

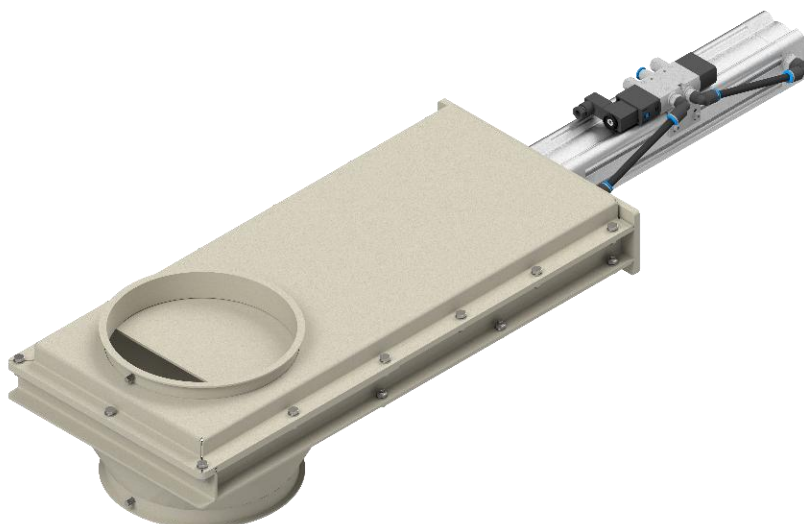
EN- Technical data sheet

Pipe gate, pneumatically operated, lifting cylinder, ATEX

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Article code

20	2	1	069	/ATEX
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Diameter

08	DN 80
10	DN 100
12	DN 120
...	
30	DN 300

②

Thickness

1	1.5 mm (<i>DN 80 only</i>)
2	2.0 mm

③

Surface

1	1.0330, powder-coated
3	1.4301, shot-blasted

④

Article group

069	Pipe gate, pneumatically operated, lifting cylinder
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1 Technical data

Area of application and use	For the discharge of free-flowing, granular and powdery bulk materials in gravimetric, pressureless conveyor systems. The actuation time depends on the drive. <i>(see table 1.1 Actuation, p.3-5)</i>
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Connection	Both sides with flanged edges (<i>lips</i>) for clamping ring connections.
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Materials	
Pipe socket	According to article number 1.0330 (DC01) or 1.4301 (X5CrNi18-10) in specified material thickness
Gate	Made of 1.0330 (DC01) or 1.4301 (X5CrNi18-10) in thickness $t = 3 \text{ mm}$
Seal	1.0330: Sealing strip made of felt RG36, white 1.4301: Sealing strip made of silicone, 60 ± 5 Shore A

Surfaces and temperature		
Surface treatment	Powder Coating (1.0330)	Stainless Steel Shot Blasting (1.4301)
	Standard colour: RAL 7032 ("pebble grey"); smooth, satin-gloss, electrostatically dissipative; Food physiologically harmless; Average layer thickness: $30 - 60 \text{ }\mu\text{m}$	Surface roughness $R_a: 1.3 \text{ }\mu\text{m}$
Ambient temperature	-10°C to $+60^{\circ}\text{C}$	
Product temperature*	-20°C to $+80^{\circ}\text{C}$	-20°C to $+210^{\circ}\text{C}$

ATEX approval	
Application	Group II, Category 3D Zone 22
Marking	 II 3 D c T 130°C
Equipotential bonding	with welded earthing bolts for on-site grounding

**Note: If product temperatures exceed 50°C , the manual control or drive must be insulated against heat conduction on site.*

1.1 Actuation

Pneumatic lifting cylinder, ATEX		
Diameter	DN 80	DN 100 – DN 120
Make	Festo	
Type	DSBC-32-100-PPVA-N3EX4	DSBC-40-160-PPVA-N3EX4
Stroke	100 mm	160mm
Piston diameter	32 mm	40 mm
Compressed air supply	5 bar	
Mode of action	double-acting	
End position damping	Adjustable on both sides	
Air volume per double stroke	0.92 L	2.31 L
Actuation time (open/closed)	< 3 seconds	
Ambient temperature	-20° to +60°C	
ATEX approval	II 2G Ex h IIC T4 Gb II 2D Ex h IIIC T120°C Db	

Diameter	DN 150 – DN 175	DN 200
Make	Festo	
Type	DSBC-40-200-PPVA-N3EX4	DSBC-50-250-PPVA-N3EX4
Stroke	200 mm	250 mm
Piston diameter	40 mm	50 mm
Compressed air supply	5 bar	
Mode of action	double-acting	
End position damping	Adjustable on both sides	
Air volume per double stroke	2.89 L	5.33 L
Actuation time (open/closed)	< 3 seconds	
Ambient temperature	-20° to +60°C	
ATEX approval	II 2G Ex h IIC T4 Gb II 2D Ex h IIIC T120°C Db	

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**Pipe gate, pneumatically operated,
lifting cylinder, ATEX**



Diameter	DN 250	DN 300
Make	Festo	
Make	DSBC-50-300-PPVA-N3EX4	DSBC-50-350-PPVA-N3EX4
Type	300 mm	350 mm
Stroke	50 mm	
Piston diameter	5 bar	
Compressed air supply	double-acting	
Mode of action	Adjustable on both sides	
End position damping	6.41 L	7.48 L
Air volume per double stroke	< 3 seconds	
Actuation time (open/closed)	-20° to +60°C	
Ambient temperature	II 2G Ex h IIC T4 Gb II 2D Ex h IIIC T120°C Db	

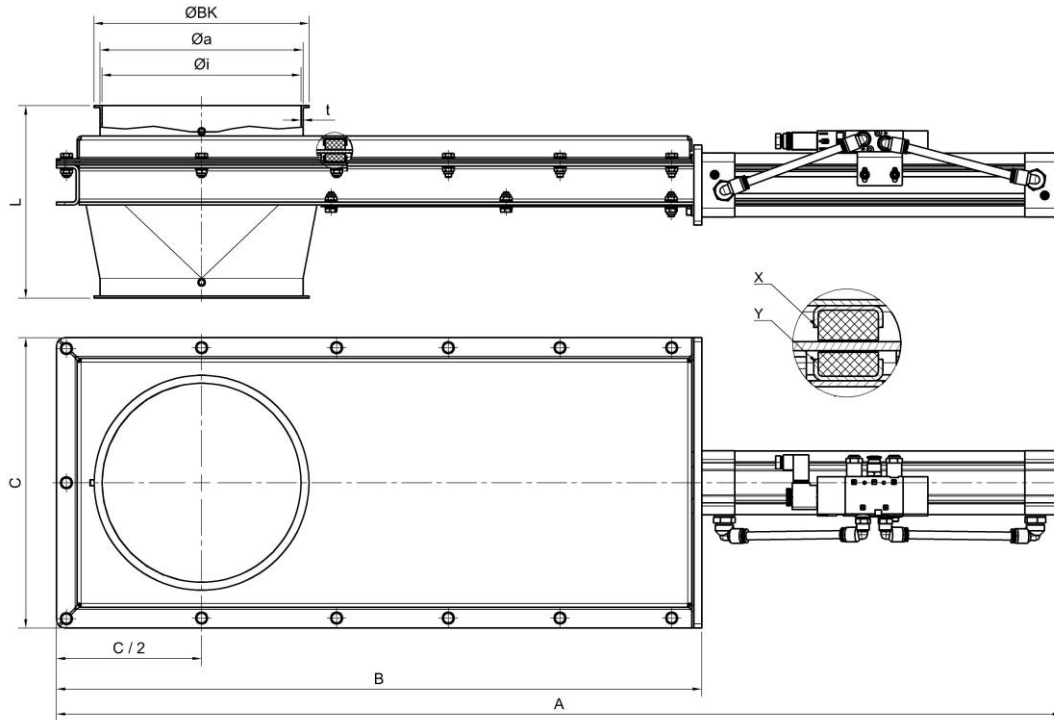
5/2-way solenoid valve, monostable	
Voltage	24V DC
Make	Festo
Type	VUVS-L20-M52-MD-G18-F7-1C1-EX2+GS
Number of spools	1 (monostable)
Flow	700 L/min
Appliance socket	MSSD-EB-M12-24VDC-SD_EX
Degree of protection	IP65
Ambient temperature	-10° to +60°C
ATEX approval	II 3G Ex ec IIC T4 Gc X II 3D Ex tc IIIC T115°C X Dc
Electrical Connection	Cable gland M12x1.5 Cable diameter: 4- 6mm
Pneumatic Connection	Push-in connection for 8mm hose diameter

Proximity sensor	
Voltage	5-30V DC
Make	Festo
Type	CRSMT-8M-PS-24V-K-5,0-OE
Quantity	2 pieces (open/closed)
Output	PNP
Current	Max. 100 mA
Degree of protection	IP65
Ambient temperature	-40°C to +85°C
ATEX approval	II 3G Ex ec IIC T4 Gc X II 3D Ex tc IIIC T120°C Dc X
Electrical Connection	Cable 5m, 3 wires with open end

2 Dimensions

Dimension table

pictured version: DN 200



X= Sealing strip made of felt/ silicone

Y= Sealing strip made of felt/ silicone

DN	t [mm]	Øi [mm]	Øa [mm]	ØBK [mm]	A [mm]	B [mm]	C [mm]	L [mm]	m [kg]
80	1,5	77,5	80,5	92,5	556	358	140	150	5,8
100	2	99	103	115	650	370	160	104	7,4
120		119	123	135	697	432	180	138	8,4
150		149	153	165	814	505	220	152	10,5
175		174	178	190	860	555	245	212	12,9
200		199	203	215	1000	645	290	182	16,8
250		249	253	265	1182	776	345	217	21,6
300		299	303	315	1337	881	395	277	27,4

Tolerances

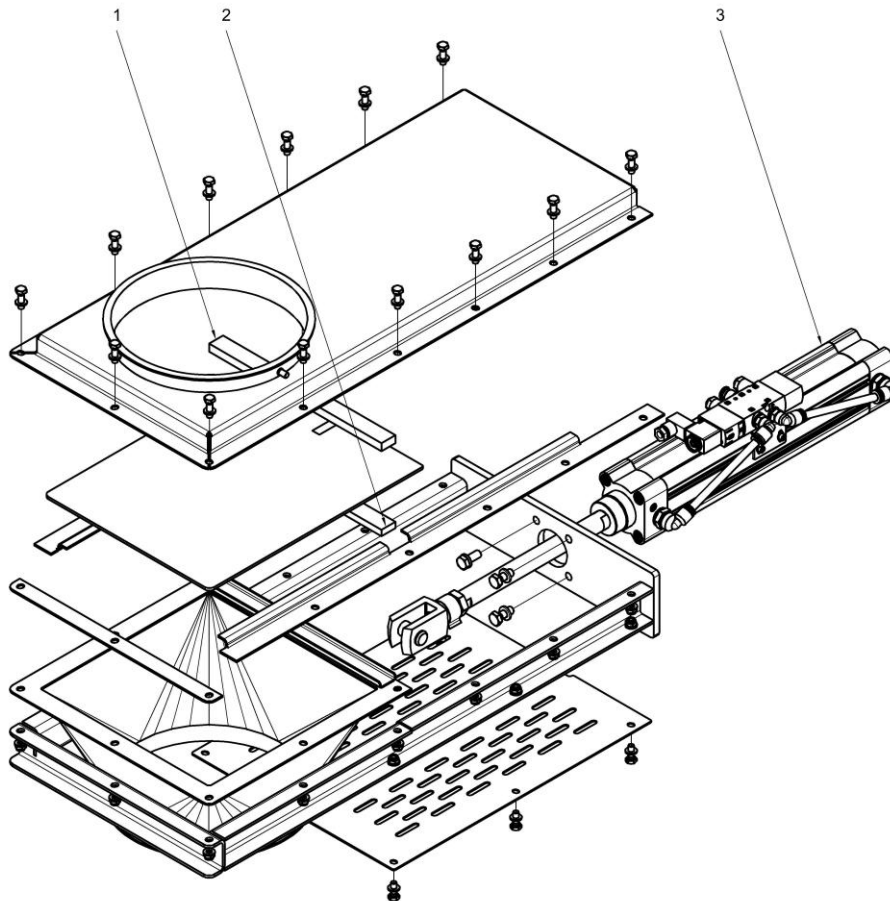
Pipe diameter and roundness according to DIN EN 10296-1:2004
Length and angular dimensions according to DIN ISO 2768-v (very coarse)
Lips: 6 mm ± 1mm

3D-Models

All 3D-models are available for download in our [CAD portal](#) in the common file formats.

3 Spare parts list

Exploded view



No.	Naming	Quantity	DN 80 – DN 300	
			1.0330	1.4301
1	Sealing strips <i>(made of felt / silicone)</i>	1	SO0111059	SO0131436
2	Sealing strips <i>(made of felt / silicone)</i>	1	SO0111060	SO0131435
3	Lifting cylinder, ATEX	1	<i>(see table, p.7; below)</i>	

DN	Naming	Article
80	Lifting cylinder, ATEX (DSBC-32-100-PPVA-N3EX49)	On request
100	Lifting cylinder, ATEX (DSBC-40-160-PPVA-N3EX49)	
120		
150	Lifting cylinder, ATEX (DSBC-40-200-PPVA-N3EX4)	
175		
200	Lifting cylinder, ATEX (DSBC-50-250-PPVA-N3EX4)	
250	Lifting cylinder, ATEX (DSBC-50-300-PPVA-N3EX4)	
300	Lifting cylinder, ATEX (DSBC-50-350-PPVA-N3EX49)	