

EN- Technical data sheet

Stop valve with seal, electrically operated, actuating drive

NORO Gesellschaft für Rohrsysteme mbH

Kruppstraße 1 | 49453 Rehden | Germany

info@noro-rohre.de | www.noro-rohre.de



Article code

20	2	1	2188/24V
-----------	----------	----------	-----------------

①

②

③

④

①

Diameter

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

②

Thickness

1	1.5 mm (DN 80 only)
2	2.0 mm

③

Surface

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

④

Article group

2188/24V	Stop valve with seal, electrically operated, actuating drive 24V
2188/230V	Stop valve with seal, electrically operated, actuating drive 230V

1 Technical data

Area of application and use	Dust-tight 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>
------------------------------------	--

Connection	Both sides with flanged edge (<i>lips</i>) for clamping ring connection
-------------------	---

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	Silicone profile seal, transparent, $60 \pm 5 \text{ Shore A}$
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: $30 - 60 \mu\text{m}$	Surface roughness $R_a: 1.3 \mu\text{m}$
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 $+120^\circ\text{C}$ (from $+80^\circ\text{C}$ impairment of the appearance is to be expected)	-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 160		DN 175 – DN 300	
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			

EN- Technical data sheet
**Stop valve with seal, electrically operated,
 actuating drive**

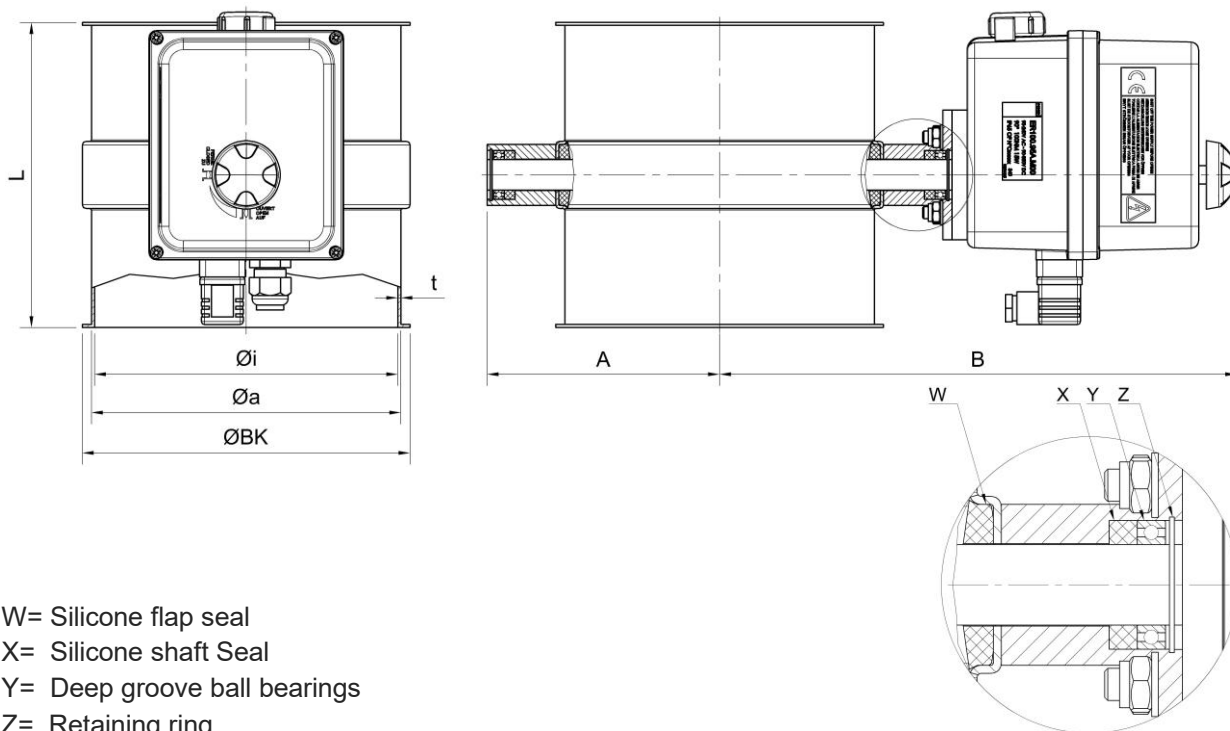


Diameter	DN 315 – DN 450		DN 500 – DN 630	
Nominal voltage	24V	230V	24V	230V
Make	Valpes			
Series	ER PLUS		VS	
Type	ER100.90B.G00	ER100.90A.G00	VS150.90B.G00	VS150.90A.G00
Voltage	15V to 30V AC (50/60Hz) 12V to 48V DC	100V to 240V AC (50/60 Hz) 100V - 350V DC	15V to 30V AC (50/60Hz) 12V to 48V DC	100V 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



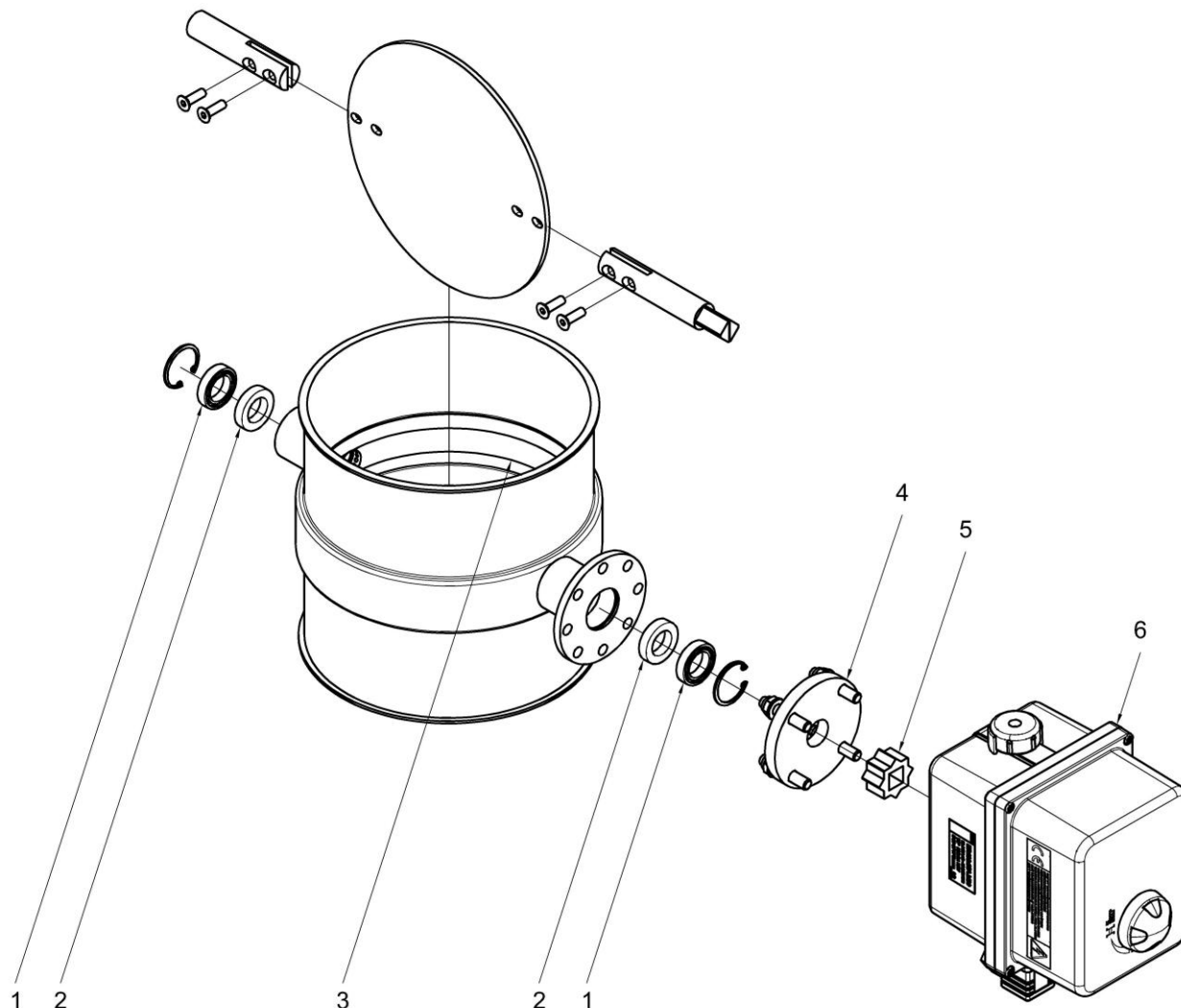
W= Silicone flap seal
 X= Silicone shaft Seal
 Y= Deep groove ball bearings
 Z= Retaining ring

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	94,3	281,1	4,6
100	2	99	103	115	100	105,5	292,3	4,9
120		119	123	135	120	113	299,8	5,1
140		135	139	151	140	123,5	310,3	5,8
150		149	153	165	150	128	314,8	5,7
160		159	163	175	160	135,5	322,3	6,4
175		174	178	190	175	143	329,8	6,8
200		199	203	215	200	153	339,8	7,1
224		219	223	235	200	165,5	352,3	6,9
250		249	253	265	200	178	364,8	8,1
280		278	282	294	200	195	381,8	9,5
300		299	303	315	200	203	389,8	9,3
315		313	317	329	200	212,5	399,3	10,4
350		349	353	365	200	230,5	417,3	11,5
400		399	403	415	200	255,5	442,3	13,0
450		449	453	465	200	280,5	467,3	13,4
500		499	503	515	200	300,5	639,5	21,2
560		558	562	574	200	330	669	23,3
630		628	632	644	200	365	704	26,5

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 160	
			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	Flap seal		<i>(see table, p.9)</i>	
4	Spacer flange <i>(for shaft diameter 20 mm)</i>	1	SO0105946	SO0123370
5	Reducing sleeve (22 / 14)	1	SO0128056	
6	Actuating drive <i>(ER35.90B.G00 - 24 V DC)</i>	1	SO0131357	
6	Actuating drive <i>(ER35.90A.G00 - 230 V AC)</i>	1	SO0131358	

EN- Technical data sheet

Stop valve with seal, electrically operated, actuating drive



No.	Naming	Quantity	DN 175 – DN 300	
			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	Flap seal		<i>(see table, p.9)</i>	
4	Spacer flange <i>(for shaft diameter 20 mm)</i>	1	SO0105946	SO0123370
5	Reducing sleeve <i>(22 / 14)</i>	1	SO0128056	
6	Actuating drive <i>(ER60.90B.G00 - 24 V DC)</i>	1	SO0128284	
6	Actuating drive <i>(ER60.90A.G00 - 230 V AC)</i>	1	SO0128914	

No.	Naming	Quantity	DN 315 – 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	Flap seal		<i>(see table, p.9)</i>	
4	Spacer flange <i>(for shaft diameter 20 mm)</i>	1	SO0105946	SO0123370
5	Reducing sleeve <i>(22 / 14)</i>	1	SO0128056	
6	Actuating drive <i>(ER100.90B.G00 - 24 V DC)</i>	1	SO0130569	
6	Actuating drive <i>(ER100.90A.G00 - 230 V AC)</i>	1	SO0125078	

No.	Naming	Quantity	DN 500 – DN 630	
			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	Flap seal		<i>(see table, p.9)</i>	
4	Spacer flange <i>(for shaft diameter 30 mm)</i>	1	SO0131383	SO0131384
5	Reducing sleeve <i>(22 / 17)</i>	1	SO0129887	
6	Actuating drive <i>(VS150.90B.G00 - 24 V DC)</i>	1	SO0131369	
6	Actuating drive <i>(VS150.90A.G00 - 230 V AC)</i>	1	SO0131370	

Flap seal (item no.: 3)			
DN	Required length [mm]	Quantity* [m]	Article
80	281	1	SO0116014
100	352		
120	415		
140	465		
150	509		
160	540		
175	587		
200	666		
224	738		
250	823		
280	914		
300	980	2	
315	1024		
350	1137		
400	1294		
450	1451		
500	1608		
560	1794		
630	2014	3	

**Note: Flap seal is offered by the meter.*