

## High Case Type Pressure Gauge



### Special Features

- CE Approved electrical contacts
- Stainless steel case & measuring system
- Filled version available
- Standard followed in general EN 837-1

### Application

- To control the electrical operation of compressors
- Pumps
- Motors
- Presses
- Hydraulic
- Pneumatic equipments
- Chemicals
- Petrochemical plants

### Specifications

Standard Version : 100 mm & 150 mm

Accuracy	: $\pm 1.0\%$ of F.S.
Ambient temperature	: - 20°C to + 65°C
Process temperature	: Max. 100°C
Electric wiring	: DIN Connector or 1 Meter Cable With Cable Gland
Contact setting	: Over on arc of 270° through a knob placed on front of lens
Operating pressure range	: 75% of Scale Value
Over pressure limit	: Not Suitable
Case & Bezel	: AISI 304 SS (Bayonet Type)
Bourdon	: AISI 316L SS
Socket	: AISI 316L SS (Directly welded to case)
Movement	: AISI 304 SS
Joints	: Tig Argon Arc Welding
Protection	: IP 68
Dial	: Aluminum, black graduation on white background
Pointer	: Aluminum, black coloured micrometer zero adjustable
Window	: Plexi Glass
Electrical Contacts*	: Refer How to Order
Blow off Disc	: Neoprene
Gasket & Filling Plug	: Neoprene

\* Please specify contact set points while ordering.

Filled version - dielectric oil (option - DOF)

Accuracy	: $\pm 1.6\%$ of F. S.
Ambient Temperature	: Maximum 65°C
Process Temperature	: +15°C / 65°C
Window	: Plexi Glass
Blow off Disc*	: NBR
Gasket & Filling Plug*	: NBR
Dampening Liquids	: Dielectric Oil
Other Features	: Refer Specification of Standard Version

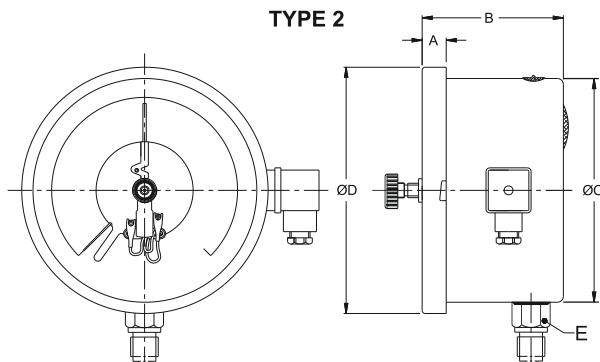
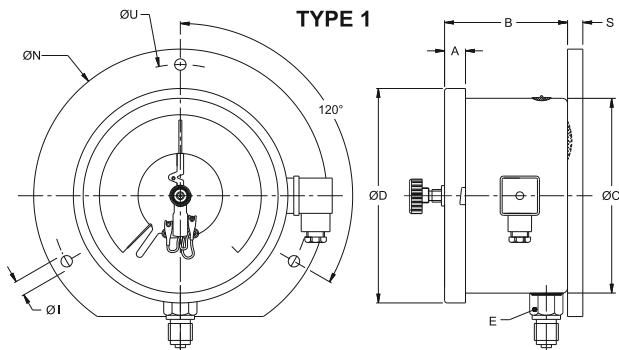
### Temperature effect:

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.

Note : The addition of mechanical electric contacts affects the accuracy of instruments such that 1% becomes 1.5%, 1.6% becomes 2.4% etc. (Add the 50% of accuracy; If the contact is of the magnetically assisted type, this value can't be added within the  $\pm 5\%$  of setting point.)

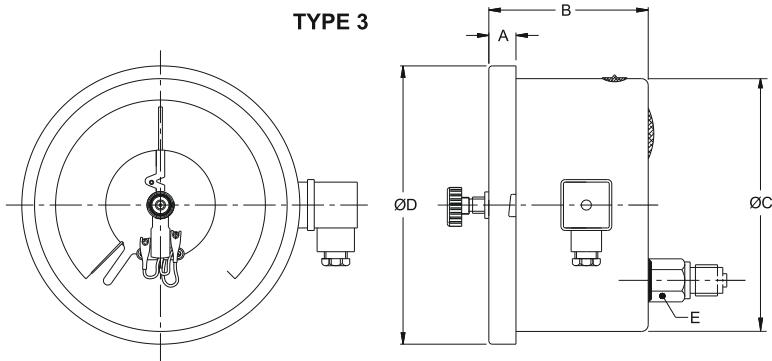
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## Dimensions - standard version



NS	A	B	ØC	ØD	E	ØI	ØN	ØU	S	Weight in gram (With Box)
100	12.5	90	100	111	A/F 22	6	134	118	6	920.0
150	15.5	96	149	161	A/F 22	6	186	168	6	1600.0

NS	A	B	ØC	ØD	E	Weight in gram (With Box)
100	12.5	90	100	111	A/F 22	840.0
150	15.5	91	149	161	A/F 22	1450



NS	A	B	ØC	ØD	E	Weight in gram (With Box)
100	12.5	90	100	111	A/F 22	820.0
150	15.5	91	149	161	A/F 22	1450.0

Notes : • Drawings are not to scale.  
 • All Dimensions are in mm.  
 • NS = Nominal Size.

## Range Table

Note : We offer Pressure, Vacuum and Compound ranges in Scales like kPa, MPa, bar, psi, kg/cm<sup>2</sup> & Dual Scale like kPa with psi, kPa with bar, bar with psi or scales as per the requirement can be provided on request. Following are the example tables for kg/cm<sup>2</sup> & psi scales

### Pressure & Compound

Pressure - single scale (kg/cm <sup>2</sup> or bar)				Compound - single scale (kg/cm <sup>2</sup> or bar)			
0/1.6	0/10	0/60	0/400				
0/2.5	0/16	0/100	0/600				-1/5
0/4	0/25	0/160	0/1000				-1/9
0/6	0/40	0/250	0/1600				-1/15

### Dual scale (psi with kg/cm<sup>2</sup>)

psi	kg/cm <sup>2</sup>	psi	kg/cm <sup>2</sup>	psi	kg/cm <sup>2</sup>	psi	kg/cm <sup>2</sup>
0/25	0/1.6	0/230	0/16	0/1500	0/100	0/10000	0/700
0/35	0/2.5	0/300	0/20	0/2300	0/160	0/15000	0/1000
0/60	0/4	0/400	0/28	0/3000	0/200	0/23000	0/1600
0/100	0/7	0/600	0/40	0/4000	0/280		
0/150	0/10	0/1000	0/70	0/6000	0/400		

### Accessories (Refer Datasheet for complete specifications)

**CT** Cooling tower  
**GC** Gauge cock

**GS** Over load protector (gauge saver)\*\*  
 \* Needle valve

**SN** Snubber  
**SP** Siphon

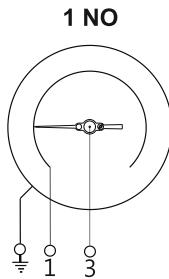
\* Refer catalogue for Valves & Manifolds

\*\* For Pressure Ranges.

## Electrical Contact Wiring Information

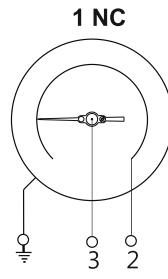
### Wiring diagrams for electric contacts

#### Single Contact



3 —○—○— 1

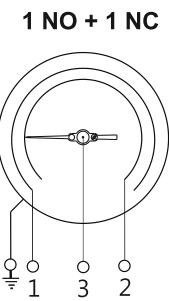
Opening



3 —○—○— 2

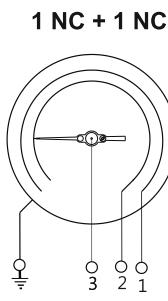
Closing

#### Double contact



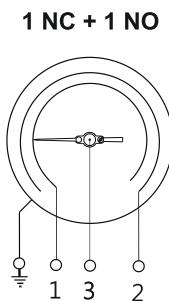
3 —○—○— 1

Opening 1  
Closing 2



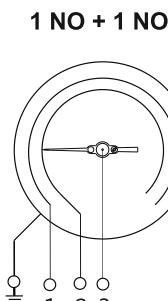
3 —○—○— 1

Closing 1  
Closing 2



3 —○—○— 2

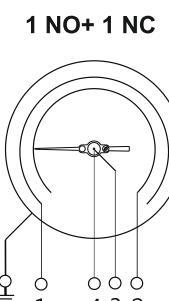
Closing 2  
Opening 1



3 —○—○— 1

Opening 1  
Opening 2

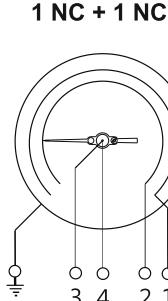
#### Independent / Inductive double contact



3 —○—○— 2

4 —○—○— 1

Opening 1  
Closing 2



3 —○—○— 2

4 —○—○— 1

Closing 1  
Closing 2



# High Case Type Pressure Gauge

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## How To Order

## Example

<b>Basic Model</b>			BEC			
<b>Code</b>						
<b>Nominal Size</b>	40	60				
	100 mm	150 mm	XX			
<b>Type of Mounting</b>						
1	Wall, surface, projection mounting with bottom entry	5	Flush panel back entry with front flange			
2	Direct bottom entry	9	Back entry with mounting bracket			
3	Direct lower back entry		X			
<b>Gauge Connection</b>						
2BM	1/4" BSP (M)	2NM	1/4" NPT (M)	4TM	1/2" BSPT (M)	
3BM	3/8" BSP (M) Standard	3NM	3/8" NPT (M)	4MM	M20 x 1.5 (M)	XXX
4BM	1/2" BSP (M)	4NM	1/2" NPT (M)			
<b>Range</b>			0/10 kg/cm <sup>2</sup>			
Refer range table						
<b>Electric Contacts (CE Approved)</b>						
(For dry version, with ingress protection up to IP 55 & poly carbonate dome as a window)						
<b>A) Single insulated magnetic snap action type</b> (230 V AC, 1 Amp.)(48 V DC, 0.5 Amp.) (Available for 1 kg/cm <sup>2</sup> & above)		<b>B) Inductive type (220 V AC, 0.4 Amp.)</b> (Available for 1000 mm WC & above)				
M1	Single; normally closed (1 NC)	D1	Single; normally open (1 NO)			
M2	Double; normally closed + normally open (1 NC + 1 NO)	D2	Single; normally closed (1 NC)	XX		
M3	Single; normally open (1 NO)	D3	Double; normally closed + normally open (1 NC + 1 NO)			
M4	Double; normally open + normally closed (1 NO + 1 NC)	D4	Double; normally open (both NO)			
M5	Double; normally closed (both NC)	D5	Double; normally closed (both NC)			
M6	Double; normally open (both NO)	D6	Double; normally open + normally closed (1 NO + 1 NC)			
<b>Options</b>						
<b>CBS</b> AISI 316 SS case & bezel	<b>CNS</b> Conformity as per NACE Standard					
<b>MBS</b> Monel bourdon & socket (Monel version)**	<b>TFC</b> Calibration certificate traceable to National/International standards			XXX		
<b>CBS</b> Case & Bezel SS316	<b>MTC</b> Material test certificates#					
<b>CDD</b> Custom designed dial	<b>DOF</b> Dielectric oil filled					
<b>TND</b> Dial tag marking						
<b>STP</b> SS tag plate						

\* Consult factory for minimum order quantity & delivery.

\*\*Integral dampening screw will be in monel if ordered. Refer option FL. ## Consult factory for dial design approval.

\*\*\* Material test certificates will be provided for wetted parts only with chemical composition testing. For others, Please consult factory.

**Ordering Example: BEC - XX - X - XXX - 0/10 kg/cm<sup>2</sup> - XX - XXX**

For other optional items, please contact factory for delivery and minimum quantity of order.

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.