

*High Version Case*

PSW-98 make Electric Contact Gauge use wherever the process pressure has to be indicated locally and, at the same time, limit values must be monitored, contact pressure gauges find their application. The switch contacts make or break the circuit dependent upon the pointer position of the indicating measuring instrument. If the reading is significantly above or below a set value, they trigger an alarm, hence also the term “alarm contact”. Contact pressure gauges are also suitable for starting, stopping or switching processes.



**FEATURES**

- All SS measuring system
- Socket-case, direct welded
- CE marked contacts
- Liquid filled versions

**APPLICATION**

- Pumps & motor controls
- Water treatment plants
- Hydraulic & pneumatics
- Chemical & petrochemicals
- Pharmaceutical industries
- Compressors & utilities

**REFERENCE**

- EN 837-1

**NOTE :** Gauge accuracy shall be CL 1.0. but switching accuracy shall be CL 5.0

**STANDARD SPECIFICATIONS**

Dial size	: DN100 / DN150
Range	: -1...0...1,600 bar
Mounting pattern	: Direct, Bottom connection
Process connection	: ½" NPT (M) / ½" BSP (M)
Ingress protection	: IP 65
Execution	: Dry
Switch	: 1NO; Make contact
Electrical termination	: 4 pin PG 13.5 connector

**STANDARD PARAMETERS**

Accuracy	: CL 1.0
Ambient Temperature	: -40...+65°C (without dampening liquid) : -20...+65°C (with dampening liquid)
Service Temperature	: 200°C max.
Pressure limits	: Steady pressure up to FS value : Fluctuating pressure up to 90% of FS value
Weld joints	: TIG argon arc welding

**MATERIAL OF CONSTRUCTION**

Sensing Element	: Bourdon Tube (<100 bar : C - type , >100 bar : Helical)
Case & Ring material	: AISI 304 SS (Bayonet type)
Bourdon tube & Shank	: AISI 316L SS (Shank welded directly to case)
Movement mechanism	: AISI 304 SS
Dial	: Aluminum, black graduation on white background
Pointer	: Fixed, aluminum, black powder coated
Gaskets, Blow off disc & filling plug	: Neoprene / NBR
Window	: Shatterproof safety glass

**MATERIAL OF CONSTRUCTION**

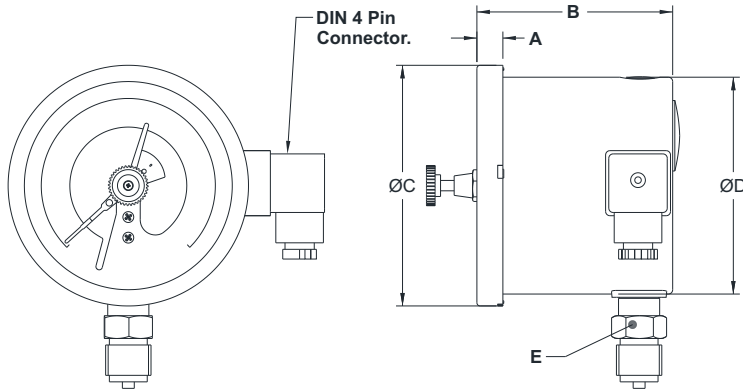
Window	: Shatterproof safety glass
Dampening liquid	: Dielectric oil
Gaskets, Blow off disc & filling plug	: Viton

**TEMPERATURE EFFECT**

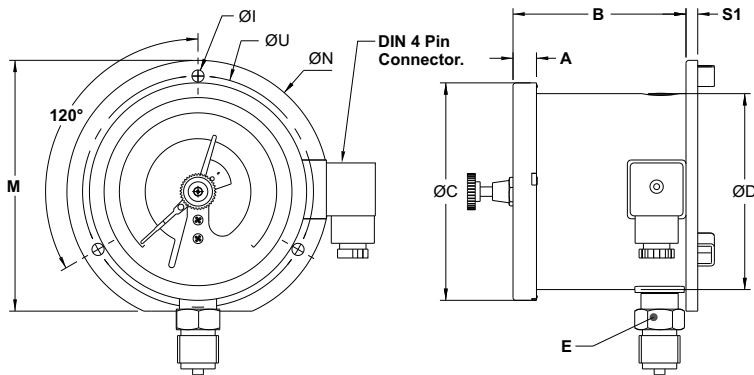
Please refer clause no 9.3 of EN 837-1

### DRAWING

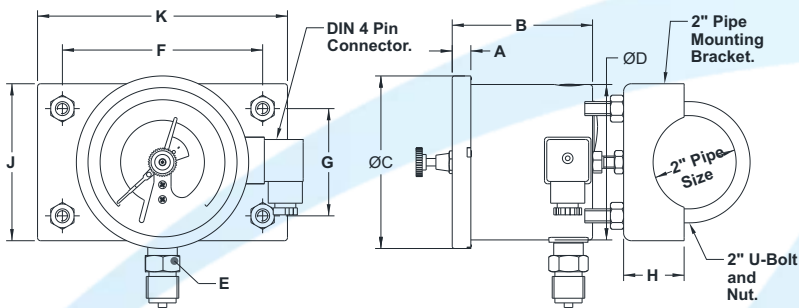
DIMENSIONAL DRAWING



Type - 1A		
DN	100	150
A	12	15
B	90	90
ØC	111	161
ØD	100	149
E	A/F 22	A/F 22
Weight (gm)	810	1210



Type - 1B		
DN	100	150
A	12	15
B	94	94
ØC	111	161
ØD	100	149
E	A/F 22	A/F 22
ØI	6	6
M	128	172.4
ØN	134	186
S1	6	6
ØU	118	168
Weight (gm)	920	1390

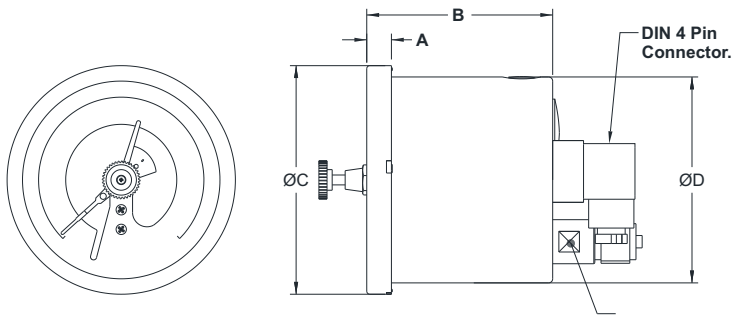


Type - 1C		
DN	100	150
A	12	15
B	90	90
ØC	111	161
ØD	100	149
E	A/F 22	A/F 22
F	129	129
G	69	69
H	39	39
J	101	101
K	161	161
Weight (gm)	1890	2280

All dimensions are in mm.

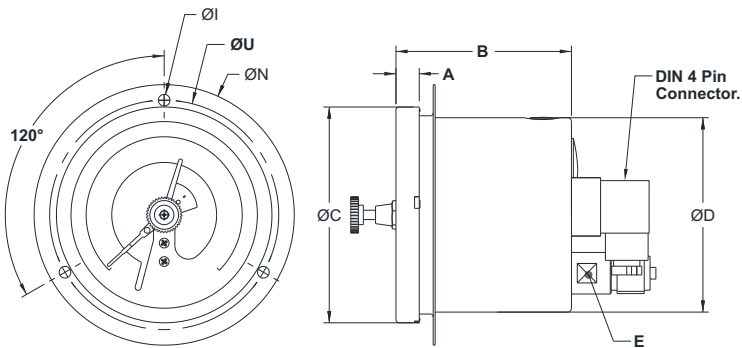
### DRAWING

DIMENSIONAL DRAWING



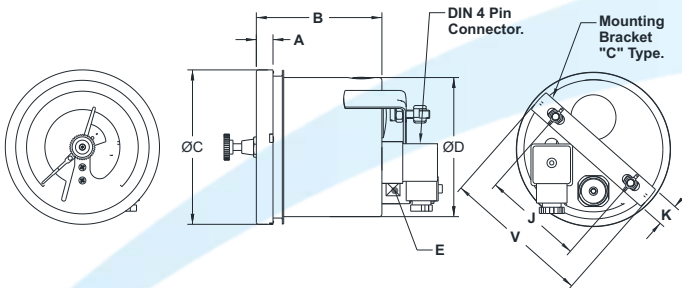
Type - 2E		
DN	100	150
A	12	15
B	90	90
ØC	111	161
ØD	100	149
E	A/F 17	A/F 17
Weight (gm)	820	1210

DIMENSIONAL DRAWING



Type - 2F		
DN	100	150
A	12	15
B	48	48
ØC	111	161
ØD	100	149
E	A/F 17	SQ.22
ØI	6	6
ØN	134	134
ØU	118	168
Weight (gm)	850	1280

DIMENSIONAL DRAWING



Type - 2G		
DN	100	150
A	12	15
B	90	90
ØC	111	161
ØD	100	149
E	A/F 17	A/F 17
J	72	106.5
K	16	16
V	108	158.5
Weight (gm)	830	1310

All dimensions are in mm.

## ORDERING CODE

PSW-98 **D** **XXX** **1A** **4NM** **IP2** **E1** **PRE-C** **ECD1** **XX**

1. DIAL SIZE	100 mm	<b>D</b>								
	150 mm	F								
2. RANGE	<b>Refer "Range Table"</b>		<b>XXX</b>							
3. MOUNTING PATTERN	Direct Bottom connection		<b>1A</b>							
	Wall/Surface/Projection mounting, Bottom connection		1B							
	2" Pipe/Yoke mounting, Bottom connection		1C							
	Lower, Back connection		2E							
	Panel/Front flange mounting, Lower Back connection		2F							
	Panel/bracket mounting, Lower Back connection		2G							
4. PROCESS CONNECTION	1/4" BSP (M)						2BM			
	1/4" NPT (M)						2NM			
	3/8" BSP (M)						3BM			
	1/2" BSP (M)						4BM			
	M20 X 1.5 mm (M)						4MM			
	1/2" NPT (M)						<b>4NM</b>			
	Other thread size and standards available on request. <sup>1</sup>									
5. INGRESS PROCESS	IP 65							<b>IP2</b>		
6. EXECUTION	Dry								<b>E1</b>	
	Dry but fillable, dielectric oil <sup>3</sup>								E6	
	Dampening liquid, dielectric oil <sup>3</sup>								E7	
7. SWITCH CATEGORY	Precision contacts									<b>PRE-C</b>
	ATEX/CE Approved contact									RT
8. ELECTRIC CONTACT <sup>2</sup>	Break contact (1NC)									<b>ECD 1</b>
	Make contact (1NO)									ECD 2
	2 x Break contact (2NC)									ECD 3
	2 x Make contact (2NO)									ECD 4
	1 Break + 1 Make (1NC+1NO)									ECD 5
	1 Make + 1 Break (1NO+1NC)									ECD 6
9. OTHER OPTIONS	Case & Ring in AISI 316 SS (1A)	AA	AISI 316 SS movement	FL	Material test certificate 3.1					SC
	Case & Ring in AISI 316 SS (1B)	AB	Dampened movement	FM	Material test certificate 2.2					SM
	Case & Ring in AISI 316 SS (1C)	AC	6 pin, M20x1.5mm connector	F6	Tested to NACE standards					SN
	Case & Ring in AISI 316 SS (2E)	AK	Earth terminal	F7	Certification for oxygen service					SO
	Case & Ring in AISI 316 SS (2F)	AL	Monel wetted parts	LN	SS tag plate, AISI 304 SS					WF
	Case & Ring in AISI 316 SS (2G)	AM	Rubber parts, Viton	QA	SS tag plate, AISI 316 SS					WG
	Dampening screw, Monel	DM	Vent plug, ON-OFF type	QW	Custom designed dial					WR
	Dampening screw, AISI 316 SS	DN	5 - point calibration certificate	SA	Dial tag marking					WT

Ordering Example : **PSW-98 D XXX 1A 4NM IP2 E1 PRE C ECD1 XX**

1. For other connections, please contact factory.

2. Economic contacts & Precision contact are available in Electric contact types ECS1...ECS6 & ECD1...ECD6 respectively.

3. Rubber parts shall be in Viton.