

PRODUCT INFORMATION SHEET

# **GPD**

# **PLUG 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 **GPD** PLUG DIVERTER VALVE

The Gravity Plug Diverter (GPD) is a one-way diverter valve designed for gravity conveying of powders, granules, and pellets. It is ideal for systems needing regular, quick cleaning with minimal downtime. The GPD's design ensures swift and easy access to all contact surfaces when cleaning in place, while the diverter is also easily detachable when the need arises.

The GPD diverts your gravity-fed material efficiently to two lines, along a smooth, obstruction-free flow path. The plug rotates 120°, sealing the inactive port with precision-engineered tolerances.

This diverter comes in various finishes, including sanitary and USDA-accepted versions.



### THE **GPD** PLUG DIVERTER VALVE AT A GLANCE

- Suitable for product temperatures from 14°F to 176°F; options for higher temperatures available on request
- No pressure difference allowed.
- Available with a cast iron, aluminium, or stainless steel AISI 316 housing, with either a mild steel, stainless steel AISI 316, or wear-resistant plug
- Manufactured from a rugged cast design, guaranteeing stability and trouble-free operation
- One-piece body with removable end plates and rotating plug assembly
- Easily detachable design
- Pneumatic, electric, or manual operation
- Flanges drilled according to PN 10 or ANSI 150 lbs
- USDA-accepted versions available
- EC1935/2004- and FDA-compliant versions available

### PROPERTIES

- Innovative plug design that avoids leakage and product contamination
- Effortlessly accessible Cleaning-In-Place, with an easily detachable construction for when the need arises
- Hygienic and USDA-accepted versions available

### BENEFITS

The GPD is suitable for gravity conveying of many types of dry bulk solids. It ensures smooth processing, while the one-piece plug eliminates the chance of product contamination. This diverter provides quick and easy access to all contact surfaces, making it easy to clean. When necessary, it can be detached in no time.

Available in a range of finishes, the GPD is designed to **minimise product contamination and maximise your uptime.**

### 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
Allowable conveying product temperature	14°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			
GPD plug diverter valve	6" (150)	8" (200)	10" (250)	12" (300)

### MATERIAL SPECIFICATIONS

Housing/cover	Cast iron EN-GJL-250	DIN 0.6025
	Aluminium G-AL Zn10SP	
	Stainless steel AISI 316L	
Plug	Stainless steel AISI 316L	
	Mild steel	
	Hardox 450	



### 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 PSI to 116 PSI
Tube	Ø 0.39"

### AIR CONSUMPTION

TYPE	AVAILABLE SIZES			
GPD plug diverter valve	6" (150)	8" (200)	10" (250)	12" (300)
At 87 PSI FT <sup>3</sup> /stroke	0.43	0.43	0.73	0.73

### SOLENOID VALVE SPECIFICATIONS

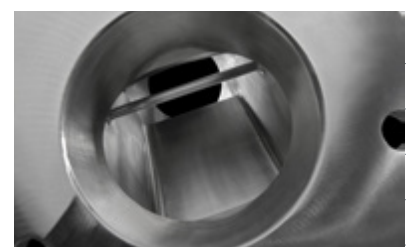
Actuator	5/2 NAMUR bistable version with manual control
Festo	Type VSNC-F-B52-G14-FN
Medium	Air filtration lubricated or not up to 116 PSI
Connection	1/4"

### SOLENOID COIL SPECIFICATIONS

Festo	Type VACN-N...
Protection	IP 66
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

### SWITCH/TERMINAL BOX SPECIFICATIONS

Rotech	Type ACR3ASTAZ10 Micro switches
Protection	IP 65
Standard voltage	4 A, 230 VAC
Temperature rang	-13°F to 185°F
Cable gland	M20x1.5 Clamp. range 0.31" to 0.51"

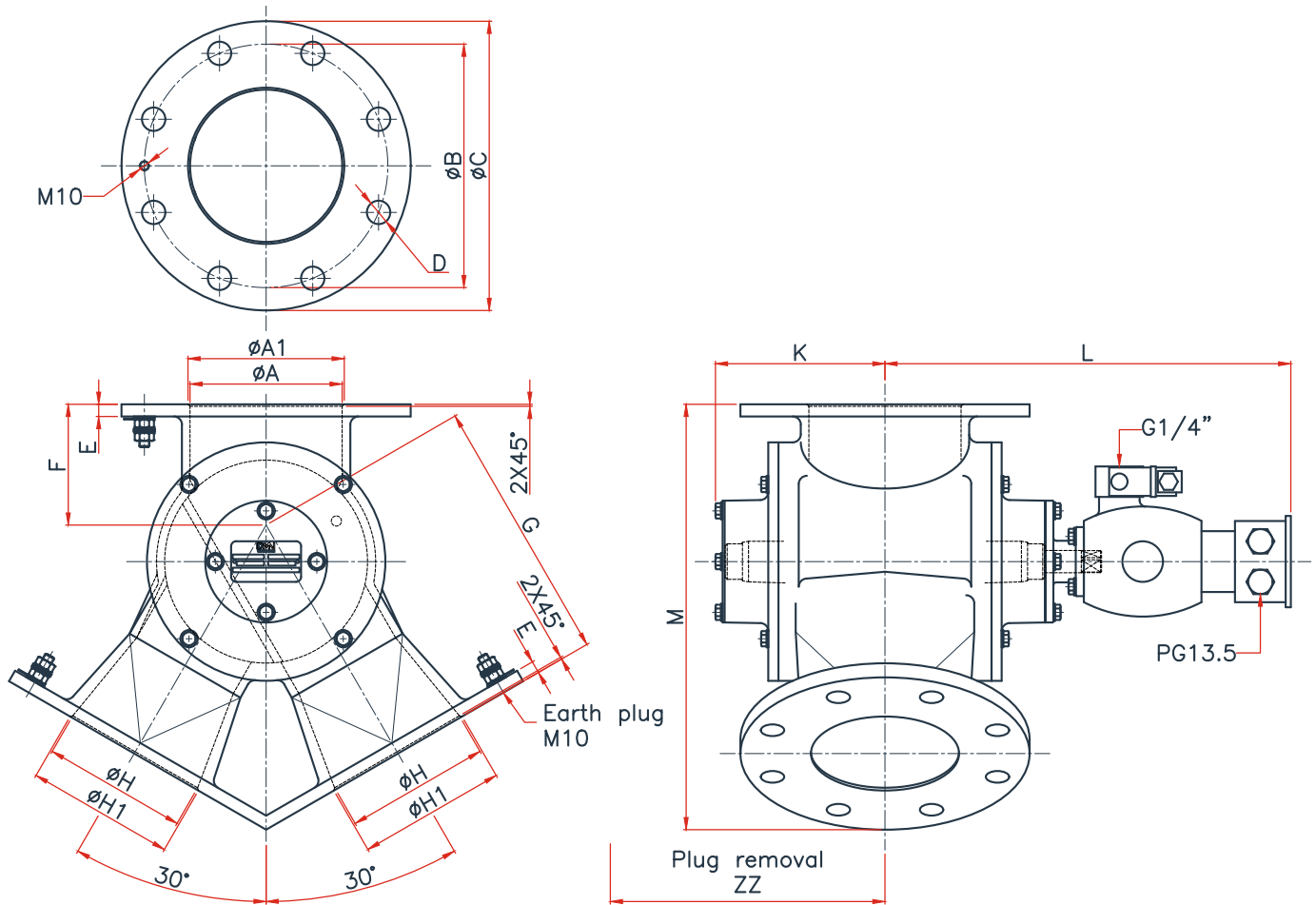


## OPTIONAL SWITCH/TERMINAL BOX SPECIFICATIONS

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	-13°F to +158°F
Cable gland	M20x1.5 Clamp. range 0.31" to 0.51"



## MEASUREMENTS



TYPE	DIN				ANSI				K	L	ZZ	
	GPD	ØA	ØB	D	ØB	D	E	F				
6" (150)	5.91	9.45	8xØ0.91	11.22	9.50	8xØ0.87	0.47	4.69	10.24	6.69	15.75	19.09
8" (200)	7.87	11.61	8xØ0.91	13.50	11.75	8xØ0.87	0.59	5.47	12.20	7.68	16.73	22.05
10" (250)	9.84	13.78	12xØ0.91	15.98	14.25	12xØ1.00	0.59	6.10	14.76	8.66	18.90	25.39
12" (300)	11.81	15.75	12xØ0.91	19.02	17.00	12xØ1.00	0.59	6.50	17.72	9.65	19.88	28.35

Technical modifications are possible, dimensions in inches.



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