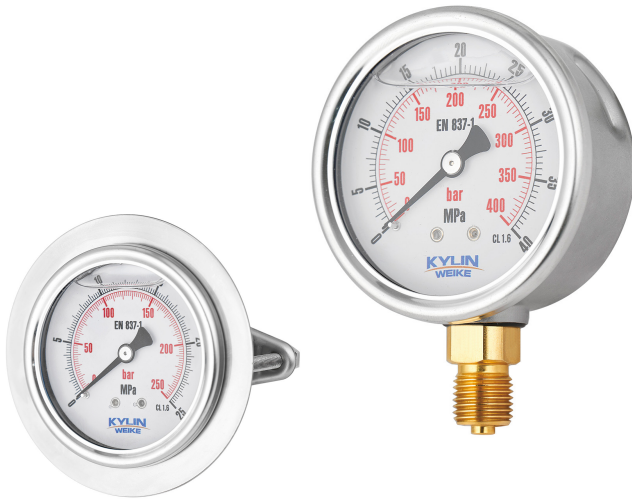


## Shock-resistant Bourdon tube pressure gauge, stainless steel case Model: P180



Series P180, the housing is made of stainless steel, and the wetted part is made of copper alloy. Since the gauge is filled with liquid and the pressure element can be effectively buffered, this type of instrument is especially suitable for measuring at high dynamic load points, such as frequent pressure fluctuations or vibrations, and can be widely used in industry.



### Applications

- Hydraulic system
- Injection molding machine
- Suitable for process flows with higher requirements for shock resistance
- Construction equipment
- Compressor
- Irrigation equipment

### Features

- Corrosion-resistant stainless steel shell
- Exhaust valve with ventilation function
- Resistant to vibration and shock
- Multiple panel mounting flanges are available for selection

## Specifications

### Dial size(mm)

63,100mm

### Accuracy class

- 63mm:  $\pm 1.6\%$  full scale EN837-1
- 100mm:  $\pm 1\%$  full scale EN837-1

### Scale Range

0...100MPa

Or all other equivalent vacuum or compound pressure and vacuum ranges

### Pressure limitation

Steady: 3/4X full scale range  
Fluctuation: 2/3X full scale range  
Short Time: 1.0X full scale range

### Permissible temperature

Ambient: -40 ... +60°C, dry  
-7 ... +60°C, glycerin  
-40 ... +60°C, silicone oil  
Medium: -40 ... +60°C, dry  
-20 ... +60°C, glycerin  
-40 ... +60°C, silicone oil

### Storage temperature

-40 ... +60°C

### Temperature effect

When deviating from the reference conditions of the measurement system:

$\leq \pm 0.04\%$  of full scale per °C (reference temperature: 20°C)  
 $\leq \pm 0.4\%$  of full scale per °F (reference temperature: 68°F)



## Model: P180

### Specifications

#### Process connection

Copper alloy  
Radial connection or axial connection

#### Pointer

Aluminum alloy,black

#### Pressure element

Copper alloy  
C-type or helical type

#### Case

Stainless steel, with an exhaust valve at 12 o'clock on the housing  
(When the measuring range is  $\leq 16$  bar, it is equipped with an adjustable valve for venting to atmospheric pressure)

#### Movement

Copper alloy

#### Window

Polycarbonate

#### Dial

Aluminum, white background, black and red printing

#### Case filling liquid

- Dry
- Glycerin
- Silicone oil

#### Ingress protection

IP 65,comply with EN 60529 / IEC 529 standard

#### Options

- Special welding materials for coping with extreme medium temperatures
- Rear flange (radial)
- Front flange (axial)
- U-shaped clip for housing
- U-shaped clip for joint
- Front flange and U-shaped clip for joint (axial)
- Non-porous flat flange and joint U-shaped clamp (axial)
- Front flange and U-shaped clip for housing (axial)
- Non-porous flat flange and housing U-shaped clamp (axial)
- " "

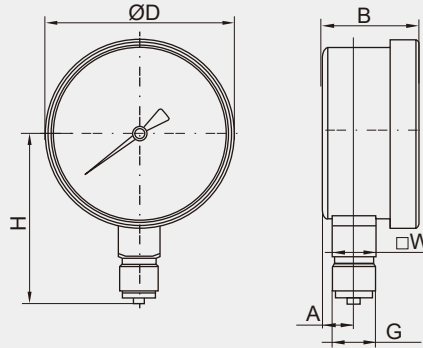


## Model: P180

### Dimensions in mm

#### Bottom mount(radial)

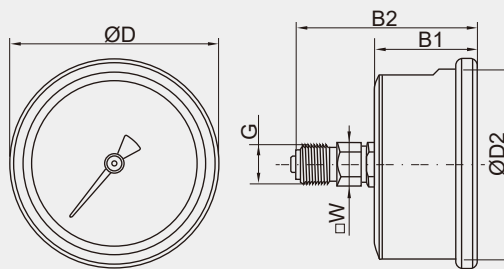
Dial size: 63 and 100



Dial size	Dimensions in mm						Weight(kg)	
	A	B±0.5	D	G	H±1	SW	Dry gauge	liquid gauge
63	11	31	68.5	G1/4B	58.5	14	0.16	0.24
100	15	45	107.5	G1/2B	93	22	0.49	0.79

#### Back mount(axial)

Dial size: 63 and 100



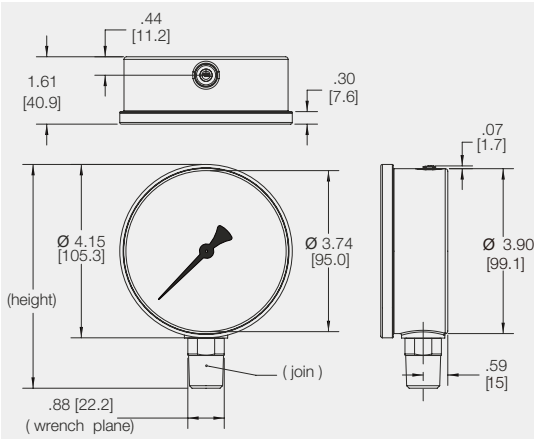
Dial size	Dimensions in mm						Weight(kg)	
	B1±0.5	D	G	B2±1	D2	SW	Dry gauge	liquid gauge
63	11	68	G1/4B	58	85	14	0.15	0.23
100	15	107.5	G1/2B	85	131	22	0.54	0.84



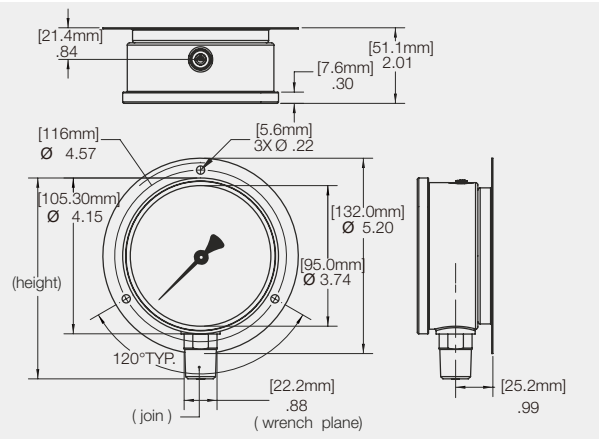
## Model: P180

### Dimensions in mm

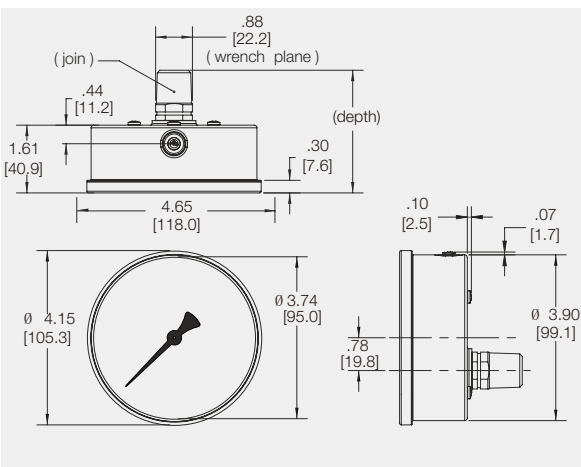
#### 100mm Bottom mount(radial)



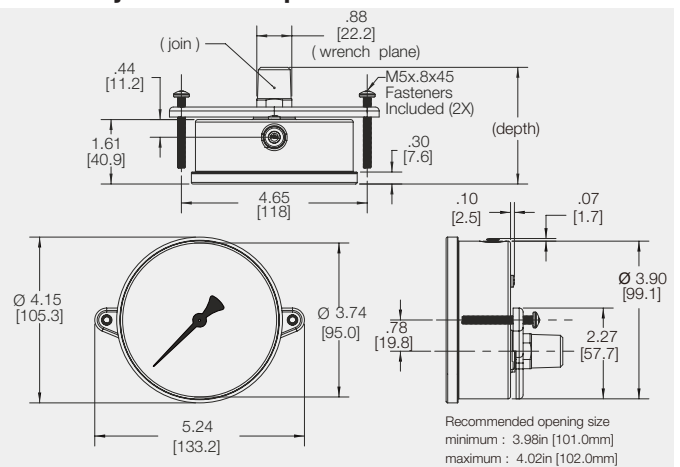
#### 100mm Bottom mount(radial)-rear flange



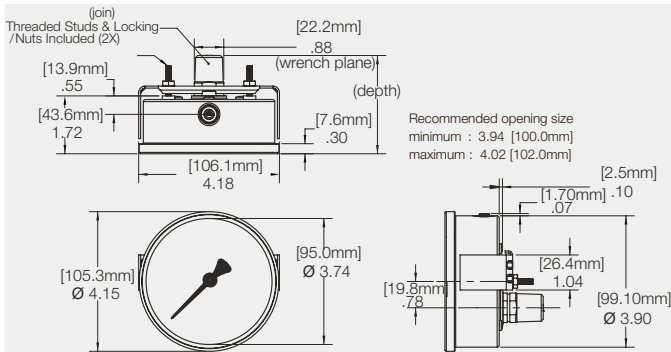
#### 100mm Lower back mount(axial)



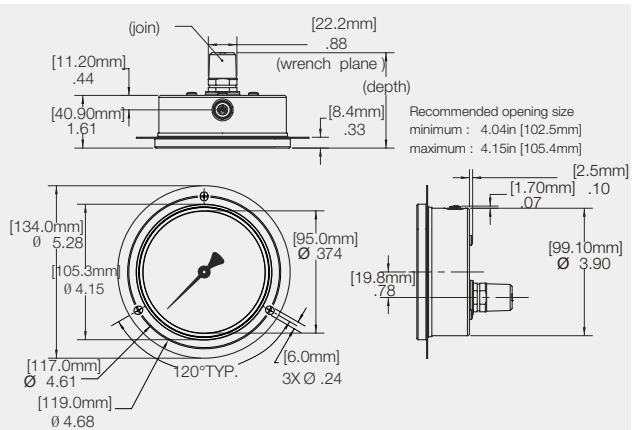
#### 100mm Lower back mount(axial) -joint U-shaped card



#### 100mm Lower back mount(axial) -shell U-shaped card



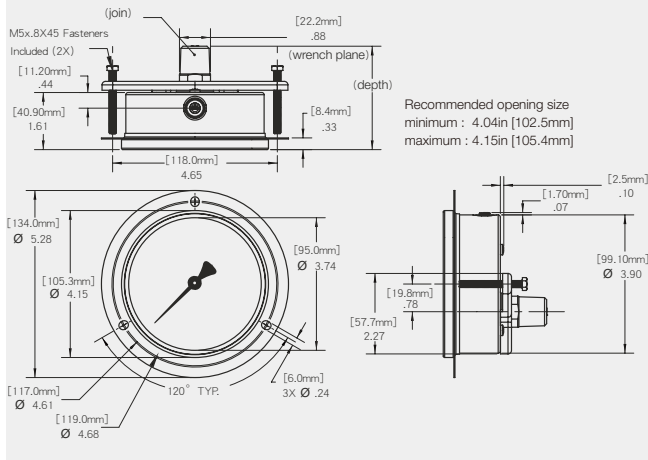
#### 100mm Lower back mount(axial) -front flange



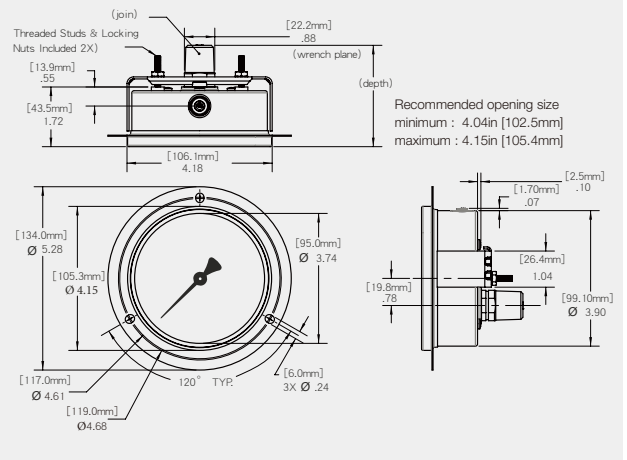
## Model: P180

### Dimensions in mm

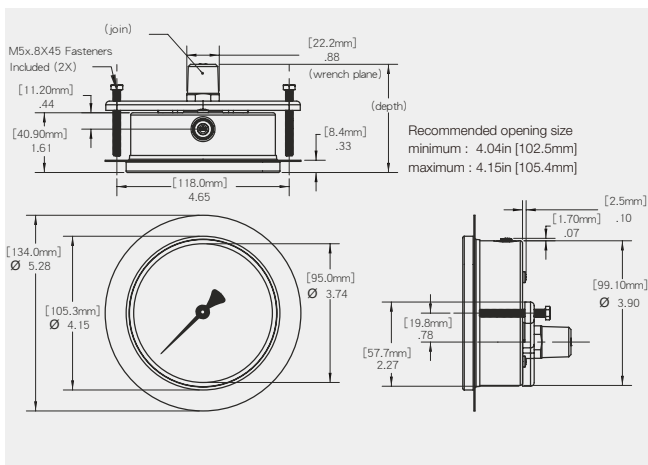
#### 100mm Lower back mount(axial) -front flange/joint U-shaped card



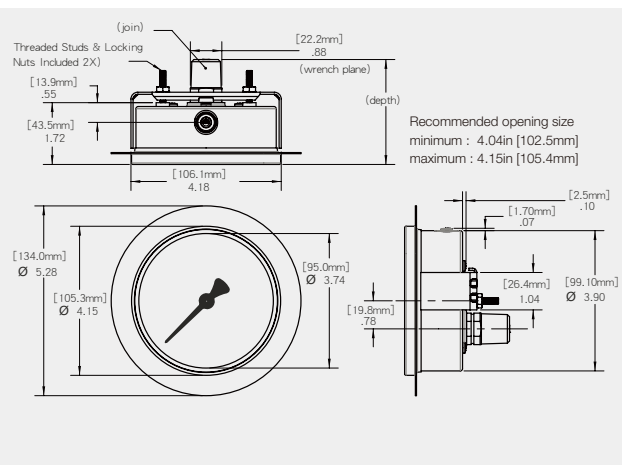
#### 100mm Lower back mount(axial) -front flange/shell U-shaped card



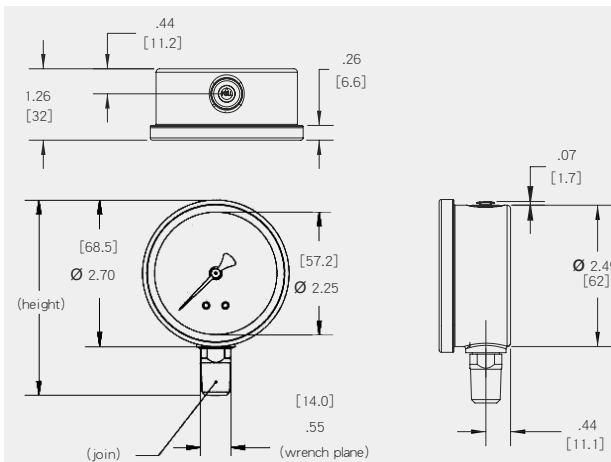
#### 100mm Lower back mount(axial) -non-porous flat flange joint U-shaped clip



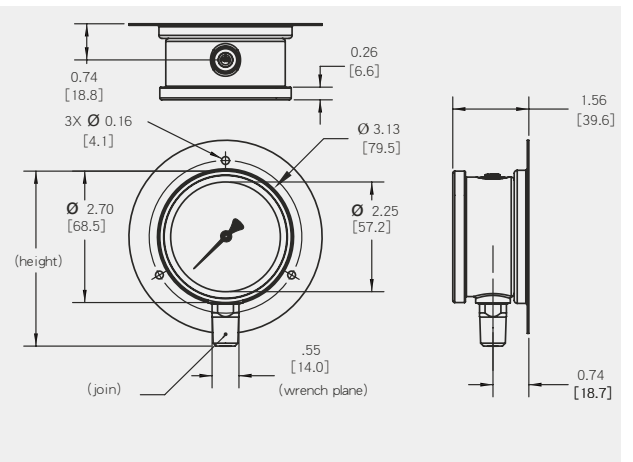
#### 100mm Lower back mount(axial) -non-porous flat flange shell U-shaped card



#### 63mm Bottom mount(radial)



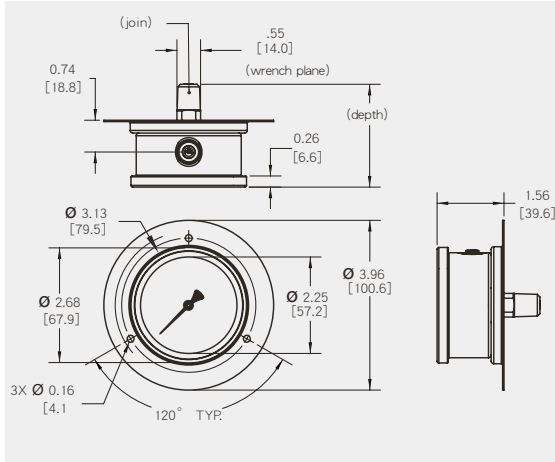
#### 63mm Bottom mount(radial)-rear flange



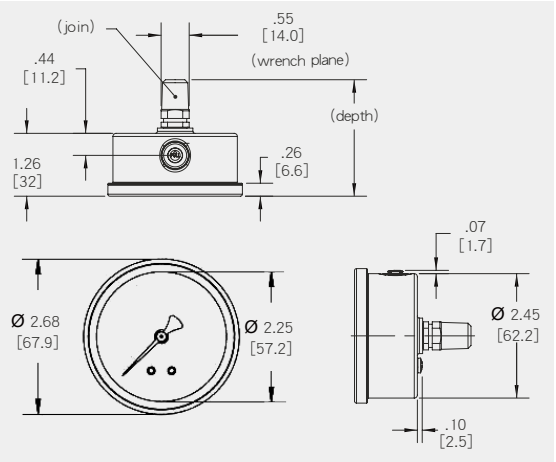
## Model: P180

### Dimensions in mm

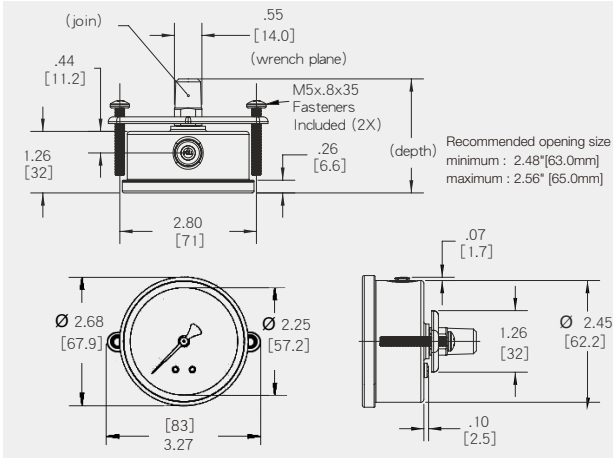
#### 63mm Center back mount(axial)-rear flange



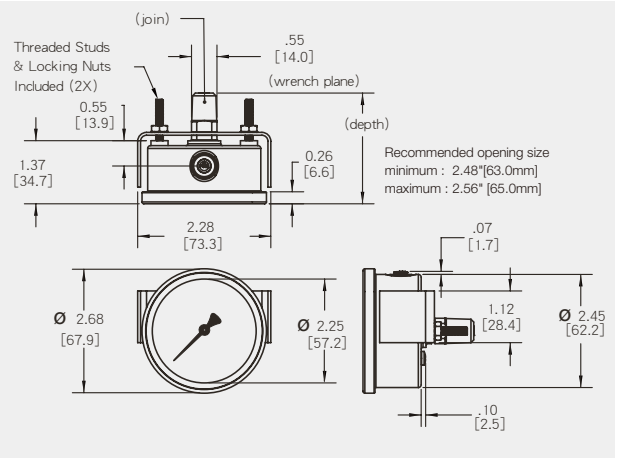
#### 63mm Center back mount(axial)



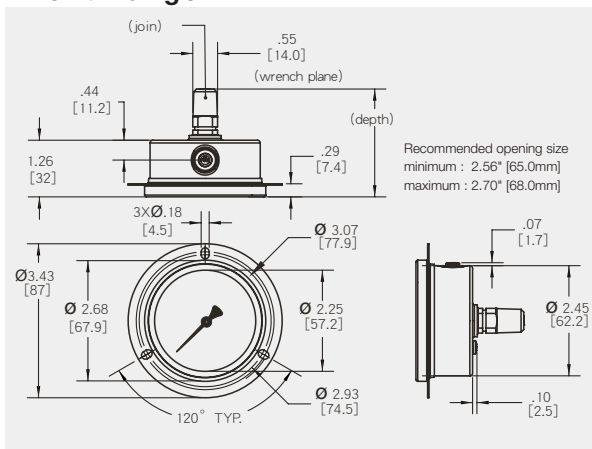
#### 63mm Center back mount(axial) -joint U-shaped card



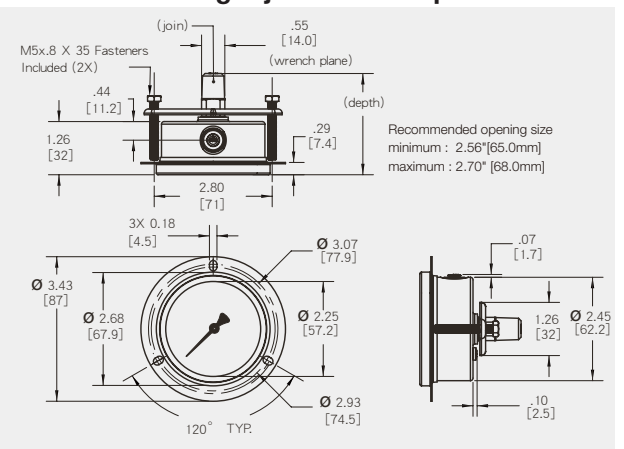
#### 63mm Center back mount(axial) -shell U-shaped card



#### 63mm Center back mount(axial) -front flange



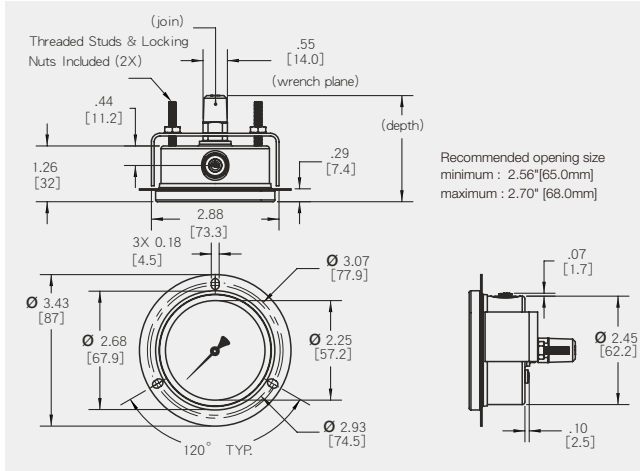
#### 63mm Center back mount(axial) -front flange/joint U-shaped card



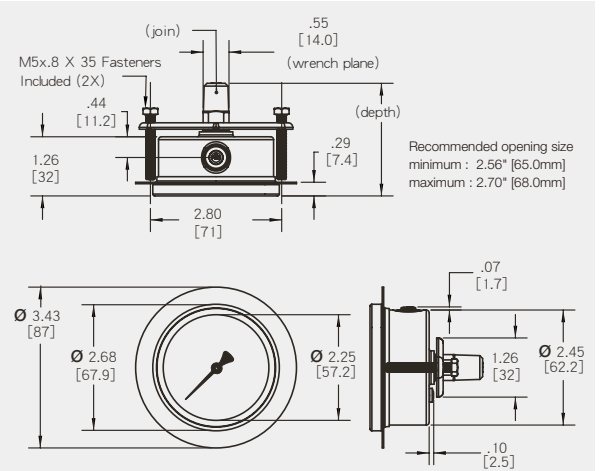
## Model: P180

### Dimensions in mm

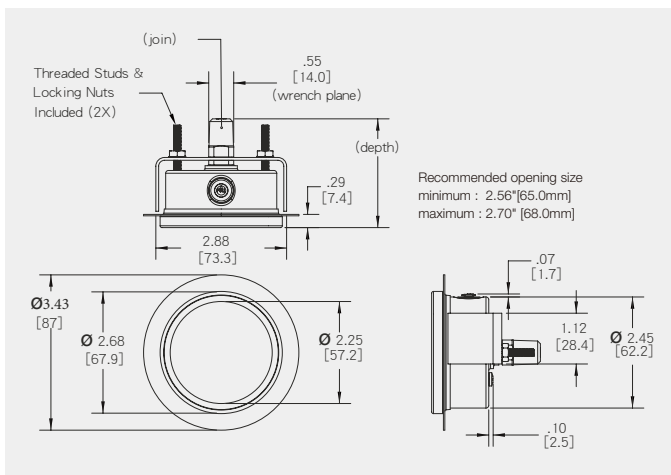
#### 63mm Center back mount(axial) -front flange/shell U-shaped card



#### 63mm Center back mount(axial) -non-porous flat flange joint U-shaped clip



#### 63mm Center back mount(axial) -non-porous flat flange shell U-shaped card



## Model: P180

<b>ORDERING CODE</b>						
<b>Model</b>	P180					
<b>Dial size(mm)</b>	(63)-63mm					
	(100)-100mm					
<b>Process connection location</b>	(L)-Bottom mount(radial)					
	(LB) - Lower back mount(axial) (only applicable to 100mm)					
	(CB)-Center back mount(axial)(only applicable to 63mm)					
<b>Case filling</b>	(D)-Dry					
	(L)-Glycerin					
	(S)-Silicone oil					
<b>Process connection sizes</b>	(01)-G1/8B,male thread		(08)-1/2NPT,male thread			
	(03)-G1/4B,male thread		(09)-R1/8,male thread			
	(04)-G1/2B,male thread		(10)-R1/4,male thread			
	(05)-1/8NPT,male thread		(12)-R1/2,male thread			
	(06)-1/4NPT,male thread		(26)-9/16-18 UNF (female thread) with 60° sealing cone			
<b>Option</b>	(YH) -Special welding materials for coping with extreme medium temperatures					
	(BF) -Rear flange (radial)					
	(FF) -Front flange (axial)					
	(UC) -U-shaped clip for housing					
	(UT) -U-shaped clip for joint					
	(FU) -Front flange and U-shaped clip for joint (axial)					
	(WU) -Non-porous flat flange and joint U-shaped clamp (axial)					
	(FT) -Front flange and U-shaped clip for housing (axial)					
	(WT) -Non-porous flat flange and housing U-shaped clamp (axial)					
	(N/A) -" "					
<b>Scale Range(coding examples only, see range table on page 9 for all standard ranges)</b>	0.3BR=0...0.3bar					
	N=Vaccum range					
	0.3KG=0...0.3kg/cm <sup>2</sup>		N1/3BR="-1...3bar"			
	6KP=0...6kPa					
	0.6MP=0...0.6MPa					
	30#=0...30psi					



## Model:P180

### Pressure range selection table

Scale ranges					
Bar	Kg/cm <sup>2</sup>	Psi	kPa	MPa	Remarks
N1BR	N1KG	30HG	N100KP	N0.1MP	This range oil-filled gauge is only applicable to a 100mm dial
N1/0.6BR	N1/0.6KG	-	N100/60KP	N0.1/0.06MP	
-	-	N30HG&15#	-	-	
N1/1.5BR	N1/1.5KG	-	N100/150KP	N0.1/0.15MP	
-	-	N30HG&30#	-	-	
-1&3BR	N1/3KG	-	N100/300KP	N0.1/0.3MP	
-	-	N30HG&60#	-	-	
N1/5BR	N1/5KG	-	N100/500KP	N0.1/0.5MP	
-	-	N30HG&100#	-	-	
N1/9BR	N1/9KG	-	N100/900KP	N0.1/0.9MP	
1BR	1KG	15#	100KP	0.1MP	This range oil-filled gauge is only applicable to a 100mm dial
-	-	20#	-	-	
1.6BR	1.6KG	-	160KP	0.16MP	
-	-	30#	-	-	
2.5BR	2.5KG	-	250KP	0.25MP	
4BR	4KG	60#	400KP	0.4MP	
6BR	6KG	-	600KP	0.6MP	
-	-	100#	-	-	
-	-	120#	-	-	
10BR	10KG	-	1,000KP	1MP	
-	-	160#	-	-	
-	-	200#	-	-	
16BR	16KG	-	1,600KP	1.6MP	
-	-	300#	-	-	
25BR	25KG	-	2,500KP	2.5MP	
-	-	400#	-	-	
-	-	500#	-	-	
40BR	40KG	600#	4,000KP	4MP	
-	-	800#	-	-	
60BR	60KG	-	6,000KP	6MP	
-	-	1000#	-	-	
100BR	100KG	1500#	10,000KP	10MP	
-	-	2000#	-	-	
160BR	160KG	-	16,000KP	16MP	
-	-	3000#	-	-	
250BR	250KG	-	25,000KP	25MP	
-	-	4000#	-	-	
-	-	5000#	-	-	
400BR	400KG	6000#	40,000KP	40MP	
-	-	8000#	-	-	
600BR	600KG	-	60,000KP	60MP	
-	-	10000#	-	-	
1000BR	1,000KG	15000#	100,000KP	100MP	

