



schneider

Tailored to Your Business

Instrumentation Products

Mini Valves



Mini Valves

Introduction

Rugged Design for long term performance in the most demanding environmental conditions and services. Seat and Seal materials are available for hot, cold, wet, freezing, dirty sour gas (H₂S), carbon dioxide (CO₂), amines, corrosion inhibitors, methanol and glycol compounds found in your pipeline and transmission system.

Available with Double O-Ring Stem Seal or PTFE packed. Features like Stem Seal below threads and Back Seat Design are standard. The Soft Seats are field replaceable.

Body Material Options

Material Group	AS Material Designation	Material Grade acc. to ASTM	Equivalent UNS-No.	Material No.	Short Name	Mini Valves
Copper Alloys	Brass			CW614N	CuZn39Pb3	Standard
				CW617N	CuZn40Pb2	
Carbon Steel	LF2	LF2				Standard
Austenitic Stainless Steel	316 quadruple certified*	316	S31600	1.4401	X5CrNiMo17-12-2	Standard
		316L	S31603	1.4404	X2CrNiMo17-12-2	
Nickel Based Alloys	Alloy 400		N04400	2.4360	NiCu30Fe	Optional
	Alloy C-276		N10276	2.4819	NiMo 16 Cr 15 W	Optional

*Quadruple certified means acc. to ASTM and EN: 316/316L/1.4401/1.4404

Standard Features

- Bore Size 0.138" (3.5 mm)
- Soft Seated
- Stem Seal
 - Double O-Ring Design as standard
 - PTFE Packing is also available – Brass Type please contact factory

Sour Gas Service:

Wetted Parts according to a. m. material list are supplied as standard according to NACE MR0175/MR0103 and ISO 15156 (latest issue).

Pressure Test:

A shell test at 1.5 times the max. allowable (working) pressure and a seat leakage test are performed acc. to EN 12266-1 – P10, P11 and P12 respectively MSS-SP61 (and complies also with ASME B31.1 and B31.3). As standard AS-Schneider Mini Valves are 100% Pressure Tested!

Optional Features

Oxygen Service:

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

Pressure-Temperature Rating:

Max. 6,092 psi (420 bar) @ 140°F (60°C)

Max. 392°F (200°C) @ 1,305 psi (90 bar)

Not every Valve type is available for Oxygen Service!

Certification:

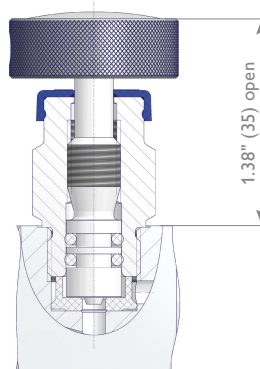
Certified Mill Test Report (CMTR) as Inspection certificate 3.1 acc. to EN 10 204 for valve body material and pressure test available on request.

If you don't find your options in this catalogue, please contact the factory.

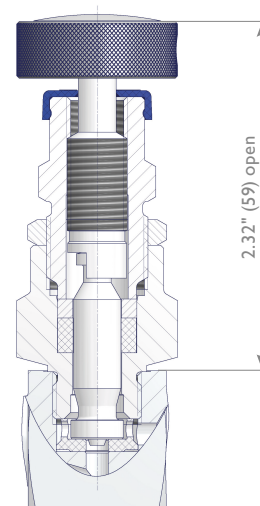
Mini Valves

- Bore Size 0.138" (3.5 mm)
- Replaceable Valve Seat – POM, optional PCTFE
- External Stem Thread – Packing/O-Ring below stem threads. Stem Threads are protected from process media (non-wetted).
- Stem with Cold Rolled Threads, except Brass Type
- Blow-out Proof Stem
- Back Seat – Metal to metal secondary stem seal
- Lock Pin – Eliminates unauthorized removal of the bonnet
- Color Coded Dust Cap for operating thread protection
- Round Handle Aluminium, silver anodized – Optional Round Handle & T Handle in 316SS
- Max. allowable (Working) Pressure (PS): 6,092 psi (420 bar)
- Double O-Ring Stem Seal Design:
 - Stem Seal – O-Rings in FKM (optional RGD resistant) or FEPM
 - 2.5 Turns to fully open or close the valve
- PTFE Packing Design:
 - Needle Seal – PTFE Packing
 - Non-rotating Needle
 - 4 Turns to fully open or close the valve

Double O-Ring Stem Seal



PTFE Packing

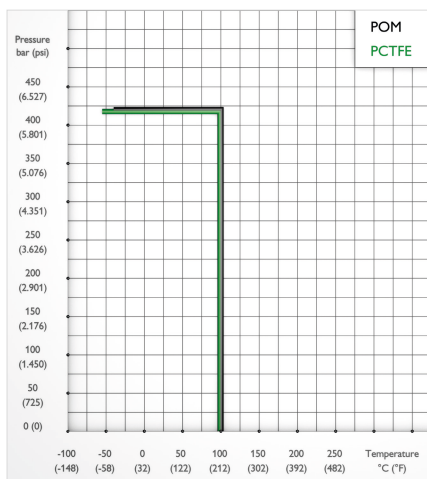


Codes and Specifications

Mini Valves are manufactured to the following Codes and Specifications

- ASME B31.1 Power Piping
- ASME B31.3 Process Piping
- ASME B16.34 Valves – Flanged, Threaded and Welding End
- API 598 Valve Inspection and Testing
- MSS SP-25 Standard Marking Systems for Valves, Fittings and Flange Unions
- MSS SP-99 Instrument Valves
- MSS SP-105 Instrument Valves for Code Applications
- NACE MR0175 / ISO 15156 Petroleum and Natural Gas Industries ... (not available for brass valves)

Pressure-Temperature Rating (Soft Seat)



Stem Seal Material

Material	Temperature	
	Min.	Max.
FKM	-13°F (-25°C)	392°F (200°C)
FKM (RGD resistant)	-40°F (-40°C)	450°F (232°C)
FEPM	-4°F (-20°C)	392°F (200°C)
PTFE	-67°F (-55°C)	450°F (232°C)

Low Temperature Service down to -55°C (-67°F) – As standard for Valves with PTFE Packing and Soft Seats in PCTFE only.

Temperature Limit for Body Material:

- Carbon Steel LF2: -51°F (-46°C)

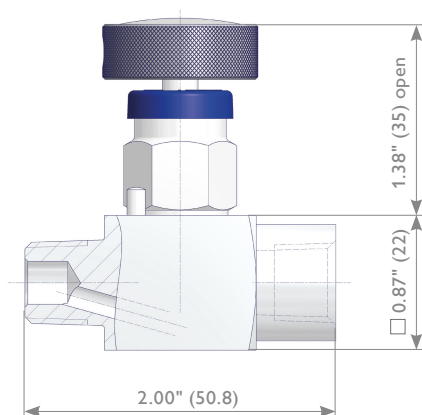
- Brass: 14°F (-10°C).

All other materials are limited by soft goods.

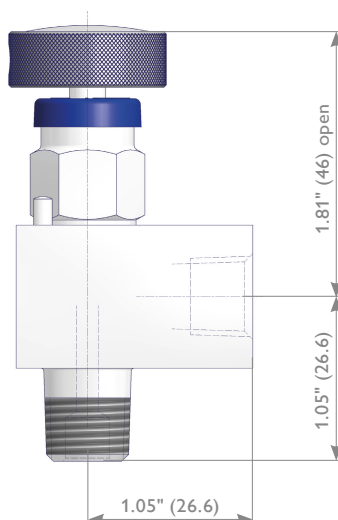
Max. allowable (Working) Pressure (PS) for Brass Type 3,000 psi (206.8 bar).

Features

Straight Pattern



Angle Pattern



Components	Brass	Carbon Steel	Stainless Steel	Exotic Alloys	
	Material / Material No.				
Body	Brass	LF2	316 / 316L	Alloy 400	Alloy C-276
Bonnet		316 / 316L	Alloy 400	Alloy C-276	
Seat	POM or PCTFE				
Valve Stem*1	Brass	316 / 316L		Alloy 400	Alloy C-276
O-Ring*1	FKM or FEPM				
Rupture Disc	Alloy 625				
Hex Plug	316				
Needle*2	316 / 316L		Alloy 400	Alloy C-276	
Packing*2	PTFE				
Valve Stem*2	316 / 316L				
Gland*2	316				
Stem Nut*2	316				
Lock Nut*2	316				
Set Screw	316				
Round Handle	Aluminium				
Lock Pin	A4 (316)				

Wetted components listed in **bold**. | *1 Components for O-Ring Head Unit only. | *2 Components for Packing Head Unit only.



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.

Ordering Information

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	A	5	S	-	A	N	2	S	K	D	-	B				
A5 Mini Valves																
Basic Design																
S	Straight Pattern		L	Angle Pattern												
Dash																
Inlet x Outlet Configuration																
A	Male x Female		C	Male x Male												
B	Female x Female															
Inlet and Outlet Thread Sizes																
N1	1/8 NPT															
N2	1/4 NPT															
Material																
L	Carbon Steel LF2		M	Alloy 400 UNS N04400		E	Brass									
S	1.4404 / 1.4401 / 316 / 316L		H	Alloy C-276 UNS N10276												
Stem Seal / Packing																
K	O-Ring FKM		A	PTFE Packing (for Brass Type please contact factory)												
J	O-Ring FKM (RGD resistant)															
P	O-Ring FEPM															
Seat Material																
D	POM															
K	PCTFE															
Dash																
Options – Specify in alphabetical order (digits first, then letters)																
B	Cleaned and Lubricated for Oxygen Service															
M	Wetted Parts with Certified Mill Test Report (CMTR) as 3.1 certificate acc. to EN 10204															
Operation Options																
K	T Handle – Instead of Round Handle Aluminium															
W	Round Handle SS – Instead of Aluminium															

Wetted Parts according to above mentioned material list are supplied according to NACE MR0175/MR0103 and ISO 15156 (latest issue).

YOUR GLOBAL PARTNER

for Instrumentation and
Double Block & Bleed Valves



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