

All Stainless Steel Dry & Liquid-Filled



400/500 SERIES

- The ultimate corrosion-resistant heavy-duty vacuum and pressure gauges
- **E xtreme high pressure** ranges available from vacuum through 100,000 psi
- 1-1/2", 2", 2-1/2", 4" and 6" sizes – bottom or back connected
- Cases and polished bezels are constructed of solid 304 stainless steel, with 316 stainless steel internals
- Vacuum, compound and zero based ranges
- Bourdon tubes are matched to stainless steel precision movements and balanced pointers for smooth, accurate indication
- Glycerine filling (in the 500 Series) further enhances gauge life by constantly lubricating the movement and dampening the effects of vibration, pulsation and shock.
- NOSHOK's agriculture ammonia gauges (25-406 and 25-506) feature a nickel-plated brass connection with a 316 stainless steel Bourdon tube
- Stock availability

OPERATING SPECIFICATIONS

1. Working Pressure Limitations

a. Dynamic Pressure

The working pressure should be limited to 60% of the dial range for long service life.

b. Static Pressure

The working pressure, when no sharp fluctuations occur, should be limited to 90% of the dial range.

2. Ambient Temperature

a. 400 Series

-40 °F to 140 °F (-40 °C to 60 °C)

b. 500 Series

-4 °F to 140 °F (-20 °C to 60 °C)
glycerine fill
-40 °F to 140 °F (-40 °C to 60 °C)
special fill

3. Media Temperature

a. 400 Series

-40 °F to 212 °F (-40 °C to 100 °C)
1-1/2" and 2-1/2" sizes
-40 °F to 392 °F (-40 °C to 200 °C)
4" and 6" sizes

b. 500 Series

-4 °F to 212 °F (-20 °C to 100 °C)
glycerine fill
-40 °F to 212 °F (-40 °C to 100 °C)
special fill

APPLICATIONS

- Chemical plants
- Petrochemical refineries
- Pharmaceutical
- Food and beverage processing
- Offshore oil platforms
- Paper mills
- Salt mines
- Fertilizer plants
- Shipboard

ACCURACY

- 1-1/2" 400 Series gauges: ±2.5%
- 2-1/2" 400 Series gauges: ±1.5%
- 4 and 6" 400 Series gauges: ±1.0%
- 2-1/2" 500 Series gauges: ±1.5%
- 4 and 6" 500 Series gauges: ±1.0%

For details on accuracy/standard dial configuration and dial layouts, see pages 76-81.

	MODELS	SPECIFICATIONS
Case	15-401, 15-411, 40-400, 40-410, 60-400, 60-410, 60-500, 60-510	304 Stainless steel (Optional 316 Stainless steel)
	25-400, 25-410, 25-500, 25-510, 40-500, 40-510	Polished 304 Stainless steel
Cover ring	15-401, 15-411, 25-400, 25-410, 25-500, 25-510, 40-400, 40-410, 40-500, 40-510	Polished 304 Stainless steel
	60-400, 60-410, 60-500, 60-510	Polished 304 Stainless steel bayonet ring
Lens	15-401, 15-411, 40-400, 40-410, 40-500, 40-510	Instrument glass
	25-400, 25-410, 25-500, 25-510	Trogamide
Bourdon tube	60-400, 60-410, 60-500, 60-510	Laminated safety glass
	15-401, 15-411, 25-400, 25-410, 25-500, 25-510, 40-400, 40-410, 40-500, 40-510, 60-400, 60-410, 60-500, 60-510 (up to 600 psi)	316 Stainless steel C-Type tube
	25-400, 25-410, 25-500, 25-510, 40-400, 40-410, 40-500, 40-510, 60-400, 60-410, 60-500, 60-510 (greater than 600 psi)	Coiled safety tube
Connection	15-401, 15-411	1/8" NPT, 316 Stainless steel
	25-400, 25-410, 25-500, 25-510	1/4" NPT, 316 Stainless steel
Movement	40-400, 40-410, 40-500, 40-510, 60-400, 60-410, 60-500, 60-510	1/2" NPT, 316 Stainless steel. 9/16" – 18 high pressure connections are standard on 0 - 30,000 psi and higher
	15-401, 15-411, 25-400, 25-410, 25-500, 25-510	Stainless steel with highly polished bearing surfaces
	40-400, 40-410, 40-500, 40-510	All Stainless steel with internal zero stop and highly polished bearing surfaces
Safety protection	60-400, 60-410, 60-500, 60-510	Stainless steel with highly polished bearing surfaces. An internal zero stop is standard.
	25-400, 25-410, 25-500, 25-510	Safety relief disc on the top of the case
	40-400, 40-410, 40-500, 40-510, 60-400, 60-410, 60-500, 60-510	Safety relief disc on the back and top of the case
Accuracy*	15-401, 15-411	± 2.5% full scale ASME B40.1 Grade B
	25-400, 25-410, 25-500, 25-510	± 1.5% full scale ASME B40.1 Grade A
	40-400, 40-410, 40-500, 40-510, 60-400, 60-410, 60-500, 60-510	± 1% full scale ASME B40.1 Grade 1A; ≥ 30,000 psi ± 1.5% full scale ASME Grade A
Pointer	15-401, 15-411	Black finished aluminum
	25-400, 25-410, 25-500, 25-510, 40-400, 40-410, 40-500, 40-510	Balanced aluminum, black finish
	60-400, 60-410, 60-500, 60-510	Balanced micro-adjustable aluminum, black finish
Dial	15-401, 15-411	Aluminum, white background with black markings. Single scale psi. UV resistant
	25-400, 25-410, 25-500, 25-510, 40-400, 40-410, 40-500, 40-510, 60-400, 60-410, 60-500, 60-510	Aluminum, white background with black markings. Single scale psi is standard. psi/bar, psi/kPa, or psi/Kg/cm ² dual scale are available as stock options. On dual scale dials, the outer scale is psi in black and the inner metric scale is red. UV resistant.
Fill liquid	25-500, 25-510, 40-500, 40-510, 60-500, 60-510	Glycerine and water

* On 40-400, 40-410, 40-500, 40-510, 60-400, 60-410, 60-500, and 60-510 models with pressure ranges between 20,000 and 60,000 psi, the accuracy is ±1.5% or 1.6%.

ORDERING INFORMATION				
SERIES	400/500			
SIZE	15 1-1/2"	25 2-1/2"	40*** 4"	60*** 6"
CASE TYPE	400	All SS, dry/fillable, bottom connection	410	All SS, dry/fillable, back connection
	401	All SS, dry, bottom connection	411	All SS, dry, back connection
	402	SS case, solid front, dry, bottom connection**	500	SS case, liquid filled, bottom connection
	406	Ammonia, dry/fillable, bottom connection	502	SS case, solid front, liquid filled, bottom connection**
PRESSURE RANGES	30vac	-30 inHg to 0 psi	100	0 to 100 psi
	30/15	-30 inHg to 0 to 15 psi	160	0 to 160 psi
	30/30	-30 inHg to 0 to 30 psi	200	0 to 200 psi
	30/60	-30 inHg to 0 to 60 psi	300	0 to 300 psi
	30/100	-30 inHg to 0 to 100 psi	400	0 to 400 psi
	30/160	-30 inHg to 0 to 160 psi	600	0 to 600 psi
	30/200	-30 inHg to 0 to 200 psi	800	0 to 800 psi
	30/300	-30 inHg to 0 to 300 psi	1000	0 to 1,000 psi
	15	0 to 15 psi	1500	0 to 1,500 psi
	30	0 to 30 psi	2000	0 to 2,000 psi
60	0 to 60 psi	3000	0 to 3,000 psi	
SCALE OPTION	psi	psi single scale	psi/kg/cm ²	psi/kg/cm ² dual scale
	psi/kPa	psi/kPa dual scale	psi/bar	psi/bar dual scale
CONNECTION SIZE	1/8	1/8" NPT	1/2	1/2" NPT
	1/4	1/4" NPT	9/16-18	9/16"-18 UNF 2B high pressure cone*
OPTIONS	SSFF	304SS Front Flange	SSFR	304SS Flange Ring
	SSRF	304SS Rear Flange	FR	Flange Ring
	SSBU	Stainless Steel Bezel & U-Clamp	AP	Adjustable Pointer
	SPMC	304SS Panel Mount Clamp	SGL	Safety Glass Lens
	PMC	Steel Panel Mount Clamp	MIP	Maximum Indicating Pointer
	SP	Red Set Pointer	LM	Laser Marking
ST	Stainless Steel Tagging	ST5	Stainless Steel Threaded Orifice 0.5 mm	
ST8	Stainless Steel Threaded Orifice 0.8 mm			

Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

NOTE: Refer to 400/500 Series options & Accessories chart on page 52 for availability by model number.

* Connection size for pressures 30,000 psi and above. Equivalent to F250C Parker Autoclave.

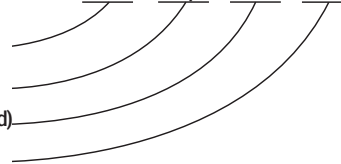
** 6" solid front, safety case and blowout back is standard for pressures 80,000 psi and above.

*** On 40-400, 40-410, 40-500, 40-510, 60-400, 60-410, 60-500, and 60-510 models with pressure ranges between 20,000 and 60,000 psi, the accuracy is ±1.5% or 1.6%.

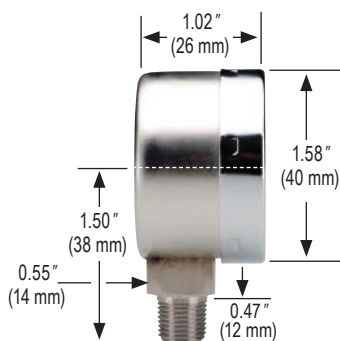
EXAMPLE

1. Select model number (size & case type)
2. Select pressure range & scale option
3. Select connection size (if more than one is offered)
4. Select any required accessory or option

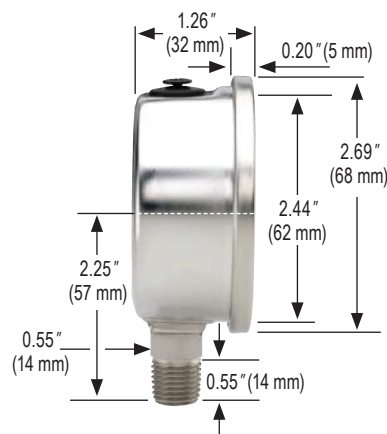
400-500 - 600psi - 1/2 - MIP



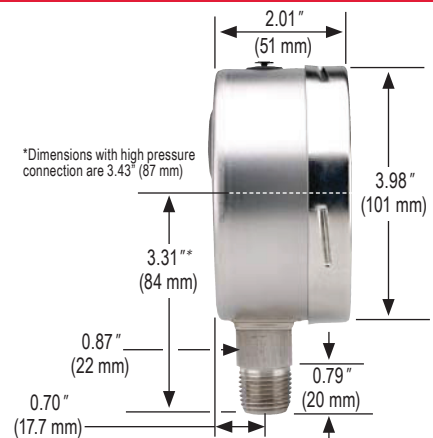
15-401



25-400/500

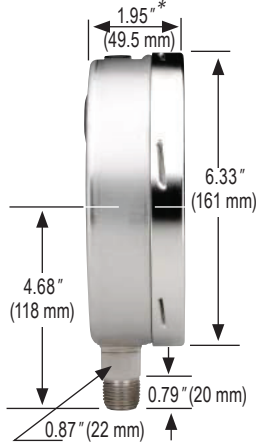


40-400/500

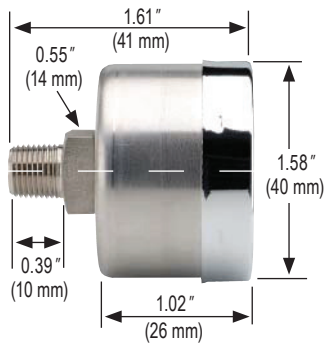


Dimensions

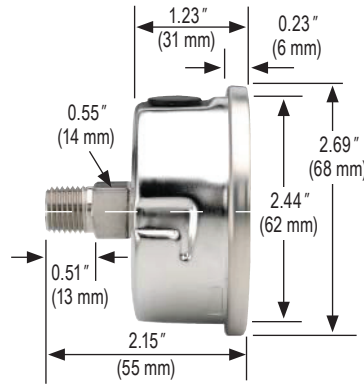
60-400/500



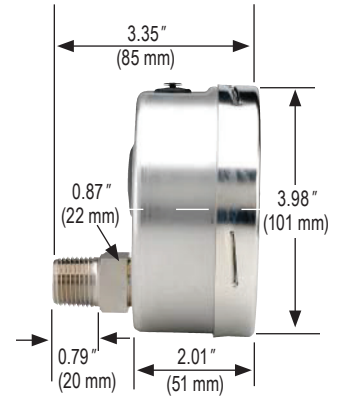
15-411



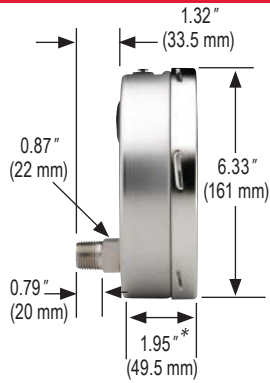
25-410/510



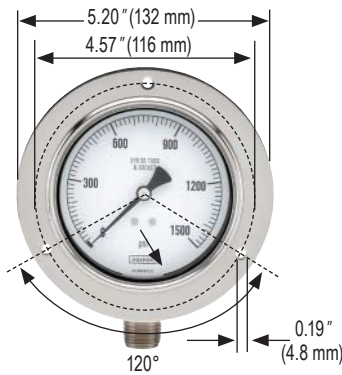
40-410/510



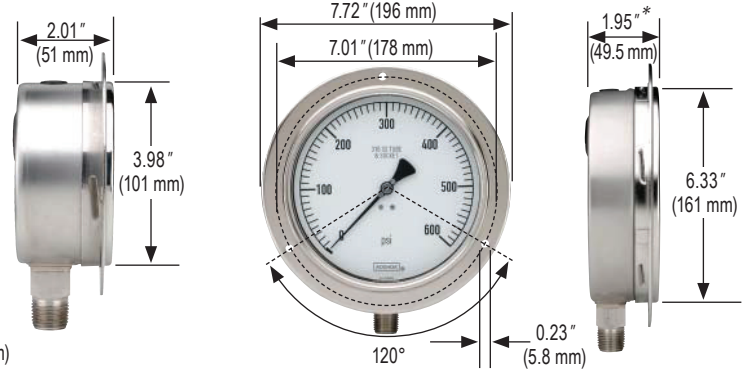
60-410/510



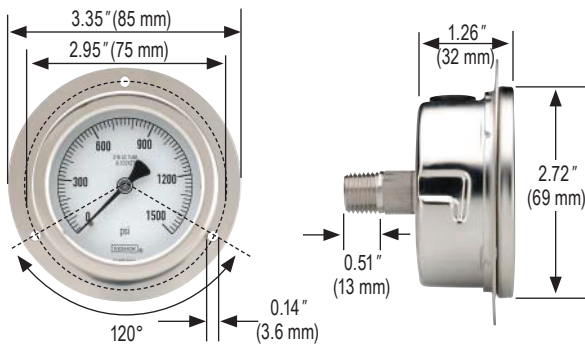
40-400/500 F ront F lange



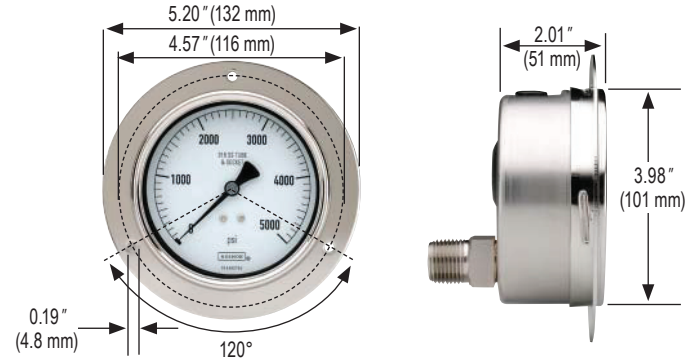
60-400/500 F ront F lange



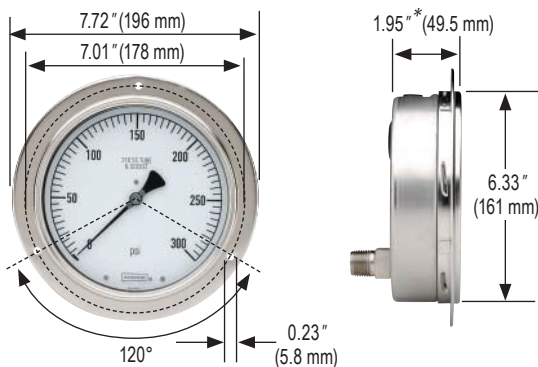
25-410/510 F ront F lange



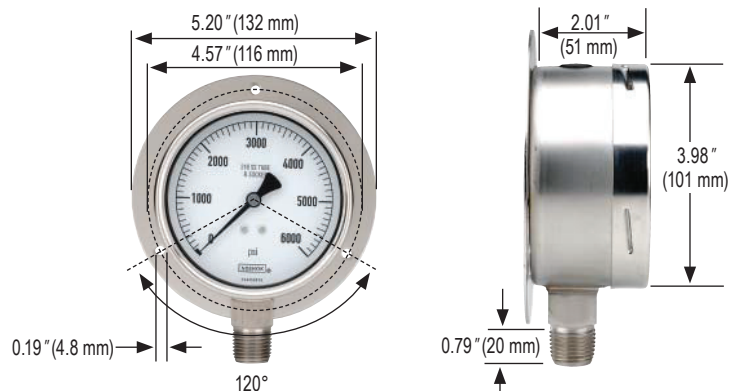
40-410/510 F ront F lange



60-410/510 F ront F lange

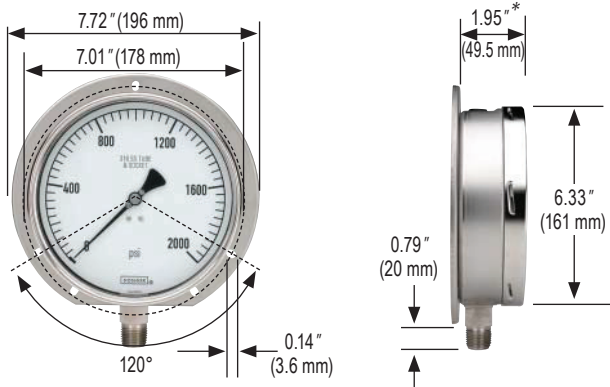


40-400/500 R ear F lange

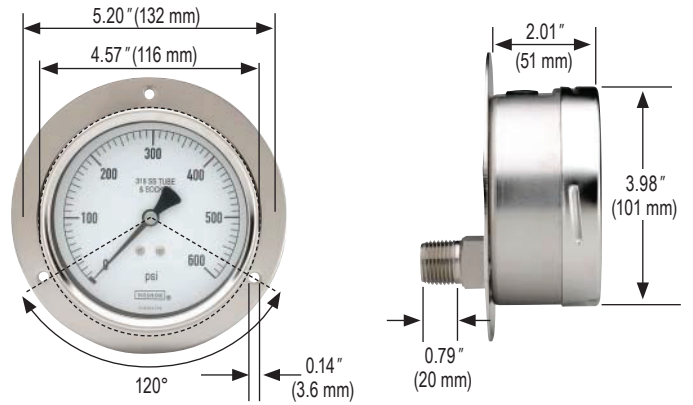


400/500 SERIES DIMENSIONS

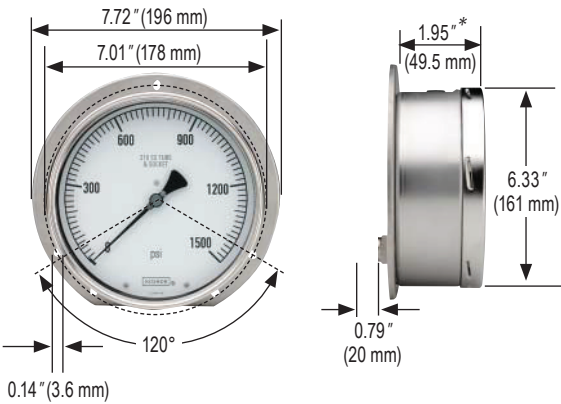
60-400/500 Rear Flange



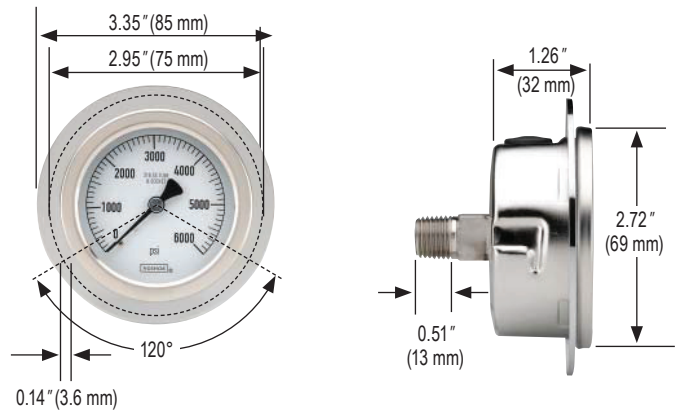
40-410/510 Rear Flange



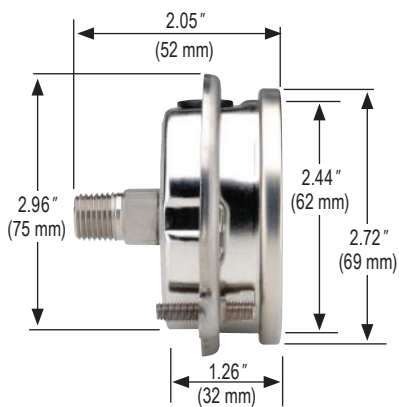
60-410/510 Rear Flange



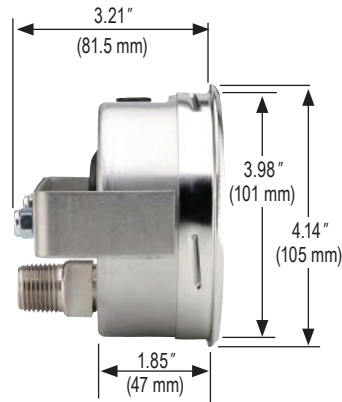
25-410/510 Flange Ring



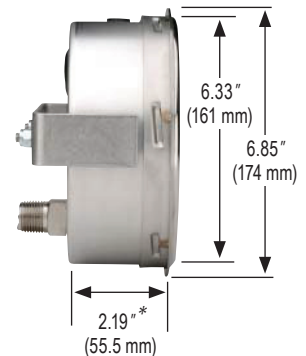
25-410/510 Panel Mount C Lamp



40-410/510 SS Narrow Bezel w/U-C Lamp



60-410/510 SS Narrow Bezel w/U-C Lamp



* Dimension will be 2.58" (65.5 mm) for pressure ranges above 1,500 psi.