

Accessories

Pressure balance- and shut off valves for differential pressure measuring instruments



Application

Pressure balance- and shut off valves for differential pressure measuring instruments are suitable for liquid and gaseous media, as long as they are not very viscous or crystallizing. Depending upon constructional expenditure and choice of materials they are suitable for nominal pressure PN 40, PN 100 or PN 400.

Pressure balance and stop valves of the nominal pressure PN 100 and PN 400 have double-sided sealing discs. When the valve is fully opened and the seal packings are released, the spindle space is metalically sealed towards the process.

Mode of operation

Properly used pressure balance- and shut off valves avoid an one-sided overload of the gauge during installation, start-up as well as cut off or change of operating process.

Special features

Single valve (flow regulator) enables:

- even pressure load of + and O side
- avoidance of one-sided positive pressure load during start and other operating phases
- · zero point check in the current operation process

Three-fold valve (flow regulator, two locking off valves), enables beyond that:

- Lock off the process lines without disturbing the operation procedure
- device disassembly, check, deactivation
- protection of the differential pressure gauge against undue positive pressure loads
- measuring of the static pressure (after disassembly of the differential pressure gauge).

Five-fold valve (flow regulator, two stop valves, two), enables beyond that:

- one sided or reciprocal ventilation of the differential pressure gauge
- rinse of supply line

Options

- mounting plate for wall assembly
- other process connections
- execution for oxygen
- version for oxygen service

Model: AZA52, AZA57, AZA72

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Technical data: Simple and three-fold valve PN 40 copper alloy

Nominal pressure PN: 40 bar Nominal size DN: 3.5 mm Media temperatures: -20°C to 90°C

Wetted parts

Case: Copper alloy Spindle and cone: Stainless steel Packing: O-Ring NBR

Instrument connection

2 x union nut G $^{1\!\!/_2}$

Profile- Gasket A1314X020009 to seal

Valve element (replaceable):

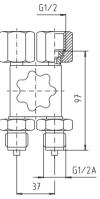
Spindle: with fixed single cone (without back seal) Spindle thread: wetted Handwheel: Thermic protection mass, \varnothing 40mm

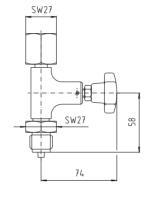
Process connection

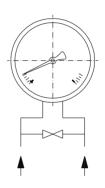
2 x spigots in accordance with table 1

Dimensions

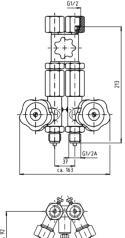
Single valve

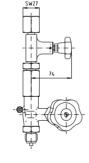






Three-fold valve





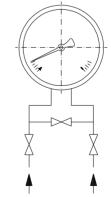


Table 1

Differential pressure gauge	Nominal size	Axle base	Connection	geometry	Article no.		
Model		[mm]	Connection of measuring device	Instrument connection	Single valve	Three-fold valve	
P2606 - P2617	100 / 160	37	Union nut G 1/2	G ½ A	AZA52X003004	AZA57X003007	
				½ -14 NPT	-	-	
				M 20 x 1.5	-	-	

Technical Data: Single-, Threefold- and Fivefoldvalve PN 100 Stainless steel

Nominal pressure PN :100 barNominal size DN :3.5 mmMedia -temperatures:-20°C to 250 °C

Wetted parts

Dimensions

Case: Stainless steel Spindle and cone: Stainless steel Packing: PTFE (Teflon)

Measuring instrument connection

2 x airscrew G 1/2 A other 2x Union nut G1/2

Profil- Gasket AW001X622668(G1/4) Profil- Gasket A1314X020008(G1/2) to seal

Valve element (exchangeably) Spindle: with rotatable double cone Spindle thread: not wetted

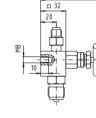
clamp handle: Stainless steel, \varnothing 10 x 44 mm

Process connection

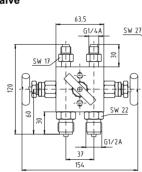
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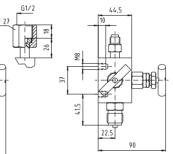
2 x spigot in accordance with table 2

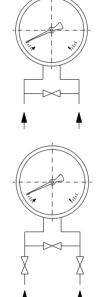
Single valve $\begin{array}{c}
62 \\
5W 22 \\
5W 22 \\
5W 22 \\
37 \\
5W 22 \\
37 \\
5W 22 \\
5$



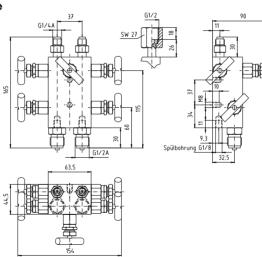
Threefold valve







Fivefold valve



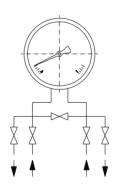


Table2

Differential pressure gauge	Nominal size	Axle base	Connection geometry		Article no.		
model		[mm]	Connection of measuring device	Process- connection	Single- valve	Threefold- valve	Fivefold- valve
P2606 - P2617	100 / 160	37	Airscrew	G ½ A	AZA52X023001	AZA57X023001	AAZA72X023001
			G 1/4 A	1/2 -14 NPT	AZA52X031001	AZA57X031001	
			Union nut G1/2	M20x1,5		AZA57X024001	
P2700 - P2719			G 1/2	G ½ A	AZA52X031001	AZA57X031001	AAZA72.003002
				1/2 -14 NPT	AZA52X011001	AZA57X011001	

Technical Data: Single-, Three-fold and Five-fold valve PN 400 stainless steel

Nominal pressure PN : 400 bar Nominal size : 3.5 mm Media temperatures: -20°C to 250 °C

Wetted parts

Case:	
Spindle and cone:	
Packing:	

d cone:	Stainless steel
	PTFE (Teflon)

Stainless steel

Instrument connection

2 x airscrew G 1/2 A other 2x Union nut G1/2

Dimensions

Single valve

Profile- Gasket A1314X020008 (G1/2) to seal

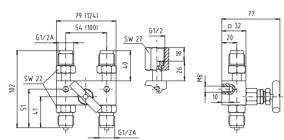
Valve element

Spindle: Spindle thread: Clamp handle:

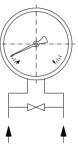
with rotatable double cone not wetted Stainless steel, \varnothing 10 x 44 mm

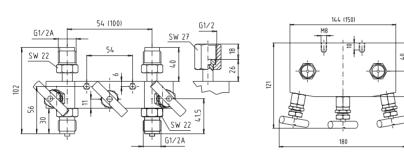
Process connection

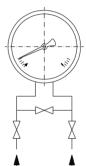
2 x spigot in accordance with table 3



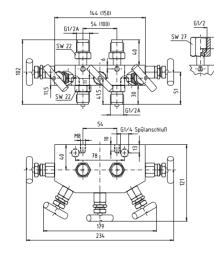
Three-fold valve







Five-fold valve



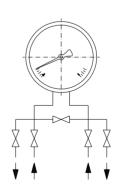


Table3

Differential pressure gauge	Nominal size	Axle base	Connection geometry		Article no.		
model		[mm]	Connection of Measuring device	Instrument connection	Single valvel	Three-fold valve	Five-fold valve
P2620 - P2694	100 / 160	54	Airscrew	G ½ A	AZA52X023002	AZA57X023002	AZA72X023002
			G ½ A	1/2 -14 NPT	AZA52X031002	AZA57X031002	AZA72X031001
			Union nut	G ½ A	AZA52X003003	AZA57X003006	AZA72X003001
			G 1⁄2	1/2 -14 NPT	AZA52X011002	AZA57X011002	AZA72X011001
		100	Airscrew G ¹ / ₂	G ½ A	-	AZA57X023003	AZA72X023003

Technical Data: Four-fold PN 60 copper alloy for pressure gauge with pressure spring and diaphragm seal

Nominal pressure PN:60 barNominal size DN :3,5 mmMedia temperatures:-20°C to 90 °C

Wetted parts

Case : Spindle and cone: Packing: copper alloy Stainless steel O-Ring NBR

Instrument connection

2 x tube 6 mm (others on request)

Profil gasket: cutting ring connection

 Valve element
 (changeable)

 Spindle:
 with revolvable double cone

 Spindle thread:
 not wetted

 clamp handle:

Process connection

 $2\ x$ female screw thread see table 4

26 31.5 air-exhaust valves shut off valves stop valve stop valve . - side + side Ŧ 6 ∞ င် 61/4 61/8 25 30 30 95 50

Dimensions

Table 4

Differential pressure gauge	Nominal size	Axle base	Connection geometry		Article no.		
model		[mm]	Connection of Measuring device	Instrument connection	Single valvel	Three-fold valve	Five-fold valve
P2590 - P2593	100	26	Cutting ring connection for tube Ø 6 mm	G ¼		AZA57X013001	

Modifications reserved

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