

# NESS

## POLYPROPYLENE CASE PRESSURE GAUGE

BOURDON TUBE TYPE

# Model - PP

### Special Features :

- Accuracy  $\pm 0.5$  % of F.S
- Wetted parts AISI 316L SS
- Solid Front design features baffle wall interposed between the sensing system, the window and a pressure relieving back for increases safety
- Standard followed ASME - B 40.100

### Applications :

- Suitable for High Pressure Gas
- Corrosive / Hazardous environment that will not obstruct the Pressure System.



### Specifications

#### STANDARD VERSION : 4 1/2"

Accuracy	: $\pm 0.5$ % of F.S. (As per ASME B40.100)
Ambient temperature	: -25°C to +65°C
Process Temperature	: Max. 150°C
Operating pressure	: 75% of the Scale Value
Over pressure limit	: 125% of Max. Scale Value for Pressure Ranges up to 100 kg/cm <sup>2</sup>
	: 115% of Max. Scale Value for Pressure Ranges from 100 to 600 kg/cm <sup>2</sup>
	: 110% of Max. Scale Value for Pressure Ranges from 600 to 1600 kg/cm <sup>2</sup>

Case	: Fiber Glass Reinforced Polypropylene
Bourdon	: AISI 316L SS
Socket	: AISI 316L SS
Movement	: AISI 304 SS
Joints	: Tig Argon Arc Welding

Protection	: IP 65
Dial	: Aluminium, black graduation on white background
Pointer	: Aluminium, Black coloured, Micrometer Zero Adjustable
Window	: Safety Glass
Blow off Disc	: Fiber Glass Reinforced Polypropylene
Gasket	: Neoprene

#### GLYCERINE FILLED VERSION (OPTION GF)

Accuracy	: $\pm 1.0$ % of F.S.
Ambient temperature	: Maximum 65°C
Process Temperature	: Maximum 65°C
Protection	: IP 65
Dampening Liquids	: Glycerine 98% (others available as option)
Other Features	: Refer Specification of Standard Version

**Temperature effect:**

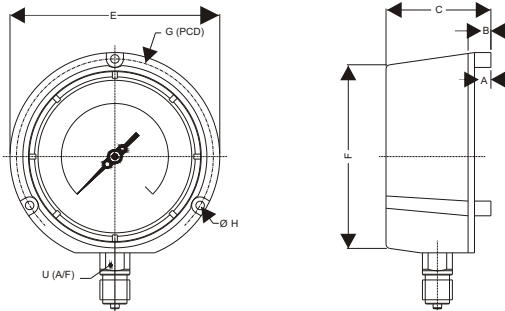
The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement :- Formula :  $\pm 0.04 \times (t_2 - t_1) \% \text{ of F. S.}$  where  $t_1$  = reference temperature (+20°C) and  $t_2$  = ambient temperature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

**DIMENSIONS :- FOR STANDARD MODEL**

**TYPE 14    TYPE 21    TYPE 22**

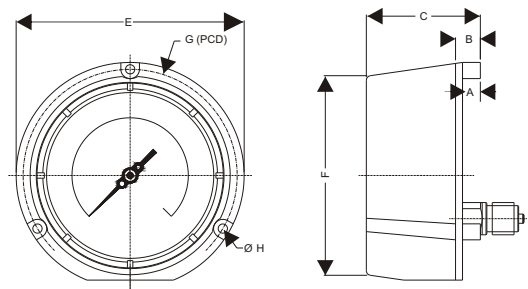
DRAWING OF MODEL (TYPE WISE)

**TYPE 14 - WALL / SURFACE WITH BOTTOM ENTRY**



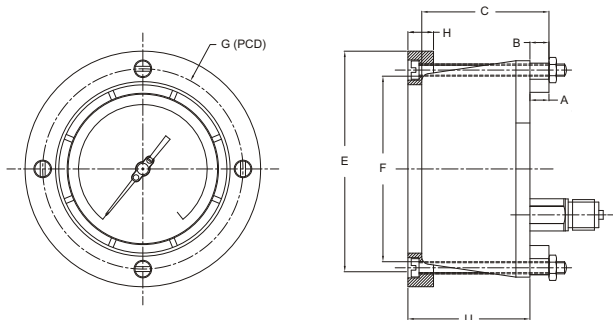
Size	A	B	C	E	F	G	ØH	U
4½"	12.5	24.5	73.5	148	130	137.5	6	22

**TYPE 21 - DIRECT LOWER BACK ENTRY**



Size	A	B	C	E	F	G	ØH	U
4½"	12.5	24.5	73.5	148	130	137.5	6	22

**TYPE 22 - DIRECT LOWER BACK ENTRY WITH FRONT FLANGE**



Size	A	B	C	E	F	G	ØH	U
4½"	12.5	24.5	73.5	148	130	137.5	6	22

Notes: • Drawings are not to Scale. • All Dimensions are in mm.

**SELECTION OF MODEL**

**(1) MODEL CODE**

**(2) DIAL SIZE**

Dial Size	Code
4½"	4½"

**(3) MOUNTING TYPE**

Mounting Type	Code
WALL / SURFACE / PROJECTION MOUNTING WITH BOTTOM ENTRY	14
DIRECT LOWER BACK ENTRY (Never Fillable)	21
DIRECT LOWER BACK ENTRY WITH FRONT FLANGE	22

**(4) GAUGE CONNECTION SIZE**

1/4" NPT (M)	2NM	3/8" BSP (M)	3BM
1/2" NPT (M) (STD)	4NM	1/2" BSP (M) (STD)	4BM

Note :- OTHER OPTIONS WILL BE PROVIDED ON REQUEST. CONSULT FACTORY FOR MORE DETAILS

PP

4½"

14

4NM

# SELECTION OF MODEL

## (5) RANGE

REFER TO THE FOLLOWING TABLE

Kg/cm <sup>2</sup>	Kg/cm <sup>2</sup>	Kg/cm <sup>2</sup>	Kg/cm <sup>2</sup>
0 - 0.6 kg/cm <sup>2</sup>	0 - 25 kg/cm <sup>2</sup>	0 - 350 kg/cm <sup>2</sup>	-1 - 9 kg/cm <sup>2</sup>
0 - 1 kg/cm <sup>2</sup>	0 - 28 kg/cm <sup>2</sup>	0 - 400 kg/cm <sup>2</sup>	-1 - 15 kg/cm <sup>2</sup>
0 - 1.6 kg/cm <sup>2</sup>	0 - 35 kg/cm <sup>2</sup>	0 - 600 kg/cm <sup>2</sup>	-1 - 20 kg/cm <sup>2</sup>
0 - 2 kg/cm <sup>2</sup>	0 - 40 kg/cm <sup>2</sup>	0 - 700 kg/cm <sup>2</sup>	-1 -24 kg/cm <sup>2</sup>
0 - 2.5 kg/cm <sup>2</sup>	0 - 60 kg/cm <sup>2</sup>	0 - 1000 kg/cm <sup>2</sup>	
0 - 4 kg/cm <sup>2</sup>	0 - 70 kg/cm <sup>2</sup>	0 - 1600 kg/cm <sup>2</sup>	
0 - 6 kg/cm <sup>2</sup>	0 - 100 kg/cm <sup>2</sup>	-1 - 0 kg/cm <sup>2</sup>	
0 - 7 kg/cm <sup>2</sup>	0 - 160 kg/cm <sup>2</sup>	-1 - 1 kg/cm <sup>2</sup>	
0 - 10 kg/cm <sup>2</sup>	0 - 200 kg/cm <sup>2</sup>	-1 - 2 kg/cm <sup>2</sup>	
0 - 16 kg/cm <sup>2</sup>	0 - 250 kg/cm <sup>2</sup>	-1 - 3 kg/cm <sup>2</sup>	
0 - 21 kg/cm <sup>2</sup>	0 - 280 kg/cm <sup>2</sup>	-1 - 6 kg/cm <sup>2</sup>	

(Other Pressure UNIT like Bar, kPa, MPa, psi, kg/cm<sup>2</sup> or Dual Scale like kg/cm<sup>2</sup> with psi, kPa with bar, bar with psi ,etc will be provided on request)

## (6) OPTIONS

<b>DC</b> CUSTOM DESIGNED DIAL	<b>DB</b> INTEGRAL DAMPENING SCREW (316 SS)
<b>TS</b> SS TAG PLATE	<b>CC</b> FIVE POINT CALIBRATION CERTIFICATE
<b>GF</b> DAMPENING LIQUID GLYCERINE FILLED	<b>HT</b> HELIUM LEAK TEST
<b>OS</b> OXYGEN SERVICE	<b>MC</b> MATERIAL TEST CERTIFICATE

Example	1	2	3	4	5	6
<b>SELECTION OF MODEL</b>	PP	4½"	14	4NM	0-10 kg/cm <sup>2</sup>	Option XX

0-10  
Kg/cm<sup>2</sup>

XX

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