schneider
Tailored to Your Business

Instrumentation Products

F Series Manifolds and Multi-Way Cocks

Introduction

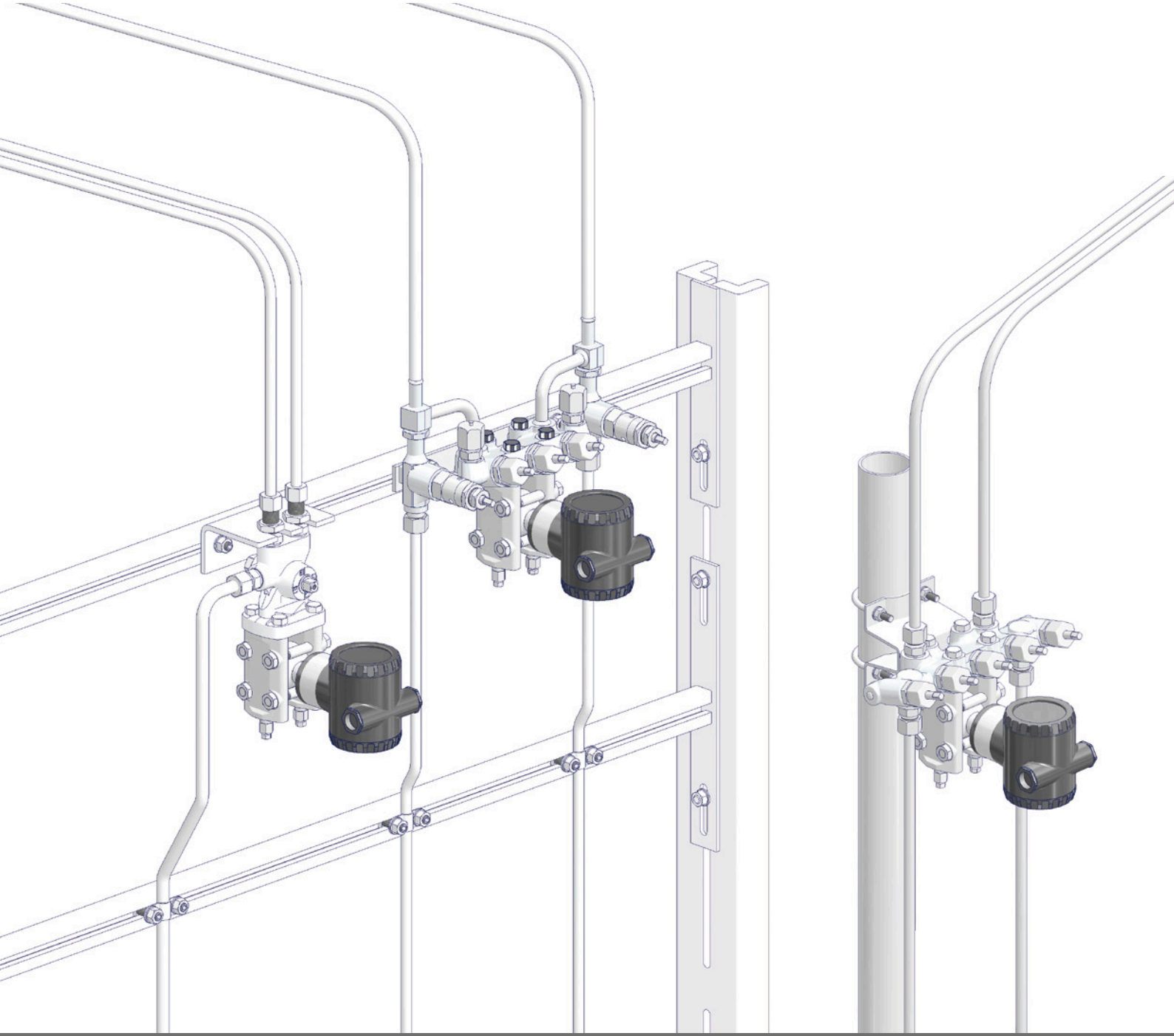
Introduction

The AS-Schneider Group with its headquarters in Germany is one of the World's Leading Manufacturers of Instrumentation Valves and Manifolds. AS-Schneider offers a large variety of Manifolds, Manifold-Combinations, Multi-Way Cocks and the relevant Accessory Kits needed for the instrumentation installations globally.

The Manifolds, Manifold-Combinations and Multi-Way Cocks shown in this catalogue are for direct mounting to transmitters according to DIN EN 61518.

Selection can be made from a comprehensive range of bodies with a variety of connections and material options, optimising installation and access opportunities. Many of the valves shown in this catalogue are available from stock or within a short period of time. The dimensions shown in this catalogue apply to standard types. If you need the dimensions for your individual type please contact the factory.

Continuous product development may from time to time necessitate changes in the details contained in this catalogue. AS-Schneider reserves the right to make such changes at their discretion and without prior notice.



Contents

Introduction	page 2
Contents	page 3
General Features and Connections	page 4-6
General Features of Manifolds and Manifold-Combinations	page 7-8
3 Valve Manifolds	page 9-11
5 Valve Manifolds	page 12
Manifold-Combinations	page 13-14
Manifold Accessory Kits	page 15
General Features of Multi-Way Cocks	page 16-17
Multi-Way Cocks	page 18
Multi-Way Cock Accessory Kits	page 19

General Features

Body Material Options

Material Group	AS Material Designation	Material No.	Short Name	Equivalent UNS-No.	Material Grade acc. to ASTM	Manifolds	Manifold-Combination	Multi-Way Cock
Copper Alloys	Brass*1	CW614N	CuZn39Pb3					S
		CW617N	CuZn40Pb2					S
Heat Resistant Unalloyed Steel	Carbon Steel	1.0460	P250GH			S	S	
Austenitic Stainless Steel	Stainless Steel	1.4571	X6CrNiMoTi17-12-2	S31635	316Ti	S	S	S
		1.4404	X2CrNiMo17-12-2	S31603	316L	A		
	6Mo	1.4547	X1CrNiMoCuN20-18-7	S31254		A		
Austenitic-Ferritic Stainless Steel	Duplex	1.4462	X2CrNiMoN22-5-3	S31803	F51	A		
	Superduplex	1.4410	X2CrNiMoN25.7.4	S32750	F53	A		
		1.4501	X2CrNiMoCuWN25.7.4	S32760	F55	A		
Heat resistant Steel*2		1.5415	16Mo3				S	
		1.7335	13CrMo 4-5		F12		O	
Nickel Based Alloys	Alloy 400	2.4360	NiCu30Fe	N04400		A		
	Alloy C-276	2.4819	NiMo 16 Cr 15 W	N10276		A		
	Alloy 625	2.4856	NiCr22Mo9Nb	N06625		A		
Titanium	Titanium Grade 2	3.7035	Ti-II	R50400		A		

*1 Brass: Body made of either CW 614N or CW 617N

*2 Blowdown Valves

S = Standard | O = Optional | A = Alternative (see Catalogue AS-2601)

Standard Features

- Every standard Manifold or Multi-Way Cock is factory tested hydro- statically to a requirement of no visible leakage.
- Brass, carbon steel or stainless steel valve bodies are forged. All other components are made from barstock material.
- Certification acc. to EN 10204 2.1, 2.2, 3.1 and 3.2!
- Manifolds for Sour Gas Service are available in accordance with NACE MR0175/MR0103 and ISO 15156.
- For all Manifolds and Multi-Way Cocks we are offering a range of Mounting Kits.
- Surface treatment of carbon steel components: Phosphatized, Zinc Plated surface optional.
- Surface treatment of carbon steel accessories: Zinc Plated.

Optional Features

- Manifolds and Multi-Way Cocks cleaned and lubricated for Oxygen Service. Accessory Kits cleaned and degreased. Suffix used F0 and F5.
- Manifolds for Fugitive Emission Applications.

If you don‘t find your options in this catalogue, please contact the factory.

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Connections

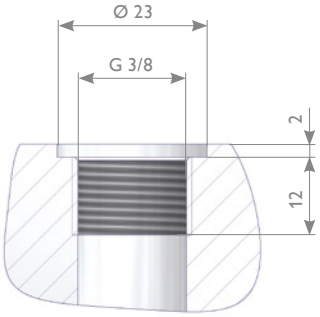
AS-Schneider is manufacturing a lot of different connections and connection combinations. In this catalogue we are showing the most popular types. On the next 2 pages you will find the standard connections in detail.

Designations used in the tables: Inlet = Process Connection I Outlet = Instrument / Transmitter Connection.

If you don‘t find your option please contact us.

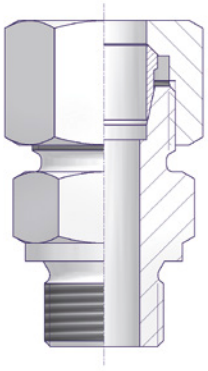
Parallel Pipe Threads

BSP Parallel Female Threads
acc. to ISO 228 (e.g. G3/8)

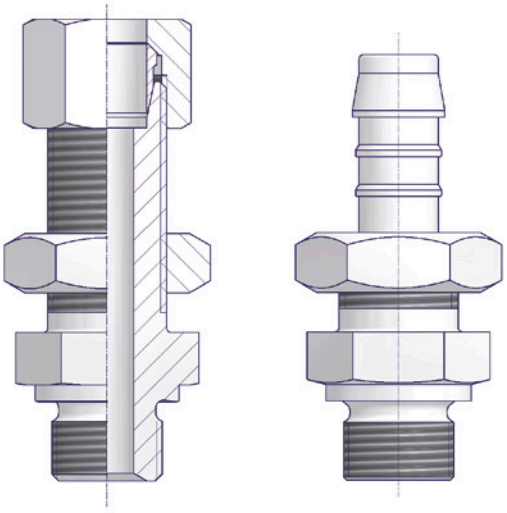


Tube Fittings

Single Ferrule Tube Fittings acc. to
EN ISO 8434-1 Size L or S

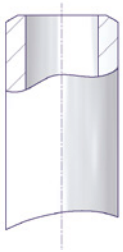


Bulkhead Connectors to mount the Mounting Brackets to the Multi-Way Cocks



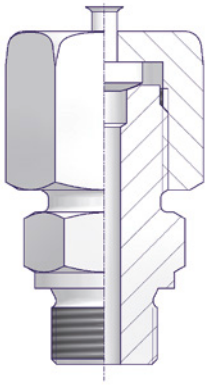
Weld Ends

Butt Weld Ends for Pipes and Tubes
acc. to EN12627 and ASME B16.9



Test Connections

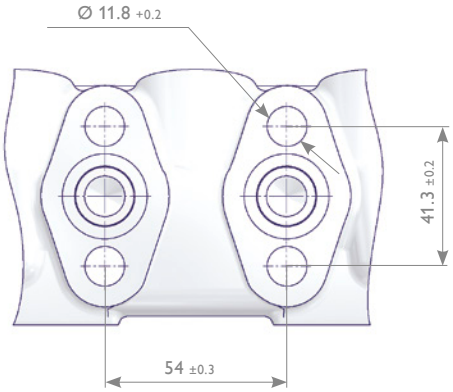
Test Connection M 20 x 1.5 c/w
sealing cap according to DIN 16284

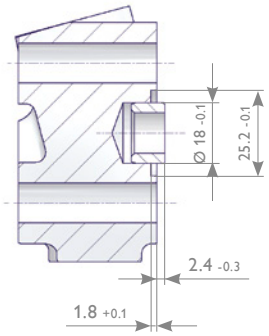


Connections

Flange Connections
Manifold to Transmitter DIN EN 61518 / IEC 61518 Type A

One of the most important connections is the above mentioned flange connection. The Manifolds and Multi-Way Cocks in this catalogue are all manufactured according to DIN EN 61518 Type A. Manifold to Transmitter Mounting Kits see Page 15 and 19.





	Connection acc. to IEC 61518 / DIN EN 61518*1 Type A with spigot		
Max. allowable (Working) Pressure (PS) in bar	420		
Temperature Range in °C	-10 to +80	-15 to +120	-40 to +120
Seal Ring*2	Flat Ring 24 x 17.7 x 2.7 Material: PTFE	O-ring ISO 3601-1 20 x 2.65; S-FPM90 Material: FPM	Flat Ring 25.1 x 18 x 2.9 Material: Graphite
Minimum Thread Engagement in mm	9		

*1 DIN EN 61518 / IEC 61518: Mating dimensions between pressure measuring instruments and flanged-on shut-off devices up to 413 bar.

*2 Materials and temperature limits for the flat rings and the O-rings are for reference only. It is the responsibility of the user to ensure compatibility between the selected gasket ring material and the process requirements, such as pressure, temperature, and chemical compatibility.

Manifold and Manifold-Combinations I Features and Benefits

Product Description

AS-Schneider F Series Manifolds and Manifold-Combinations are designed, manufactured and tested with respect to the relevant standards applicable in this field. Manifold-Combination means the welded assembly of a 3 Valve Manifold and 2 Blowdown Valves. All the manifolds contained in this catalogue are for direct mounting according to DIN EN 61518 (IEC 61518).

According to DIN EN 61518 the manifold-transmitter interface is applicable for a max. allowable (Working) Pressure (PS) of 413 bar and a max. allowable Temperature (TS) of 120°C for liquids, gas or vapors. The max. allowable Temperature (TS) of 120°C is considering the requirement that manifolds and transmitters need to be protected against heating by hot media. This can be achieved by using adequate hook-ups or by instrument impulse lines with sufficient length. However the AS-Schneider F Series Manifolds can be used for temperatures up to 300°C, PTFE up to 232°C, Graphite up to 300°C. The Blowdown Valves of the Manifold-Combinations can be used for temperatures up to 550°C - mainly used in Power Plants.

Standard Features

- Forged Body
- Internal Stem Thread - Manifold
- External Stem Thread - Blowdown Valves Manifold-Combinations
- Screwed Bonnet with metal-to-metal seal
- Stem with cold rolled surface, Back Seat and Non-Rotating Needle Tip
- Valve Seat
  - Integral Valve Seat (Manifolds)
  - Replaceable Valve Seat (Blowdown Valves)
- Bore Size 5 mm (DN 5) and 8 mm (DN 8)
- PTFE Packing - Manifold
- Graphite Packing
  - Blowdown Valves Manifold-Combination
  - Manifolds optional

Pressure Test:

A shell test and a seat test are performed at 1.5 times the max. allowable (working) pressure acc. to EN 12266-1 - P10, P11 and P12 respectively MSS-SP61 at every standard AS-Schneider F Series Manifold.

Optional Features

Fugitive Emission Applications:

For Fugitive Emission Applications AS-Schneider is providing bellows sealed valves with safety packing. Choice of Pressure class PN 100 or PN 250 - Suffix P5 or P6.

The bellows are submitted to a 100% Helium leak test. Leak rate: 10^{-8} mbar l/s.

Optional available are TA-Luft and ISO 15848 solutions. For more details please contact the factory.

Oxygen Service:

AS-Schneider offers an option with Reinforced PTFE Packing cleaned and lubricated for Oxygen Service – Suffix F5:

Pressure-Temperature Rating:

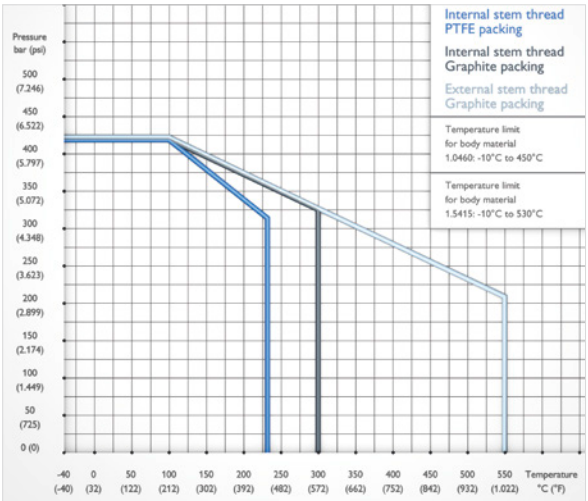
Max. 420 bar @ 60°C
Max. 200°C @ 90 bar

Certification:

Inspection certificate 3.1 acc. to EN 10 204 for valve body material and pressure test available on request.

If you don‘t find your option please contact us.

Pressure-Temperature Rating



Packing adjustment may be required during the service life of the valve.

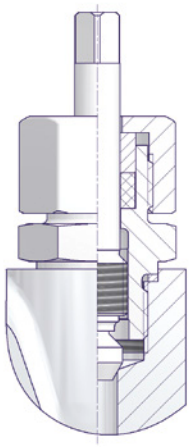
Valves that have not been cycled for a period of time may have a higher initial actuation torque.

When delivered ex factory, the safety packing of the belllows sealed valve is not fully tightened. In the event of a bellows failure the safety packing must be tightened in order to avoid fluid leakage.

Manifold and Manifold-Combinations I Valve Head Units

Valve with Internal Stem Thread DN 5 and DN 8

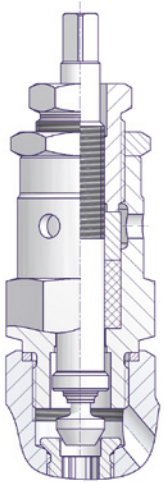
Components	Carbon Steel	Stainless Steel
	Material / Material No.	
Body	1.0460	1.4571
Bonnet	1.0501	
Valve Stem	1.4104	
Needle Tip	1.4122	
Packing	PTFE (Optional Graphite)	
Union Nut	Unalloyed Steel	1.4571
Tube Fitting		
Test Male Connector	1.0501	
Sealing Cap	Carbon Steel	
Weld Ends	1.5415	
T Bar Key	Unalloyed Steel	
Handwheel	Plastic	



Internal Stem Thread
Internal Stem Thread means Threads are in contact with process media (packing is above stem threads).

Blowdown Valves with External Stem Thread

Components	Carbon Steel	Stainless Steel
	Material / Material No.	
Body	1.5415	1.4571
Tube Elbow		
Bonnet	1.7709	
Valve Seat	1.4571	
Valve Stem	1.4021	
Needle Tip	1.4122	
Packing	Graphite	
Stem Nut	2.0550	1.4301
Union Nut	1.0501	1.4571
Single Ferrule	1.4571	
T Bar Key	Unalloyed Steel	

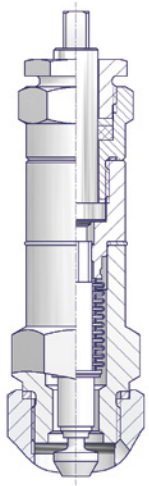


External Stem Thread
External Stem Thread means Packing below Stem Threads. Stem Threads are protected from process media (non-wetted), helps to prevent stems from galling.

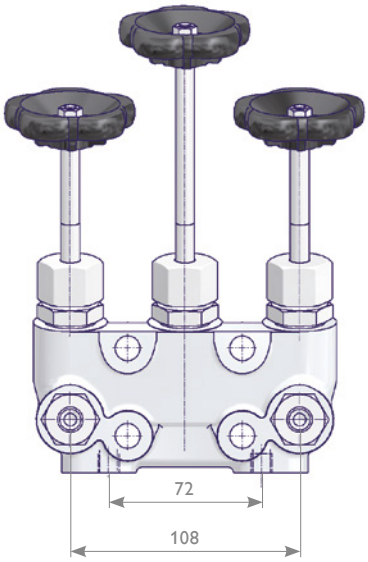
Bore Size 8 mm (DN 8)

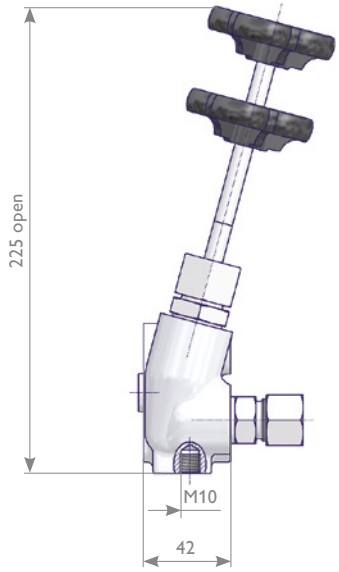
Bellows Sealed Valve Head Units

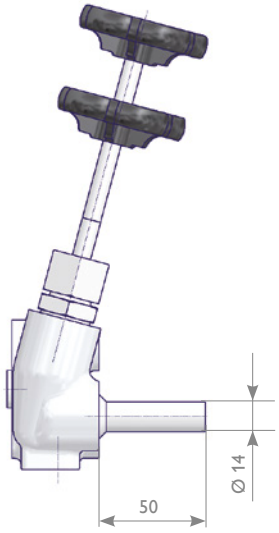
Components	Carbon Steel	Stainless Steel
	Material / Material No.	
Bonnet	1.4571	
Bellow		
Valve Stem		
Needle Tip	Stellite	
Safety Packing	Graphite	
Stem Nut	1.4122	



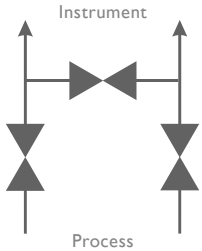
Handwheel operated





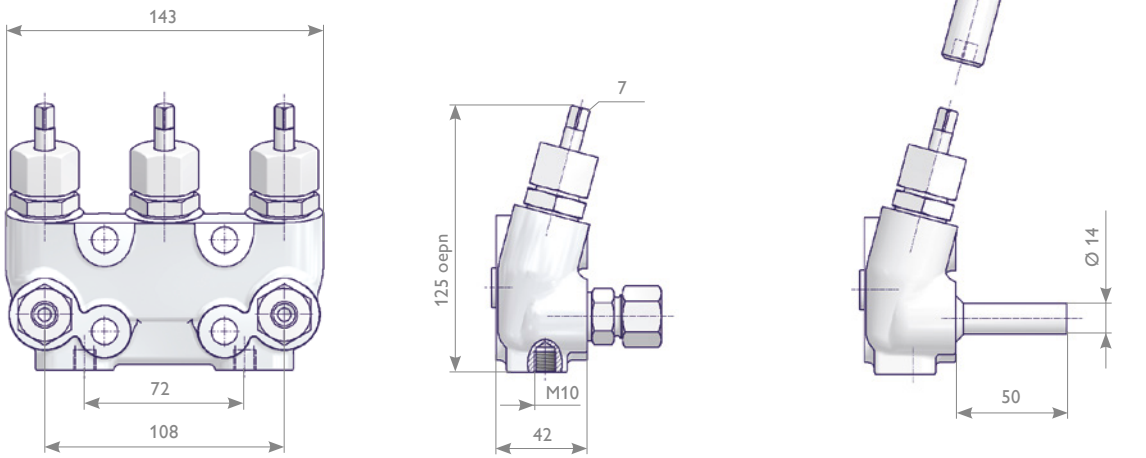


Inlet	Outlet	Bore Size DN (mm)	Material	Part Number
Tube Fitting Size 12S	IEC 61518 Type A	5	1.0460	S541.36.123
			1.4571	S541.36.223
Tube Butt Weld End Ø 14 x 2.5			1.0460	S541.36.133
			1.4571	S541.36.233

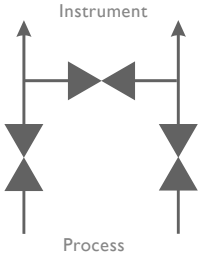


3 Valve Manifolds without Test Connection

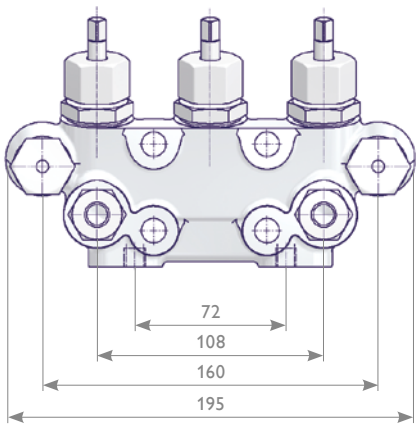
T Bar Key operated

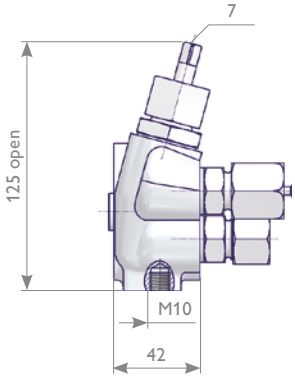


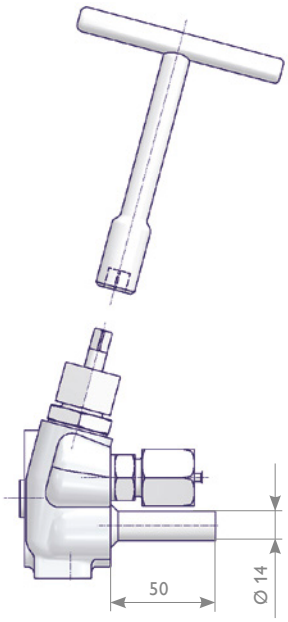
Inlet	Outlet	Bore Size DN (mm)	Material	Part Number
Tube Fitting Size 12S	IEC 61518 Type A	5	1.0460	S541.36.125
			1.4571	S541.36.225
Tube Butt Weld End Ø 14 x 2.5			1.0460	S541.36.135
			1.4571	S541.36.235
Tube Fitting Size 12S		8	1.0460	N541.86.106.01
			1.4571	N541.86.206.01
Tube Butt Weld End Ø 14 x 2.5			1.0460	N541.86.135.01
			1.4571	N541.86.235.01



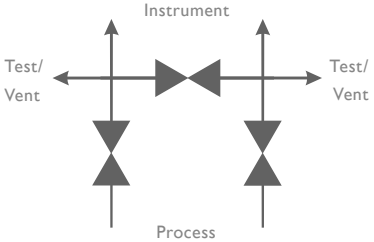
T Bar Key operated





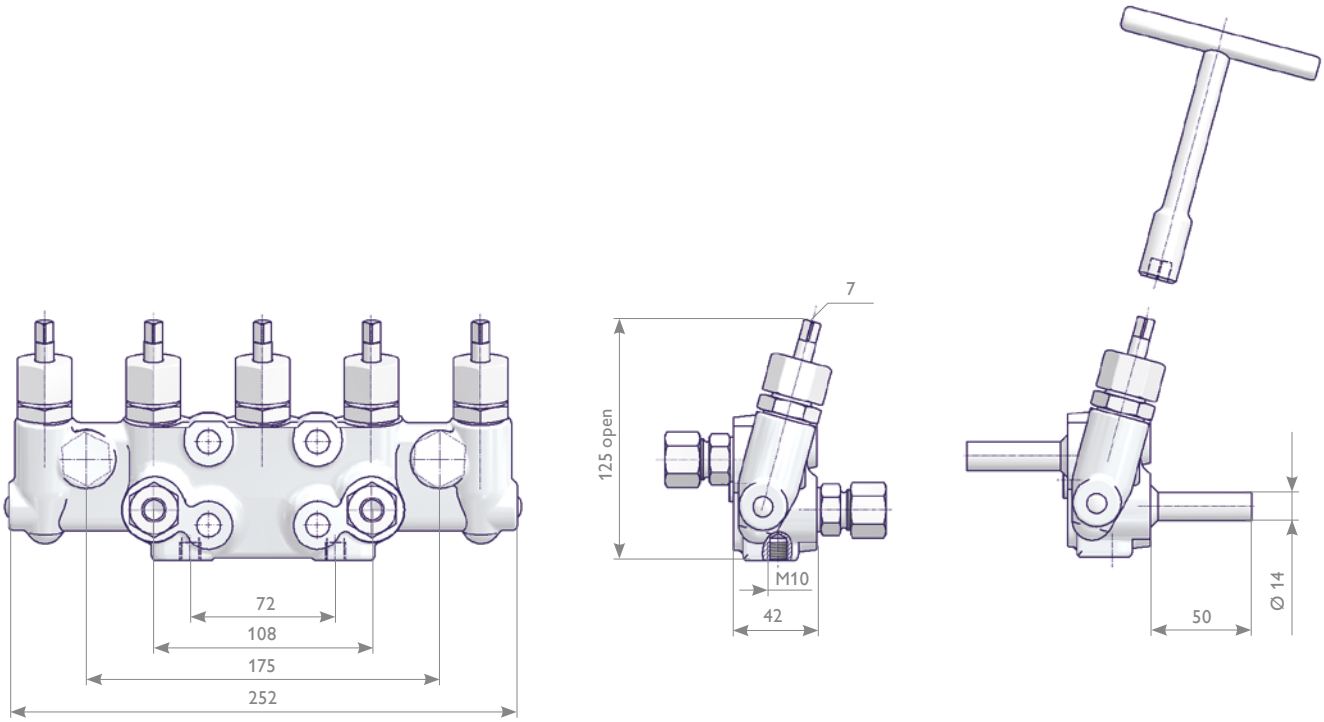


Inlet	Outlet	Bore Size DN (mm)	Material	Part Number
Tube Fitting Size 12S	IEC 61518 Type A	8	1.0460	N541.85.106.01
			1.4571	N541.85.206.01
Tube Butt Weld End Ø 14 x 2.5			1.0460	N541.85.135.01
			1.4571	N541.85.235.01

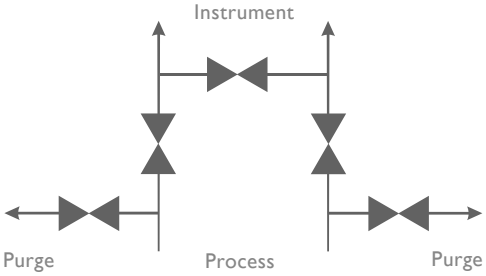


5 Valve Manifolds

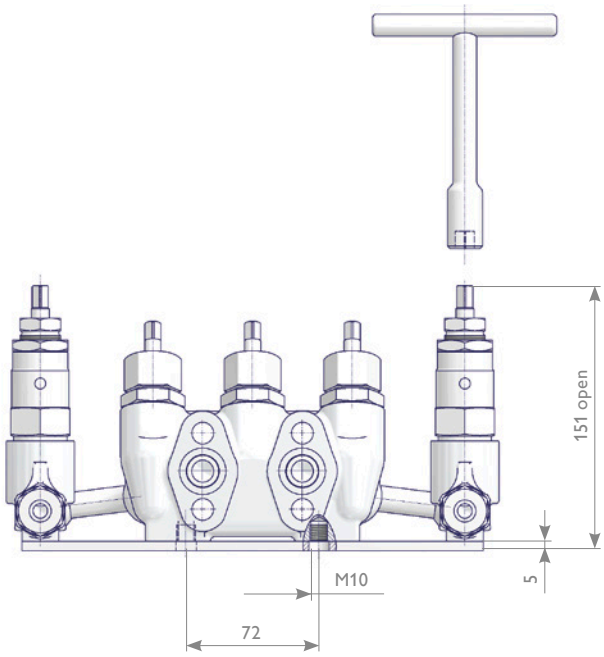
T Bar Key operated

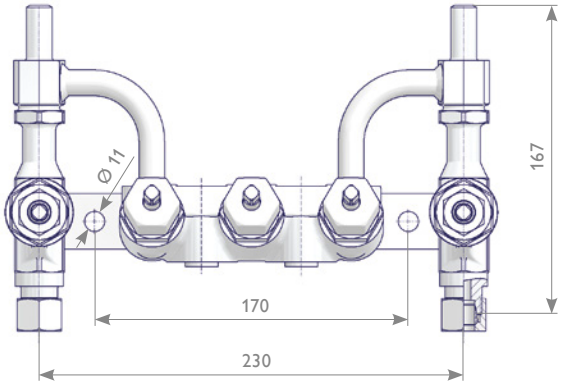


Inlet	Outlet	Bore Size DN (mm)	Material	Part Number
Tube Fitting Size 12S	IEC 61518 Type A	5	1.0460	S541.38.125
			1.4571	S541.38.225
Tube Butt Weld End Ø 14 x 2.5			1.0460	S541.38.135
			1.4571	S541.38.235



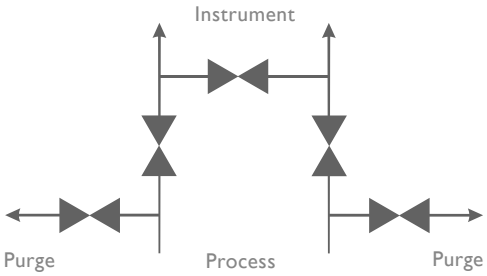
Manifold-Combinations DN 5 and DN 8





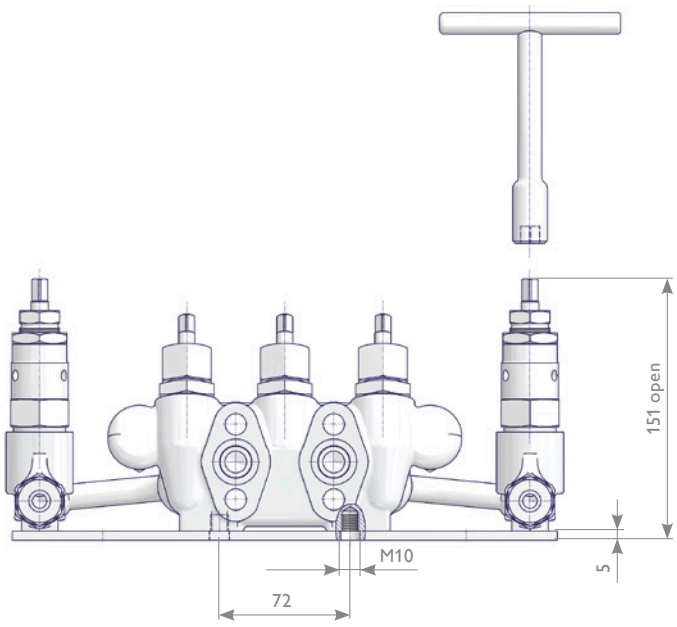
Inlet	Outlet		Bore Size DN* (mm)	Material	Part Number
	Manifold	Blowdown Valves			
Tube Butt Weld End Ø 14 x 2.5	IEC 61518 Type A	Tube Fitting, Size 14S	5	1.0460	N541.37.135.01
				1.4571	N541.37.235.01
			8	1.0460	N541.87.135.01
				1.4571	N541.87.235.01

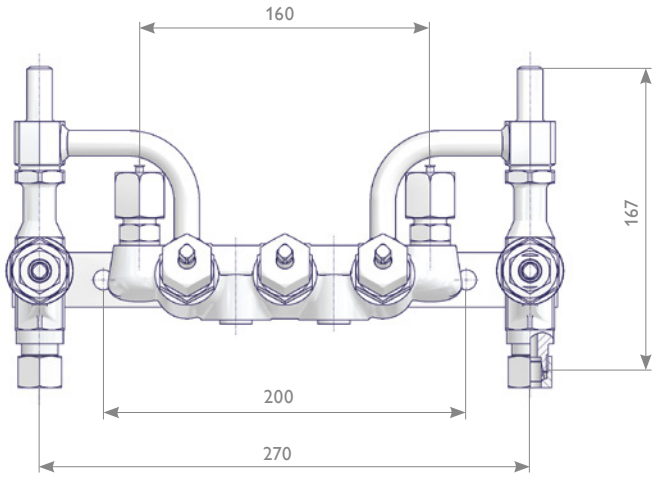
* Manifolds DN 5 or DN 8 I Blowdown Valves DN 8

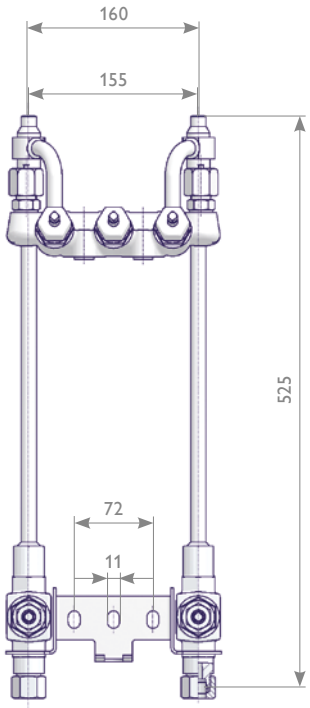


Manifold-Combinations with Test Connection M 20 x 1.5

Manifold-Combinations DN 8



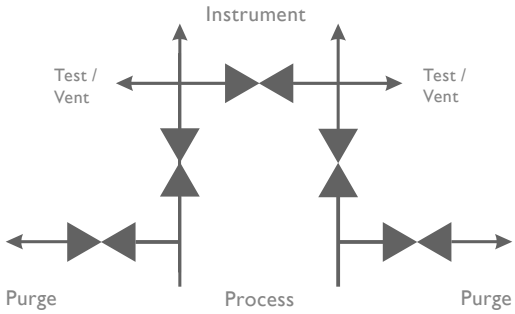




Slim-Type on request

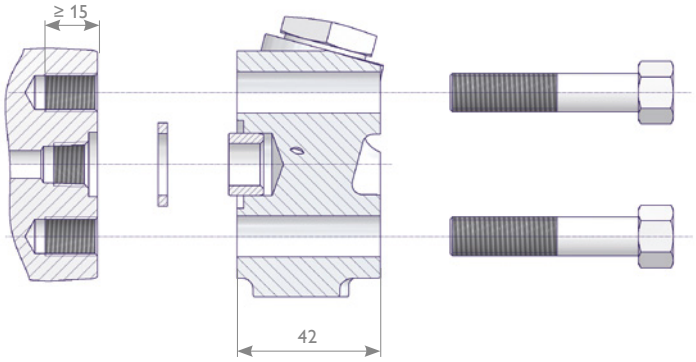
Inlet	Outlet		Test Connection	Material	Part Number
	Manifold	Blowdown Valves			
Tube Butt Weld End Ø 14 x 2.5	IEC 61518 Type A	Tube Fitting, Size 14S	M 20 x 1.5 c/w Sealing cap	1.0460	N541.87.135.51
				1.4571	N541.87.235.51

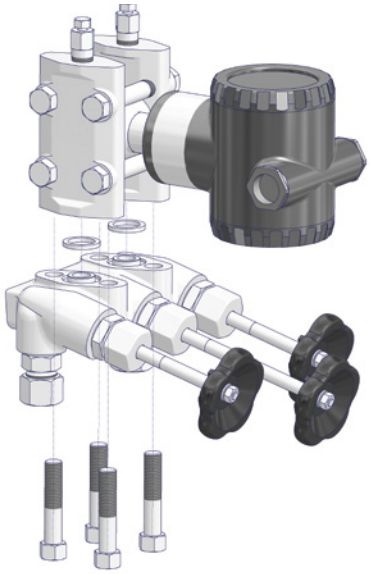
Bore Sizes (DN): Manifold and Blowdown Valves DN 8



Accessory Kits for Manifold to Transmitter mounting according to DIN EN 61518

Accessory Kits are containing 4 screws and 2 seal rings. Accessory Kits degreased for Oxygen Service (only available for PTFE seal ring kits)on request.

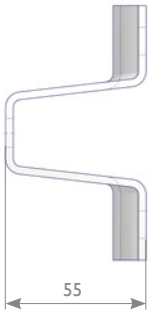


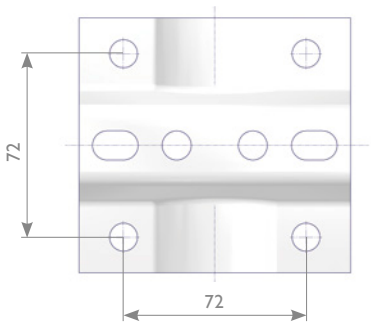


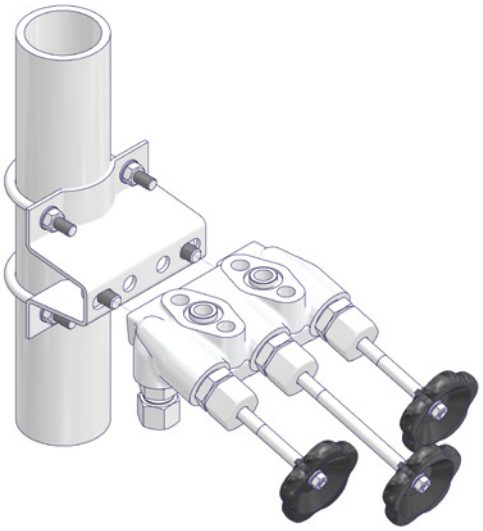
Thread	Type of Screw	Material*		Part Number
		Screws	Seal ring	
7/16 - 20 UNF Bolt Length 2 1/8"	Hex Cap Screw acc. to ANSI B18.2.1	Carbon Steel; ASTM A449-Type 1	PTFE	AKS-HU4C-PAF54
			FPM	AKS-HU4C-FAF54
		Stainless Steel; ASTM A193 B8 Cl.2	PTFE	AKS-HU4S-PAF54
			FPM	AKS-HU4S-FAF54
M10 (max. 160 bar) Bolt Length 55 mm	Hex Cap Screw acc. to ISO 898-1	Carbon Steel; 8.8	PTFE	AKS-HM4C-PAM55
			FPM	AKS-HM4C-FAM55

* IEC 61518 calls for the mentioned mechanical properties (for example B8 Class 2) because the flange connection is designed for high pressure service (up to 6,000 psi) and high temperature service. The usage of screws without the defined mechanical properties is critical and may lead to a sudden component failure!

Mounting Kits for Panel, Wall or 2" Pipe Mounting







Mounting Bracket Kit	Material	Part Number
Mounting Kit contains: 1 Mounting Bracket 2 'U' Bolts 4 Washers – 8.4 4 Hexagon Nuts M8 2 Hexagon Socket Head Cap Screws M10 x 14 2 Washers – 10.5	Unalloyed Steel, zinc plated	AKM-DPC
	Stainless Steel 1.4404 (316L)	AKM-DPS

Multi-Way Cocks I Features and Benefits

Product Description

AS-Schneider Multi-Way Cocks are designed, manufactured and tested with respect to the relevant standards applicable in this field. All the Multi-Way Cocks contained in this catalogue are for direct mounting according to DIN EN 61518 (IEC 61518).

According to DIN EN 61518 the Multi-Way Cock-Transmitter interface is applicable for a max. allowable (Working) Pressure (PS) of 420 bar and a max. allowable Temperature (TS) of 120°C for liquids, gas or vapors. The max. allowable Temperature (TS) of 120°C is considering the requirement that the Multi-Way Cocks and Transmitters need to be protected against heating by hot media. This can be achieved by using adequate hook-ups or by instrument impulse lines with sufficient length. However the AS-Schneider Multi-Way Cocks can be used for temperatures up to 200°C, the max. allowable (Working) Pressure (PS) is 100 bar respectively for the Low-Pressure Multi-Way Cock 25 bar.

Just quarter turn operations are sufficient to switch from one position to the next one – operating errors are therefore minimized.

Standard Features

- Forged Body
- Bore Size 5 mm (DN 5)
- Multi-Way Cock PN 100
  - Plug seal Carbon filled PTFE
  - Handle supplied loose in box
- Low-Pressure Multi-Way Cock PN 25
  - Plug seal PTFE
  - Handle assembled to Multi-Way Cock

Pressure Test:

A shell test and a seat test are performed at 1.5 times the max. allowable (working) pressure acc. to EN 12266-1 - P10, P11 and P12 respectively MSS-SP61 at every standard AS-Schneider Multi-Way Cock.

Optional Features

Oxygen Service:

AS-Schneider offers an option with Reinforced PTFE Packing cleaned and lubricated for Oxygen Service – Suffix F0:

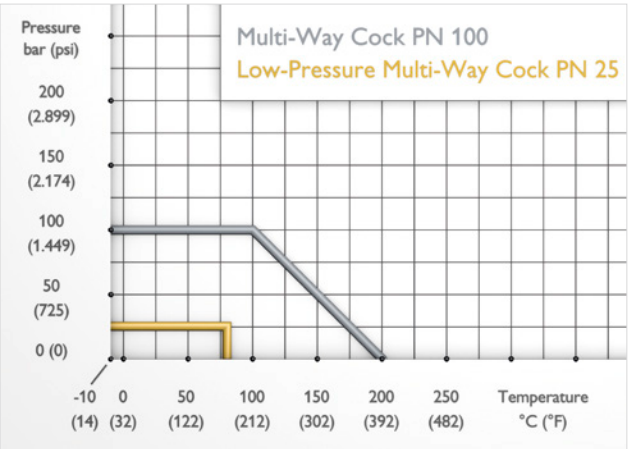
Pressure-Temperature Rating:
Max. allowable Pressure (PS): 63 bar (25 bar - Low pressure Multiway Cock)
Max. allowable Temperature (TS): 60°C

Certification:

Inspection certificate 3.1 acc. to EN 10 204 for valve body material and pressure test available on request.

If you don‘t find your option please contact us.

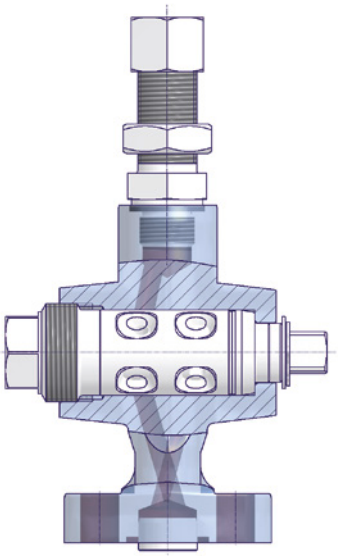
Pressure-Temperature Rating

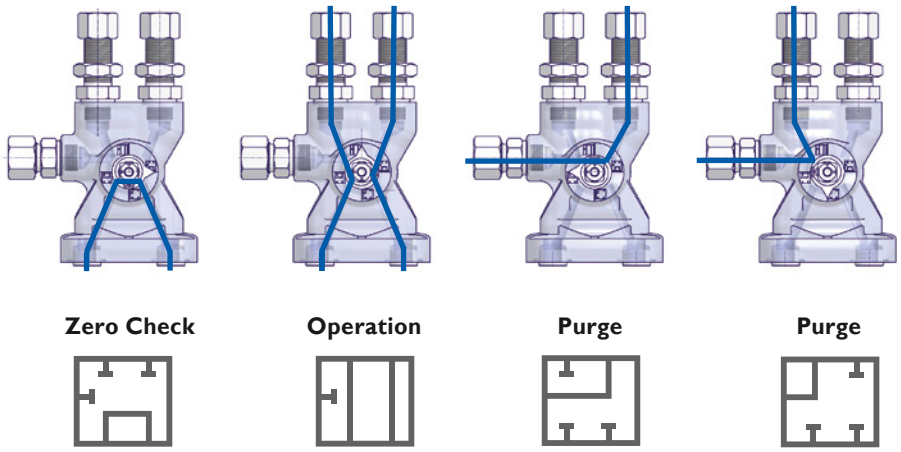


Material Options

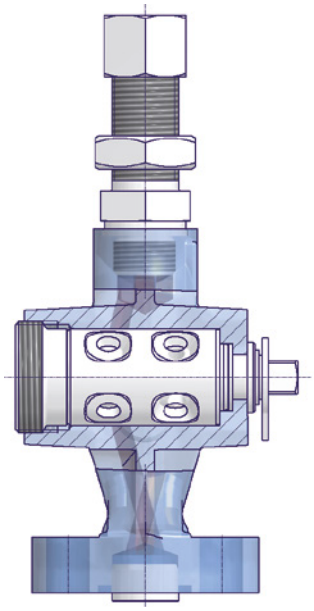
Components	Brass	Stainless Steel
	Material / Material No.	
Body	Brass	1.4571
Plug	1.4301	
Spacer Bushing	–	1.4401
Washer	1.4571	–
Plug Seal	PTFE	Carbon filled PTFE
Plug Seal Screw	Brass	1.4571
Insert Ring	1.4401	
Indicator	1.4301	
Bulkhead Connector Tube Fitting	Unalloyed Steel	1.4571
Bulkhead Connector Hose Nozzle	Brass	–
Handle	Aluminum, black anodized	

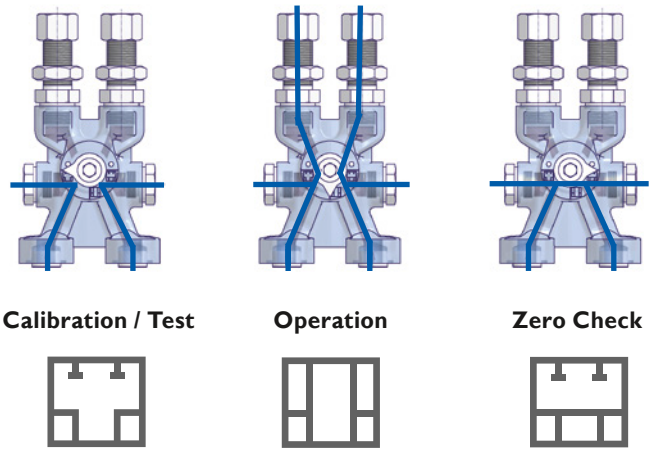
Multi-Way Cock PN 100





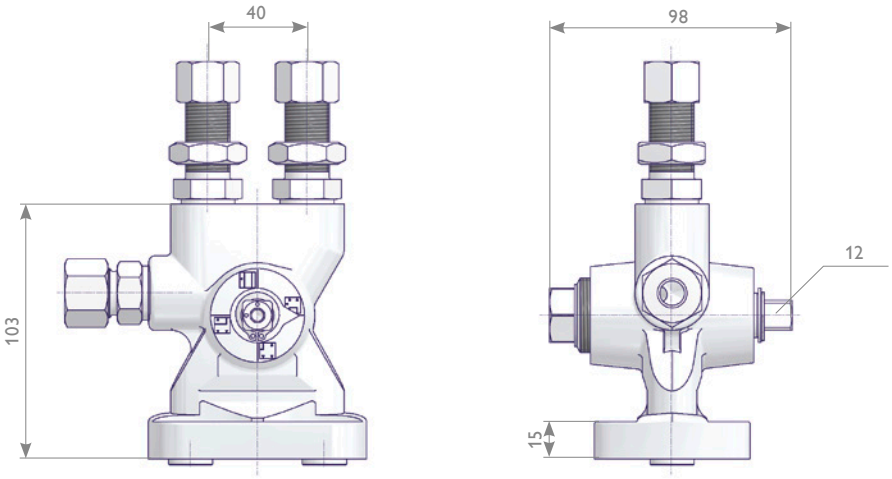
Low-Pressure Multi-Way Cock PN 25



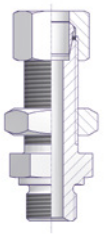


Multi-Way Cocks

Multi-Way Cock PN 100

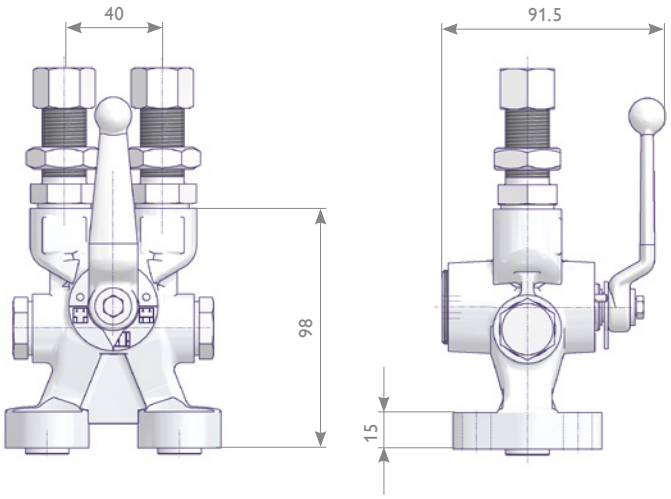


Bulkhead Connector Tube Fitting



Inlet	Purge	Outlet	Material	Part Number
G 3/8 Female according to DIN 3852		IEC 61518 Type A	1.4571	S345.06.200
Bulkhead Connector Tube Fitting Size 12L	Tube Fitting Size 12L		1.4571	S345.06.202.02
Bulkhead Connector Tube Fitting Size 12S	Tube Fitting Size 12S		1.4571	S345.06.202

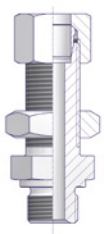
Low-Pressure Multi-Way Cock PN 25



Bulkhead Connectors

Hose Nozzle

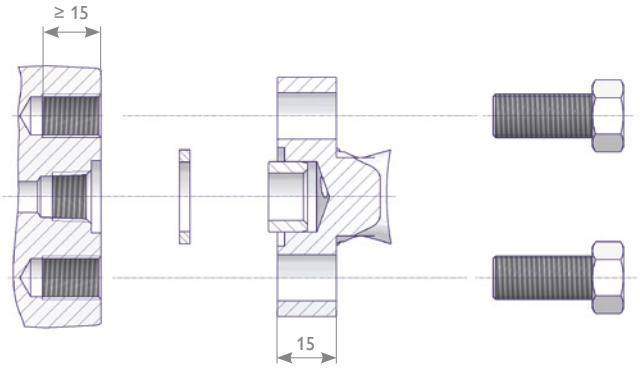
Tube Fitting

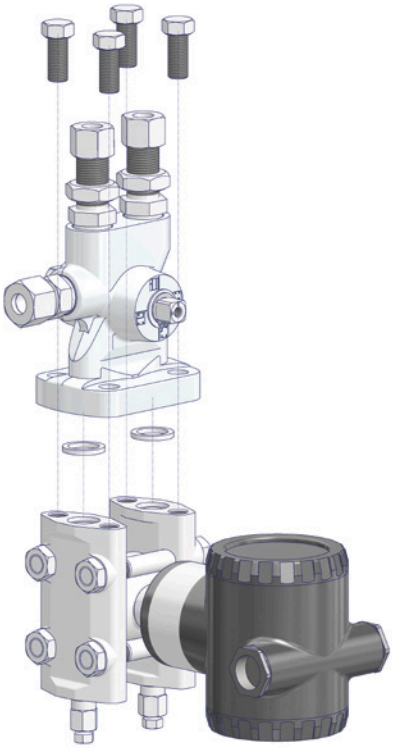


Inlet	Test	Outlet	Material	Part Number
G 3/8 Female according to DIN 3852	G 3/8 Female c/w Screw Plug	IEC 61518 Type A	Brass	S345.06.070.02
Bulkhead Connector Tube Fitting Size 12S				S345.06.072.05
Bulkhead Connector Hose Nozzle Tube ID 12 mm				S345.06.074.02

Accessory Kits for Multi-Way Cock to Transmitter mounting according to DIN EN 61518

Accessory Kits are containing 4 screws and 2 seal rings. Accessory Kits degreased for Oxygen Service on request.

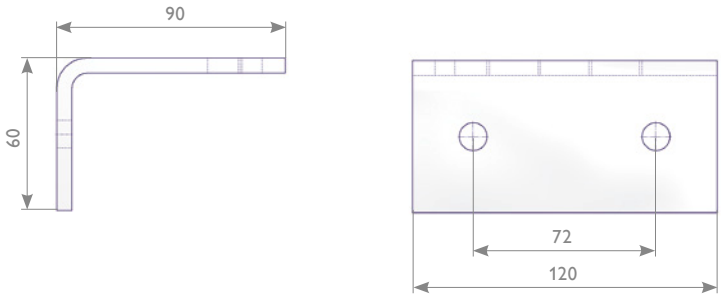


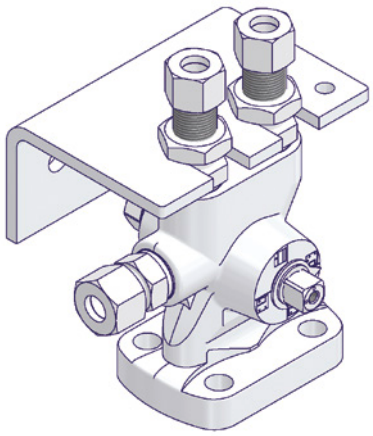


Thread	Type of Screw	Material*		Part Number
		Screws	Seal ring	
7/16 - 20 UNF Bolt Length 1"	Hex Cap Screw acc. to ANSI B18.2.1	Carbon Steel; ASTM A449-Type 1	PTFE	AKS-HU4C-PAF25
M10 Bolt Length 25 mm	Hex Cap Screw acc. to ISO 898-1	Carbon Steel; 8.8		AKS-HM4C-PAM25

* IEC 61518 calls for the mentioned mechanical properties (for example B8 Class 2) because the flange connection is designed for high pressure service (up to 6,000 psi) and high temperature service. The usage of screws without the defined mechanical properties is critical and may lead to a sudden component failure!

Mounting Bracket for Panel or Wall Mounting





Mounting Bracket Kit	Material	Part Number
Mounting Bracket for mounting the Multi-Way Cock with Bulkhead Connectors to a panel or wall.	Stainless Steel 1.4404 or 1.4571	S006.42.203.04

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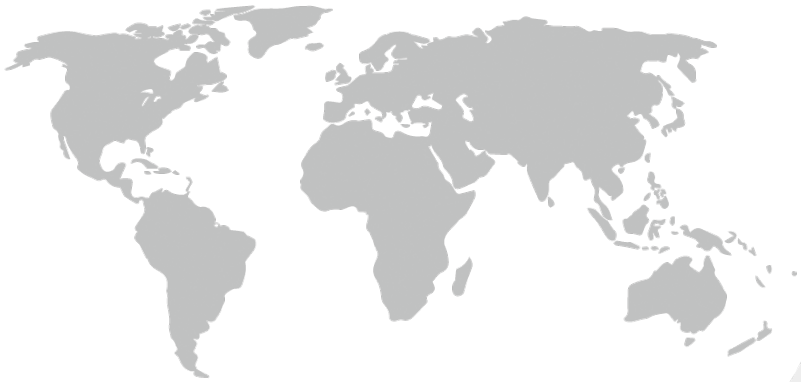

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