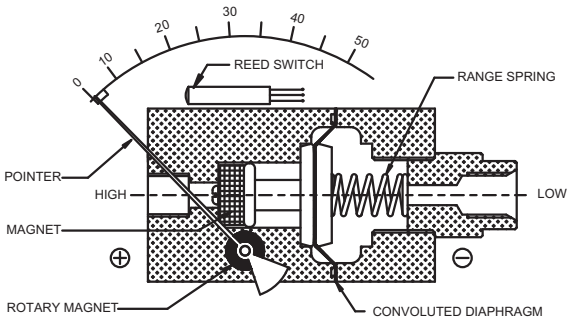
PSD Diaphragm Sensing Element for Low Pressure Gauge

Description & Features

- Cost effective and reliable
- Simple and compact design
- Easy to read dial instrument eliminates accumulated errors of two instruments installations
- Working pressure up to 100 bar
- Differential pressure range up to 4bar
- Zero migration between high and low pressures
- Adjustable reed contact switching
- Indicating mechanism isolated from pressure chamber
- Only switch is also available
- Wide application in air, gas and liquid media

Applications

Monitor filter conditions, set filter by-pass, or initiate filter cleaning cycle. Determine obstructions in process lines. Check condition of pumps, heat exchangers, and other processing equipment. Detect abnormal and reverse flow conditions. Measure flow rates with venturi, orifice, or pitot tube. Balance and adjust flow rates in piping systems. Monitor liquid levels in storage tanks



Specifications

Dial Size
2.5"(63mm), 3.5"(80mm), 4"(100mm)
4.5"(115mm) & 6"(150mm)

Case
Stainless steel case or flange

Body Material
316 stainless steel, Aluminium or Brass

Wetted parts
Diaphragm, ceramic magnet, SS 304 spring

Connection
1/4", 1/2", 3/8" in NPT, BSP, BSPT

Seals
Buna-N (Standard) or Viton

Porting
In line, Back or bottom

Migration of media
Zero migration between high and low pressures

Protection
IP 65

Window
Glass, Acrylic or Toughened glass

Pressure range
0-0.075 to 0-4 bar (0-1psi to 0-60 psi)

Working pressure
100 bar / 1500 psi

Media Temperature
80℃/ 175℉

Accuracy
±2% of FSD (Ascending)

Operating principle
Magnetic coupling with a convoluted diaphragm sensor

Switch
SPST or SPDT, one or two. Switches are field adjustable. The set points can be increased or decreased externally with a simple screwdriver adjustments. When two switches are used, either switch can be adjusted independently

Options
Glycerine filling, maximum adjustable pointer, dual scale
Direct, front panel flange, 2" pipe mounting
Other connection size available
Other internal parts in Aluminium, or SS-316 as per the body

Order Information
Series/ Dial Size/ Case Materials/ Wetted Parts/ Configuration/ Connection Size/ Thread/ Range/ Option

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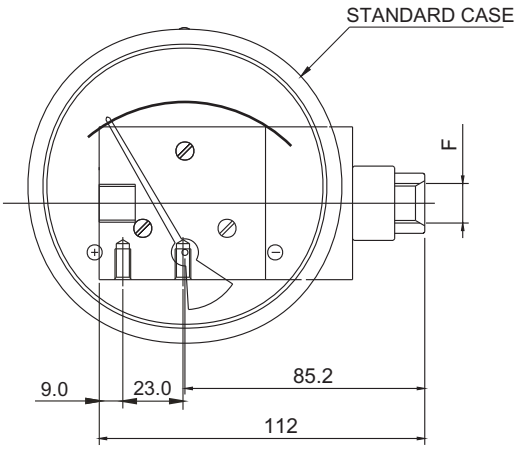
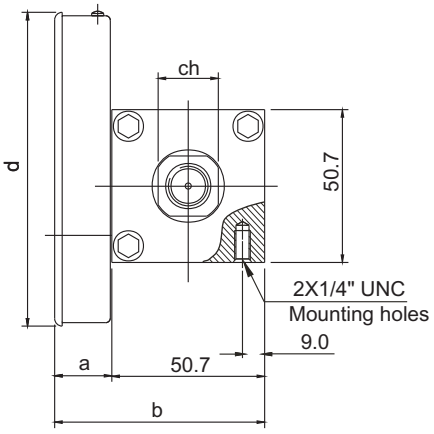
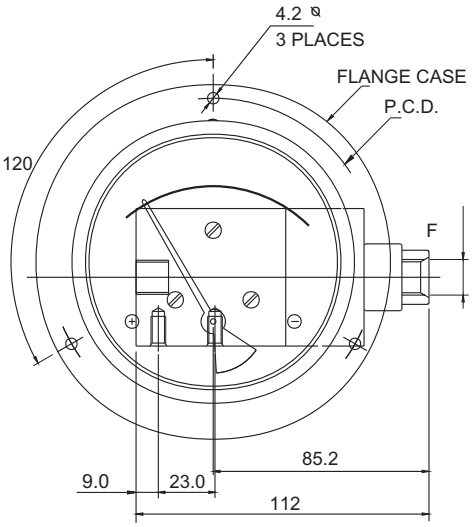
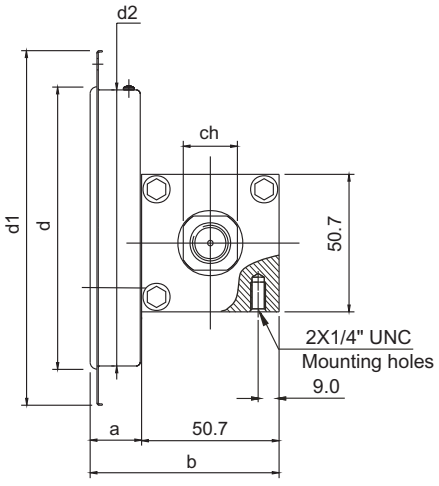
Dimensions





DIAL Ø	F	a	b	d	ch
63 (2.5")	1/4"BSP - 1/4"NPT	19	69.7	66	20
80 (3.5")	1/4"BSP - 1/4"NPT	19	69.7	83	20
100 (4")	1/4"BSP - 1/4"NPT	19	69.7	104.3	20
115(4.5")	1/4"BSP - 1/4"NPT	19	69.7	119.7	20
150(6")	1/4"BSP - 1/4"NPT	19	69.7	154.3	20

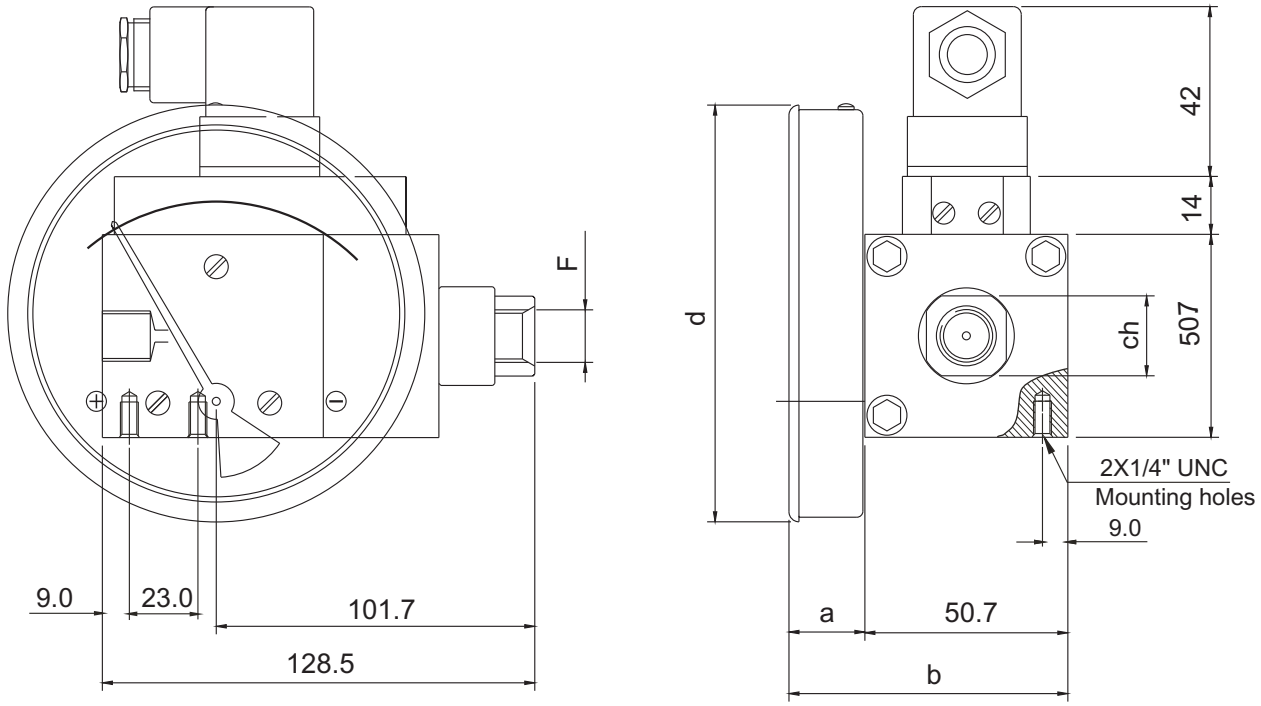




DIALØ	F	a	b	d1	d2	ch	p.c.d.	d *
63(2.5")	1/4"BSP - 1/4"NPT	19	69.7	93	65	20	83	66
80(3.5")	1/4"BSP - 1/4"NPT	19	69.7	109	82	20	99	83
100(4")	1/4"BSP - 1/4"NPT	19	69.7	131	102	20	121	104.3
115(4.5")	1/4"BSP - 1/4"NPT	19	69.7	146	117	20	136	119.7
150(6")	1/4"BSP - 1/4"NPT	19	69.7	181	152.5	20	171	154.3

* PANEL CUTOUT = d +1

GAUGE + SWITCH WITH REED CONTACTS WITH DIN PLUG AND TERMINAL STRIP



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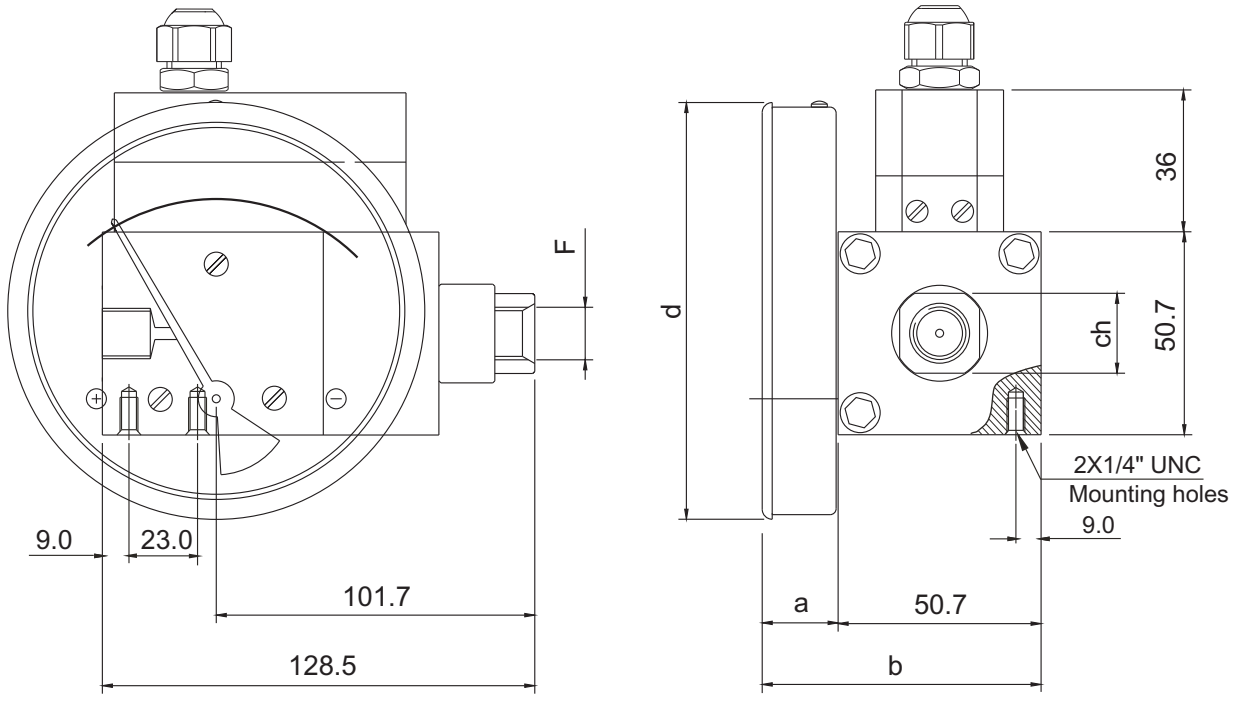
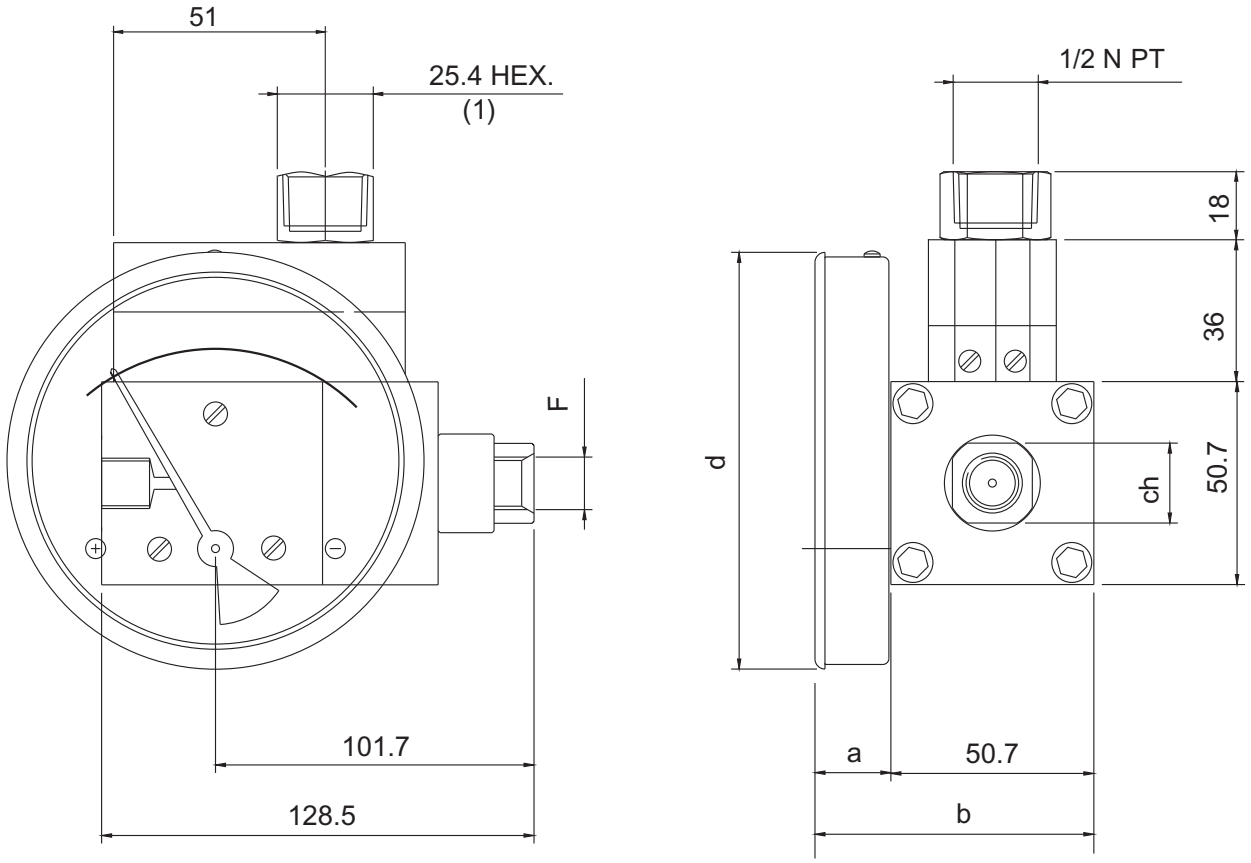


GAUGE + SWITCH WITH REED CONTACTS WITH TERMINAL STRIP & 1/2" NPT CONDUIT CONNECTION



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Ordering Code PSD

	Example	Code	Descriptions		
Series	PSD				
Type	W	G	Gauge	S	Switch
		W	Gauge + Switch		
Body material	B	A	Aluminium *(anodized semi hard)*		
		B	Brass	S	316 stainless steel
		N	Nylon		
Dial size	35	25	2.5" (63 mm)	45	4.5" (115 mm)
		35	3.5" (80 mm)	60	6.0" (150 mm)
		40	4.0" (100 mm)		
Connection	4N	4B	1/4" BSP (Female) (On request,longer lead time)		
		4N	1/4" NPT (Female)		
		ZZ	Special connection sizes using adaptor		
Porting	1	1	In-line (Standard)	4	Bottom & Vent
		2	Rear / Back	5	Inline & Vent
		3	Bottom		
Case type	SS	SS	SS 304 with a rubber ring (standard)		
		SF	SS 304 flange with a rubber ring (standard flange)		
Window	A	F	Glass (standard)	A	Acrylic
		T	Toughened glass		
Seal	B	B	Buna-N (standard)	E	EPDM
		V	Viton		
Switch	3	0	None		
		1	One SPST, with a DIN plug*		
		2	One SPST, with a terminal strip		
		9	One SPST, with built in relay		
		3	Two SPSTs, with a DIN plug*		
		4	Two SPSTs, with a terminal strip		
		5	One SPDT, with a DIN plug*		
		6	One SPDT, with a terminal strip		
		7	Two SPDTs, with two DIN plugs*		
		8	Two SPDTs, with a terminal strip		

SPST Specifications
5 VA AC or DC (max)
175 V AC or DC (max)
0.25 Amp AC or DC (max)

Built in relay
230 V AC, 1 Amps.

SPST Specifications
10 VA AC or DC (max)
150 V AC or DC (max)
0.5 Amp AC or DC (max)

* DIN plug : *we mount it on the top, on the plastic switch cover. However we can mount it at the back as a request*

Standard Ranges	15psi													
		Kg/cm	0.075	0.25	-	0.5	0.75	1	-	1.6	2	2.5	3	-	4
		bar	0.075	0.25	-	0.5	0.75	1	-	1.6	2	2.5	3	-	4
		Mbar	75	250	-	500	750	1000	-	-	-	-	-	-	-
		psi	1	-	5	8	-	15	20	25	30	-	40	50	60
		kPa	-	25	-	50	75	100	-	160	200	250	300	-	400

Other ranges on request.

Options	BC	0	None
		A	Glycerine filling (Affects accuracy)
		B	Red follower pointer on acrylic window (Affects accuracy)
		C	Dual scale
		D	Colour band
		E	Strainer in (+) connection
		F	Reverse Port**
		D	NACE
		E	Silicone Oil*

Limitations for making combinations:
- Glycerine filling will not have follower pointer
- No follower pointer available in 6"(150 mm)

Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing, modifications may take place and materials specified may be replaced by others without prior notice.