

**PRODUCT INFORMATION SHEET**

# **2-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.

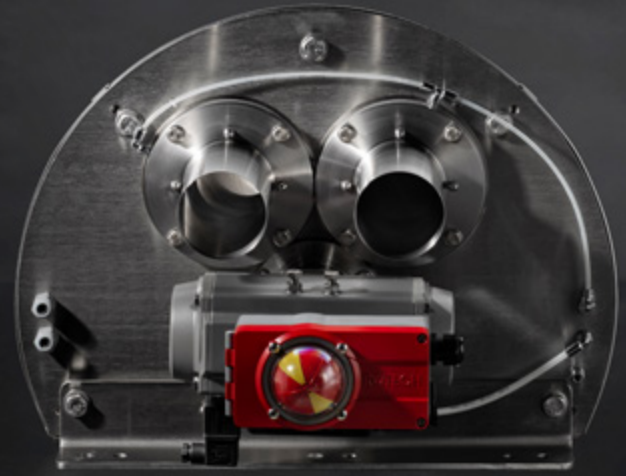
Our staff have developed a complete range of premium diverter valves for the transport of any type of dry bulk solid in powder, granule, or pellet form. We offer plug, tube, flap, and ball diverter valves – all with the DMN-WESTINGHOUSE quality mark.

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 2-TDV TUBE DIVERTER VALVE

The 2-port Tube Diverter Valve (2-TDV) is a hygienic, USDA-accepted, and space-saving tube diverter valve designed for routing pneumatically conveyed powders, granules, or pellets to or from two locations. Its design ensures high positional accuracy with minimal components.

The 2-TDV offers precise alignment of your conveying lines, optimal speed, and minimal pressure loss. Executed in premium material, the 2-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 2-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 two 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 2-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 2-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 2-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						
2-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

Airtorque	Type DR double acting pneumatic actuator
Medium	Air filtration lubricated or not up to 8 bar
Temperature range	-40°C to 80°C
Working pressure	5 bar to 8 bar
Tube	Ø 10 mm

### 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 8 bar
Connection	1/4"

### SOLENOID COIL SPECIFICATIONS

Festo	Type VACN-N-...
Protection	IP 65
Socket connection	M16 Ø 6 mm to 8 mm
Standard voltage	24 VDC 110/230 VAC 50/60 Hz
Temperature range	-20°C to 60°C

### SOLENOID VALVE SPECIFICATIONS

Inflatable seal	3/2 monostable version with manual contro
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	M16 Ø 6 mm to 8 mm
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

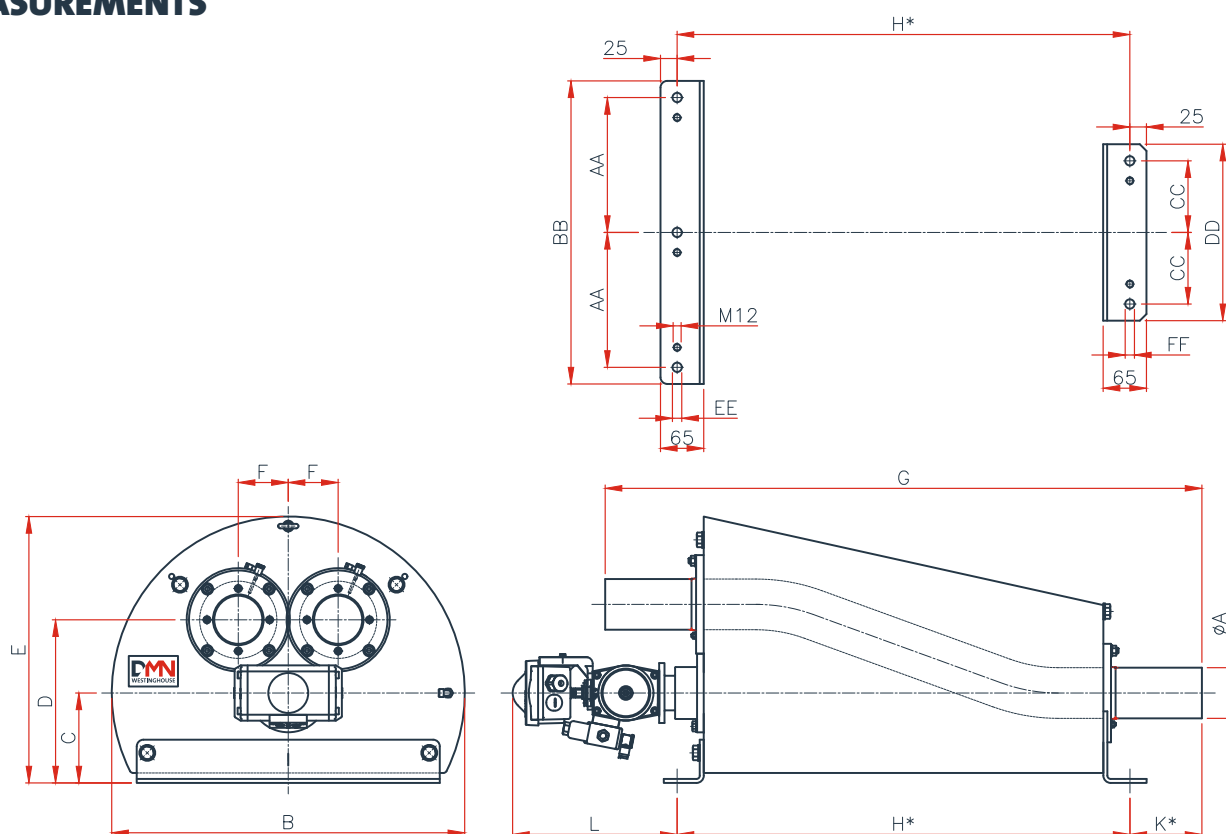
## SWITCH/TERMINAL BOX SPECIFICATIONS

Rotech	Type ACR3ASTAZ10 micro switches
Protection	IP 65
Standard voltage	4 A, 230 VAC
Temperature range	-25°C to 85°C
Cable gland	M20x1.5 Clamp. range 8 mm to 13 mm

## OPTIONAL SWITCH/TERMINAL BOX SPECIFICATIONS

Rotech	Type APFN412EASEAZ10
Inductive proximity switch	Pepperl & Fuchs. Type NBN4-12GM50-E2
Protection	IP 65
Standard voltage	10 VDC to 30 VDC 3-wire PNP NO 0-200 mA
Temperature range	-25°C to 70°C
Cable gland	M20x1.5 Clamp. range 8 mm to 13 mm

## MEASUREMENTS



TYPE									VERSION 2		VERSION 3								
2-TDV	ØA	B	C	D	E	F	G	H	K	H	K	L	AA	BB	CC	DD	EE	FF	
40	38.1x1.5	490	130	235	375	65	806	590	108	576	115	247	187.5	425	107.5	265	3xØ14	2xØ14	
50	50.8x1.5	490	130	235	375	65	806	590	108	576	115	247	187.5	425	107.5	265	3xØ14	2xØ14	
65	63.5x1.5	530	135	245	400	75	896	680	108	666	115	255	202.5	455	107.5	265	3xØ14	2xØ14	
80	76.1x1.5	530	135	245	400	75	896	680	108	666	115	255	202.5	455	107.5	265	3xØ14	2xØ14	
100	101.6x2	600	165	287.5	465	87.5	946	730	108	716	115	255	230	510	130	210	3xØ14	2xØ14	
125	129x2	695	175	325	522.5	102.5	1116	900	108	886	115	264	275	600	135	320	3xØ14	2xØ14	
150	154x2	755	205	205	365	115	1156	940	108	926	115	264	295	640	150	350	3xØ14	2xØ14	

Technical modifications are possible, dimensions in mm.



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