

ZM-50

Double Seal Mixproof Valve

APPLICATION

The ZM-50 valve is a pneumatic shut-off single seat valve with two seals that, by means of a leakage chamber under atmospheric pressure formed between the two seals, enables a safe separation of two different products, one of which is usually CIP (cleaning medium). Compressed air is simultaneously applied to the actuator and to the leakage valves to prevent leakage through the leakage valve when the valve opens. Valve open - leakage valves closed / valve closed - leakage valves open. The leakage chamber can be cleaned through one of the two available leakage valves.

DESIGN AND FEATURES

Specific profile seat seals, conical upper seal, radial lower seal.
Main valve with single acting actuator (NC) and normally open leakage valves (NO).
Easy assembly/disassembly of internal parts by loosening a clamp fastener.
Open lantern allows visual inspection of shaft sealing.
360º adjustable body.

TECHNICAL SPECIFICATIONS

Materials	
Parts in contact with the product	1.4404 (AISI 316L)
Other stainless steel parts	1.4301 (AISI 304)
Gasket	EPDM
Surface finish	
Internal	Bright polish Ra ≤ 0,8 µm
External	Matt
Available sizes	
DIN EN 10357 series A (previously DIN 11850 series 2)	DN 25 - DN 100
ASTM A269/270 (correspondsto OD pipe)	OD 1'' - OD 4''
Connections	
Weld	

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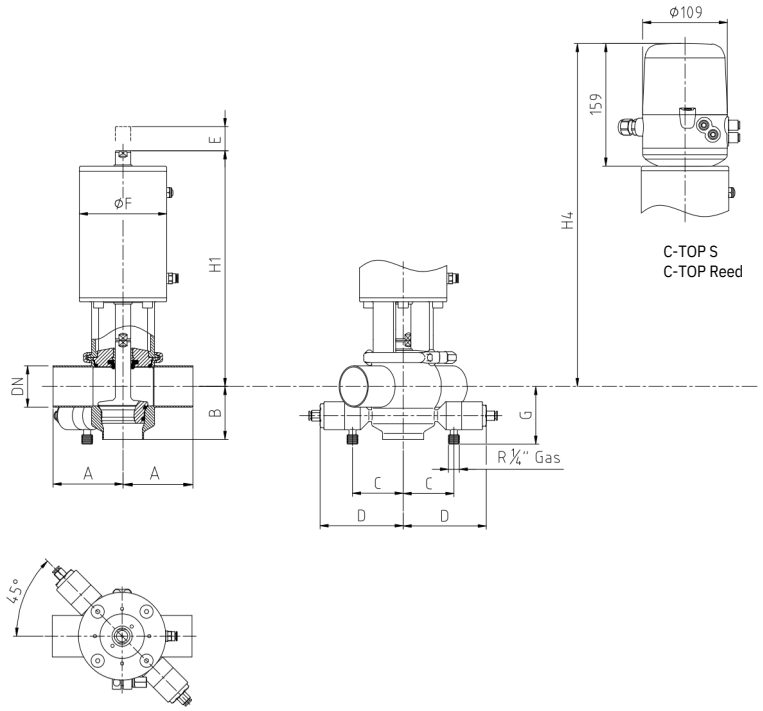
Operating limits

Temperature range	-10ºC to 121ºC	14ºF to 250ºF
SIP temperature	140ºC (max. 30 min)	284ºF 145
Maximum working pressure	1000 kPa (10 bar)	PSI Vacuum
Minimum working pressure	Vacuum	87 - 116 PSI
Compressed air pressure	6 - 8 bar	

OPTIONS

Double-acting pneumatic actuator.
Gaskets: FPM, HNBR.
Other connection types.
Control unit.
External position sensors.
Surface finish: Ra < 0,5 µm.
Steam barrier.

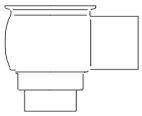
DIMENSIONS



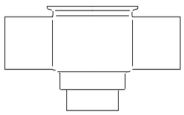
	DN	Pipe	A	B	C	D	E	ØF	G	H1	H4	kg
DIN	25	29,0 x 1,50	50	50	50	92	17	87	62	238	376	5,3
	40	41,0 x 1,50	85	60	59	101	24	87	68	241	386	6,3
	50	53,0 x 1,50	90	68	65	107	31	112	74	303	442	9,4
	65	70,0 x 2,00	110	81	77	119	38	143	82	348	494	16
	80	85,0 x 2,00	125	90	83	125	38	143	90	356	501	18
	100	104 x 2,00	150	125	95	137	34	216	100	383	525	34
OD	1''	25,4 x 1,65	50	50	50	92	13	87	60	240	378	5,3
	1½''	38,1 x 1,65	85	60	59	101	21	87	67	243	388	6,3
	2''	50,8 x 1,65	90	68	65	107	29	112	72	304	443	9,3
	2½''	63,5 x 1,65	110	81	77	119	32	143	79	351	497	16
	3''	76,2 x 1,65	125	90	83	125	30	143	86	360	505	18
	4''	101,6 x 2,11	150	125	95	137	31	216	99	384	526	34

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HOUSING COMBINATIONS



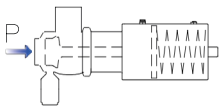
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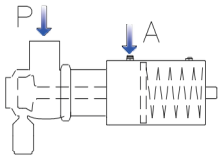
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MAXIMUM PRESSURES

Maximum pressure in bar / PSI without leakage at the valve seat

Actuator/valve body combination and direction of pressure	Air pressure [bar] / [PSI]	Plug position	DN 25 OD 1''	DN 40 OD 1½''	DN 50DN 65 OD 2''OD 2½''		DN 80 OD 3''	DN 100 OD 4''
			[bar] / [PSI]					
	6 / 87	NC	10 / 145	5,7 / 82	5,1 / 74	5,1 / 74	4,4 / 64	4,7 / 68

Maximum pressure in bar / PSI against which the valve can open

Actuator/valve body combination and direction of pressure	Air pressure [bar] / [PSI]	Plug position	DN 25 OD 1''	DN 40 OD 1½''	DN 50DN 65 OD 2''OD 2½''		DN 80 OD 3''	DN 100 OD 4''
			[bar] / [PSI]					
	6 / 87	NC	10 / 145	10 / 145	10 / 145	8,6 / 125	7,7 / 111	10 / 145

A ≡ air
P ≡ product pressure
NC ≡ normally closed valve
Values for standard actuators
For other pressures, bigger actuators can be assembled

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