

# PSD

Diaphragm Type Pressure Switch  
( Weather Proof )



## Special Features

- High accuracy & repeatability
- SS wetted parts
- Set point locking
- Highly reliable
- Diaphragm seals (optional)

## Applications

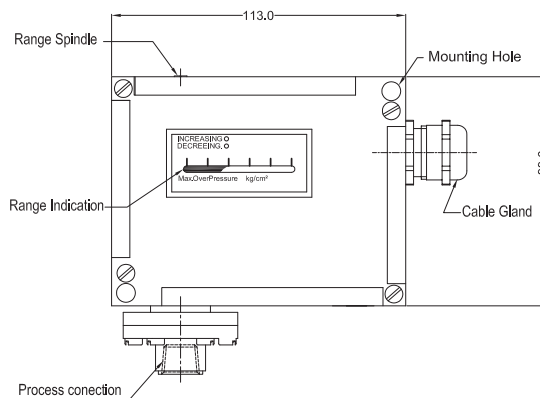
Boiler, furnace, railway engines.  
Oil & gas, conventional & nuclear power plants, mines, iron & steel plants, refineries, petrochemical, food & pharmaceutical, chemical & fertilizer, cement, textile, glass, paint, pulp & paper, marine industries.

## Specifications

### Standard Version

Repeatability	:	± 0.5% F. S.
Accuracy	:	± 1.0% F. S.
Scale unit	:	bar
Range	:	Refer "how to order"
Set point	:	Between 20 to 80% F. S. for better performance
Over pressure limit	:	150% of F. S.
Differential	:	Fixed
Mounting	:	Bottom / Panel
Process connection	:	1/4" NPT (F)
Enclosure protection	:	W/P to IP 66
Enclosure material	:	Pressure die cast aluminum
Maximum process temperature	:	150 °C
Ambient temperature	:	-10 to 60 °C
Switch	:	1 SPDT, snap action micro switch
Switch rating	:	15 A, 250 VAC, 0.2 A, 220 VDC
High voltage strength	:	0.5 to 0.6 KV between open contacts and 2 KV between contacts and body
Insulation resistance	:	>100 M ohms at 500 V
Sensing element	:	Diaphragm
Top Chamber	:	Mild Steel (plated)
Bottom Chamber	:	AISI 316 SS
Sensing element material	:	AISI 316L SS
Cable entry	:	PG 13.5 mm
Scale Accuracy	:	± 1.0% F. S.
Conformity	:	BS 6134

## Dimensional Details



Note :  
 • Drawings are not to scale.  
 • All Dimensions are in mm.

## How To Order Example

### Basic Model

PSD

### Range

Ordering Code	Range (mbar)	Ordering Code	Range (mbar)	Ordering Code	Range (bar)	Ordering Code	Range (bar)	Ordering Code	Range (bar)
C020M	-20 to 20	P250M	25 to 250	P001B	0.1 to 1	P016B	1 to 16	C005B	-0.5 to 0.5
C040M	-40 to 40	P400M	40 to 400	P002B	0.2 to 2	P025B	2 to 25	C011B	-1 to 1
P020M	3 to 20	P600M	60 to 600	P004B	0.4 to 4	P032B	2 to 32	C012B	-1 to 2
P060M	5 to 60			P006B	0.6 to 6	P040B	4 to 40	C014B	-1 to 4
P100M	10 to 100			P010B	1 to 10	P060B	5 to 40	V001B	-1 to 0

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Note : Other equivalent scale units like kg/cm<sup>2</sup>, kPa, MPa, psi, mmWC etc can be provided on request.

### Chamber Material (Top)

<b>MS</b>	Mild Steel - plated (Standard)	<b>S4</b>	AISI 304 SS	<b>S6</b>	AISI 316 SS	<b>SL</b>	AISI 316L SS
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### Chamber Material (Bottom)

<b>S6</b>	AISI 316 SS (Standard)	<b>MO</b>	Monel
<b>SL</b>	AISI 316L SS	<b>HC</b>	Hastelloy C

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### Sensing Element Material

<b>SL</b>	AISI 316L SS (Standard)	<b>TF</b>	TEFLON
<b>HC</b>	HASTELLOY C	<b>MO</b>	MONEL

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### Differential / Dead Bend

<b>F</b>	Fixed (standard)	<b>A</b>	Adjustable
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<b>Note :</b>	Fixed : 1 SPDT = 3 to 5% F.S. 2 SPDT = 4.5 to 7.5% F.S. 1 DPDT = 4.5 to 7.5% F.S.	<b>Note :</b>	Adjustable : 1 SPDT = 5 to 12.5% F.S. 2 SPDT = 7.5 to 19% F.S. 1 DPDT = 7.5 to 19% F.S.
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### Type of Micro Switch

<b>1S</b>	1 SPDT	<b>2S</b>	2 SPDT	<b>1D</b>	1 DPDT
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### Micro Switch Rating

Switch Code	Description	AC Rating	AC Rating (Resistive)	DC Rating (Inductive)	Available on 1 SPDT	Available on 2 SPDT
<b>GPL</b>	Low dead band and fixed	15 A 250 V	2 A 24 V 0.4 A 110 V 0.2 A 220 V	2 A 24 V 0.4 A 110 V 0.2 A 220 V	Fixed differential of ZPD, ZPP, ZDD	Fixed differential of ZPD, ZPP, ZDD
<b>GPH</b>	Standard dead band	15 A 250 V	6 A 24V 0.5 A 110 V 0.25 A 220 V	5 A 24 V 0.05 A 110 V 0.03 A 220 V	Fixed differential of ZPD, ZPP, ZDD	Fixed differential of ZPD, ZPP, ZDD
<b>GPA</b>	Adj. differential micro switch	15 A 250 V			Adj. differential of ZPD, ZPP, ZDD	Adjustable differential of ZPD, ZPP, ZDD
<b>GPG</b>	Gold plated contact	1 A 125 V	0.5 A 28 V		Fixed differential of ZPD, ZPP, ZDD	Fixed differential of ZPD, ZPP, ZDD
<b>SES</b>	Environmentally sealed silver contact	15 A 250 V	0.4 A 125 V		Fixed differential of ZPD, ZPP, ZDD	Fixed differential of ZPD, ZPP, ZDD
<b>SEG</b>	Environmentally sealed gold contact		1 A 28 V		Fixed differential of ZPD, ZPP, ZDD	Fixed differential of ZPD, ZPP, ZDD
<b>HSS</b>	Hermetically sealed silver plated	4 A 230 V	3 A 28 V	2 A 24 V	Fixed differential of ZPD, ZPP, ZDD	Fixed differential of ZPD, ZPP, ZDD
<b>HSG</b>	Hermetically sealed gold plated	1 A 125 V	NA	NA	Fixed differential of ZPD, ZPP, ZDD	Fixed differential of ZPD, ZPP, ZDD
<b>HDC</b>	High DC rating	10 A 125 V	10 A 125 V	6 A 125 V	Fixed differential of ZPD, ZPP, ZDD	Fixed differential of ZPD, ZPP, ZDD
<b>DPD</b>	DPDT Micro switch	10 A 125 V	0.2 A 250 V		Fixed & adjustable differential of ZPD, ZPP, ZDD	NA

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How To Order							Example			
<b>Calibration</b>										
<b>I</b>	Increasing		<b>D</b>	Decreasing (Not applicable for adj. differential)			X			
<b>Process Connections</b> (* Please mention the flange face and flange finish)										
		Through Adaptors		Flanged (As per ANSI B 16.5)*						
<b>2NM</b>	1/4" NPT (M)	<b>3BM</b>	3/8" BSP (M)	<b>B09</b>	1/2" 150 #	<b>B21</b>	1" 150 #	<b>B39</b>	2" 150 #	
<b>2NF</b>	1/4" NPT (F) (Standard)	<b>3BF</b>	3/8" BSP (F)	<b>B10</b>	1/2" 300 #	<b>B22</b>	1" 300 #	<b>B40</b>	2" 300 #	
		<b>4BM</b>	1/2" BSP (M)	<b>B11</b>	1/2" 600 #	<b>B23</b>	1" 600 #	<b>B41</b>	2" 600 #	XXX
		<b>4BF</b>	1/2" BSP (F)	<b>B15</b>	3/4" 150 #	<b>B33</b>	1 1/2" 150 #	<b>B51</b>	3" 150 #	
		<b>4NM</b>	1/2" NPT (M)	<b>B16</b>	3/4" 300 #	<b>B34</b>	1 1/2" 300 #	<b>B52</b>	3" 300 #	
		<b>4NF</b>	1/2" NPT (F)	<b>B17</b>	3/4" 600 #	<b>B35</b>	1 1/2" 600 #	<b>B53</b>	3" 600 #	
<b>Cable Entry</b>										
<b>DIN</b>	DIN Connection*		<b>ETE</b>	3/4" ET	<b>ECB</b>	3/4" ET DCCG Brass	<b>4PN</b>	4 PIN Connection*		
<b>PGE</b>	PG 13,5 (Std)		<b>2NP</b>	1/2" NPT (F)	<b>NPB</b>	1/2" NPT DCCG Brass	<b>7PN</b>	7 PIN Connection		XXX
<b>ECS</b>	3/4" ET DCCG SS		<b>NPS</b>	1/2" NPT DCCG SS						
* For 1 SPDT										
<b>Options</b>										
<b>FPC</b>	Calibration certificate			<b>WMB</b>	Wall mounting bracket (steel plated)					
<b>STG</b>	SS Tag plate			<b>PYM</b>	2" Pipe mounting					
<b>CNS</b>	Conformity as per NACE Standard			<b>PY4</b>	2" Pipe/yoke mounting bracket & 'U' clamp (AISI 304 SS)					
<b>MTC</b>	Material test certificates***			<b>PY6</b>	2" Pipe/yoke mounting bracket & 'U' clamp (AISI 316 SS)			XX		
<b>OXS</b>	Oxygen service									
<b>TRC</b>	Calibration certificate traceable to national/international standards									
<b>Accessories (Refer individual datasheet for complete specifications)</b>										

\*\*\*Material test certificates will be provided for wetted parts only with chemical composition testing.  
For others, please consult factory.

## Ordering Example: PSD .X XXXX . XX . XX . X . XX . XXX . X . XXX . XXX . XXX

Note : In 2 SPDT Instruments, there may be an error of max  $\pm 2\%$  F. S. between Micro Switches at the set point.  
Use common note as per other data sheets like specification and dimensions given in this product catalogue