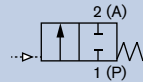


# On-Off Pneumatically Operated 2/2 Way Forged Diaphragm Valve

2103

## DN8-50 mm

- Hygienic stainless steel design
- Optical display as standard in series
- Interface to feedback and control options
- For highly pure and aseptic materials
- Certification acc. to FDA
- Silencer included



The externally piloted diaphragm valve, Type 2103, consists of a pneumatically operated piston actuator, a diaphragm and a 2-way valve body made of forged steel. The high-quality drive with stainless steel casing ensures its suitable use in hygienic or aggressive environments. The streamlined and zero dead volume valve body allows high flow rates and versatility.

## Technical Data

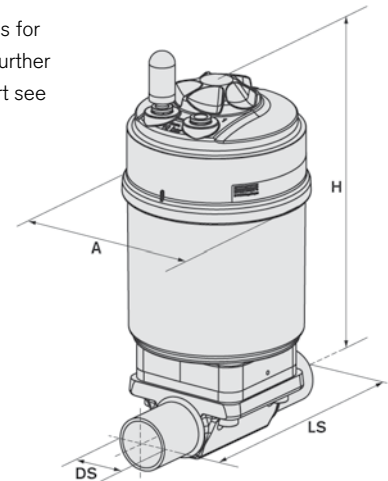
<b>Pressure range</b>	see Ordering Chart
<b>Temperature media</b>	-10 °C to +130 °C (for steam sterilization short term up to +150 °C)
<b>Viscosity</b>	up to viscous
<b>Ambient temperature</b>	+5 °C to +60 °C.
<b>Body material</b>	Forged stainless steel 316L/1.4435/BN2 Fe < 0.5% / C ≤ 0.03%
<b>Internal finish</b>	Ra ≤ 0.6 µm
<b>External finish</b>	Forged surface
<b>Seal material</b>	EPDM (FDA and KTW approval) or PTFE/EPDM (FDA approval)
<b>Actuator material</b>	Actuator PPS Cover stainless steel 1.4561 (316Ti)
<b>Control medium</b>	Neutral gases, air
<b>Flow direction</b>	Bidirectional
<b>Pilot connections</b>	Push-in connector (external Ø 6 mm or 1/4")
<b>Norms</b>	FDA compliant, 3A

## Options

- Any standard surface finish
- Classic actuator for sizes above 2"
- Control heads/Positioner
- Advanced PTFE/EPDM
- Control function B (normally open) and I (double-acting)

## Envelope Dimensions (see datasheet for details)

Drawing shows dimensions for weld end connection, for further versions with threaded port see datasheet.



Orifice	Actuator	A	H	LS	DS Ø	
					EN ISO 1127/ ISO 4200	DIN 11850 R2
8	50	64.5	129	90	13.5	-
10	50	64.5	144	110	17.2	13
15	70	91	161	110	21.3	19
20	70	91	171	119	26.9	23
25	70	91	174	129	33.7	29
25	90	120	207	129	33.7	29
40	130	159	288	161	48.3	41
50	130	159	311	192	60.3	53

## Ordering Chart

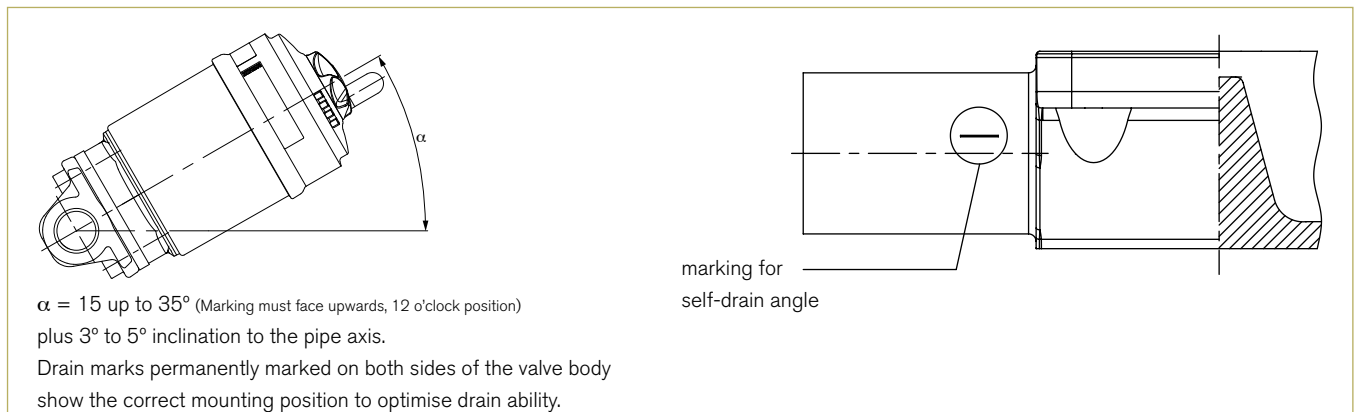
Orifice		Kv value [m <sup>3</sup> /h]	Actuator size Ø [mm]	Pilot pressure range [bar]	Max. operating pressure [bar] EPDM	Item no. mech. polished Ra ≤ 0.6 µm EPDM	Max. operat- ing pressure [bar] PTFE / EPDM	Item no. mech. polished Ra ≤ 0.6 µm PTFE / EPDM
[mm]	[inch]							
<b>Body with weld end connection</b>								
<b>Acc. to EN ISO 1127 / ISO 4200</b>								
8	1/4	1	50	5 - 10	10	218 005	10	218 012
15	1/2	5.5	70	5 - 10	10	218 006	10	218 013
20	3/4	10	70	5 - 10	10	218 007	10	218 014
25	1	14	70	5 - 10	6.5	218 008	6	218 015
			90	5.5 - 10	10	218 009	8	218 016
40	1 1/2	30	130	5 - 7	10	218 010	10	218 017
50	2	51.5	130	5 - 7	8	218 011	7	218 018
<b>Acc. to DIN 11850 Series 2</b>								
10	3/8	1	50	5 - 10	10	218 019	10	218 026
15	1/2	5.5	70	5 - 10	10	218 020	10	218 027
20	3/4	10	70	5 - 10	10	218 021	10	218 028
25	1	14	70	5 - 10	6.5	218 022	6	218 029
			90	5.5 - 10	10	218 023	8	218 030
40	1 1/2	30	130	5 - 7	10	218 024	10	218 031
50	2	51.5	130	5 - 7	8	218 025	7	218 032
<b>Acc. to ASME BPE</b>								
8	1/4	1.0	50	5 - 10	10	218 033	10	218 041
10	3/8	1.0	50	5 - 10	10	218 034	10	218 042
15	1/2	5.5	70	5 - 10	10	218 035	10	218 043
20	3/4	10.0	70	5 - 10	10	218 036	10	218 044
25	1	14.0	70	5 - 10	6.5	218 037	6	218 045
			90	5.5 - 10	10	218 038	8	218 046
40	1 1/2	30	130	5 - 7	10	218 039	10	218 047
50	2	51.5	130	5 - 7	8	218 040	7	218 048
<b>Acc. to BS 4825</b>								
8	1/4	1.0	50	5 - 10	10	218 049	10	218 053
10	3/8	1.0	50	5 - 10	10	218 050	10	218 054
15	1/2	5.5	70	5 - 10	10	218 051	10	218 055
20	3/4	10.0	70	5 - 10	10	218 052	10	218 056

## Ordering Chart

2103

Orifice		Kv value [m <sup>3</sup> /h]	Actuator size Ø [mm]	Pilot pressure range [bar]	Max. operating pressure [bar] EPDM	Item no. mech. polished Ra ≤ 0.6 µm EPDM	Max. operat- ing pressure [bar] PTFE / EPDM	Item no. mech. polished Ra ≤ 0.6 µm PTFE / EPDM
[mm]	[inch]							
<b>Body with clamp connection</b>								
<b>Acc. to DIN 32676</b>								
15	1/2	5.5	70	5 - 10	10	218 057	10	218 063
20	3/4	10.0	70	5 - 10	10	218 058	10	218 064
25	1	14.0	70	5 - 10	6.5	218 059	6	218 065
			90	5.5 - 10	10	218 060	8	218 066
40	1 1/2	30.0	130	5 - 7	10	218 061	10	218 067
50	2	51.5	130	5 - 7	8	218 062	7	218 068
<b>Acc. to ASME BPE - short dimension</b>								
8	1/4	1.0	50	4.4 - 10	10	266 683	10	266 685
10	3/8	1.0	50	5 - 10	10	218 070	10	218 078
15	1/2	5.5	70	5 - 10	10	218 071	10	218 079
20	3/4	10.0	70	5 - 10	10	218 072	10	218 080
25	1	14.0	70	5 - 10	6.5	218 073	6	218 081
			90	5.5 - 10	10	218 074	8	218 082
40	1 1/2	30.0	130	5 - 7	10	218 075	10	218 083
50	2	51.5	130	5 - 7	8	218 076	7	218 084
<b>Acc. to ASME BPE - long dimension</b>								
8	1/4	1.0	50	5 - 10	10	218 085	10	218 092
15	1/2	5.5	70	5 - 10	10	218 086	10	218 093
20	3/4	10.0	70	5 - 10	10	218 087	10	218 094
25	1	14.0	70	5 - 10	6.5	218 088	6	218 095
			90	5.5 - 10	10	218 089	8	218 096
40	1 1/2	30.0	130	5 - 7	10	218 090	10	218 097
50	2	51.5	130	5 - 7	8	218 091	7	218 098

## Installation for self-draining operation



# Mass Flow Controller

Whatever the application, it is all down to precise regulation, constant control and accurate metering of the gaseous media to ensure consistent and reproducible results. Our efficient and intelligent devices make gas handling simple.

