# **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



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

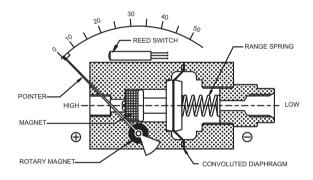
### **Protection**

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 °C/ 175 F

#### 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**

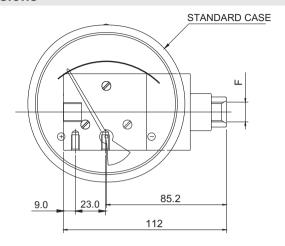
Glycerine filling, maximum adjustable pointer, dual scale Direct, front panel flange, 2" pipe mounting Other connection size available Other internal parts in Aluminium, or SS-316 as per the body

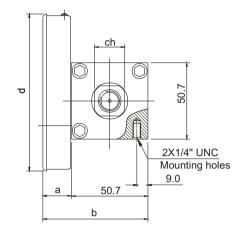
#### Order Information

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

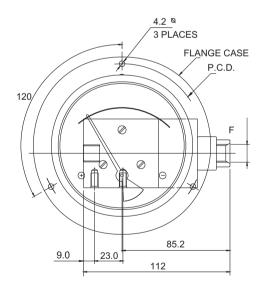
# **Diaphragm Sensing Element for Low Pressure Gauge**

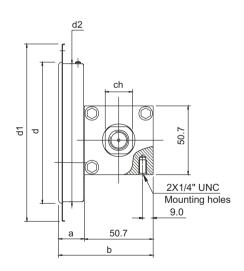
# **Dimensions**





DIALØ	F	а	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



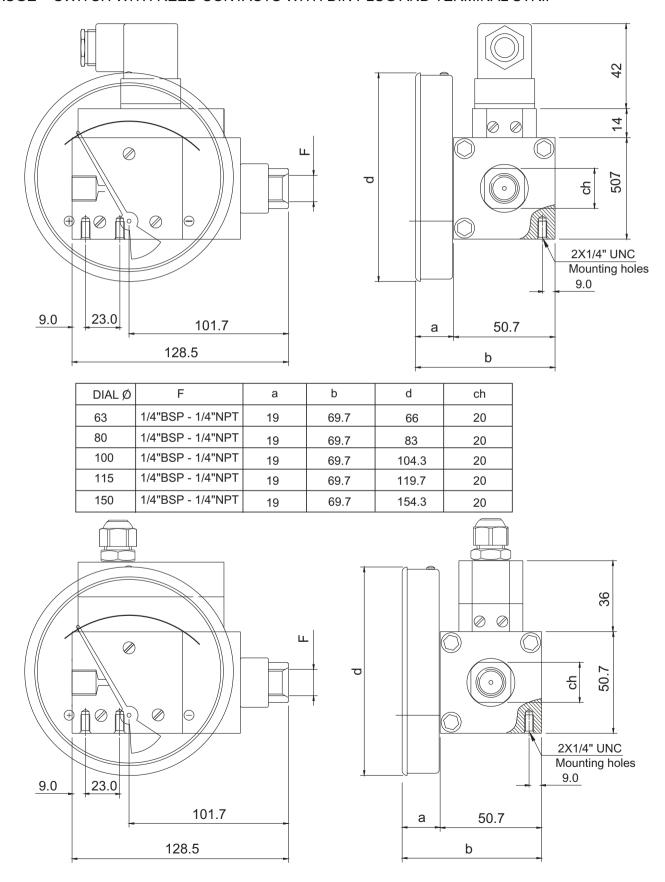


DIALØ	F	а	b	d1	d2	ch	p.c.d.	d *
63(2.5")	1/4"BSP - 1/4"NPT	19	69.7	93	65	20	83	66
80(3.5")	1/4"BSP - 1/4"NPT	19	69.7	109	82	20	99	83
100(4")	1/4"BSP - 1/4"NPT	19	69.7	131	102	20	121	104.3
115(4.5")	1/4"BSP - 1/4"NPT	19	69.7	146	117	20	136	119.7
150(6")	1/4"BSP - 1/4"NPT	19	69.7	181	152.5	20	171	154.3

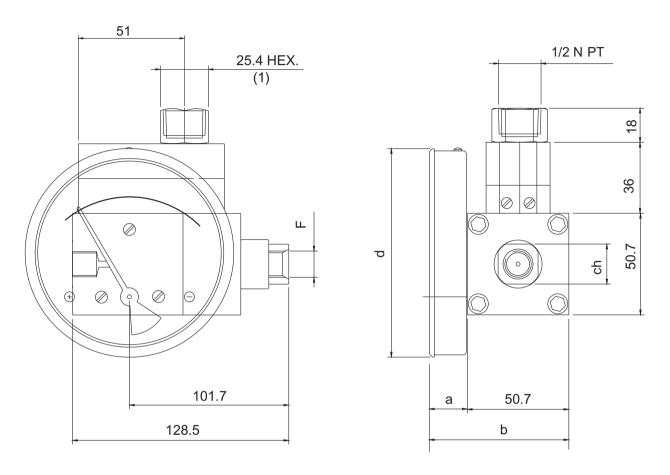
\* PANEL CUTOUT = d +1

# **Diaphragm Sensing Element for Low Pressure Gauge**

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



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



DIAL Ø	F	а	b	d	ch
63	1/4"BSP - 1/4"NPT	19	69.7	66	20
80	1/4"BSP - 1/4"NPT	19	69.7	83	20
100	1/4"BSP - 1/4"NPT	19	69.7	104.3	20
115	1/4"BSP - 1/4"NPT	19	69.7	119.7	20
150	1/4"BSP - 1/4"NPT	19	69.7	154.3	20

# **Diaphragm Sensing Element for Low Pressure Gauge**

	Field No.	Code	Specifications		
1.		DCD	Contra		
1.		PSD	Series		
_			Dial Size		
2.		25	2.5" (63mm)		
		35 40	3.5" (80mm) 4" (100mm)		
		45	4.5" (115mm)		
		60	6" (150mm)		
			Туре		
3.		А	Gauge		
		В	Switch		
		С	Gauge+Switch		
4.		S	Body Material 316 stainless steel		
т.		В	Brass		
		J	Aluminium (anodized semi hard	)	
		N	Nylon		
_			Case Material		
5.		S	SS case with rubber ring (standa		
		F	SS case with rubber ring and int Window	tegral front flange	
6.		F	Glass (standard)		
<u> </u>		т	Toughened glass		
		А	Acrylic		
			Porting		
7.		1	In-line (standard)		
		2	Rear / back		
		3	Bottom & Vent		
		5	Inline & Vent		
			Connection		
8.		4B	1/4" BSP (Female) (On request,	longer lead time)	
		4N	1/4" NPT (Female)		
		ZZ	Special connection sizes using a	adaptor	
9.		В	Seal Buna-N (standard)		
J		V	Viton		
		E	EPDM		
			Switch		
10.		0	None		
		1	One SPST, with a DIN plug*		
		9	One SPST, with a terminal strip One SPST, with built in relay		
		3	Two SPSTs, with a DIN plug*		
		4	Two SPSTs, with a terminal strip	0	
		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		
			* DIN plug : We mount it on the top	p,on the plastic switch cover. Howev	er we can mount it at the back as a request
			SPDT Specifications	Built in relay	SPST Specifications
			5 VA AC or DC (max)	230 V AC, 1 Amps.	10 VA AC or DC (max)
			175 V AC or DC (max) 0.25 Amp AC or DC (max)		150 V AC or DC (max) 0.5 Amp AC or DC (max)



# **PSD** Diaphragm Sensing Element for Low Pressure Gauge

	Field No.	Code	Specifications												
11.			Range (XXXX)												
			runge (runn)												
			kg/cm 0.075	0.25	-	0.5	0.75	1	-	1.6	2	2.5	3	T-	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	-	40
			_				•					,	Othe	er ranges	on req
			Options												
12.		00	None												
		SE	Glycerine filling												
		SJ	Red follower pointer on acrylic window (Affects accuracy)												
		DS	Dual scale												
		СВ	Colour band												
		ES	Strainer in (+) co	nnectio	n										
		RP	Reverse Port**												
		NS SD	NACE												
		SD	Silicone Oil*												
			Limitations for												
			<ul> <li>Glycerine filling</li> </ul>												
			No follower po	ointer av	/ailable	in 6"(15	0 mm)								
			Specifications a	nd dime	nsions	given in	this leaf	flet repr	esent th	ne state	of engir	neering a	at the tin	ne of pri	ntina.
			modifications ma												3,
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