

ESW

Economical SS (SS 304) Pressure Gauge
Bourdon type (Dry Version)



Bottom Connection

Special Features

- Stainless steel case & measuring system
- Socket directly welded to case
- Dry version Weather Proof
- Standard followed EN 837-1

Application

- Pumps
- Diesel engines & Refrigerating plants
- Chemical & Petrochemical industries
- Environments & gaseous or liquid media that will not obstruct the pressure system.
- Hydro-cleaning machines
- Presses
- Engine compressors

Specifications

Standard Version : 100 mm & 150 mm

Accuracy	:	±1.6% of F. S.
Ambient temperature	:	- 25°C to + 65°C
Process temperature	:	Max 300°C
Operating pressure range	:	75% of Scale Value
Over pressure limit	:	< 100 bar : 125% of Max. Scale Value
	:	> 100 to < 600 bar : 115% of Max. Scale Value
	:	> 600 to < 1600 bar : 110% of Max. Scale Value

Case & Bezel	:	AISI 304 SS (Snap Action Bayonet Bezel)
Bourdon	:	AISI 316L SS
Socket	:	AISI 304 SS (Directly Welded to Case)
Movement	:	Brass Plated (Optional SS 304)
Joints	:	Tig Argon Arc Welding

Protection	:	IP 68
Dial	:	Aluminium, black graduation on white background
Pointer	:	Aluminium, black coloured
Window	:	Sheet Glass
Gasket & Filling Plug	:	Neoprene

Dry But Fillable Version (Option DFG)

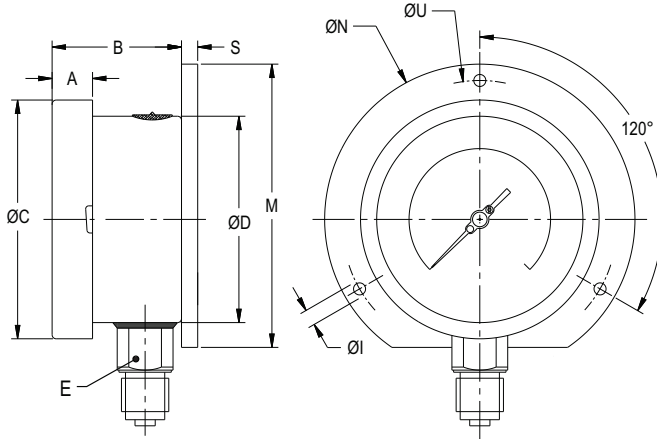
Fillable Dampening Liquid	:	Glycerine 99.7% (Option - DFG)
Ambient Temperature	:	Maximum 65°C
Process Temperature	:	Maximum 100°C
Window	:	Toughened Glass
Other Features	:	Refer Specification of Standard Version

Temperature effect:

The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement :- Formula : $\pm 0.04 \times (t_2 - t_1) \%$ of F. S. where t_1 = reference temperature (+20°C) and t_2 = ambient temperature in °C.

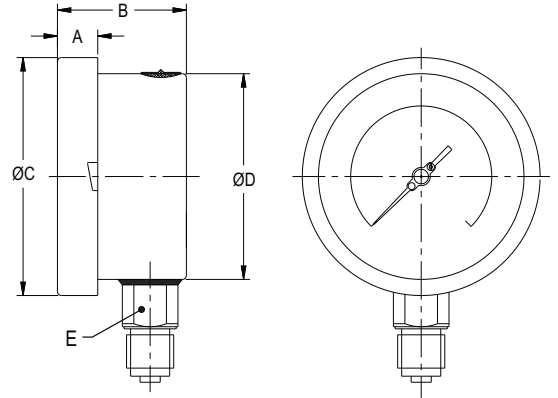
Dimensions - Standard Version

TYPE 1



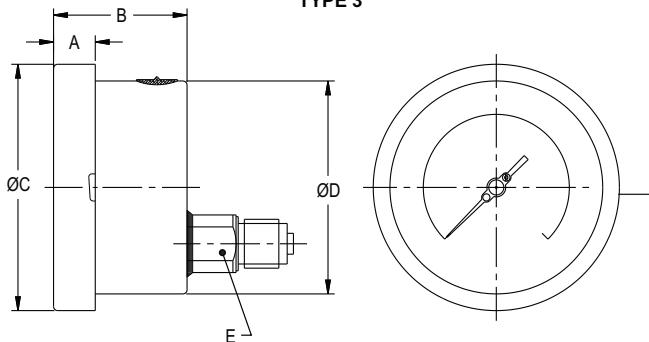
NS	A	B	ØC	ØD	E	M	S	ØI	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	6.5	38	111	100	17	128	5	6	134	118	450.0	650.00
150	15	43	161	149	17	174.5	5	6	186	168	850.0	1250.00

TYPE 2



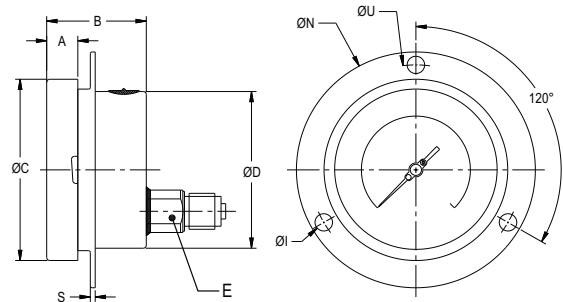
NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	6.5	35	111	100	17	430.00	630.00
150	15	40	161	149	17	800.00	1400.00

TYPE 3



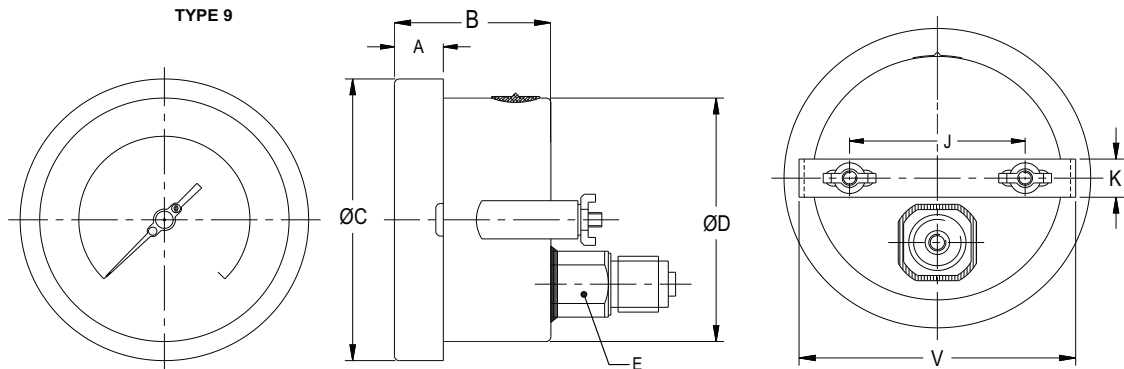
NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	35	111	100	17	430.00	630.00
150	15	40	161	149	17	800.00	1200.00

TYPE 5



NS	A	B	ØC	ØD	E	S	ØI	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	35	111	100	17	1	6	134	118	450.00	650.00
150	15	40	161	149	17	1	6	186	168	850.00	1250.00

TYPE 9



NS	A	B	ØC	ØD	E	J	K	V	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	35	111	100	17	62	16	108	450.00	650.00
150	15	40	161	149	17	100	16	166	850.00	1250.00

Range Table

Note : We offer National / International Scales like kPa, MPa, bar, psi, kg/cm² & Dual Scale like kPa with psi, kPa with bar, bar with psi or Equivalent scales as per the requirement can be provided on request. Following are the example tables for kg/cm² & psi scales.

Pressure

Single Scale (kg/cm² or bar)

0/1	0/6	0/25	0/160
0/1.6	0/7	0/40	0/250
0/2.5	0/10	0/60	0/400
0/4	0/16	0/100	0/600

Dual Scale (psi with kg/cm²)

psi	kg/cm ²	psi	kg/cm ²	psi	kg/cm ²
0/15	0/1	0/400	0/28	0/4000	0/280
0/30	0/2	0/500	0/35	0/5000	0/350
0/60	0/4	0/600	0/40	0/6000	0/420
0/100	0/7	0/1000	0/70	0/10000	0/700
0/150	0/10	0/1500	0/100		
0/230	0/16	0/2300	0/160		
0/300	0/20	0/3000	0/200		

Vacuum & Compound

Dual Scale (inHg with psi & mmHg with kg/cm²)

inHg with psi	mmHg with kg/cm ²	inHg with psi	mmHg with kg/cm ²	inHg with psi	mmHg with kg/cm ²
- 30/0	- 760/0	- 30/60	- 760/4	- 30/200	- 760/14
- 30/15	- 760/1	- 30/100	- 760/7	- 30/300	- 760/21
- 30/30	- 760/2	- 30/150	- 760/10	- 30/350	- 760/25

Single Scale (kg/cm²)

- 1/0	- 1/1.5	- 1/5	- 1/15
- 1/0.6	- 1/3	- 1/9	- 1/24

Freon (with temperature scale)

Ammonia (with temperature scale)

Note : For temperature scales, please provide refrigerant name.

Range (psi)		(kg/cm ²)		(psi)	
-30 inHg - 150	0-300	-1to12.5		-30 inHg - 150	
-30 inHg - 300	0-500	-1to16		-30 inHg - 300	
		-1to25		0 - 300	

Accessories (refer datasheet for complete specifications)

CT Cooling tower	GS Over load protector (gauge saver)**	SN Snubber
GC Gauge cock	* Needle valve	SP Siphon

* Refer catalogue for Valves & Manifolds.

** For Pressure Ranges.

Note : For Any Non Standard or Special Scale Marking Consult Factory

How To Order Example

Basic Model			ESW
Code			
Nominal Size	40	60	XX
	100 mm	150 mm	
Type of Mounting			
1	Wall / surface / projection mounting with bottom entry		X or XX
2	Direct bottom entry		
3	Direct lower back entry		
5	Lower back entry with front flange		
9	Lower back entry with mounting bracket		
15	Lower back entry with Front Flange & mounting bracket Both (Type 5 + Type 9 Both Combine)		
7	Direct bottom entry with mounting bracket		
* MOC of bracket and 'U' clamp will be steel (painted). Ask factory for drawings, if required.			
Gauge Connection			
	Nominal Size >	40	60
2BM	¼" BSP (M)	✓	✓
2NM	¼" NPT (M)	✓	✓
2TM	¼" BSPT (M)	✓	✓
3BM	3/8" BSP (M) Standard	✓	✓
3NM	3/8" NPT (M)	✓	✓
3TM	3/8" BSPT (M)	✓	✓
Note : Connections Above 3/8" Should Be Provided Through Adaptor if Required With Extra Cost..			
Range			0/10 kg/cm ²
Refer range table (Standard Ranges Should be in Dual Scale Kg/cm ² & PSI)			
Optional Extras			
MRP Maximum reading pointer with plexi glass	MTC Material test certificates***	FRE Freon range (with temperature scale)	XXX
OXS Oxygen service (for dry version)	TRC Calibration certificate traceable to National/International standards	AMO Ammonia range (with temperature scale)	
CDD Custom designed dial		DFG Dry But Fillable Version (Glycerin)	
LGF Damping Liquid Glycerin Filled		DFS Dry But Fillable Version (Silicon)	
Ordering Example: ESW - XX - X or XX - XXX - 0/10 kg/cm² - XXX			

Note : Specifications and dimensions given in this product catalogue represents the state of engineering at the time of printing.
Modifications may take place and materials specified may be replaced by others without prior notice.