

Dial Indicating Pressure Gauges

All Stainless Steel Dry & Liquid-Filled



400/500 SERIES

- The ultimate corrosion-resistant heavy-duty vacuum and pressure gauges
- **Extreme 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
	60-400, 60-410, 60-500, 60-510	Laminated safety glass
Bourdon tube	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 and nylon 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
Accuracy*	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
	15-401, 15-411	± 2.5% full scale ASME B40.1 Grade B
Pointer	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
	15-401, 15-411	Black finished aluminum
Dial	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
	15-401, 15-411	Aluminum, white background with black markings. Single scale psi. UV resistant
Fill liquid	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/cm² 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.
	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%.

400/500 SERIES

ORDERING INFORMATION DIMENSIONS

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 401 All SS, dry, bottom connection 402 SS case, solid front, dry, bottom connection** 406 Ammonia, dry/fillable, bottom connection	410 All SS, dry/fillable, back connection 411 All SS, dry, back connection 500 SS case, liquid filled, bottom connection 502 SS case, solid front, liquid filled, bottom connection**	506 Ammonia, liquid filled, bottom connection 510 SS case, liquid filled, back connection	
PRESSURE RANGES	30vac -30 inHg to 0 psi 30/15 -30 inHg to 0 to 15 psi 30/30 -30 inHg to 0 to 30 psi 30/60 -30 inHg to 0 to 60 psi 30/100 -30 inHg to 0 to 100 psi 30/160 -30 inHg to 0 to 160 psi 30/200 -30 inHg to 0 to 200 psi 30/300 -30 inHg to 0 to 300 psi 15 0 to 15 psi 30 0 to 30 psi 60 0 to 60 psi	100 0 to 100 psi 160 0 to 160 psi 200 0 to 200 psi 300 0 to 300 psi 400 0 to 400 psi 600 0 to 600 psi 800 0 to 800 psi 1000 0 to 1,000 psi 1500 0 to 1,500 psi 2000 0 to 2,000 psi 3000 0 to 3,000 psi	5000 0 to 5,000 psi 6000 0 to 6,000 psi 10000 0 to 10,000 psi 15000 0 to 15,000 psi 20000 0 to 20,000 psi 30000 0 to 30,000 psi 40000 0 to 40,000 psi 60000 0 to 60,000 psi 80000 0 to 80,000 psi 100000 0 to 100,000 psi	
SCALE OPTION	psi psi single scale psi/kPa psi/kPa dual scale	psi/kg/cm ² psi/kg/cm ² dual scale psi/bar psi/bar dual scale		
CONNECTION SIZE	1/8 1/8" NPT 1/4 1/4" NPT	1/2 1/2" NPT 9/16-18 9/16"-18 UNF 2B high pressure cone*		SST SAE J1926-3:7/16-20 Adjustable
OPTIONS	SSFF 304SS Front Flange SSRF 304SS Rear Flange SSBU Stainless Steel Bezel & U-Clamp SPMC 304SS Panel Mount Clamp PMC Steel Panel Mount Clamp	SSFR 304SS Flange Ring FR Flange Ring AP Adjustable Pointer SGL Safety Glass Lens 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.

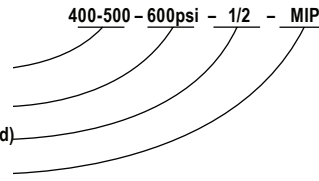
** 6" solid front, safety case and blowout back is standard for pressures 80,000 psi and above.

*** 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%.

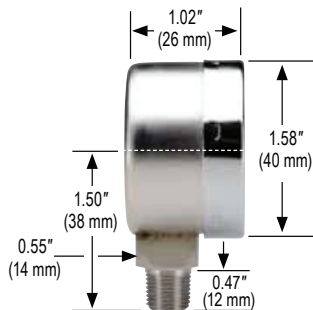
EXAMPLE

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

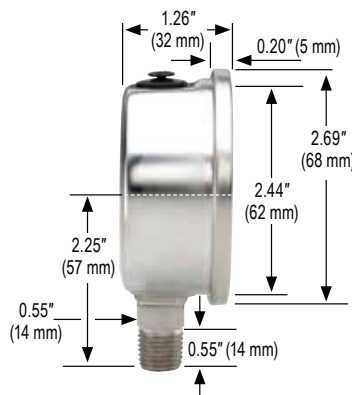
1. Select model number (size & case type)
2. Select pressure range & scale option
3. Select connection size (if more than one is offered)
4. Select any required accessory or option



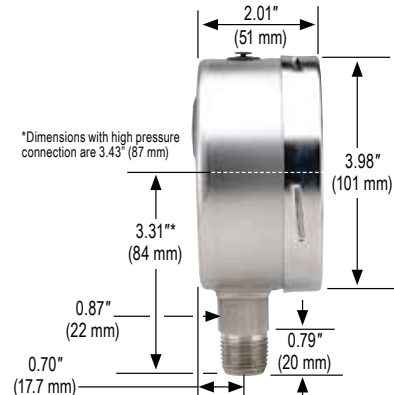
15-401



25-400/500



40-400/500

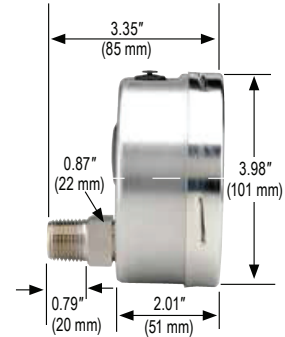
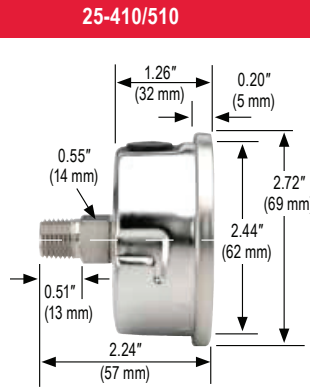
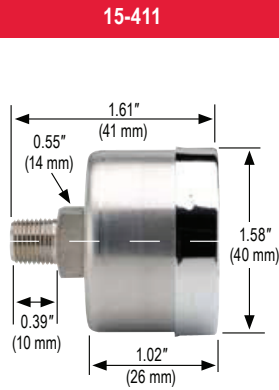
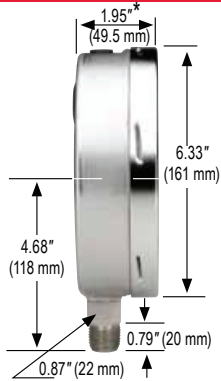


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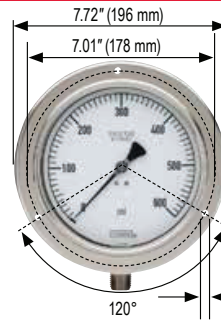
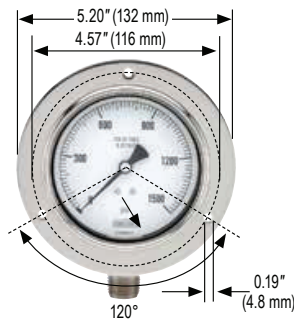
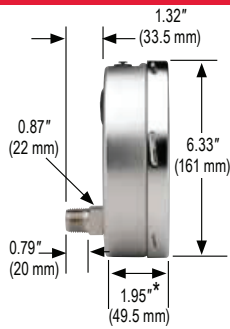
Dimensions



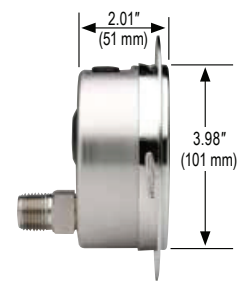
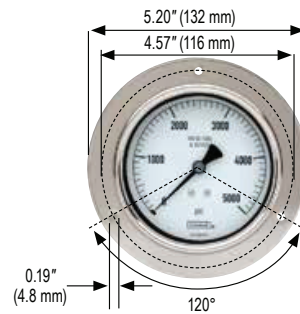
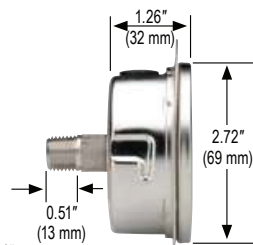
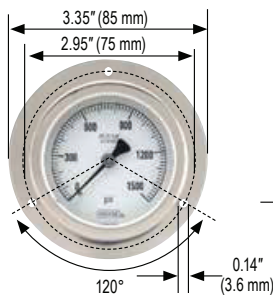
60-400/500 15-411 25-410/510 40-410/510



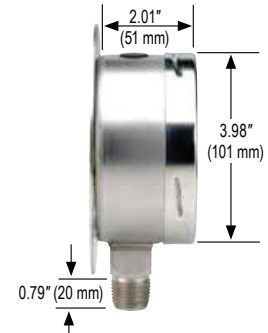
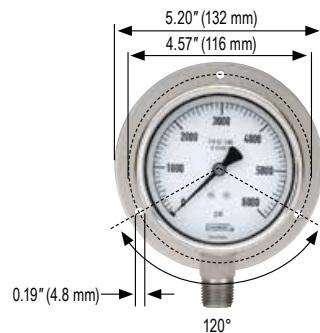
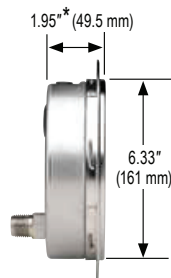
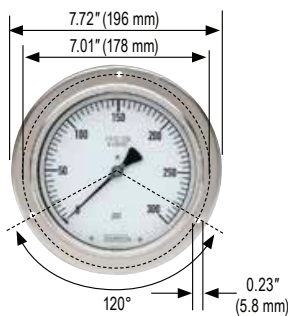
60-410/510 40-400/500 Front Flange 60-400/500 Front Flange



25-410/510 Front Flange 40-410/510 Front Flange



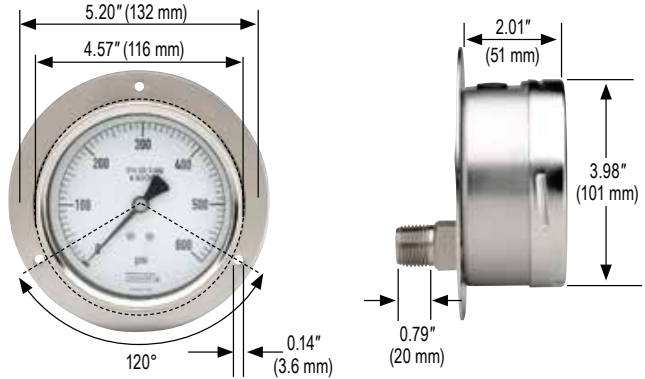
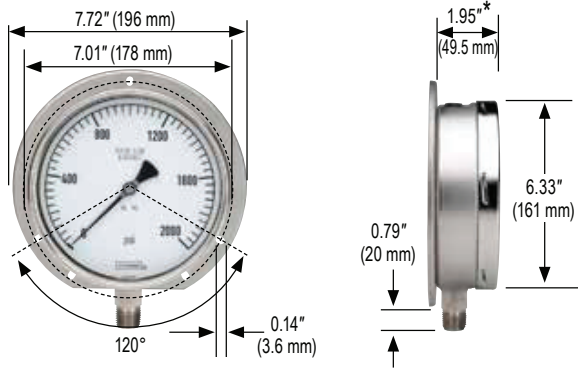
60-410/510 Front Flange 40-400/500 Rear Flange



400/500 SERIES DIMENSIONS

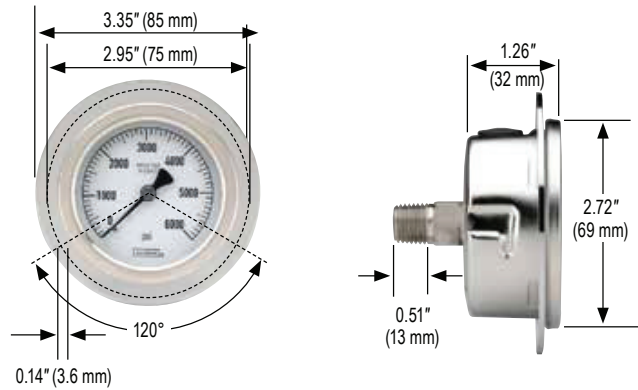
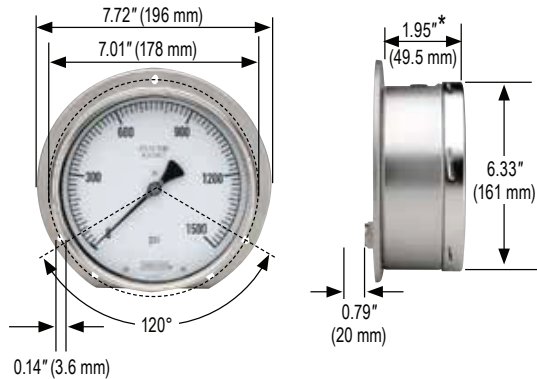
60-400/500 Rear Flange

40-410/510 Rear Flange



60-410/510 Rear Flange

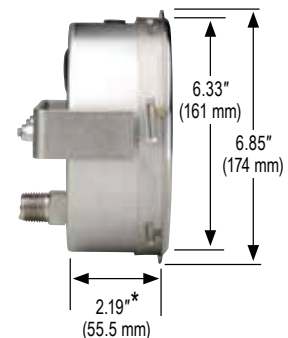
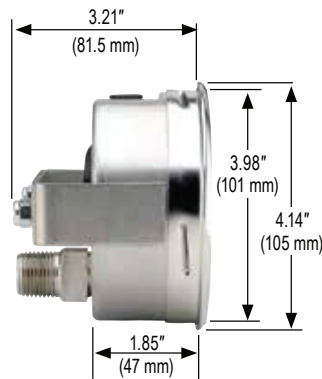
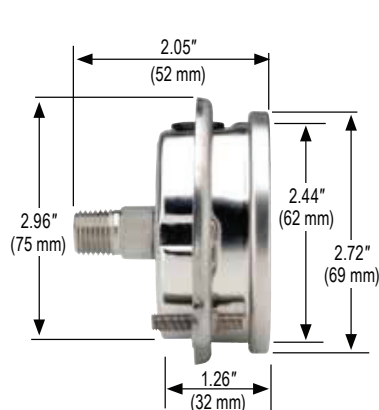
25-410/510 Flange Ring



25-410/510 Panel Mount Clamp

40-410/510 SS Narrow Bezel w/U-Clamp

60-410/510 SS Narrow Bezel w/U-Clamp



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