

TWO-WAY VALVE ZR
TO DIVERT A CONVEYABLE MATERIAL STREAM INTO 2 PIPELINES IN
HIGH - OR LOW - PRESSURE CONVEYING SYSTEMS



Two-way valve
with pneumatic actuator



Two-way valve with electric drive
and emergency operation hand wheel

The two-way valve will be used for distribution of bulk products in two pipelines. However, it can be installed in a pneumatic low-pressure or in high pressure systems. The two-way valve can be used for all pneumatical conveyable solids, either in dust- or powder form. Exceptions are conveying products which incline to cake, stick or clump. Different sealing materials allows to convey products with temperatures up to 180° C without any problems.

Areas of Application

- Transfer tube consists of transfer tube housing, swivel arm with shut-off cone and the pneumatic rotary drive
- Sealing of the closed outlet with a sealing ring, which is pressed against a hardened ring
- Proximity switch for each end position for standard signal
- One 5/2-way impulse valve serves as control valve
- Electrical equipment can be supplied as required in any degree of protection and at any common voltage
- Also available in ATEX version

Details / Explanation

- Case: DN 50 - DN 150; in EN-GJS-400-15 (GGG 40)
DN 225; in EN-GJL-250 (GG 25)
DN 300 - DN 400; in EN-GJL-250 (GG 25)
on request all nominal diameters CIC coated
- Swivel arm: DN 50 - DN 150; in EN-GJL-250
DN 225; in EN-GJL-250
DN 250 - DN 400, in S235JR

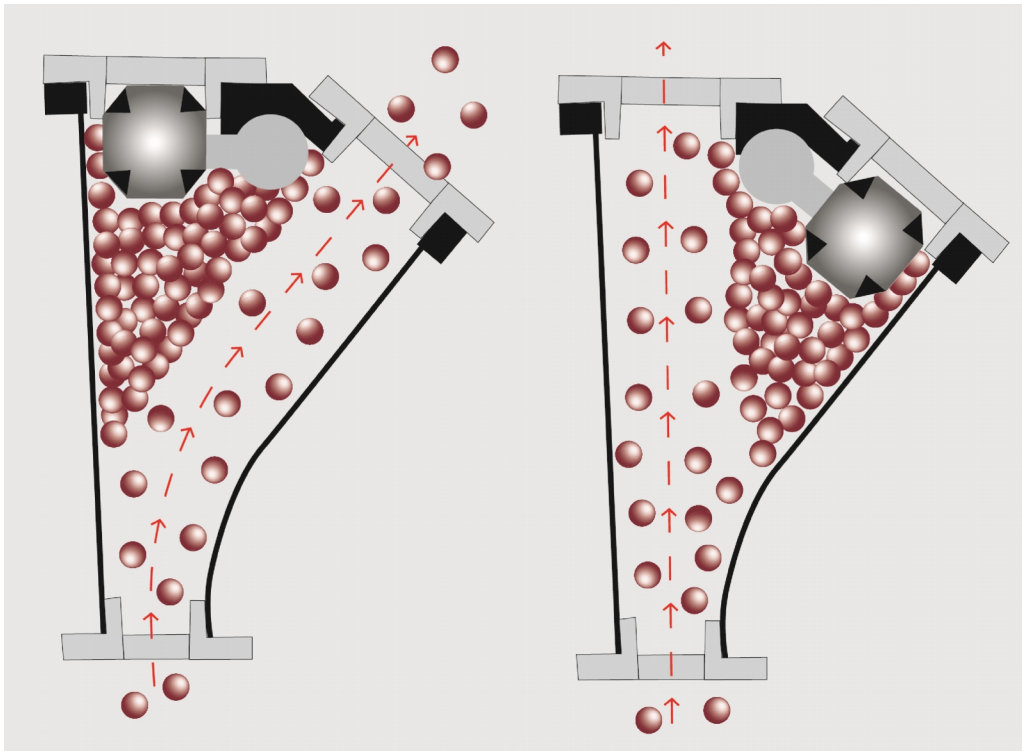
Finish

- Cone tip material: DN 50 - DN 150; in C45
DN 225 - DN 400; in S235JR
- Gasket material: DN 50 - DN 150; in rubber, silicone oder viton
DN 225; in silicone
DN 250 - DN 400; in polyurethane

The transfer tube guarantees a perfect sealing of the shut down conveying line, so that material mixtures are excluded when conveying different materials through one system. The advantage of this design is that the sealing rings can be replaced without disassembly and with the shortest possible downtimes. When conveying of sticky and baking materials, a different switch construction must be selected.

**Distinctive
Characteristics**

The transfer tube can also be equipped with electromotive/electropneumatic drive as well as with manual operation.

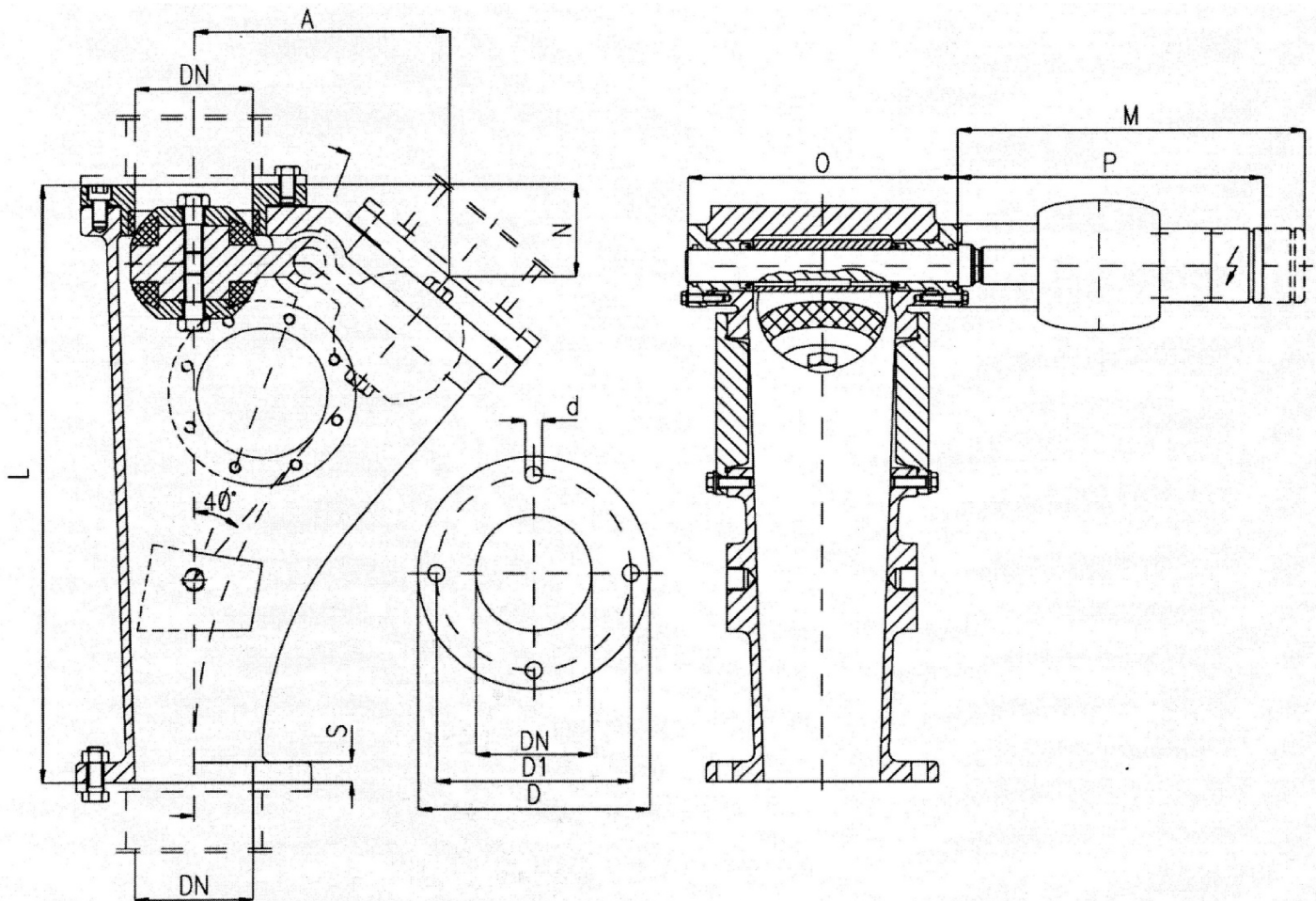


Picture: Grinding protection by a material cushion

Dimension table

DN	D	D1	L	A	N	O	S	d	P	M
50	165	125	520	245	89	210	18	4 x Ø18	326	335
65	185	145	520	245	89	210	18	4 x Ø18	326	335
80	200	160	520	245	89	240	18	8 x Ø18	326	335
100	220	180	580	255	95	260	20	8 x Ø18	326	335
125	250	210	715	320	115	290	22	8 x Ø18	326	335
150	285	240	800	360	130	315	22	8 x Ø22	326	335
175*	375	270	1050	400	147	464	25	8 x Ø22	337	350
200*	375	295	1050	400	147	464	25	8 x Ø22	337	350
225	375	325	980	400	147	464	25	12 x Ø22	337	350
250*	445	350	1200	501	183	522	30	12 x Ø22	353	350
300	445	400	1150	501	183	522	26	12 x Ø22	353	350
350*	565	460	1450	654	238	586	30	12 x Ø22	353	350
400	565	515	1420	654	238	586	32	16 x Ø26	353	350

* Intermediate sizes are realized via adapter flange/special insert flange



Technical data pipe switch

DN	50 - 400
Control pressure	approx. 5 bar
Operating pressure	max. 10 bar

Article number – pipe switch manual drive:

DN	up to 80°C	up to 120°C	up to 180°C
50	803 10 008	803 10 081	803 10 082
65	803 10 009	803 10 083	803 10 084
80	803 10 010	803 10 085	803 10 086
100	803 10 011	803 10 074	803 10 075
125	803 10 014	803 10 076	803 10 077
150	803 10 012	803 10 078	803 10 079
225	803 10 013	803 10 080	803 10 355

Other sizes available on request

Article number – pipe switch motor drive:

DN	up to 80°C	up to 120°C	up to 180°C
50	803 10 049	803 10 056	803 10 063
65	803 10 050	803 10 057	803 10 064
80	803 10 051	803 10 058	803 10 065
100	803 10 052	803 10 059	803 10 066
125	803 10 053	803 10 060	803 10 067
150	803 10 054	803 10 061	803 10 068
175	803 10 340	803 10 346	803 10 352
200	803 10 341	803 10 347	803 10 353
225	803 10 055	803 10 062	803 10 354
250	803 10 342	on request	on request
300	803 10 343	on request	on request
350	803 10 344	on request	on request
400	803 10 345	on request	on request

Article number – pipe switch pneumatic drive:

DN	up to 80°C 230V/AC valve	up to 80°C 24V/DC valve	up to 120°C 230V/DC valve	up to 120°C 24V/DC valve	up to 180°C 230V/AC valve	up to 180°C 24V/DC valve
50	803 10 007	803 10 029	803 10 015	803 10 036	803 10 022	803 10 043
65	803 10 006	803 10 030	803 10 016	803 10 037	803 10 024	803 10 044
80	803 10 005	803 10 031	803 10 017	803 10 038	803 10 025	803 10 045
100	803 10 001	803 10 032	803 10 018	803 10 039	803 10 026	803 10 046
125	803 10 002	803 10 033	803 10 019	803 10 040	803 10 027	803 10 047
150	803 10 003	803 10 034	803 10 020	803 10 041	803 10 028	803 10 048
175	803 10 300	803 10 306	803 10 311	803 10 317	803 10 323	803 10 330
200	803 10 301	803 10 307	803 10 312	803 10 318	803 10 324	803 10 331
225	803 10 004	803 10 035	803 10 021	803 10 042	803 10 325	803 10 332

Article number – pipe switch pneumatic drive:

DN	up to 80°C 230V/AC valve	up to 80°C 24V/DC valve
250	803 10 302	803 10 308
300	803 10 303	803 10 254
350	803 10 304	803 10 309
400	803 10 305	803 10 310

Spare parts list pipe switches

The spare part order numbers are structured as follows:

" instrument designation " " nominal size " - " number " - " material "

The nominal size and the materials used for your transfer tube can be found in chapter 2.0.

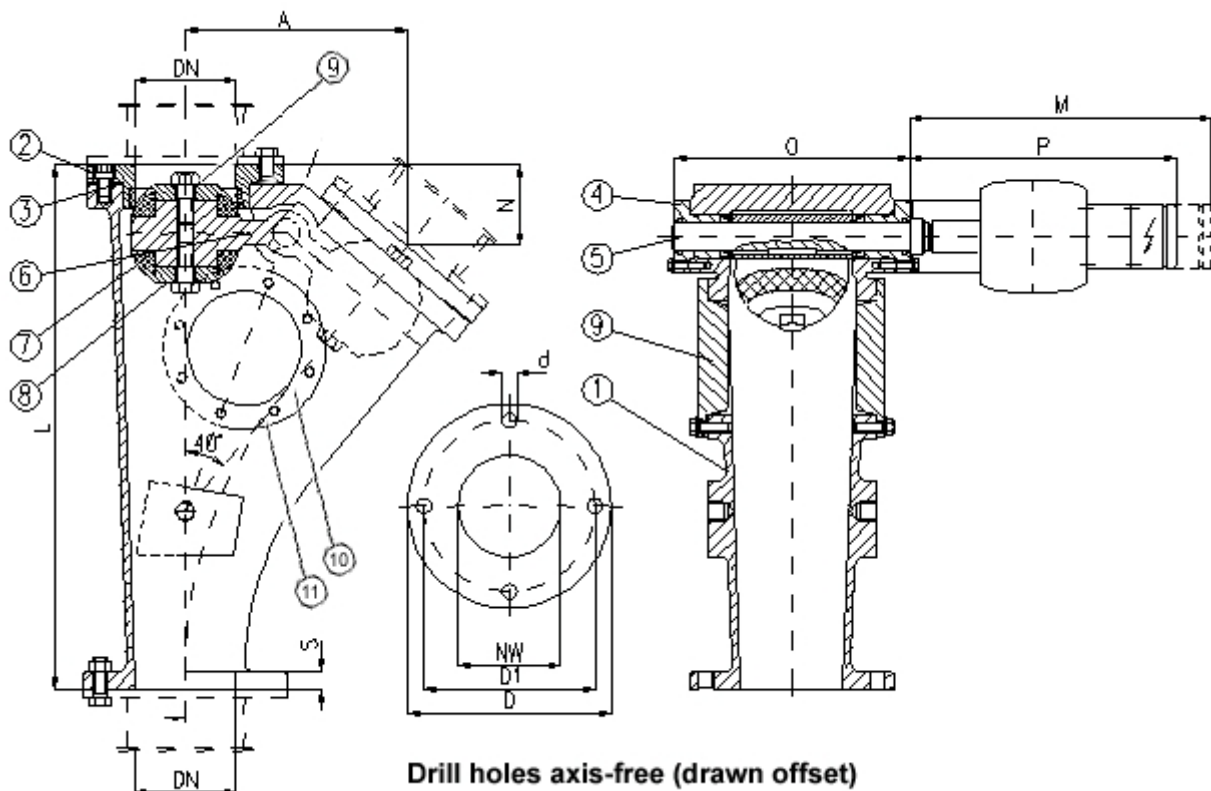
Example:

Sealing ring for ZR 100 transfer tube, with silicone sealing rings

Body for diverter valve ZR 65, material: GGG 40


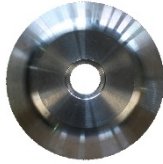


ZR 100 - 007 - silicone

ZR 65 - 001 – GGG 40






Manual drive

Position	Piece	Designation	Order code:	
1	1	Case	ZR... – 001 - ...	
2	2	Socket with inner ring	ZR... – 002 - ...	
3	2	Gasket for insert nozzle	ZR... – 003 - ...	
4	2	Guide bushes with gasket set to 120°C	ZR... – 004 - ...	
4	2	Guide bushing Steel plain bearing Viton O-ring for guide bush Steel < 180° C	ZR... – 004 - ...	
4a	1	Gasket set	ZR... – 004a - ...	
5	1	Shaft	ZR... – 005 - ...	
6	1	Swivel arm	ZR... – 006 - ...	

7	2	Gaskets with gasket set	ZR... – 007 - ...	
8	2	Cone tips	ZR... – 008 - ...	
9	2	Screw for cone tip	ZR... – 009 - ...	
9	2	Screw for cone tip hardened	ZR... – 009 - ...	

Electropneumatic actuator


Position	Piece	Designation	Order code:	
10	1	Mounting frame	ZR... – 010	
10	1	Handhole cover	ZR... – 010	
10	1	O-ring for hand hole cover	ZR... – 010	
11	1	Spacer sleeve	ZR... – 011	
12	1	Coupling element	ZR... – 012	

13	1	Slewing drive	ZR... – 013	
13a	1	5/2 solenoid valve type ...	ZR... – 013a	
13b	1	Limit switch	ZR... – 013b	

Electric motor drive

Position	Piece	Designation	Order code:	
14a	1	Flange (guide socket)	ZR... – 014a	
14b	1	Flange (on drive)	ZR... – 014b	
15	1	Spacer sleeve	ZR... – 015	
16	1	Coupling element	ZR... – 016	
17	1	Slewing drive	ZR... – 017	

Accessories / Spare parts

	Article number	
Parallel key for shaft	on request	
Seegring for shaft	on request	