

PRODUCT INFORMATION SHEET

FDV-F/FDV-P

FLAP 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 **FDV-F/FDV-P** FLAP DIVERTER VALVES

The FDV Flap-type Diverter valves are designed to divert non-abrasive to mildly abrasive powders, granules, and pellets in pneumatic low-pressure conveying systems.

The FDV is available in two versions: the FDV-F features flange connections, while the FDV-P offers pipe connections. Both versions are available in aluminium, cast iron, and stainless steel. The FDV has three operating modes: a pneumatic actuator, an electrical actuator, and manual operation.

The compact design saves space in your installation, while the rapid pivoting action of the flap ensures superfast redirection of your material flow.



THE **FDV-F/FDV-P** FLAP DIVERTER VALVE AT A GLANCE

- Suitable for product temperature from -10 °C to + 80 °C; options for higher temperatures are available on request
- Pressure range: -0.3 to +2 barg
- Available with flange or pipe fitting
- Rapid pivoting action
- Compact form, simple construction, optimal sealing
- The diverter can be fitted with a wear-resistant flap or a food-grade polyurethane seal, providing a virtual leak-proof unit
- Flanges drilled in accordance with PN 10, ANSI 150 lbs
- Executed in cast iron, aluminium, or 316 stainless steel
- EC1935/2004- and FDA-compliant version available
- ATEX 2014/34/EU certification available

PROPERTIES

- Compact form, simple construction, optimal sealing
- Minimal pressure loss

BENEFITS

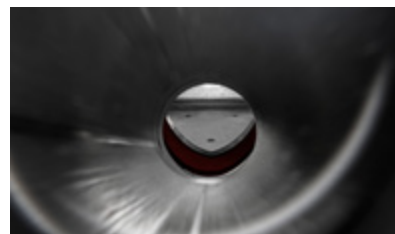
The FDV-F and FDV-P are designed for maximum efficiency. While the flap's rapid pivoting action and the valve's ease of maintenance ensure **maximum uptime**, the minimum pressure loss drives **optimal efficiency**.

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	Metric and imperial
Flange connection	PN 10 or ANSI 150 lbs.
Maximum allowable working pressure	-0.3 to 2 barg
Allowable conveying product temperature	Up to 80°C
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							
FDV-F flap diverter valve	50	65	80	100	125	150	200	250
FDV-P flap diverter valve	50	65	80	100	125	150		

MATERIAL SPECIFICATIONS

Cast housing/end covers	Cast iron GG 25	DIN 0.6025
	Aluminium LM25 TF7	DIN 3.2371
	Stainless steel 316	DIN 1.4408
Piping	Mild steel	
	Stainless steel 304L	DIN 1.4301
Flap assembly	Stainless steel 316	DIN 1.4401
Seal*	Polyurethane	60-70°sh.A
	Polyurethane food quality (optional)	60-70°sh.A

*90°sh.A in case of vacuum

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	5–8 bar
Tube	Ø 10 mm

AIR CONSUMPTION

TYPE	AVAILABLE SIZES							
FDV-F/FDV-P flap diverter valve	50	65	80	100	125	150	200	250
At 6 bar LTR/stroke	0.35	0.4	0.8	0.9	1.6	1.7	4	4

SOLENOID VALVE SPECIFICATIONS

Actuator	5/2 NAMUR monostable version with manual control
Festo	Type VSNC-FC-M52-MD-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	M 16 Ø 6–8 mm
Standard voltage	24 VDC 110/230 VAC 50/60 Hz
Temperature range	-20°C to 60°C



SWITCH/TERMINAL BOX SPECIFICATIONS

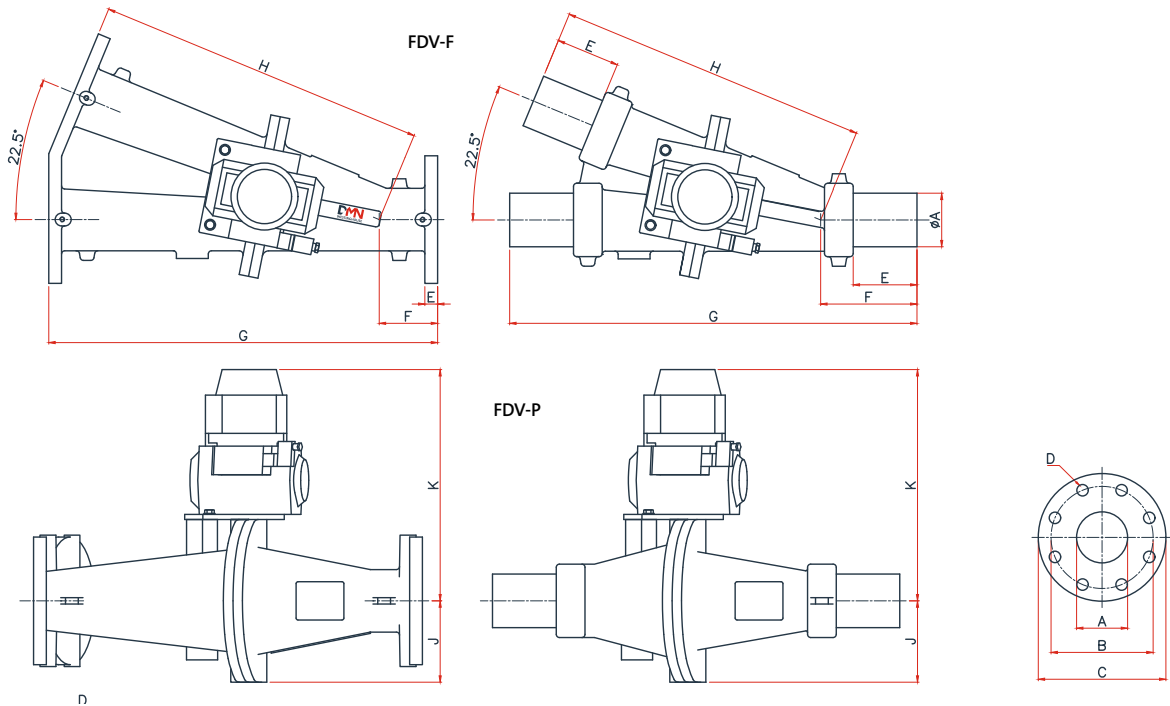
Festo	Type ACR3ASTAZ10 Micro switches
Protection	IP 65

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	DIN				ANSI							
FDV-F	ØA	ØB	D	ØC	ØB	D	E	F	G	H	J	K
50	50	125	4xØ18	165	120.6	4xØ19	12	90	520	430	103	321
65	65	145	4xØ18	185	139.7	4xØ19	12	90	570	480	110	328
80	80	160	8xØ18	200	152.4	4xØ19	12	90	610	520	128	363
100	100	180	8xØ18	220	190.5	8xØ19	12	95	740	645	143	376
125	125	210	8xØ18	250	215.9	8xØ22.2	12	95	740	645	165	410
150	150	240	8xØ22	285	241.3	8xØ22.2	12	105	840	735	185	430
200	200	295	8xØ23	343	298.4	8xØ22.2	24	45	925	880	115	484
250	250	350	12xØ23	406	361.9	12xØ25.4	24	54	1070	1016	250	519

TYPE	ØA (AISI)	ØA (ST.37)	E	F	G	H	J	K
FDV-P								
50	Ø54x2	Ø54x2.6	100	150	540	390	103	321
65	Ø70x2	Ø70x2.9	100	150	540	390	110	328
80	Ø84x2	Ø88.9x2.9	100	150	637	487	128	363
100	Ø104x2	Ø108x3.6	100	150	670	520	143	376
125	Ø129x2	Ø133x4	100	153	715	562	165	410
150	Ø154x2	Ø159x4.5	100	163	735	572	185	430

Technical modifications are possible, dimensions in mm.



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