

PRODUCT INFORMATION SHEET

SPTD PLUG DIVERTER VALVE



BACKGROUND

Established in 1950, DMN-WESTINGHOUSE has been a worldwide, trusted supplier of rotary valves and diverter valves for decades, serving a large range of dry bulk solids processing industries. True to our promise to provide future-proof value, our experts continue monitoring the performance of our products in practice, including in the context of customer feedback and emerging new technologies and practices.

Our staff have developed a complete range of premium diverter valves for the transport of any type of dry bulk solid in powder, granule, or pellet form. We offer plug, tube, flap, and ball diverter valves – all with the DMN-WESTINGHOUSE quality mark.

These durable diverters can be further customised to your specifications and are easy to integrate with your current rotary valves. Tell us more about your setup and applications, and we will offer you the perfect diverter valve.

MEET THE SPTD PLUG DIVERTER VALVE

The Single-pipe Plug-Type Diverter valve (SPTD) is especially designed to route powders, granules, and pellets in pneumatic conveying systems with minimum degradation. You can use the SPTD with a static or an inflatable seal.

The user-friendly, foolproof design enables quick on-site internal examination, servicing, and – when necessary – replacement of seals. The SPTD features no moving parts on the outside and complies with all current guidelines regarding safety in the workplace.



THE SPTD PLUG DIVERTER VALVE AT A GLANCE

- Suitable for product temperature from -13°F to +176°F at ambient temperatures between 14°F and +104°F
- Pressure up to 44 PSI with static seals
- Pressure up to 87 PSI with inflatable seals
- Pressure shock resistant up to 145 PSI*
- Universal application; diverting only
- Available with a static or an inflatable seal
- Product contact surfaces: stainless steel AISI 316L/ DIN 1.4404, with the option of Anodized aluminium
- EC1935/2004- and FDA-compliant version available
- ATEX 2014/34/EU certification available

PROPERTIES

- Universal application; diverting only
- No moving parts on the outside
- Compact solution with obstruction-free design

BENEFITS

The SPTD is a compact diverter valve, saving you valuable space in your plant. A single-pipe diverter offers simple operation and control, reducing the margin for human error. The obstruction-free design and effective sealing ensure minimal product degradation.

This diverter valve brings you **increased efficiency and reduced expenses**.

APPLICATIONS

DMN-WESTINGHOUSE produces all existing types of diverter valves, for a broad range of industries. Get in touch and share the details of your process and installation, so that we can recommend the perfect valve for you.

SPECIFICATIONS

Flange connection	Round PN 10 or ANSI 150 lbs.
Max. allowable working pressure size 150-318	-7.3 PSI to 44 PSI
Max. allowable working pressure size 350-400	-7.3 PSI to 29 PSI
Optional: inflatable seal size 150-318	-7.3 PSI to 87 PSI
Allowable conveying product temperature	-13°F to +176°F
Maximum allowable working temperature	-4°F to +140°F
ATEX 2014/34 EU	Marking of the mechanical equipment II 1D/2D and II -/2G
TYPE	AVAILABLE SIZES
SPTD plug diverter valve	6" (150) 6.5" (162) 8" (200) 8.5" (213) 10" (250) 10.5" (267) 12" (300) 12.5" (318) 14" (350) 16" (400)

MATERIAL SPECIFICATIONS

Cast housing/end covers/plug [2]	Aluminium G-Al Si 7 MG WA
Optional plug coating [2HA]	Anodized
Optional plug liner [2SSI]	Stainless steel AISI 316L
Static seal	Silicone
Inflatable seal	Silicone

DRIVE SPECIFICATIONS

Airtorque	Type DR Double acting pneumatic actuator
Medium	Air filtration lubricated or not up to 145 PSI
Temperature range	-40°F to +176°F
Working pressure	73–116 PSI
Tube	Ø 0.39"

AIR CONSUMPTION

TYPE	AVAILABLE SIZES
SPTD plug diverter valve	6" (150) 6.5" (162) 8" (200) 8.5" (213) 10" (250) 10.5" (267) 12" (300) 12.5" (318) 14" (350) 16" (400)
At 87 PSI FT³/stroke	0.208 0.231 0.265 0.288 0.321 0.344 0.448 0.471 0.540 0.667

SOLENOID VALVE SPECIFICATIONS

Actuator	5/2 NAMUR bistable version with manual control
Festo	Type VSNC-F-B52-G14-FN
Medium	Air filtration lubricated or not up to 116 PSI
Connection	1/4"

SOLENOID COIL SPECIFICATIONS

Festo	Type VACN-N-...
Protection	IP 65
Socket connection	M 16 Ø 0.24"–0.31"
Standard voltage	24 VDC 110/230 VAC 50/60 Hz
Temperature range	-4°F to +140°F

SOLENOID VALVE SPECIFICATIONS

Inflatable seal	3/2 monostable version with manual control
Festo	Type MFH-3-1/4-EX
Medium	Air filtration lubricated or not up to 116 PSI
Connection	1/4"

SOLENOID COIL SPECIFICATIONS

Festo	Type MSF...
Protection	IP 65
Socket connection	M 16 Ø 0.24"-0.31"
Standard voltage	24 VDC 110/230 VAC 50/60 Hz
Temperature range	23°F to +104°F

PRESSURE SWITCH SPECIFICATIONS

Festo	Type PEV-1/4-B
Protection	IP 65
Voltage	Max. 125 VDC/250 VAC

SENSOR SPECIFICATIONS**Pepperl & Fuchs**

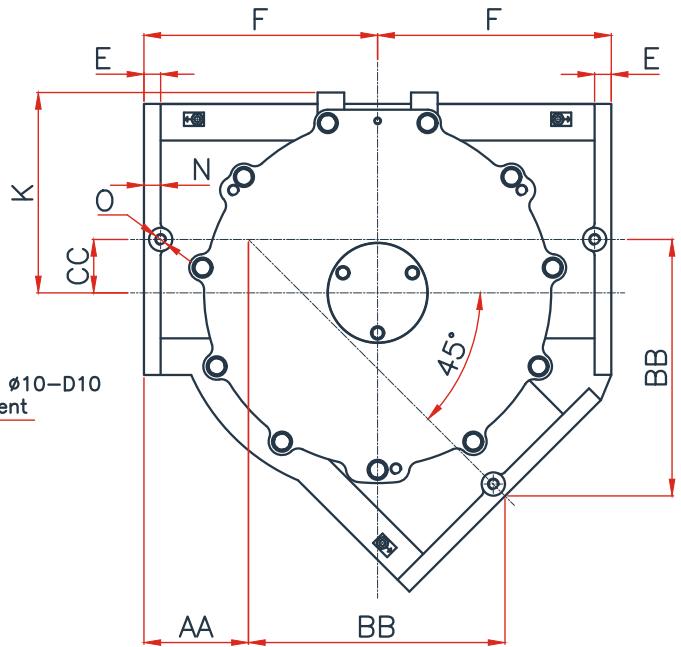
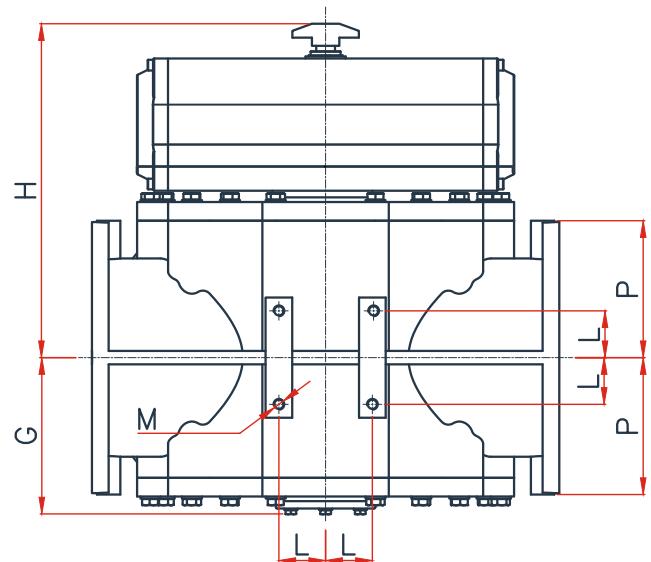
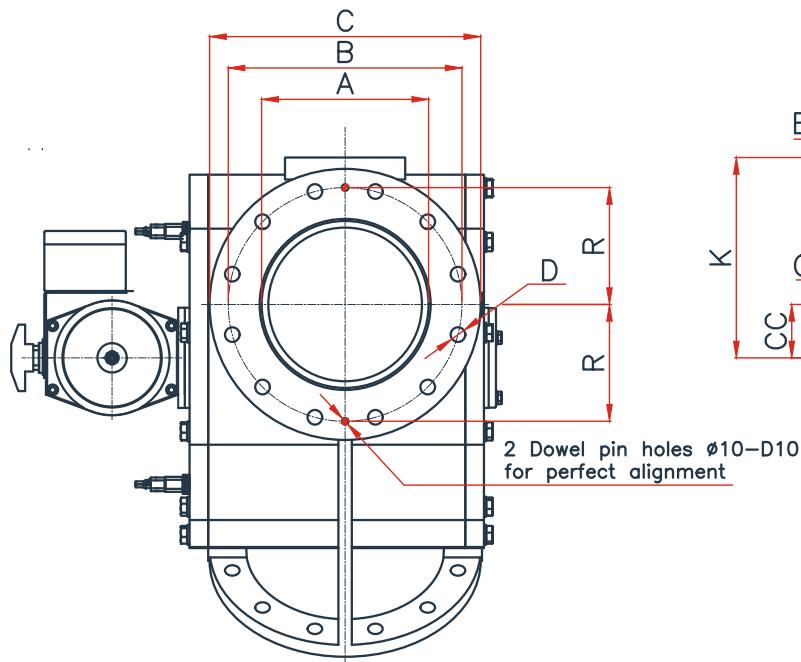
Standard	Type NBB5-18GM50-E2 D.C. sensor (3 wire) Nominal voltage: 10-30 VDC Normally open PNP Ambient temperature: -13°F to +158°F	
Optional	Type NCB5-18GM40-NO NAMUR DIN 19234 sensor (2 wire) Nominal voltage: 8 VDC - Ambient temperature: -13°F to +212°F	Type NBB5-18GM60-WS A.C. sensor (3 wire) Nominal voltage: 20 VAC to 250 VAC Normally open PNP Ambient temperature: -13°F to +158°F

TERMINAL BOX SPECIFICATION**ROSE**

Material	Polyester
Protection	IP 66



MEASUREMENTS



TYPE	DIN				ANSI																	
	SPTD	ØA	ØB	D	ØC	ØB	D	E	F	G	H	K	L	M	N	O	P	AA	BB	CC		
6" (150)	5.91				9.45	8xØ0.87	11.22	9.50	8xØ0.87	0.79	10.24	7.09	15.35	7.68	1.97	M16x24	0.79	M16x24	5.71	5.94	10.28	1.77
6.5" (162)	6.38																					
8" (200)	7.87				11.61	8xØ0.87	13.50	11.75	8xØ0.87	0.98	11.81	8.07	17.13	9.45	1.97	M16x24	0.98	M16x24	6.89	6.10	12.40	2.36
8.5" (213)	8.39																					
10" (250)	9.84				13.78	12xØ0.87	15.98	14.25	12xØ1.00	0.98	13.78	9.25	19.69	11.81	2.76	M16x24	0.98	M16x24	8.07	6.14	15.12	3.15
10.5" (267)	10.51																					
12" (300)	11.81				15.75	12xØ0.87	19.02	17.00	12xØ1.00	0.98	15.75	10.24	20.67	14.17	2.76	M16x24	0.98	M16x24	9.65	6.69	17.52	3.74
12.5" (318)	12.52																					
14" (350)	13.78	18.11	16xØ0.87	20.87	18.75	12xØ1.13	0.98	17.72	11.42	23.50	15.75	2.76	M16x32	0.98	M16x24	10.63	7.24	19.92	4.33			
16" (400)	15.75	20.28	16xØ0.87	23.43	21.25	16xØ1.13	0.98	20.67	12.40	24.49	17.72	2.76	M16x32	0.98	M16x24	11.81	8.78	23.03	4.92			

Technical modifications are possible, dimensions in inches.



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