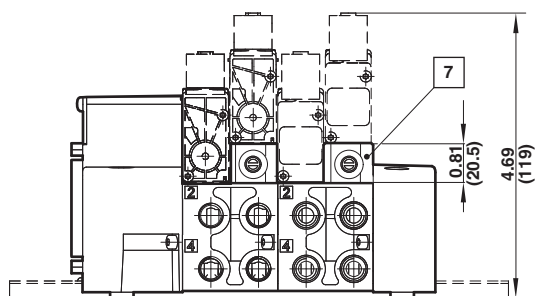
2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2,

Size 18 mm

Sandwich plates

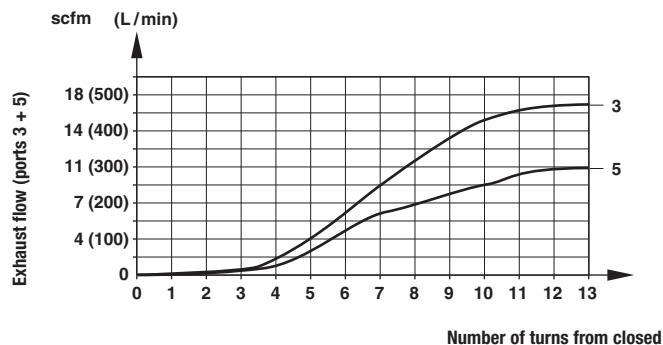
Flow control sandwich plate

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



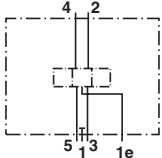
7 Flow control plate

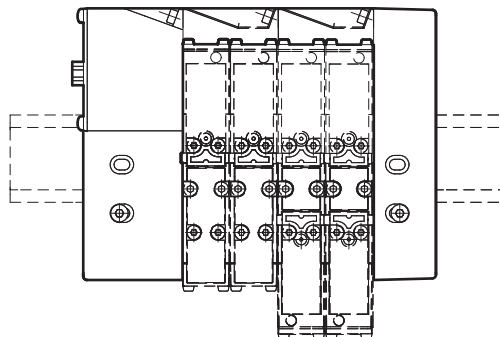
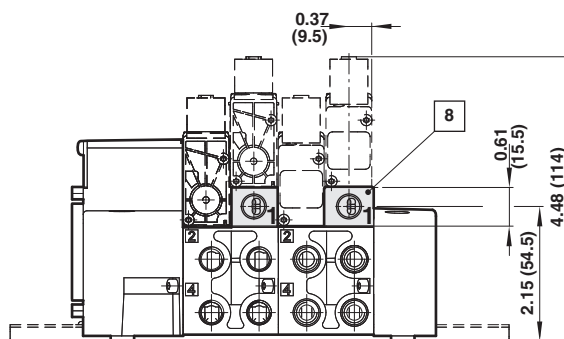
Flow characteristics
Dual regulation of exhaust ports 3 and 5



Flow: port 1-2 and 1-4: remains unchanged.
Flow measured at 87 psi (6 bar) inlet, pressure drop 14.5 psi (1 bar)

Sandwich plate with additional pressure port 1

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 (NPTF1/8), supplied with gasket



8 Sandwich plate with additional pressure port 1

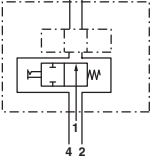
Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2, Size 18 mm

Sandwich plates

Single valve shut-off plate

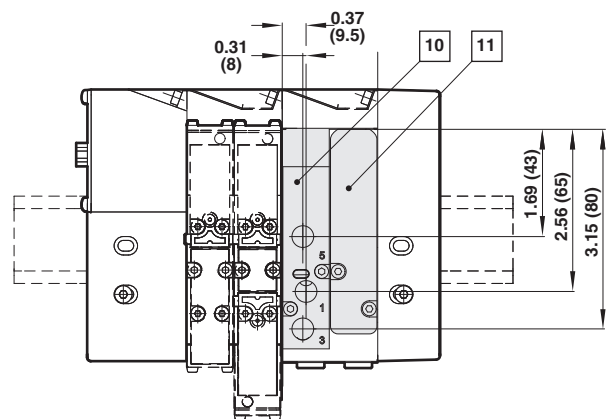
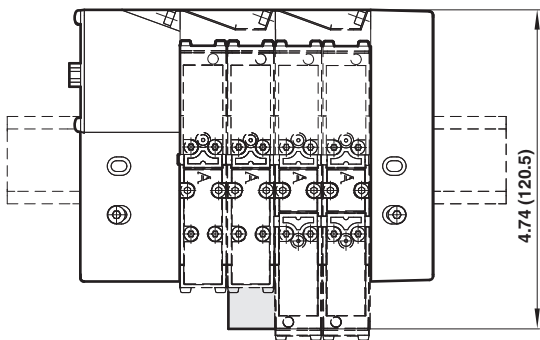
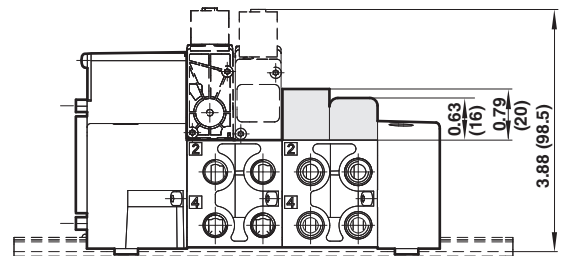
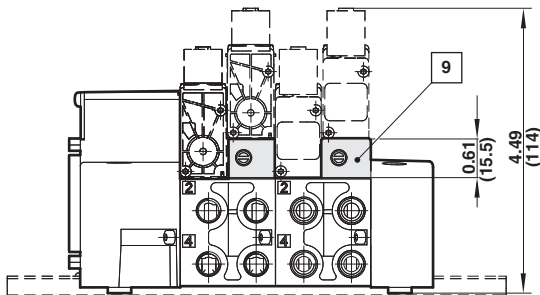
Symbol	Model	Description
	VS1872403-KF00	Single valve shut-off plate supplied with gasket

Base accessories

Model	Description
VS1872403-PF00	Intermediate supply/exhaust module, port size NPTF 1/8
VS1872402-AF00	Intermediate supply/exhaust module, port size G1/8
VS1872404-KF00	Blanking plate for blocking of unused station (supplied with gasket)

Allows individual exchange of valve while valve island is pressurised by port 1.

Flow restricted to max. Cv 0.24 (240 l/min.)



- 9 Single valve shut-off plate
- 10 Intermediate supply/exhaust module
- 11 Blanking plate

Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2,

Size 18 mm

Multi pressure configurations

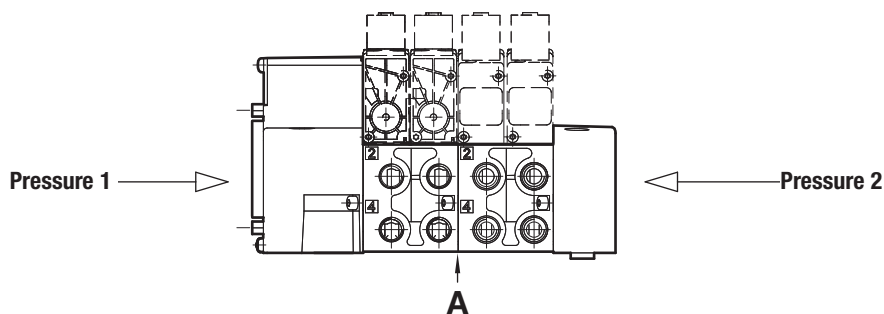
A

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

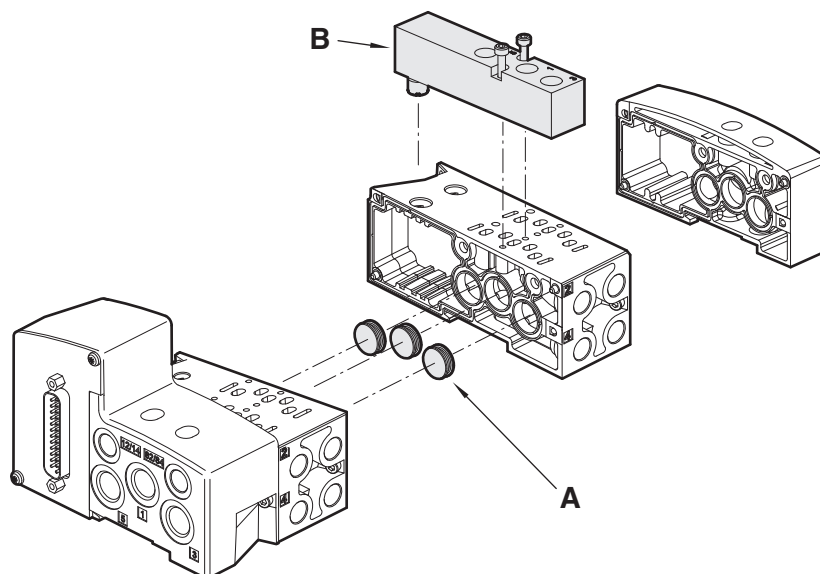
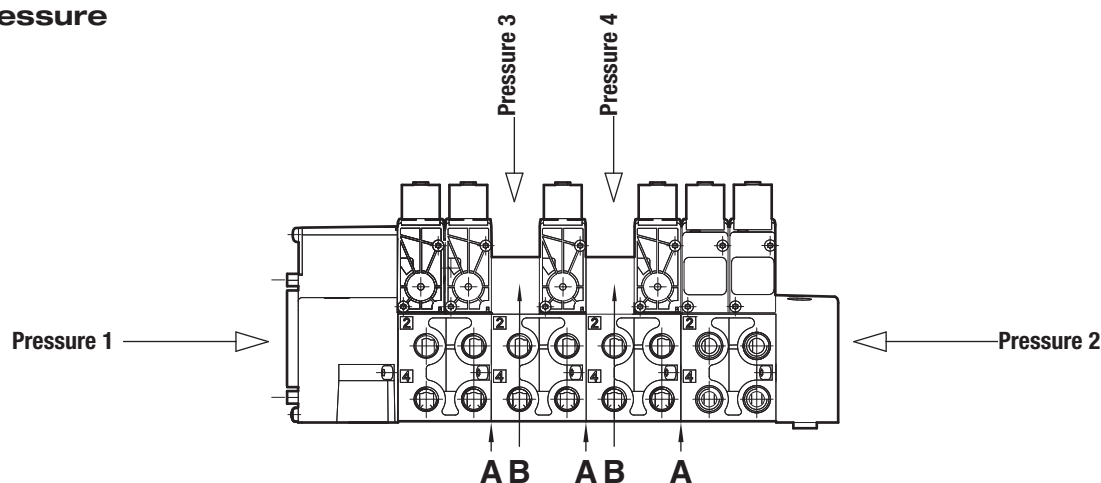
B

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

Dual pressure



Multi pressure



Valve Manifolds VS18 Series

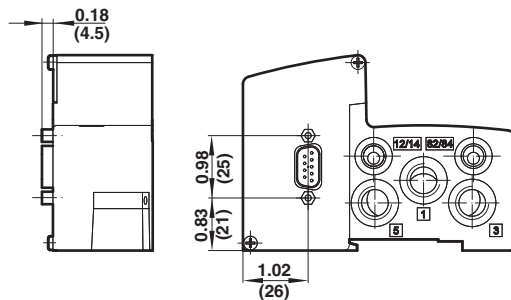
Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2, Size 18 mm

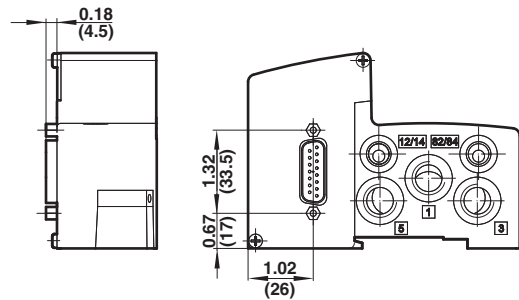
Multipole options

Connector type	Voltage	No. of stations	Max. no. coils
D-Sub 9-pin	24V DC	02/03/04	8
D-Sub 15-pin	24V DC	02/03/04/05/06/07	14
D-Sub 25-pin	24V DC	02/03/04/05/06/07/08/09/10/11/12	24
D-Sub 44-pin	24V DC	08/09/10/11/12/13/14/15/16	32
M23 19-pin	115 V AC, 24 V DC	02/03/04/05/06/07/08	16
NPTF 1" Conduit entry with terminals	115V AC, 24V DC	02/03/04/05/06/07/08/09/10/11/12	24

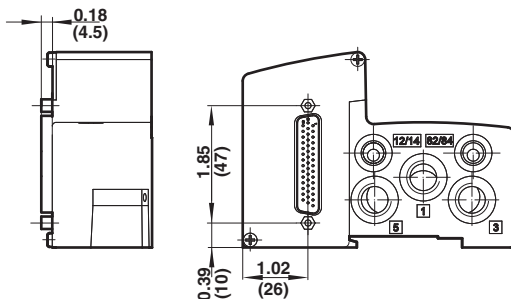
D-Sub 9-pin



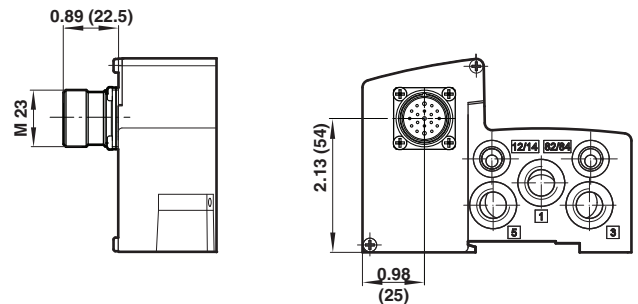
D-Sub 15-pin



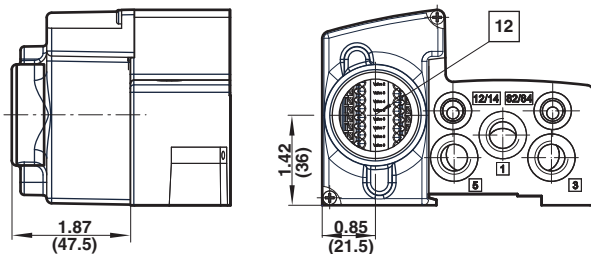
D-Sub 25-pin / 44-pin



M23 19-pin



NPTF 1" Conduit entry with terminals



12 Max. wire size AWG18

Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2,

Size 18 mm

Multipole accessories

D-Sub connector 9-pin IP65 ¹⁾



VS2672910-KG00	3' (1m)
VS2672911-KG00	10' (3m)
VS2672912-KG00	16' (5m)

D-Sub connector 15-pin IP65 ¹⁾



VS2672915-KG00	3' (1m)
VS2672916-KG00	10' (3m)
VS2672917-KG00	16' (5m)

D-Sub connector 25-pin IP65 ¹⁾



V11569-E01	3' (1m)
V11569-E03	10' (3m)
V11569-E05	16' (5m)

D-Sub connector 44-pin IP65 ¹⁾



V11570-E01	3' (1m)
V11570-E03	10' (3m)
V11570-E05	16' (5m)

M23 connector 19-pin IP65 ¹⁾



VS2672943-KG00	3' (1m)
VS2672944-KG00	10' (3m)
VS2672945-KG00	16' (5m)

¹⁾ Required for ATEX

D-Sub connector 9-pin^A

Pin no.	Wire color	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 25-pin^A

Pin no.	Wire color	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 15-pin^A

Pin no.	Wire color	Special	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	-	-

^{A)} According to DIN 47100

Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2, Size 18 mm

D-Sub connector 44-pin

Pin no.	Wire color	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	green/black	Common	-	-
44	yellow/black	Common	-	-

M23 connector 19-pin

Pin no.	Wire color	Socket	Pilot	Station
1	White	Solenoid 8-a	14	8
2	Brown (thin)	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	Blue (thin)	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	-	-

NPTF 1" Conduit entry with terminals¹⁾

Clamp 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	-	-

¹⁾ Max. wire size AWG18

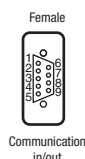
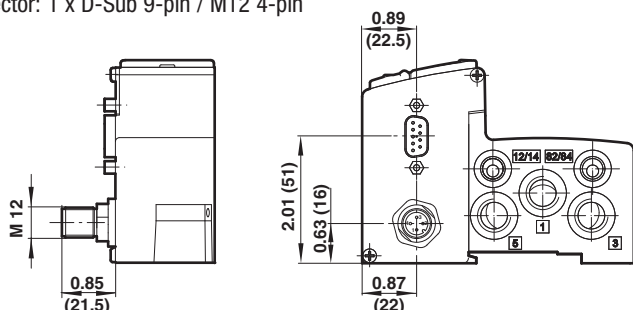
Fieldbus options: Overview

Fieldbus protocol	Fieldbus interface/connector	Supply voltage connector (Fieldbus and valves)	No. of stations	Max. no. coils
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
Interbus-S	2 x D-Sub 9-pin	M12 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
AS-Interface - Single slave	1 x M12 4-pin	M12 4-pin	02/03/04	4
AS-Interface - Double slave	1 x M12 4-pin	M12 4-pin	04/05/06/07/08	8
FD67 bus	2 x M12 6-pin	(integrated in bus connector)	04/05/06/07/08/09/10/11/12/13/14/15/16	32
DeviceNet	1 x M12 5-pin	M12 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
CANopen	1 x M12 5-pin	M12 4-pin	04/05/06/07/08/09/10/11/12/13/14/15/16	32
AB RIO	2 x M12 5-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

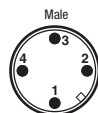


Bus connector: D-Sub 9-pin

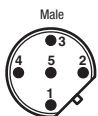
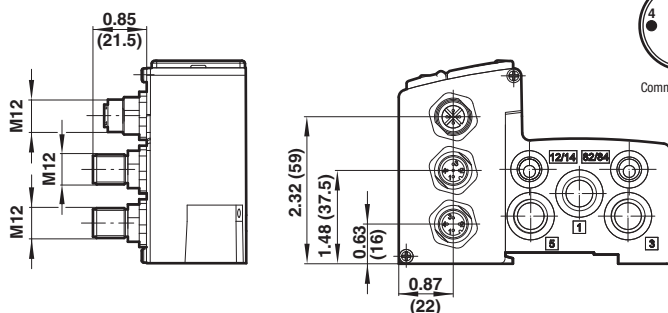
Pin no.	Function
1	Shield
2	N/C
3	B-line (red) Rx/D / Tx/D-P
4	N/C
5	DGND (OVI) isolated
6	VP (5VI) isolated
7	N/C
8	A-line (green) Rx/D / Tx/D-N
9	N/C

Power connector: M12 4-pin

Pin no.	Function	Tolerance	Max. current
1	24 VB logic circuit supply	+/-25%	300 mA
2	24 VA valves	+/-10%	1)
3	0 volts	-	2)
4	Earth	-	-



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

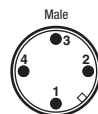


Bus connector: M12 5-pin (B-coded)

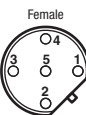
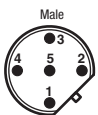
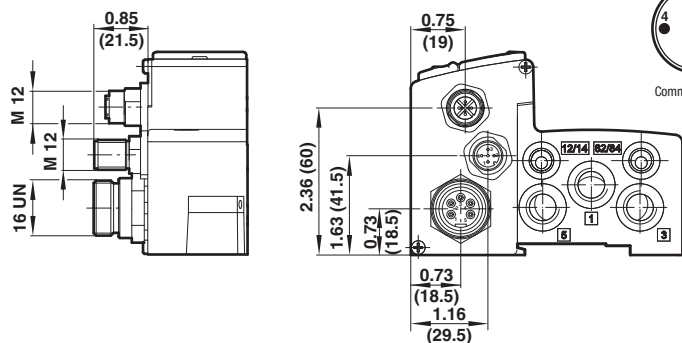
Pin no.	Function
1	5VI opto isolated
2	A-line (green)
3	OVI isolated
4	B-line (red)
5	Shield
Threaded joint	Shield

Power connector: M12 4-pin

Pin no.	Function	Tolerance	Max. current
1	24 VB logic circuit supply	+/-25%	300 mA
2	24 VA valves	+/-10%	1)
3	0 volts	-	2)
4	Earth	-	-



Connector: 2 x M12 5-pin / 7/8 5-pin

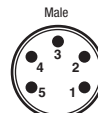


Bus connector: M12 5-pin (B-coded)

Pin no.	Function
1	5VI isolated
2	A-line (green)
3	OVI isolated
4	B-line (red)
5	Shield
Threaded joint	Shield

Power connector: 7/8 5-pin

Pin no.	Function	Tolerance	Max. current
1	-	-	-
2	0 volts	-	2)
3	Earth	-	-
4	24 VA valves	+/-10%	1)
5	24 VB logic circuit supply	+/-25%	300 mA



- $I_{\max} = 10 \text{ mA} + n \cdot 60 \text{ mA}$
n = number of energized solenoids
- $I_{\max} = I_{VA} + I_{VB}$

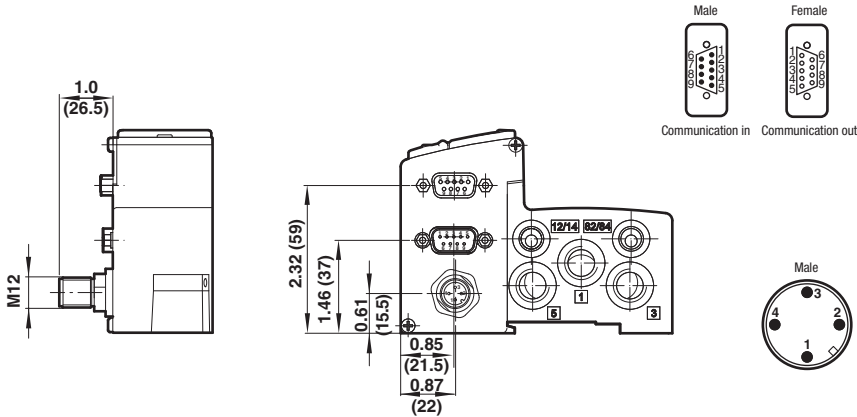
Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2, Size 18 mm

Fieldbus protocol: Interbus-S

Connector: 2 x D-Sub 9-pin / M12 4-pin



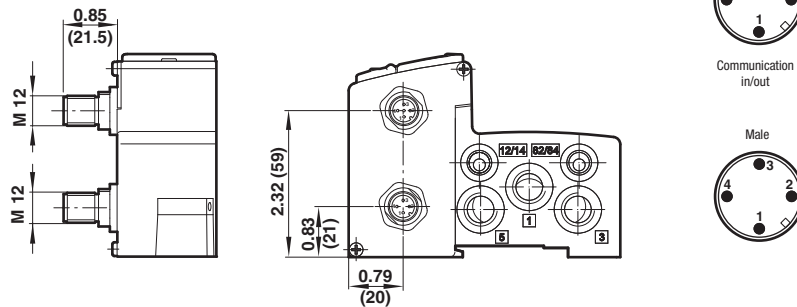
Bus connector: D-Sub 9-pin

Pin no.	Function Male	Function Female
1	DO	DO
2	DI	DI
3	OVI	OVI
4	—	—
5	—	+5VI
6	/DO	/DO
7	/DI	/DI
8	—	—
9	—	RBST

Power connector: M12 4-pin

Pin no.	Function	Tolerance	Max. current
1	24 VB logic circuit supply	+/-25%	300 mA
2	24 VA valves	+/-10%	1)
3	0 volts	—	2)
4	Earth	—	—

Fieldbus protocol: AS-Interface



Bus connector: M12 4-pin

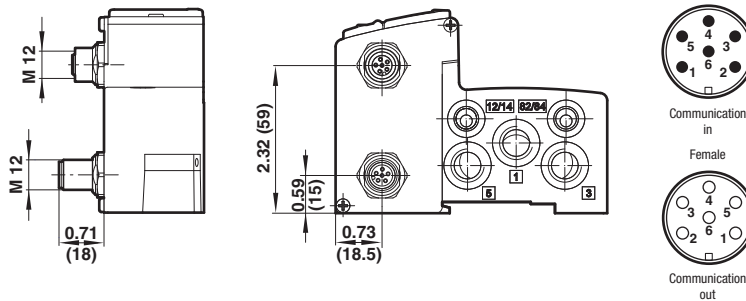
Pin no.	Function	Max. current
1	AS-I	3)
2	—	—
3	AS-I	—
4	—	—

Power connector: M12 4-pin

Pin no.	Function	Tolerance	Max. current
1	+24 V DC	+/-10%	4)
2	—	—	—
3	0 volts	—	—
4	—	—	—

Fieldbus protocol: FD67 bus

Connector: 2 x M12 6-pin (power connector integrated in bus connectors)



Bus connector: M12 6-pin (B-coded)

Pin no.	Function	Tolerance	Max. current
1	24 V actuator supply	±10%	5)
2	24 V sensor supply/internal supply	±25%	30 mA
3	Ground	—	—
4	Internal system connection	—	—
5	Internal system connection	—	—
6	Ground	—	—

- $I_{max} = 10 \text{ mA} + n \cdot 60 \text{ mA}$
n = number of energized solenoids
- $I_{max} = I_{VA} + I_{VB}$
- Single slave: 40 mA
Double slave: 75 mA
- Single slave:
 $I_{max} = 20 \text{ mA} + n \cdot 60 \text{ mA}$
Double slave:
 $I_{max} = 35 \text{ mA} + n \cdot 60 \text{ mA}$
n = number of energized solenoids
- $I_{max} = n \cdot 60 \text{ mA}$
n = number of energized solenoids

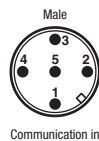
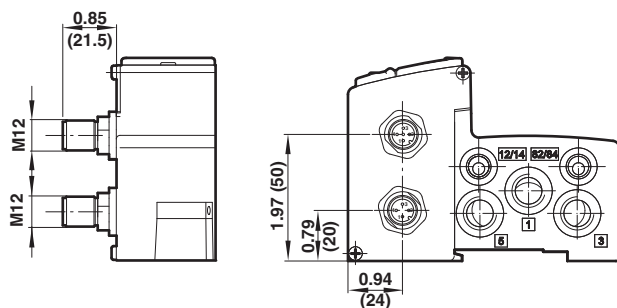
Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x3/2, 5/2 and 5/3 valves, ISO 15407-2, Size 18 mm

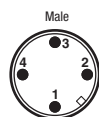
Fieldbus protocol: DeviceNet

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



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

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

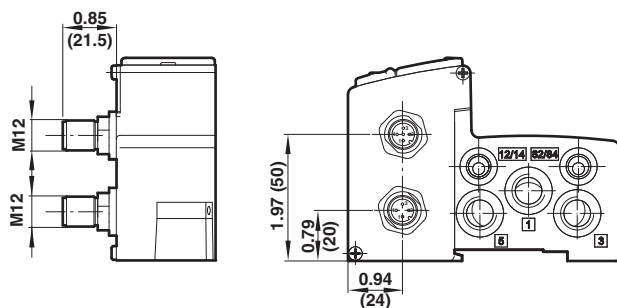


Power connector: M12 4-pin

Pin no.	Function	Tolerance	Max current
1	24 VB logic circuit supply	+/-25%	300 mA
2	24 VA valves	+/-10%	1)
3	0 volts	-	2)
4	Earth	-	-

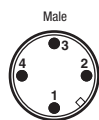
Fieldbus protocol: CANopen

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



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

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



Power connector: M12 4-pin

Pin no.	Function	Tolerance	Max. current
1	24 VB logic circuit supply	+/-25%	300 mA
2	24 VA valves	+/-10%	1)
3	0 volts	-	2)
4	Earth	-	-

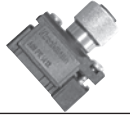
1) $I_{max} = 10 \text{ mA} + n \cdot 60 \text{ mA}$

n = number of energized solenoids

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

3) Must be galvanic isolated to 24 VA valves.

Fieldbus accessories

Symbol	Model	Description	Connection	Cable length	Protection class
Fieldbus power connector					
	V11588-E01	Profibus DP (4-pin, female) Interbus-S (4-pin, female) DeviceNet (4-pin, female) CANopen (4-pin, female)	M12	Wireable	IP65 Required for ATEX
	FD6760R5S75010	Profibus DP (5-pin, female)	7/8	Wireable	IP67 when plugged and screwed down DIN VDE 0470 Required for ATEX
Communication cable and connector					
	FD6710H5S75S10	DeviceNet (5-pin, female) CANopen (5-pin, female)	M12	Wireable	IP67 when plugged and screwed down DIN VDE 0470 Required for ATEX
	FD6710D5S75S10	DeviceNet (5-pin, male) CANopen (5-pin, female)	M12	Wireable	IP67 when plugged and screwed down DIN VDE 0470 Required for ATEX
	FD6710G5S75S10	Profibus DP, reverse keyway (5-pin, female)	M12	Wireable	IP67 when plugged and screwed down DIN VDE 0470 Required for ATEX
	V11591-E01	Profibus DP, reverse keyway (5-pin, male)	M12	Wireable	IP67 when plugged and screwed down DIN VDE 0470 Required for ATEX
	V11654-E01	Profibus DP connector (9-pin, male) with terminating resistor	D-Sub	Wireable	IP40
	FD67L FD67L FD67K FD67N	DeviceNet CANopen Profibus System	M12	—	IP67 when plugged and screwed down DIN VDE 0470 Required for ATEX
	VE1ASCN1-M1200	AS-Interface power or communications (4-pin, female)	M12	Wireable	IP65 Required for ATEX
	VE2FBC9P-9S010 VE2FBC9P-9S030 VE2FBC9P-9S050	Interbus-S (9-pin)	D-Sub	1m 3m 5m	IP65 Required for ATEX
	VE2FBC9P-00000	Interbus-S (9-pin, male)	D-Sub	Wireable	IP65 Required for ATEX
	VE2FBC9S-00000	Interbus-S (9-pin, female)	D-Sub	Wireable	IP65 Required for ATEX
	V11340-E03	Interbus-S terminating connector (9-pin, male)	D-Sub	—	IP65 Required for ATEX

Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2, Size 18 mm

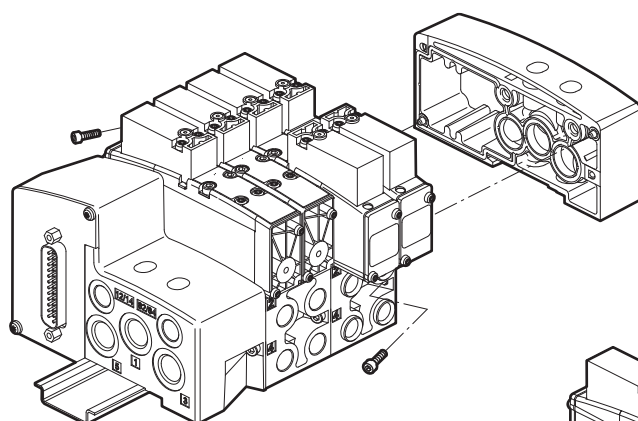
A – Single add-on stations

including PCB, sub-base, gasket and screws

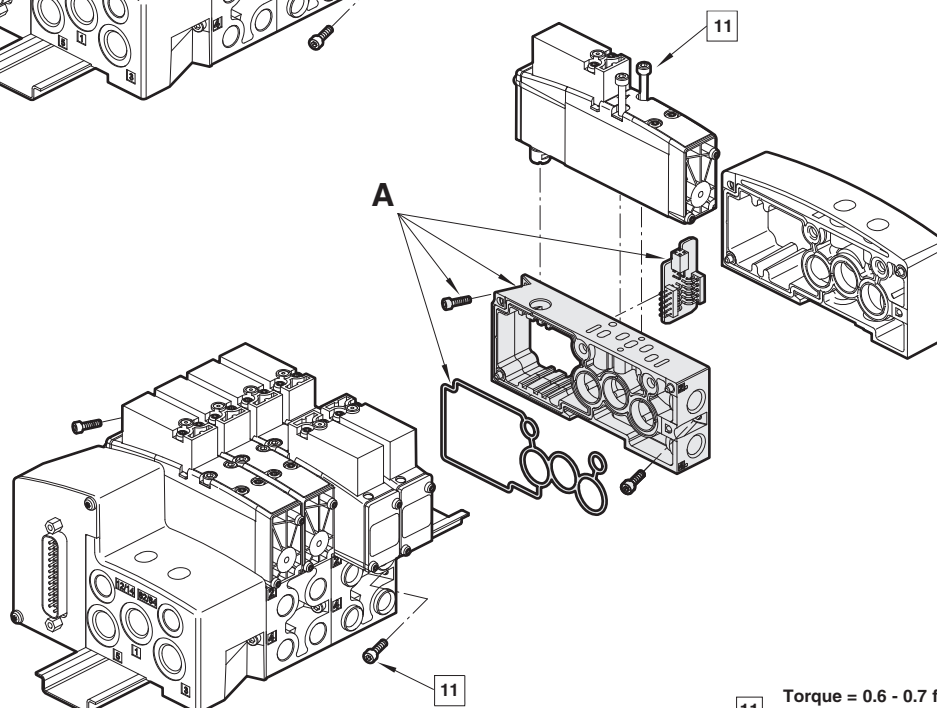
Model	Description	Ports 2 & 4
VS1872004-AFF0	Add-on station for D-Sub connectors and Fieldbus	G 1/8
VS1872004-PFF0	Add-on station for D-Sub connectors and Fieldbus	NPTF 1/8
VS1872004-8FF0	Add-on station for D-Sub connectors and Fieldbus	PIF 8 mm
VS1872004-6FF0	Add-on station for D-Sub connectors and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

Valves and accessories to be ordered separately

Step 1



Step 2



11 Torque = 0.6 - 0.7 ft lbs. (0.8 - 0.9 Nm)
 Screw driver speed = max. 1100 r.p.m.

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

Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2, Size 18 mm

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

including screws and gaskets

A – End plate kit

Model	Description	Ports 1, 3 & 5	Ports 12/14 & 82/84
VS1872000-BFC0	End plate kit for Multipole	G 1/4	G1/8
VS1872000-RFC0	End plate kit for Multipole	NPTF 1/4	NPTF1/8
VS1872001-BFC0	End plate kit for Fieldbus	G 1/4	G1/8
VS1872001-RFC0	End plate kit for Fieldbus	NPTF 1/4	NPTF1/8

B – Double station modular sub-base

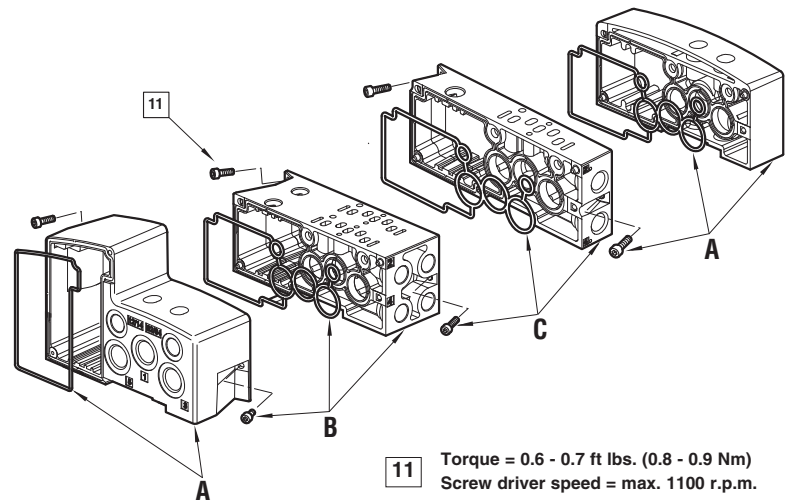
Model	Ports 2 & 4
VS1872002-AFF0	G 1/8
VS1872002-PFF0	NPTF 1/8
VS1872002-8FF0	PIF 8 mm
VS1872002-6FF0	PIF 6 mm
VS1872002-1FF0	PIF 1/4

Spare parts

Model	Description	Quantity per slice
77.31055	Hexagon socket screw M3x10	2
94.01015	Gasket	1
94.00816	Connector-kit gasket on end plate	1

C – Single station modular sub-base

Model	Ports 2 & 4
VS1872003-AFF0	G 1/8
VS1872003-PFF0	NPTF 1/8
VS1872003-8FF0	PIF 8 mm
VS1872003-6FF0	PIF 6 mm
VS1872003-1FF0	PIF 1/4



Multipole components

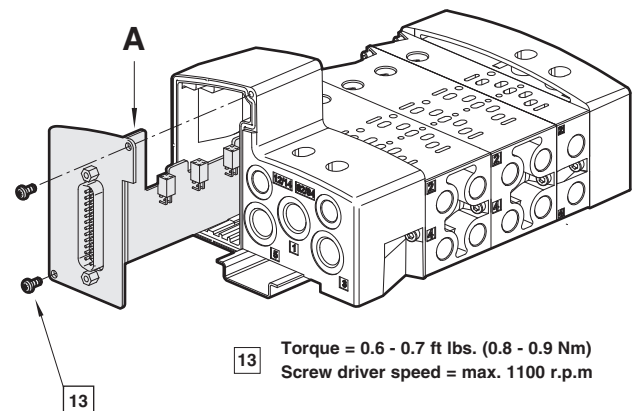
A – Output boards with D-Sub connectors

Model	Connector type	Description	Expandable to max. x no. of stations ¹⁾	Voltage
VS1872217-KF00	D-Sub 9-pin	Multipole PCB 2 stations	4	24V DC
VS1872218-KF00	D-Sub 15-pin	Multipole PCB 2 stations	6	24V DC
VS1872205-KF00	D-Sub 15-pin	Multipole PCB 4 stations	7	24V DC
VS1872219-KF00	D-Sub 25-pin	Multipole PCB 2 stations	6	24V DC
VS1872200-KF00	D-Sub 25-pin	Multipole PCB 4 stations	8	24V DC
VS1872201-KF00	D-Sub 25-pin	Multipole PCB 6 stations	10	24V DC
VS1872202-KF00	D-Sub 25-pin	Multipole PCB 8 stations	12	24V DC
VS1872203-KF00	D-Sub 44-pin	Multipole PCB 8 stations	12	24V DC
VS1872206-KF00	D-Sub 44-pin	Multipole PCB 10 stations	14	24V DC
VS1872204-KF00	D-Sub 44-pin	Multipole PCB 12 stations	16	24V DC

¹⁾ By using below expansion output boards.

Expansion output boards for D-Sub connectors

Model	Description	Voltage
VS1872255-KF00	Multipole PCB 1 station	24V DC
VS1872213-KF00	Multipole PCB 2 stations	24V DC



Valve Manifolds VS18 Series

Plug-in Mini ISO Valves

2x2/2, 2x3/2, 5/2 and 5/3 valves, ISO 15407-2, Size 18 mm

Multipole components

A – Connector-kit for conduit entry

Model	Description	Voltage
VS2672742-KG00	E-Connector-kit NPTF1 Conduit entry	115V AC, 24V DC

C – Connector-kit for M23 connector

Model	Description	Voltage
VS2672743-KG00	E-Connector-kit M23 connector 19-pin	115V AC, 24V DC

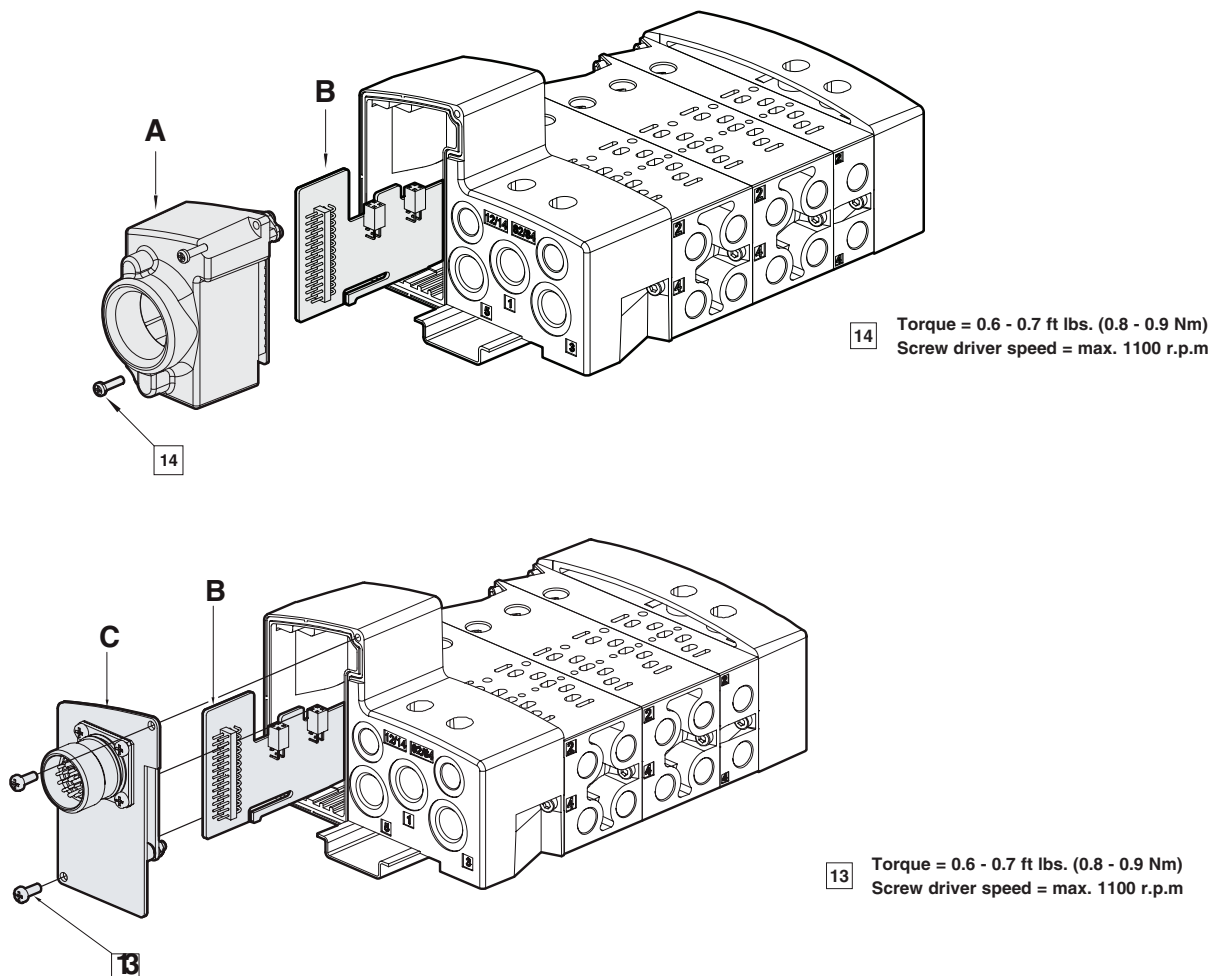
B – Output boards for conduit entry and M23 connector

Model	Description	Expandable to max. x no. of stations ¹⁾	Voltage
VS1872208-KF00	Multipole PCB 2 stations	6	115V AC, 24V DC
VS1872209-KF00	Multipole PCB 4 stations	8	115V AC, 24V DC
VS1872210-KF00	Multipole PCB 6 stations	10	115V AC, 24V DC
VS1872211-KF00	Multipole PCB 8 stations	12	115V AC, 24V DC

¹⁾ By using below expansion output boards.

Expansion output boards for conduit entry

Model	Description	Voltage
VS1872256-KF00	Multipole PCB 1 station	115V AC, 24V DC
VS1872215-KF00	Multipole PCB 2 stations	115V AC, 24V DC



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