

21DZ1 SERIES

Pneumatic Valves, Aseptic diaphragm valves

Aseptic diaphragm valve with single acting NC pneumatic actuator, ideal for use in critical applications such as those in the chemical, pharmaceutical, food & beverage sectors. Specific body design to ensure total separation between medium and actuation.
 Diaphragm compliant with EC Regulation 1935/2004, FDA 21CFR 177.1550, USP40.
 Bidirectional use thanks to the symmetrical body design.
 Self-draining body design.
 Optical position indicator.
 Compatible with CIP / SIP processes.



TECHNICAL DATA

NOMINAL SIZE	WELDED	TRI-CLAMP
	DN8 ÷ DN50	DN8 ÷ DN50
DIAPHRAGM SIZE	8 ÷ 50	
DIAPHRAGM LEAKAGE CLASS	CLASS A (EN 12266-1)	
FLUID TEMPERATURE	-10°C +150°C	
AMBIENT TEMPERATURE	-10°C +80°C	
PILOT FLUID	air, inert gases	
PILOT FLUID TEMPERATURE	max +50°C	
PILOT MAX. PRESSURE (PS)	8 bar	

MATERIALS

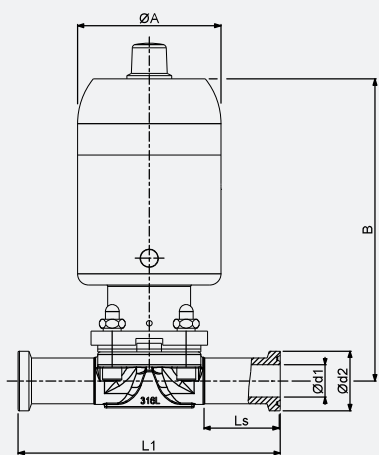
VALVE BODY	stainless steel AISI 316L (Ra ≤ 0,4 Qm)
DIAPHRAGM	PTFE + EPDM (PTFE in contact with the fluid)
PISTON SEAL	NBR - EPDM
ACTUATOR HOUSING	stainless steel AISI 304

▪ **CE**
 - 2014/68/EU (PED)
 up to 1" - art. 4.3
 above 1" - cat. I module A
 - 2014/34/EU (ATEX) Available on request.
 Refer to next pages for the complete marking

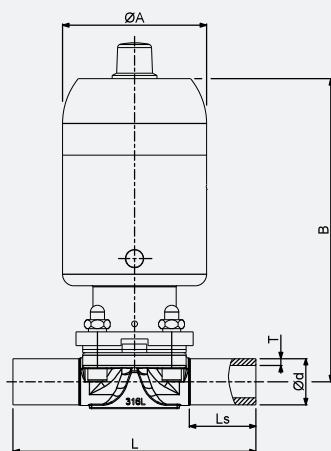
▪ Diaphragm compliant with
EC Reg. 1935/2004,
 FDA 21CFR 177.1550, USP40

▪ Please check the compatibility of the fluids in contact with the materials at RFQ stage.
 ▪ For pilot valve please refer to accessories Section of Chapter 2.

TRI-CLAMP CONNECTIONS



WELDED CONNECTIONS



DIM WELDED

NOMINAL SIZE	DIAPHRAGM SIZE	Ø A mm	B mm	Ls mm	L mm	DIN 11850-2 DIN 11866-A		DIN 11850-3		ASME BPE		ISO 1127 DIN 11866-B		Weight kg
						Ø d mm	T mm	Ø d mm	T mm	Ø d mm	T mm	Ø d mm	T mm	
DN8	8	47	85	20	72	-	-	-	-	6,35	0,89	-	-	0,55
DN10	8	47	85	20	72	-	-	-	-	9,53	0,89	-	-	0,55
DN15	8	57	106	20	72	-	-	-	-	12,7	1,65	-	-	0,9
DN15	10	65	134	29	108	19	1,5	20	2	-	-	21,3	1,6	0,9
DN20	10	65	134	29	108	-	-	-	-	19,05	1,65	-	-	1,6
DN20	25	88	170	26	120	23	1,5	24	2	-	-	26,9	1,6	1,6
DN25	25	88	170	26	120	29	1,5	30	2	25,4	1,65	33,7	2	3,4
DN40	40	109	196	30	153	41	1,5	43	2	38,1	1,65	48,3	2	5,1
DN50	50	129	226	30	173	53	1,5	54	2	50,8	1,65	60,3	2	7,7

DIM TRI-CLAMP

NOMINAL SIZE	DIAPHRAGM SIZE	Ø A mm	B mm	Ls mm	ASME BPE			ISO 1127 DIN 11866-B			DIN 11850 DIN 32676-A			Weight kg
					Ø d1 mm	Ø d2 mm	L1 mm	Ø d1 mm	Ø d2 mm	L1 mm	Ø d1 mm	Ø d2 mm	L1 mm	
DN8	8	47	85	15,5	4,57	25	63,5	-	-	-	-	-	-	0,6
DN10	8	47	85	15,5	7,75	25	63,5	-	-	-	-	-	-	0,6
DN15	8	57	106	15,5	9,4	25	63,5	-	-	-	-	-	-	0,95
DN15	10	65	134	34	-	-	-	18,1	50,5	108	16	34	108	0,95
DN20	10	65	134	34	15,75	25	101,6	-	-	-	-	-	-	1,65
DN20	25	88	170	30	-	-	-	23,7	50,5	117	20	34	117	1,65
DN25	25	88	170	30	22,1	50,5	114,3	29,7	50,5	127	26	50,5	127	3,5
DN40	40	109	196	33	34,8	50,5	139,7	44,3	64	159	38	50,5	159	5,2
DN50	50	129	226	39	47,5	64	158,8	56,3	77,5	190	50	64	190	7,7

2/2 NC - ASME BPE

NOMINAL DIAMETER	DIAPHRAGM SIZE	Kv	Kv	ACTUATOR PILOT PRESSURE [bar]		DIFFERENTIAL PRESSURE [bar]		MAX ALLOWABLE PRESSURE [bar]	CODE
		[m³/h]	[l/min]	MIN	MAX	MIN	MAX	PS	
DN8	8	0,5	8,3	4,5	7	0	10	16	21DZ1AMIABT008A**
DN10	8	1,1	18,3	4,5	7	0	10	16	21DZ1AMIABT010A**
DN15	8	1,6	26,7	4,5	7	0	10	16	21DZ1AMIABT015A**
DN20	10	5,7	95,0	4,5	7	0	10	16	21DZ1BM1ABT020A**
DN25	25	10,6	176,7	4,5	7	0	10	16	21DZ1CM1ABT025A**
DN40	40	21,9	365,0	4,5	7	0	10	16	21DZ1DM1ABT040A**
DN50	50	37,7	628,3	4,5	7	0	10	16	21DZ1EM1ABT050A**

2/2 NC - ISO, DIN

NOMINAL DIAMETER	DIAPHRAGM SIZE	Kv	Kv	ACTUATOR PILOT PRESSURE [bar]		DIFFERENTIAL PRESSURE [bar]		MAX ALLOWABLE PRESSURE [bar]	CODE
		[m³/h]	[l/min]	MIN	MAX	MIN	MAX	PS	
DN15	10	5,0	83,3	4,5	7	0	10	16	21DZ1BM1ABT015A**
DN20	25	10,8	180,0	4,5	7	0	10	16	21DZ1CM1ABT020A**
DN25	25	10,6	176,7	4,5	7	0	10	16	21DZ1CM1ABT025A**
DN40	40	21,9	365,0	4,5	7	0	10	16	21DZ1DM1ABT040A**
DN50	50	37,7	628,3	4,5	7	0	10	16	21DZ1EM1ABT050A**

■ ** replace with process connections digits, please refer to codification table.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	CODIFICATION
21	DZ1	CM	1	A	B	T	025	A	W4	-	
I. 2 WAY 1 ELEMENT II. SERIES III. DIAPHRAGM SIZE AM - 8 BM - 10 CM - 25 DM - 40 EM - 50 IV. PILOT FUNCTION 1 - N.C. V. BODY MATERIAL A - AISI 316L VI. ACTUATOR MATERIAL B - AISI 304				VII. DIAPHRAGM MATERIAL T - PTFE+EPDM (2-layer diaphragm) VIII. NOMINAL DIAMETER 008 010 015 020 025 040 050 IX. POLISHING A - Mechanical polishing B - Electropolishing			X. PROCESS CONNECTIONS W2 - Welded DIN 11850-2 DIN 11866 A W3 - Welded DIN 11850-3 W4 - Welded ASME BPE W5 - Welded ISO 1127 DIN 11866 B C1 - Tri-clamp ASME BPE C2 - Tri-clamp DIN 32676-B (ISO 1127) C3 - Tri-clamp DIN 32676-A (DIN 11850) Other standards available on request XI. OPTIONS A - ATEX Version				



According to Directive 2014/34/EU ATEX

II 2G Ex h IIC T6...T3 Gb
 II 2D Ex h IIIC T80°C...T180°C Db
 (-10 °C ≤ Tamb ≤ 80°C)