



PRODUCT INFORMATION SHEET

3-TDV

TUBE DIVERTER VALVE



USDA



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 3-TDV TUBE DIVERTER VALVE

The 3-port Tube Diverter Valve (3-TDV) is a hygienic, USDA-accepted, and space-saving tube diverter valve designed for routing pneumatically conveyed powders, granules, or pellets to or from three locations. Its design ensures high positional accuracy with minimal components.

The 3-TDV offers precise alignment of your conveying lines, optimal speed, and minimal pressure loss. Executed in premium material, the 3-TDV ensures smooth transport of your dry bulk solids, minimising product degradation.



This compact and user-friendly diverter valve allows for cleaning in place (CIP) without disassembly. Full removal for cleaning out of place (COP) is only required for thorough cleaning, giving you the flexibility to choose the method that best suits your process.

THE 3-TDV TUBE DIVERTER VALVE AT A GLANCE

- Suitable for product temperature from -20 °C to +100 °C
- Pressure range: -0.8 to +3 barg
- A single diverter valve for converging and diverting maximum three product flows
- A uniform, smooth bore pipe between the inlet and outlet
- Multiple choice of line connections: from a simple pipe connection to a milk coupling
- Unused ports are sealed by a rotating disc
- All stainless steel or aluminium/stainless steel configurations
- EC1935/2004-compliant & FDA-approved white EPDM inflatable seals
- USDA-accepted versions available
- EC1935/2004- and FDA-compliant version available
- ATEX 2014/34/EU certification available

PROPERTIES

- With exact pipe alignment, a smooth bore pipe between inlet and outlet, and a robust swan neck, the 3-TDV ensures minimal product degradation
- Easily detachable construction, easy to fit and clean
- Hygienic and USDA-accepted

BENEFITS

Degradation of raw materials during processing can be a huge expense – and one of your biggest challenges. Conversely, minimal product degradation translates to more output and more profit. That is why the 3-TDV offers exact pipe alignment, a smooth bore pipe between inlet and outlet, and a robust swan neck. These and other features allow you to **maximise the value of your dry bulk solids**.

This versatile tube diverter valve is easy to install, service, and clean, and helps you **gain more uptime and higher productivity**. The 3-TDV is a proven and hygienic solution trusted by the most critical dry bulk solids handling industries in the world.

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

Pipe connection	Imperial
Maximum allowable working pressure	-0.8 to 3 barg
Allowable conveying product temperature	-20°C to 100°C (130°C for short periods only)
Maximum allowable working temperature	-20°C to 60°C
ATEX 2014/34 EU	Marking of the mechanical equipment II 1D/2D and II -/2G

TYPE	AVAILABLE SIZES						
3-TDV tube diverter valve	40	50	65	80	100	125	150

MATERIAL SPECIFICATIONS

Covers	Aluminium or stainless steel depending on version		
All product contact surface	Stainless steel AISI 316L	DIN 1.4404	
Inflatable seal	EPDM White	FDA-approved; EC 1935/2004-compliant	

DRIVE SPECIFICATIONS

Valves	Type VS-VSX electric actuator		
Electrical supply	100 V to 240 V	50/60 Hz	100-350 VDC
Protection	IP 68		
Limit switch	4 V to 250 VAC/DC 1 mA to 5 A max		
Temperature range	-20°C to 70°C		
Festo	Type ADN double acting pneumatic cylinder		
Medium	Air filtration lubricated or not up to 10 bar		
Temperature range	-20°C to 80°C		
Working pressure	5 - 10 bar		

SOLENOID VALVE SPECIFICATIONS

Cylinder	5/2 bistable version with manual control		
Festo	Type JMFH-5-1/4-EX		
Medium	Air filtration lubricated or not up to 8 bar		
Connection	1/4"		
Inflatable seal	3/2 monostable version with manual control		
Festo	Type MOFH-3-1/8-EX		
Medium	Air filtration lubricated or not up to 8 bar		
Connection	1/8"		

SOLENOID COIL SPECIFICATIONS

Festo	Type MSF-...		
Protection	IP 65		
Socket connection	M 16 Ø 6 mm to 8mm		
Standard voltage	24 VDC 110/230 VAC 50/60 Hz		
Temperature range	-5°C to 40°C		

PRESSURE SWITCH SPECIFICATIONS

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

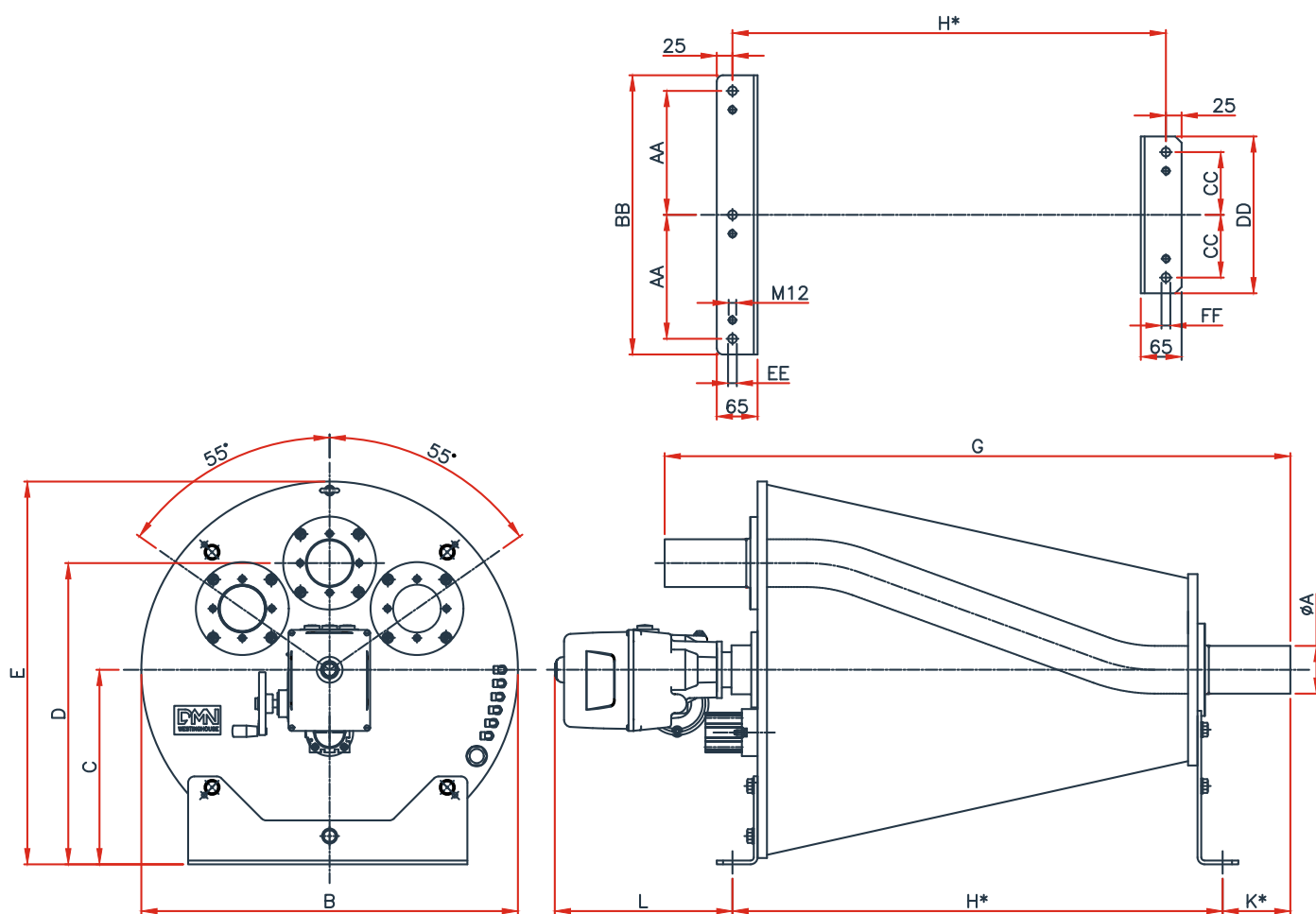
PROXIMITY SWITCH SPECIFICATIONS

Festo	Type SME-8M-DS-24V-K-2,5-OE
Protection	IP 65
Standard voltage	5 VAC/DC to 30 VAC/DC
Temperature range	-20°C to 70°C

TERMINAL BOX SPECIFICATIONS

Terminal box	ROSE
Material	Polyester
Protection	IP 66

MEASUREMENTS



TYPE							VERSION 2		VERSION 3								
2-TDV	ØA	B	C	D	E	G	H	K	H	K	L	AA	BB	CC	DD	EE	FF
40	38.1x1.5	560	290	440	570	886	670	108	656	115	285	182.5	415	100	250	3xØ14	2xØ14
50	50.8x1.5	560	290	440	570	886	670	108	656	115	285	182.5	415	100	250	3xØ14	2xØ14
65	63.5x1.5	600	310	480	610	997	781	108	767	115	285	197.5	445	100	250	3xØ14	2xØ14
80	76.1x1.5	600	310	480	610	997	781	108	767	115	285	197.5	445	100	250	3xØ14	2xØ14
100	101.6x2	670	345	535	680	1054	838	108	824	115	285	210	470	115	280	3xØ14	2xØ14
125	129x2	770	395	620	780	1209	993	108	979	115	285	250	550	125	300	3xØ14	2xØ14
150	154x2	850	435	685	860	1269	1053	108	1039	115	285	277.5	605	132.5	315	3xØ14	2xØ14

Technical modifications are possible, dimensions in mm.



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