

EN- Technical data sheet

Stop valve without seal, electrically operated, actuating drive

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Article code

20	1	1	2181/24V
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①

Diameter

08	DN 80
10	DN 100
12	DN 120
...	
63	DN 630

②

Thickness

1	1.5 mm
2	2.0 mm (from DN 315)

③

Surface

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

④

Article group

2181/24V	Stop valve without seal, electrically operated, actuating drive 24V
2181/230V	Stop valve without seal, electrically operated, 230V

1 Technical data

Area of application and use	Shut-off (OPEN / CLOSED) of air volume flows in ventilation systems (overpressure max. 0.03 bar) as well as free-flowing, powdery or granular bulk materials by operating the flap. The actuation time depends on the drive. <i>(see table 1.1 Actuation, pp. 3-4)</i>
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Connection	Both sides with flanged edge (<i>lips</i>) for clamping ring connection
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Materials	
Case	According to article number 1.0330 (DC01) or 1.4301 (X5CrNi18-10) in specified material thickness
Flap	Made of 1.0038 (S235JR) or 1.4301 (X5CrNi18-10) in thickness $t = 4 \text{ mm}$
Flap seal	Without seal
Shaft seal	Flat sealing ring made of silicone, transparent, $60 \pm 5 \text{ Shore A}$

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 $+55^{\circ}\text{C}$	-10°C to $+55^{\circ}\text{C}$ from DN 500: -20°C to $+70^{\circ}\text{C}$
Product temperature*	-20°C to $+120^{\circ}\text{C}$ <i>(from $+80^{\circ}\text{C}$ impairment of the appearance is to be expected)</i>	-20°C to $+180^{\circ}\text{C}$

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

1.1 Actuation

Electric actuating drive				
Diameter	DN 80 – DN 250		DN 280 – DN 400	
Nominal voltage	24V	230V	24V	230V
Make	Valpes			
Series	ER PLUS			
Type	ER35.90B.G00	ER35.90A.G00	ER60.90B.G00	ER60.90A.G00
Voltage	15V to 30V AC (50/60Hz) 12V to 48V DC	100V to 240V AC (50/60 Hz) 100V - 350V DC	15V to 30V AC (50/60Hz) 12V to 48V DC	100V to 240V AC (50/60 Hz) 100V - 350V DC
Power consumption	45 W			
Torque	35 Nm		60 Nm	
Actuation time (90°)	7 seconds		12 seconds	
A/F Double Square	22 mm			
Manual operation	Outgoing axle			
Noise level	61 dB			
Duty cycle	50 %			
Limit switch	Four (2x position detection, 2x feedback) 4 to 24 V DC and 12 to 250 V AC / max. 5A			
Degree of protection	IP66			
Ambient temperature	-10°C to +55°C			
Electrical connection	1x cable gland ISO M20 1x valve connector DIN 4365 3P+T			

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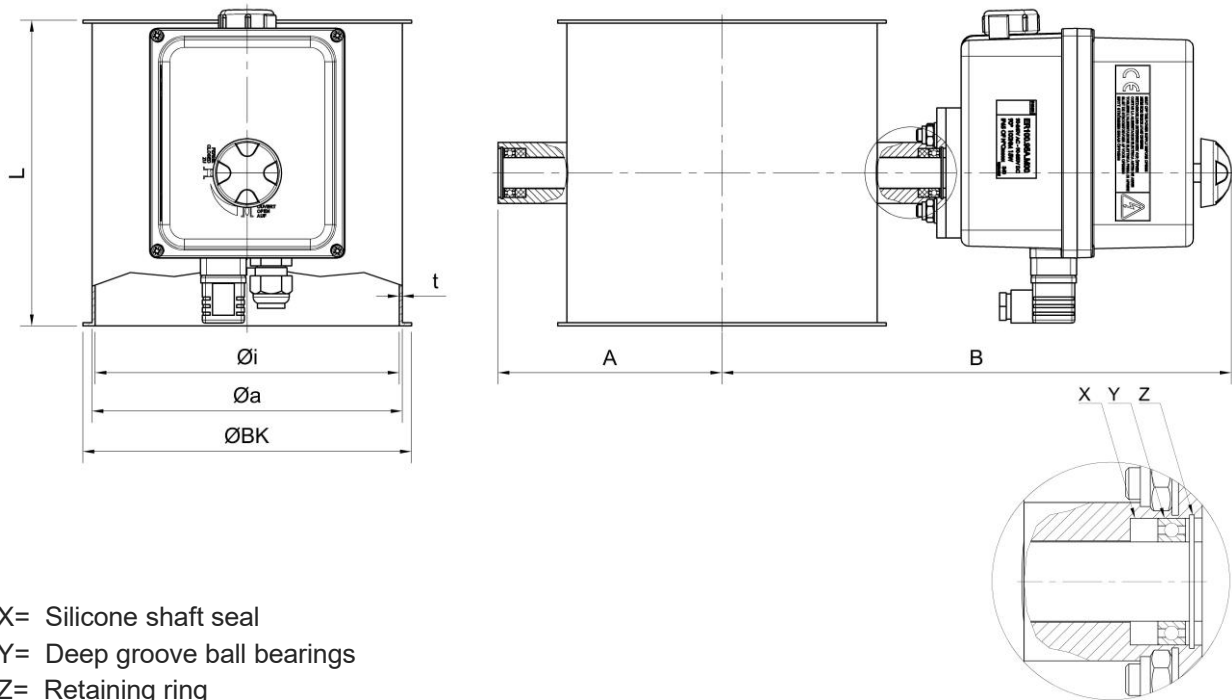


Diameter	DN 450 – DN 560		DN 630	
Nominal voltage	24V	230V	24V	230V
Make	Valpes			
Series	ER PLUS		VS	
Type	ER100.90B.G00	ER100.90A.G00	VS150.90B.G00	VS150.90A.G00
Voltage	15V to 30V AC (50/60Hz) 12V to 48V DC	100V to 240V AC (50/60 Hz) 100V - 350V DC	15V to 30V AC (50/60Hz) 12V to 48V DC	100V to 240V AC (50/60 Hz) 100V - 350V DC
Power consumption	45 W			
Torque	100 Nm		150 Nm	
Actuation time (90°)	22 seconds	23 seconds	30 seconds	
A/F Double Square	22 mm			
Manual operation	Outgoing axle		Handwheel	
Noise level	61 dB			
Duty cycle	50 %			
Limit switch	Four (2x position detection, 2x feedback) 4 to 24 V DC and 12 to 250 V AC / max. 5A			
Degree of protection	IP66		IP68	
Ambient temperature	-10°C to +55°C		-20°C to +70°C	
Electrical connection	1x cable gland ISO M20 1x valve connector DIN 4365 3P+T		2x cable gland ISO M20	

2 Dimensions

Dimension table

pictured version: DN 200



X= Silicone shaft seal

Y= Deep groove ball bearings

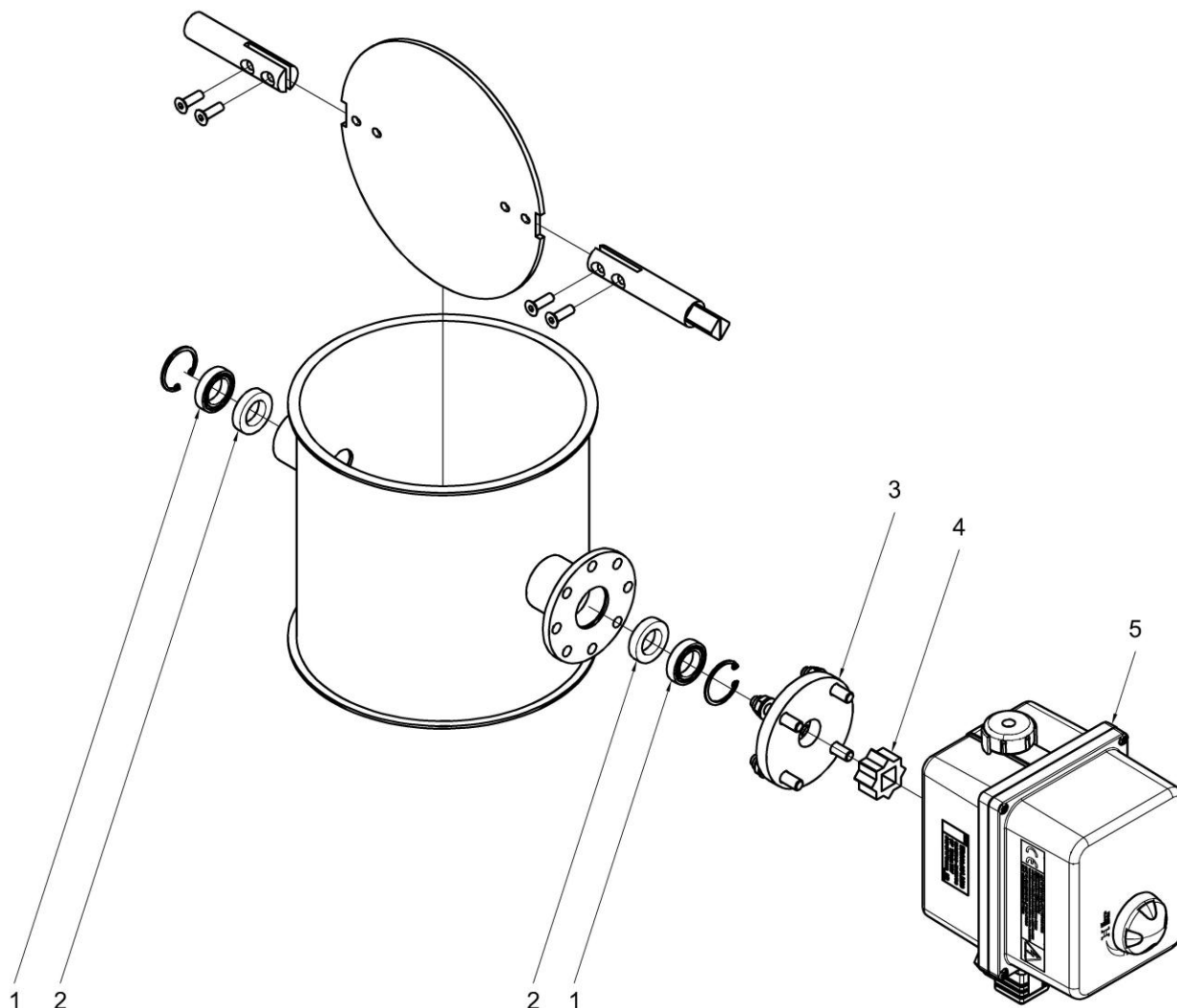
Z= Retaining ring

DN	t [mm]	Øi [mm]	Øa [mm]	ØBK [mm]	L [mm]	A [mm]	B [mm]	m [kg]
80	1,5	77,5	80,5	92,5	80	85,3	272,1	4,5
100		99,5	102,5	114,5	100	96,3	283,1	4,8
120		119,5	122,5	134,5	120	106,3	293,1	5,1
140		135,5	138,5	150,5	140	114,3	301,1	5,4
150		149,5	152,5	164,5	150	121,3	308,1	5,2
160		159,5	162,5	174,5	160	126,3	313,1	5,4
175		174,5	177,5	189,5	175	133,8	320,6	5,7
200		199,5	202,5	214,5	200	146,3	333,1	6,3
224		219,5	222,5	234,5	200	156,3	343,1	6,7
250		249,5	252,5	264,5	200	171,3	358,1	7,3
280		278,5	281,5	293,5	200	185,8	372,6	7,9
300		299,5	302,5	314,5	200	196,3	383,1	8,3
315	2	313	317	329	200	203,5	390,3	9,3
350		349	353	365	200	221,5	408,3	10,4
400		399	403	415	200	246,5	433,3	11,8
450		449	453	465	200	271,5	458,3	15,6
500		499	503	515	200	291,5	513,3	18,3
560		558	562	574	200	321	542,8	21,2
630		628	632	644	200	356	685	2

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 250	
			1.0330	1.4301
1	Deep groove ball bearings (for shaft diameter 20 mm)	2	SO0128616	SO0118470
2	Shaft seal (for shaft diameter 20 mm)	2	SO0118471	
3	Spacer flange (for shaft diameter 20 mm)	1	SO0105946	SO0123370
4	Reducing sleeve (22 / 14)	1	SO0128056	
5	Actuating drive (ER35.90B.G00 - 24 V DC)	1	SO0131357	
5	Actuating drive (ER35.90A.G00 - 230 V AC)	1	SO0131358	

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No.	Naming	Quantity	DN 280 – DN 400	
			1.0330	1.4301
1	Deep groove ball bearings <i>(for shaft diameter 20 mm)</i>	2	SO0128616	SO0118470
2	Shaft seal <i>(for shaft diameter 20 mm)</i>	2	SO0118471	
3	Spacer flange <i>(for shaft diameter 20 mm)</i>	1	SO0105946	SO0123370
4	Reducing sleeve <i>(22 / 14)</i>	1	SO0128056	
5	Actuating drive <i>(ER60.90B.G00 - 24 V DC)</i>	1	SO0128284	
5	Actuating drive <i>(ER60.90A.G00 - 230 V AC)</i>	1	SO0128914	

No.	Naming	Quantity	DN 450	
			1.0330	1.4301
1	Deep groove ball bearings <i>(for shaft diameter 20 mm)</i>	2	SO0128616	SO0118470
2	Shaft seal <i>(for shaft diameter 20 mm)</i>	2	SO0118471	
3	Spacer flange <i>(for shaft diameter 20 mm)</i>	1	SO0105946	SO0123370
4	Reducing sleeve <i>(22 / 14)</i>	1	SO0128056	
5	Actuating drive <i>(ER100.90B.G00 - 24 V DC)</i>	1	SO0130569	
5	Actuating drive <i>(ER100.90A.G00 - 230 V AC)</i>	1	SO0125078	

No.	Naming	Quantity	DN 500 – DN 560	
			1.0330	1.4301
1	Deep groove ball bearings <i>(for shaft diameters 30mm)</i>	2	SO0131354	SO0130364
2	Shaft seal <i>(for shaft diameter 30 mm)</i>	2	SO0130363	
3	Spacer flange <i>(for shaft diameter 30 mm)</i>	1	SO0131383	SO0131384
4	Reducing sleeve <i>(22 / 17)</i>	1	SO0129887	
5	Actuating drive <i>(ER100.90B.G00 - 24 V DC)</i>	1	SO0130569	
5	Actuating drive <i>(ER100.90A.G00 - 230 V AC)</i>	1	SO0125078	

No.	Naming	Quantity	DN 630	
			1.0330	1.4301
1	Deep groove ball bearings <i>(for shaft diameters 30 mm)</i>	2	SO0131354	SO0130364
2	Shaft seal <i>(for shaft diameter 30 mm)</i>	2	SO0130363	
3	Spacer flange <i>(for shaft diameter 30 mm)</i>	1	SO0131383	SO0131384
4	Reducing sleeve <i>(22 / 17)</i>	1	SO0129887	
5	Actuating drive <i>(VS150.90B.G00 - 24 V DC)</i>	1	SO0131369	
5	Actuating drive <i>(VS150.90A.G00 - 230 V AC)</i>	1	SO0131370	