


## Differential pressure switch series PD

Ex-proof according UL or ATEX (EEx d)

One or two independent setpoints

Accuracy:  $\pm 1\%$

### Features

- Setpoint adjustment separated from electrical system
- Easy setpoint adjustment, with setpoint indication
-  II 2 GD
- Protection IP66 or NEMA 7 and 9
- Wetted parts available in several materials
- High static pressure up to 100 bar

### Ranges

75 mbar diff. up to 28 bar diff.

30 in. H<sub>2</sub>O up to 400 psid

### Applications

Chemical and petrochemical industry

Machine and apparatus construction

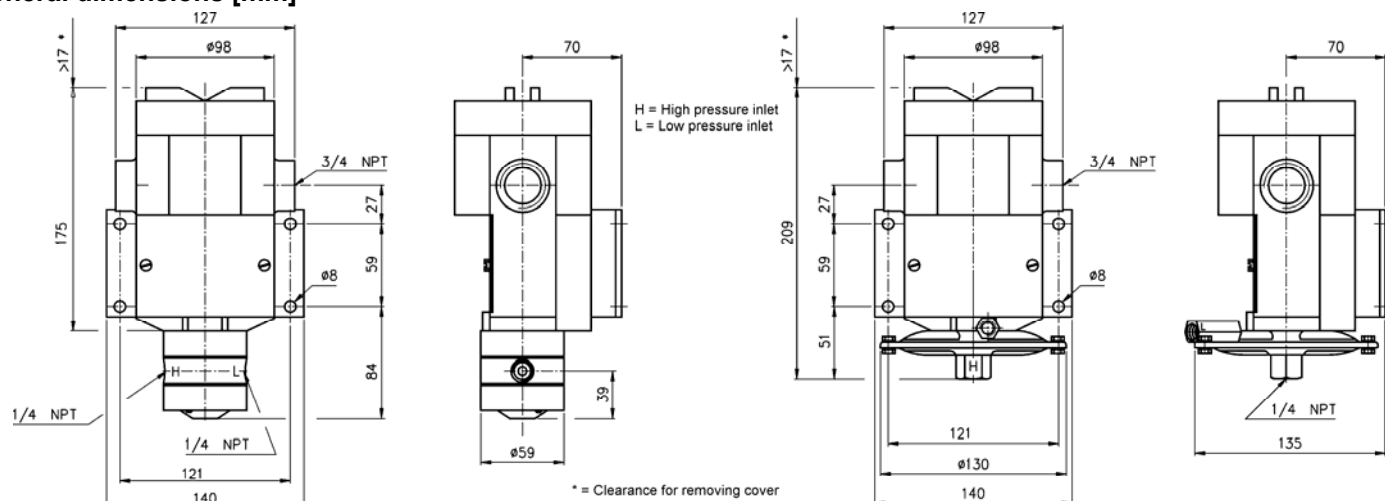
Food and beverage industry

Pulp and paper industry



Technical specification	PD		
	PDA	PDD	PDS
Type	Explosion proof according UL, CSA or CENELEC (ATEX)		
Construction	Separate chambers for setpoint/deadband adjustment and electrical connections, with setpoint indicators		
Switch (setpoint) functions	One single setpoint	Two setpoint independently adjustable	One single setpoint
Deadband	Adjustable over 80 %	Fixed	Fixed
Measuring principle	Diaphragm-piston-cylinder-system		
Range [mbar]	75 150 250 375		
[bar]	1 2 4 7 14 28		
Limits (pressure ranges)	mbar 1 to 4 bar 7 and 14 bar 28 bar		
Proof pressure [bar]	0,37 35 69		
Burst pressure [bar]	1,5 138 276 551		
Pressure type	Optional 100 bar static pressure for the ranges 1 and 2 bar (only diaphragm Buna N or Viton) Differential		
Process connection	¼ NPT female (standard), ½ NPT male/¼ NPT female, ½ NPT female G ½ B male, M20x1,5 (metric connections with adapter), others on request		
Connection location	For mbar ranges lower and side, for bar ranges at the side		
Material			
Pressure connection	Standard Nickel plated brass, optional stainless steel 316 (1.4401) or Monel		
Diaphragm	For mbar ranges steel epoxy coated standard, stainless steel on request		
Housing	Buna N, Viton, Teflon, stainless steel 316 (1.4401) (stainless steel only from 1 to 6 bar) Aluminum, epoxy coated grey		
Accuracy	1 % F.S.		
<b>Electrical specification</b>			
Microswitch ratings	Up to 6 A 30 VDC respectively 22 A 250 VAC (see microswitch table)		
Ex-proof specification	UL Class 1 Div. 1 Gr. B, C and D EEx d IIB+H <sub>2</sub> T6 SIRA 03 ATEX 1470		
Electrical connection	¼ NPT female, optional cable glands, ½ NPT with reducer bushing, M20x1,5, others on request		
<b>General specification</b>			
Permissible			
Ambient temperature	-25 ... 60 °C		
Medium temperature	Buna N and Teflon -18 ... 65 °C, Viton -7 ... 150 °C, stainless steel -18 ... 150 °C		
Storage temperature	-40 ... 60 °C		
Effect	Max. 0,4 % / 10 K ref. 20 °C		
Protection according UL	NEMA 7 and 9		
Protection according EN 60 529/IEC 529	IP 66		
CE-mark	Low voltage regulations EN 61 010-1, EN 60 947-1		
Mounting	Standard stem, wall or 2" pipe mounting (TM)		
Weight mbar/bar [kg]	3,0/3,2		
Accessories, options	Diaphragm seals, valves, adapters, NACE		

## General dimensions [mm]



High pressure (PSID)

Low pressure (INH<sub>2</sub>OD)

Rev.E

## Order information

single	dual	Switch element Description	Actuator seal	Range	Engineering unit	Protection	Process connection	Electrical connection	Options
<b>PDA</b>			<b>(B)</b> Buna N <sup>1)</sup>	<b>30</b>	<b>INH2OD</b>	<b>(N7)</b> UL NEMA 7 and 9	<b>(25)</b> ¼ NPT female	<b>(=)</b> Standard	<b>(NH)</b> Tagging wired
<b>(H)</b>		General purpose (10 A 250 VAC, 6 A 30 VDC)	<b>(V)</b> Viton <sup>2)</sup>	<b>60</b> <b>100</b> <b>150</b>					<b>(FS)</b> Factory adjusted setpoint
<b>(J)</b>		Hermetically sealed (11 A 250 VAC, 5 A 28 VDC)	<b>(T)</b> Teflon <sup>1)</sup>		<b>PSID</b>	<b>(CEN3)</b> ATEX EEx d with cable gland EEx d PG13,5	<b>(06)</b> ¼ NPT female/ ½ NPT male	<b>(JM)</b> ¾ NPT to M20x1,5 female reducing bushing	<b>(6B)</b> Oxygen cleaned (not for Buna N diaphragm; in. H <sub>2</sub> O ranges only with option TA)
<b>PDS</b>	<b>PDD</b>		<b>(S)</b> 316 (1.4401) <sup>3)</sup>	<b>15</b> <b>30</b> <b>60</b> <b>100</b> <b>200</b> <b>400</b>		<b>(CEN4)</b> ATEX EEx d ¾ NPT thread female	<b>(07)</b> ½ NPT female <b>(15)</b> G ½ B male <sup>1)</sup> <b>(16)</b> M20x1,5 male <sup>1)</sup>		<b>(TM)</b> 2" pipe mounting bracket <b>(TA)</b> 316 (1.4401) pressure connection for in. H <sub>2</sub> OD ranges <b>(UD)</b> 316 (1.4401) pressure connection for psid ranges <b>(HS)</b> High static pressure (only for Buna N and Viton diaphragm and range 15 and 30 psid) <b>(MD)</b> Metric ranges
<b>(C)</b>		Heavy duty AC (22 A 250 VAC)							
<b>(F)</b>	<b>(FF)</b>	Sealed environment sealed (15 A 250 VAC)							
<b>(G)</b>	<b>(GG)</b>	General purpose <sup>1)</sup> (15 A 250 VAC, 6 A 30 VDC)							
<b>(J)</b>	<b>(JJ)</b>	Hermetically sealed general purpose <sup>1)</sup> (11 A 250 VAC, 5 A 28 VDC)							
<b>(K)</b>	<b>(KK)</b>	Narrow deadband (15 A 250 VAC)							
<b>(L)</b>	<b>(LL)</b>	Hermetically sealed gold contacts (1 A 125 VAC) (for use in intrinsically safe circuits)							
<b>(M)</b>	<b>(MM)</b>	Low level (gold) contacts (1 A 125 VAC)							
<b>(P)</b>	<b>(PP)</b>	Hermetically sealed, narrow deadband (5 A 250 VAC)							
<b>(S)</b>		Heavy duty DC (10 A 125 VAC, 10 A 125 VDC) (not for protection CEN3 and CEN4)	<sup>1)</sup> max. medium temperature -18 ... 65 °C						
<b>(W)</b>	<b>(WW)</b>	Ammonia service (5A 250 VAC, 6 A 30 VDC)	<sup>2)</sup> max. medium temperature -7 ... 150 °C						
<b>(Y)</b>	<b>(YY)</b>	High temp. (max. 150 °C) (15 A 250 VAC)	<sup>3)</sup> max. medium temperature -18 ... 150 °C						
<sup>1)</sup> VDC rating not UL listed					note the range can also be specified in mbar or bar		<sup>1)</sup> with adapter		

## How to order

Type	Switch element	Actuator seal	Range	Engineering unit	Protection	Process connection	Electrical connection	Option
PDD	GG	B	100	PSID	N7	25	JL	NH

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