

1032 Sanitary, 1032 Fractional Gauge

1032 SANITARY FEATURES

- Clean-in-place (CIP) or steam-in-place (SIP)
- Autoclave or sterilize 3½" dial only with polysulfone window option
- Easy Zero™ provides external adjustability of instrument span (3½" dial)
- Serialized material certificates
- 12-20 RA microinches wetted surface inches

1032 FRACTIONAL SANITARY FEATURES

- FlutterGuard™ option, reduces movement wear and eliminates pointer flutter
- Serialized identification numbers and material certificates

SPECIFICATIONS

Accuracy:	1032 Sanitary: ±1.5% of span for pressure ranges 100 psi and above, ±2% of span for vacuum, compound and ranges below 100 psi 1032 Fractional: ±3% of span (upscale) ±5% of span (downscale)
Process Connection Size:	1032 Sanitary: 1½" and 2" Tri-Clamp® 1032 Fractional Sanitary: ¾" Tri-Clamp®
Process Connection Location:	1032 Sanitary: Lower or back 1032 Fractional Sanitary: Lower only
Case Style:	Open front
Ring:	1032 Sanitary: Bayonet, removable 1032 Fractional Sanitary: Friction fit
Movement:	1032 Sanitary: 2½", 3½", 300 SS, 4½" dial 400 SS 1032 Fractional Sanitary: 300 SS
Window Material:	1032 Sanitary: 2½", 3½" polycarbonate, 4½" glass 1032 Fractional Sanitary: Glass
Mounting Options:	2½", 3½", 4½", with armored capillary
Dampening Options:	1032 Sanitary: PLUS! ™ performance or liquid fill 1032 Fractional Sanitary: FlutterGuard™

WETTED COMPONENTS

Models	Diaphragm	Seal Housing	Joints
1032 Sanitary	316L SS electro polished	316L SS	Welded
1032 Fractional	316L SS electro polished	316L SS	Welded

NON-WETTED COMPONENTS

Models	Case	Ring
1032 Sanitary	300 SS electropolished	300 SS electropolished
1032 Fractional	300 SS electropolished	300 SS electropolished

MIN/MAX TEMPERATURE LIMITS

Version	Ambient	Process	Storage
Dry	-20°F to 200°F (-29°C to 93°C)	-20°F to 250°F (-29°C to 121°C)	-40°F to 250°F (-40°C to 121°C)



1032 Sanitary
2½", 3½", 4½" dial sizes



1032 Fractional
2" (50mm) dial size



ORDERING CODE	Example:	201032	S	75	L	XC4	100#
Dial Size/Model							
201032 - 2"		201032					
251032 - 2½"							
351032 - 3½"							
451032 - 4½"							
System							
S - 316L SS tube and process connection			S				
Case Fill							
Blank - Dry gauge							
L - Liquid filled (USP grade glycerin, N/A for Fractional sanitary)							
Process Connection Size							
75 - ¾" Tri-Clamp®, 2" dial only				75			
15 - 1½" Tri-Clamp®, 2½" and 3½" dial only							
20 - 2" Tri-Clamp®, 2½", 3½" and 4½" dial sizes							
Process Connection Location							
L - Lower					L		
B - Back (N/A for 2" dial fractional sanitary)							
Options (if choosing an option(s) must include an "X")							
C4 - Individual calibration chart (in accordance with ASME B 40.100:2013. Accuracy of unit traceable to NIST)						X	C4
NH - SS tag wired to case							
NN - Paper tag bonded							
NM - NEOBEE® M-20 system fill, 2½", 3½" and 4½" dial sizes only							
PD - Polycarbonate window, 2" and 4½" dial only, standard are 2½" and 3½"							
SG - Safety glass							
PS - Polysulfone window, Autoclave or Sterilize, 3½" dial only							
CZ - Food grade silicone system fill, 2½" and 3½" only							
LL - PLUS! ™ performance, 2½", 3½" and 4½" only							
ZY - FlutterGuard™ (Fractional sanitary only)							
Range (coding examples only, see range table on page 80)							
100# - 100 psi, max. pressure 1,000 psi							100#

Standard Pressure Ranges

1032, 1036 Standard Range Codes - Single Scale					
	psi	bar	kPa	kg/cm ²	Dual Scale psi Outer Scale
Vacuum	30IMV	N1BR	100KP	N1KSC	30IMV
Compound	30IMV&15#	-	-	-	-
	-	N1/1.5BR	N100/150KP	N1/1.5KSC	30IMV/20#
	30IMV&30#	-	-	-	-
	-	N1/3BR	N100/300KP	N1/3KSC	30IMV/40#
	30IMV&60#	-	-	-	-
	-	N1/5BR	N100/500KP	N1/5KSC	30IMV/70#
	30IMV&100#	-	-	-	-
Positive Pressure	-	N1/9BR	N100/900KP	N1/9KSC	30IMV/125#
	15#	1BR	100KP	1KSC	14#
	-	1.6BR	160KP	1.6KSC	22#
	30#	-	-	-	-
	-	2.5BR	250KP	2.5KSC	35#
	60#	4BR	400KP	4KSC	55#
	-	6BR	600KP	6KSC	85#
	100#	-	-	-	-
	-	10BR	1000KP	10KSC	140#
	160#	-	-	-	-
	200#	-	-	-	-
	-	16BR	1600KP	16KSC	220#
	300#	-	-	-	-
-	25BR	2500KP	25KSC	350#	
400#	-	-	-	-	
600#	40BR	4000KP	40KSC	550#	
-	60BR	6000KP	60KSC	850#	
1000# ⁽¹⁾	-	-	-	-	

⁽¹⁾ Requires high pressure clamp

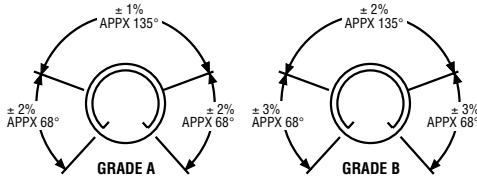
1032 Fractional Standard Ranges Code - Single Scale					
	psi	bar	kPa	Mpa	kg/cm ²
Compound	30IMV&30#	-	-	-	-
	30IMV&45#	-	-	-	-
	30IMV&60#	-	-	-	-
	30IMV&100#	-	-	-	-
	30IMV&150#	-	-	-	-
	30IMV&300#	-	-	-	-
Positive Pressure	30#	-	-	-	-
	60#	-	-	-	-
	100#	-	-	-	-
	160#	-	-	-	-
	200#	-	-	-	-
	300#	-	-	-	-
400#	-	-	-	-	
600#	-	-	-	-	

Other ranges on application

ACCURACY:

Accuracy – the conformity of indication to an accepted standard or true value. Accuracy is the difference (error) between the true value and the indication expressed as a percent of the span. It includes the combined effects of method, observer, apparatus and environment. Accuracy error includes hysteresis and repeatability errors but not friction error. It is determined under specific conditions. (Normal position, 73.4°F (23°C), and 29.92 in Hg barometric pressure.)

The following tables define the ASME B40.1* accuracy grades used by Ashcroft products.



Accuracy of a pressure gauge may be expressed as percent of span or percent of indicated reading. Percent of span is the most common method. Percent of indicated reading is usually limited to precision test gauges and unless specifically spelled out, it may be assumed that an accuracy of ±0.5% means ±0.5% of span.

GRADE 4A:

Gauges offering the highest accuracy and calibrated to ±0.1% of span over the entire range of the gauge. These gauges are called laboratory precision test gauges and are generally 8½", 12" or 16" dials. These high-accuracy gauges may be temperature compensated. They must be handled carefully in order to retain accuracy.

ACCURACY EXAMPLES

Range	Accuracy Span	Grade	Permissible Error % of Span
0/100 psi	100 psi	1A	1.0
0/400 kPa	400 kPa	2A	0.5
0/1000 bar	1000 bar	B	3 (0/250 & 750/1000 bar) 2 (250/750 bar)
-100/400	400 kPa	2A	0.5
30 inHg/ 30 psi	44.7 psi	4A	0.1

The last item (30 inHg/30 psi) deserves some explanation. The span is defined as the algebraic difference between the limits of the scale. 30 inHg = -14.7 psi Span = 30 psi - (-14.7) = 44.7 psi. 0.1% of 44.7 psi = 0.045 psi or 0.022 Hg.

*ASME B40.1 may be ordered from:
 American Society of Mechanical Engineers
 Three Park Avenue, New York, NY 10016

GRADE 3A:

Gauges are calibrated to an accuracy of ±0.25% of span over the entire range of these gauges. These gauges are called test gauges and are generally 4½", 6" or 8½" dials. The gauges are generally not temperature compensated (except Ashcroft Type 1082).

GRADE 2A:

Gauges are calibrated to an accuracy of ±0.5% of span over the entire range of the gauge. They are often referred to as process gauges and are usually supplied as 4½" and 6" cases and are not temperature compensated.

GRADE 1A:

Gauges are calibrated to an accuracy of ±1% over the entire range of the gauge. These gauges are high-quality industrial gauges and are supplied in 2½", 3½" and 4½" sizes.

GRADE A:

Gauges are calibrated to an accuracy of ±1% of span over the middle half of the scale and ±2% of span over the first and last quarters of the scale.

GRADE B:

Gauges are calibrated to an accuracy of ±2% of span over the middle half of the scale and ±3% of span over the first and last quarters of the scale. These gauges are often referred to as commercial or utility gauges and are supplied in 1½", 2", 2½", 3½" and 4½" case sizes.

GRADE C:

Gauges are calibrated to an accuracy of ±3% of span over the middle half of the scale and ±4% of span over the first and last quarters of the scale.

GRADE D:

Gauges are calibrated to an accuracy of ±5% of span over the entire scale.

ACCURACY EXAMPLES

Type of Gauge	Grade	Permissible Error % of Span			Max. Friction (% of Span)
		Lower 25%	Middle 50%	Upper 25%	
Precision Test (A4A)	4A	0.1	0.1	0.1	See Note
Test (1082)	3A	0.25	0.25	0.25	0.25
Process (1279)	2A	0.5	0.5	0.5	0.5
Industrial/Hydraulic (1009)	1A	1.0	1.0	1.0	1.0
Industrial/Hydraulic (1010, 1188, 1490)	A	2.0	1.0	2.0	1.0
Commercial/Utility (1005, 3005, 1008A)	B	3.0	2.0	3.0	2.0

Note: Grade 4A gauges must remain within 0.1% before and after being lightly tapped.