

ALL STAINLESS STEEL PRESSURE GAUGES

111 series

APPLICATIONS

Used with all liquid and gas process media, provided that these do not corrode stainless steel, do not crystallize and are not highly viscous. The glycerin / silicon oil filled type is especially used for measuring points subject to vibration and highly dynamic pressure load. Particularly used in chemical, petrochemical, food industry, biochemistry and any rush industries.






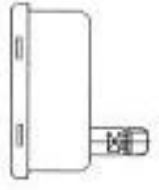
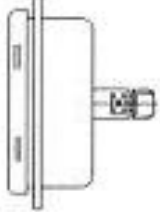
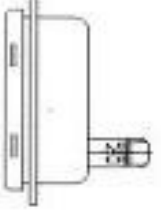
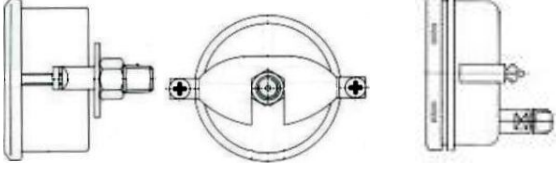
SPECIFICATIONS

Dial diameter Ø	1½" (40mm) ; 2" (50mm) ; 2½" (63mm) ; 3" (75mm) ; 4" (100mm) ; 6" (150mm)
Case	Stainless steel 304, IP65 Crimp bezel for dial Ø1½" ~ Ø4" ; Bayonet bezel for dial Ø2½" ~ Ø6"
Lens	Acrylic or glass for dial Ø1½" ~ Ø4" ; Safety glass for dial Ø4" and Ø6"
Dial	Aluminum, black and red markings on white background, dial arc 270°
Measuring principle	Bourdon Tube, stainless steel 316 C form tube for $\leq 70 \text{ kg/cm}^2$; Helical form tube for $> 70 \text{ kg/cm}^2$
Movement	Stainless steel
Pointer	Aluminum, black, adjustable pointer available for dial Ø4" and Ø6"
Connection	Male thread 1/8", 1/4", 3/8", 1/2" PT(BSPT) / NPT / PF(BSP), stainless steel 316
Filling	Without (dry) ; glycerin filled ; silicon oil filled
Accuracy	$\pm 2\%$ F.S. for Ø1½" & Ø2" ; $\pm 1.5\%$ F.S. for Ø2½" & Ø3" ; $\pm 1\%$ F.S. for Ø4" & Ø6"
Temperature limits	Dry: medium +200°C ; ambient -20 to +60°C Glycerin filled: medium +60°C ; ambient +10 to +60°C Silicon oil filled: medium +100°C ; ambient -45 to +60°C < Silicon oil filled type can be for medium +200°C only if the case and connection are welded together (argon-arc welding), available for Ø2½" & Ø4" & Ø6". >
Ranges	positive 0 / 1 ~ 0 / 1000 kg/cm ² negative 0 / -76 cmHg (relative vacuum) compound -76cmHg / 0 / 1 ~ -76cmHg / 0 / 20 kg/cm ² < other units available, e.g. psi, bar, MPa...etc. >

OPTIONS

- Safety glass lens for dial Ø2-1/2" & Ø3"
- Blow-out disk by back for dial Ø4"
- Special male or female thread connections
- Cleanness for oxygen, acetylene, hydrogen...etc. dangerous media service
- Restrictor on connection to alleviate pressure pulsation
- Device of red pointer which can leave behind on max. pressure
- Device of diaphragm, electrical contacts or accessories

MOUNTING TYPES AND DIAL SIZES

<p>TYPE B</p>  <p>Dial Ø1½", 2", 2½", 3", 4", 6" Direct mounting Bottom connection without flange</p>	<p>TYPE W</p>  <p>Dial Ø2½", 3", 4", 6" Surface mounting Bottom connection with back flange (Wall mounting)</p>	<p>TYPE D</p>  <p>Dial Ø1½", 2", 2½", 3", 4", 6" Direct mounting Centric back connection</p>	<p>TYPE DE</p>  <p>Dial Ø2½", 4", 6" Direct mounting Eccentric back connection without flange</p>
<p>TYPE P</p>  <p>Dial Ø2", 2½", 3", 4", 6" Flush panel mounting Centric back connection</p>	<p>TYPE PE</p>  <p>Dial Ø2½", 4", 6" Flush panel mounting Eccentric back connection with front flange</p>	<p>TYPE U</p>  <p>Dial Ø1½", 2", 2½" Dial Ø4"</p> <p>Flush panel mounting Centric back connection with U-clamp</p>	

STANDARD CONNECTION

Dial diameter	Thread size	Dial diameter	Thread size
Ø 1½"	1/8"	Ø 3"	3/8"
Ø 2"	1/4"	Ø 4"	1/2"
Ø 2½"	1/4"	Ø 6"	1/2"
Thread specification	PT (=BSPT) ; NPT ; PF (=BSP) ; others		
Custom-made connection available upon request			

HOW TO ORDER

(Please specify additionally the special custom-made specifications or option items)

Example: 111 L B 40 4 P - 0/10 kg/cm²

Filling	Mounting Type	Dial Size	Thread Size	Range	Unit
L glycerin	B bottom	15 Ø 1½"	1 1/8"	Thread Spec.	P PT (BSPT) N NPT F PF (BSP) O others
S silicon oil	W surface (wall)	20 Ø 2"	2 1/4"		
N use no oil	D centric back	25 Ø 2½"	3 3/8"		
O without filling	DE eccentric back	30 Ø 3"	4 1/2"		
	P panel-centric back	40 Ø 4"	0 others		
	PE panel-eccentric back	60 Ø 6"			
	U panel-U clamp				