

SANITARY PRESSURE GAUGES

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**AT LAST, A MULTI-FUNCTIONAL
SANITARY GAUGE FROM THE
EXPERTS IN PRESSURE
MEASUREMENT**

The Ashcroft® sanitary digital gauge saves money, time and space. Now, one digital pressure gauge can replace three instruments . . . a mechanical pressure gauge, a transducer and a switch! Save space, installation costs and the cost of additional instruments and pipe cut-outs.

SPECIFICATION
Type:

Conventional Tri-clamp: 2032 (battery), 2132⁽¹⁾ loop (4-20mA, 12-36 Vdc) 2232⁽¹⁾ line (12-36 Vdc)
In-line Tri-clamp: 2036 (battery), 2136 (12-36 Vdc), 2232 line (12-36 Vdc)

Accuracy: Terminal point

Full Scale: .25% F.S. accuracy

Case Size: 3"

Case Material/Finish: (3") 300 series SS, Electropolished

Case Enclosure Rating: Weatherproof, IP65, NEMA 4
Wetted Parts: 316 SS

Fill Fluid: Glycerine standard, Food Grade Silicone (XCZ), Food Grade Mineral Oil (XMY)

Tri-Clamp Connection: Direct, in-line 1½", 2", Ashcroft remote in-line (XRE),

Seal Surface Finish: 12-20Ra

Connection Location: Lower

Ranges: 15 psi thru 1,000 psi including metric, compound & vac

Process Temp. Limits(2): 14°F / 275°F (-10°C / 135°C) to withstand clean in place (CIP) & steam in place (SIP)

Ambient Temp. Limits(3): 14°F / 140°F (-10°C / 60°C)

Temperature Error: ±.22% per 10°F, (12°F) (Span and Zero shift can be eliminated by rezeroing the gauge at operating temperatures. Temperatures must be within process temperature limits)

Storage Temperature: -4°F / 158°F (-20°C / 70°C)

Overrange Pressure: 2x range of gauge

DISPLAY

Type: LCD

Display Digits: 5 digits

Character Height: .60"

Backlite: Off by default (optional)

Bar Graph: Yes

Features

- 4/20mA Output (optional)
- (1) or (2) SPDT Switches (optional)
- .25% F.S. Terminal Point Accuracy
- IP 65 Weatherproof Case Suitable For Wash Downs
- Large Display
- Easy-to-Use Password Protected Menu With:
 - 5 Backlite Display Options
 - 12 Engineering Units
 - Menu Configure Feature
 - Update Rate
 - Dampen Rate
 - Auto-Off
- Material Traceability Certification to EN 10204: 2004 3.1[†]

[†]Excludes 2036 Series

Battery Life: 500 Hrs., Battery Life Indicator – standard

Agency Approvals: CE (excludes XRE variation)
Material Traceability Certification to EN 10204: 2004 3.1 standard ASME B40.7

KEYBOARD FUNCTIONS

On/Off: Manually turns unit on & off (auto off options in menu)

Zero/Clear: Zeros display or clears min/max values when displayed

Min/Max Arrow Key: Stores min & max values, arrow key allows for scrolling thru menu items

Menu: Allows for changes to default settings (see below)

Backlite (optional) Arrow Key: Manually turns backlite on & off (auto off options in menu), arrow key allows for scrolling thru menu items

Enter: Selects items in the menu

MENU MODE

Engineering Units (Units): 10 units of measurement are available; psi, inH₂O with 3 temp. options: 20°C, 60°F, 4°C*, mmHg, ftH₂O, mPa, kPa, kg/cm² & bar
Configuration Mode (Config): Allows for changes to default settings of gauge

Bar Graph (Graph): Allows for adjustment of bar-graph & 4-20mA output

Auto Off (Off): Allows for changes to auto off of gauge: 5 options: 30 min., 10 min., 5 min., 2 min., never

Update Rate (Update): 4 options: 100mili-sec, 1 sec, 500mili-sec, 200mili-sec,

Dampening (Damp): 6 options: none, average 8, 6, 4, 2 times per 100ms

Backlite Lit (optional): 5 options: NEVER, 10 sec,



30, sec, 1 min, 5 min.

Zero Disable: Zero "lockout" feature

Field Recalibration: Zero, span & midscale (password protected)

Calibration: Allows for recalibration of zero & span (includes factory default calibration)

OPTIONS
4-20mA Output

Line Powered: 12-36 Vdc

Switching: (XU1 code) (1) or (XU@ code) (2) SPDT switches, (requires line power), (max. contact 30Vdc, 1 amp, 125Vac, .5 Amp) switches adjustable to 100% of range

Remote Mount Seal: (RE code) standard with 10' shielded cable

NOTES

(1) 3" shielded cable standard.

(2) Rezero gauge often after exposure to elevated temperatures and use.

(3) The 2030 Series Digital Gauge is not suitable for an autoclave.

RANGES

psi	in. Hg (Vacuum)	Comp. (psi)	mmHg (pressure)	in. Hg (pressure)	in. H ₂ O
15	30"	-15/0/15"	800	30	400
30		-15/0/30"	1000	60	800
60		-15/0/60"	2000	100	1000
100		-15/0/100"	3000	160	
160			5000	200	
200			10,000	300	
300				400	
600				600	
800				800	
1000					

mBar	ft. H ₂ O	mPa	kPa	Bar/KSC
1000	60	1	100	1
1500	160	1.6	160	1.6
2000	200	2.5	250	2.5
2500	300	4	400	4
4000	400	6	600	6
5000	600	10	1000	10
8000	1000	16	1600	16
10,000		25	2500	25
15,000		40	4000	40
20,000		60	6000	60

*Note all compound and vacuum ranges require mineral oil fill (XMY option)

HOW TO ORDER

Dial Size: 3" 30

Case Type Number: 2032

Wetted Parts: 316L SS SD

Process Connection: 1.5", 2.0" Tri-Clamp 15L

Variations: RE remote mount in-line design RE

Range: 160 psi 160#

**Consult factory for guidance in product selection
Phone (203) 378-8281 or visit our
web site at www.ashcroft.com**

Sanitary Gauges Type 1032, Accuracy (±1.5%-2.0% of span)

DESIGNED FOR SAFETY AND LONGER LIFE

- **Patented PowerFlex™ movement isolates movement from shock and vibration for longer life**
- **All stainless, all-welded construction for long life**
- **PLUS!™ Performance Option:**
 - **Liquid-filled performance in a dry gauge**
 - **Reduces wear caused by vibration and pulsations without liquid-fill headaches**
- **Autoclavable to 300°F (149°C)⁽¹⁾**
- **True Zero™ pointer indication – no stop pin to mask false zero reading – ensures safety and process control**

(1) Available in 3/2" 1032 only with option XPS polysulfone window.

OTHER FEATURES:

Available in 2 1/2", 3 1/2" and 4 1/2" dial sizes, 1032 sanitary pressure gauges can be autoclaved/sterilized and cleaned or steamed in place (CIP, SIP). These gauges have been designed specifically to meet the needs of the sanitary marketplace.

They are available dry, liquid-filled or hermetically sealed to allow for washdowns and also available with the **PLUS!™** performance option. Actual material certificates and certificates of conformance supplied as standard to EN 10204: 2004 3.1.



PRODUCT SPECIFICATIONS

Dial Sizes: 2 1/2", 3 1/2" and 4 1/2"⁽²⁾

Process Connection: 1 1/2" and 2" Tri-Clamp lower and back⁽³⁾

Diaphragm Material and Surface Finish:

Electropolished 316L stainless steel 12-20RA (Micro-inch)

Case and Ring: 300 series polished stainless steel

Accuracy: ±1.5% of span for pressure ranges 100 psi thru 1000 psi. ±2.0% of span for vacuum, compound and pressure ranges below 100 psi

Pointer: Adjustable (external zero adjust on 3 1/2" dial size)

Windows: 2 1/2", 3 1/2" – Polycarbonate standard
4 1/2" – Glass standard

Dial: White with black markings including 3A insignia

Agency Compliance: 3A compliance to standard 74-05 titled – "3A Sanitary Standard for Liquid Pressure and Level sensing Devices"

System Filling: Pharmaceutical/Kosher USP grade glycerin (99.5% pure)
Optional: Food grade silicone

Optional System Fillings: Consult factory

Case Fillings: The standard sanitary gauge is dry
Optional fills include:

- Glycerin USP Grade 99.5% pure)
- Food grade silicone

Optional Windows: Safety glass (all sizes) and polysulfone (3 1/2" only).

Clean or Steam in Place: (CIP or SIP) Process temperature limit 280°F (138°C).

Autoclave or Sterilize: Ambient temperature limit of 300°F (149°C) when supplied with polysulfone window (3 1/2" dry gauge only).

Notes:

- (2) 4 1/2" available with lower-connect 2" Tri-Clamp only.
- (3) For other connections, consult the factory.
 - Dual scales, metric ranges and false reading dials are available on request.
 - Special dials with colors, logos, etc., available upon request.
 - Tri-Clamps not included.
 - Tri-Clamp is a registered trademark of Alfa Laval Inc.

STANDARD RANGES⁽⁴⁾

Pressure psi	Compound Vacuum/psi
0/15	30 in.Hg/0 psi
0/30	30 in.Hg/15 psi
0/60	30 in.Hg/30 psi
0/100	30 in.Hg/60 psi
0/160	30 in.Hg/100 psi
0/200	30 in.Hg/150 psi
0/300	30 in.Hg/300 psi
0/400	
0/600	
0/1000 ⁽⁵⁾	

(4) Nonstandard ranges available standard including units in bar, kg/cm² and kPa.

(5) Consult Alpha Laval-Triclover for appropriate clamps for 1000 psi range.

TO ORDER THIS 1032 SANITARY GAUGE:

Select: _____ 35 1032S L 15L 100#

1. Dial size—2 1/2", 3 1/2" & 4 1/2" _____

2. Case type—1032 _____

3. Liquid-filled case, if required _____
otherwise eliminate

4. Process connection Tri-Clamp size—1 1/2" (15), 2" (20) _____

5. Connection location—Lower (L), Back (B) _____

6. Standard pressure range _____

Consult factory for guidance in product selection
Phone (203) 378-8281 or visit our
web site at www.ashcroft.com

In-Line Sanitary Gauges Type 1036 with Type 1037 Sanitary Instrument Fitting

TYPE 1036 SANITARY GAUGE

- All-welded stainless steel Bourdon tube
- Field liquid-fillable gauge case
- True Zero™ pointer indication
- PowerFlex™ movement for extended life
- Easy Zero™ external pointer adjustment standard
- Retrofits Anderson Instrument CPM design
- **PLUS!™ Performance Option:**
 - Liquid-filled performance in a dry gauge
 - Reduces wear caused by vibration and pulsations without liquid-fill headaches
 - Order as option XLL

TYPE 1037 INSTRUMENT FITTING

- Tubing O.D. size from 1/2" thru 2"
- 316L SS
- Electropolished 12-20RA (Micro-inch) internal surface finish
- Heat number stamped on each fitting

Ashcroft® Type 1036 in-line sanitary pressure gauge and Type 1037 sanitary instrument fitting virtually eliminate process deadleg. The design of the Type 1036 sanitary gauge and instrument fitting allows for the diaphragm of the gauge to be positioned at the gauge instrument fitting, eliminating the pocket or deadleg that may cause contamination.

The Type 1036 sanitary gauge and Type 1037 instrument fitting utilize a 1 1/2" Tri-Clover-type mating connection. This feature offers flexibility to use



the Ashcroft Type 1036 with the Type 1037 instrument fitting on sanitary instrument fitting for tube sizes from 1/2" thru 2".

PRODUCT SPECIFICATIONS FOR 1036 SANITARY GAUGE

Dial Size: 3 1/2"

Accuracy: ±1.5% of span for pressure ranges 100 psi thru 1000 psi. ±2.0% of span for vacuum, compound and pressure ranges below 100 psi

Case and Ring: 300 series stainless steel

Ring Type: Bayonet

Bourdon Tube and Socket: 316L stainless steel

Diaphragm Material and Surface Finish: 316L SS Electropolished 12-20RA (Micro-inch)

Diaphragm O-Ring: Buna-N⁽¹⁾

Connection: Lower

System Filling: Pharmaceutical/Kosher USP grade glycerin (99.5% pure)
Optional: Food grade silicone

Windows: Polycarbonate

Pointer: Black-painted aluminum with (external zero adjustment)

Dial: White with black markings including 3A insignia

Movement: 300 series stainless steel

Agency Approvals: 3A compliance to sanitary standard 74-05

Ranges: 15# thru 1000#, including compound and vacuum

Clean or Steam in Place: (CIP or SIP) Process temperature limit 280°F (138°C).

Autoclave or Sterilize: Ambient temperature limit of 300°F (149°C) when supplied with polysulfone window (3 1/2" dry gauge only).

We recommend a polysulfone window for autoclave/sterilization. Specify the XPS variation. Available 3 1/2" 1032 only

ASHCROFT® TYPE 1037 INSTRUMENT FITTING

Feature	Code
316L SS construction	Standard
Wetted parts electropolished to 12-20RA (Micro-inch)	Standard
Heat number stamped on fitting	Standard

Sizes:

1/2" Tri-Clamp connection	50
3/4" Tri-Clamp connection	75
1" Tri-Clamp connection	10
1 1/2" Tri-Clamp connection	15
2" Tri-Clamp connection	20

To Ensure Cleanliness

- (1) Prior to reinstalling the Type 1036 into the Type 1037 instrument fitting, we recommend replacing the O-ring (P/N 185A106-75)

STANDARD RANGES⁽²⁾

Pressure psi	Compound Vacuum/psi
0/15	30 in.Hg/0 psi
0/30	30 in.Hg/15 psi
0/60	30 in.Hg/30 psi
0/100	30 in.Hg/60 psi
0/160	30 in.Hg/100 psi
0/200	30 in.Hg/150 psi
0/300	30 in.Hg/300 psi
0/400	
0/600	
0/1000 ⁽³⁾	

(2) Nonstandard ranges available standard including units in bar, kg/cm² and kPa.

(3) For high pressure Tri-Clamps® consult Alfa Laval Inc.

TO ORDER THIS 1036 SANITARY GAUGE:

Select:	35	1036	SD	L	15L	XXX	100#
1. Dial size—3 1/2"	_____	_____	_____	_____	_____	_____	_____
2. Family—1036	_____	_____	_____	_____	_____	_____	_____
3. System material/fill—dry	_____	_____	_____	_____	_____	_____	_____
4. Liquid filled core if required. Drop D and add L (glycerin)	_____	_____	_____	_____	_____	_____	_____
5. Connection size/location—1.5" seal/lower	_____	_____	_____	_____	_____	_____	_____
6. X variations	_____	_____	_____	_____	_____	_____	_____
7. Range	_____	_____	_____	_____	_____	_____	_____

TO ORDER 1037 FITTING:

	75 - 1037
50 - 1/2" Tri-Clamp connection	} _____
75 - 3/4" Tri-Clamp connection	
10 - 1" Tri-Clamp connection	
15 - 1 1/2" Tri-Clamp connection	
20 - 2" Tri-Clamp connection	

Consult factory for guidance in product selection
Phone (203) 378-8281 or visit our
web site at www.ashcroft.com

Fractional Sanitary Pressure Gauge, Type 1032

Accuracy ($\pm 2.0\%$ of span)

- For use with $\frac{3}{4}$ " Tri-Clamp connections **ONLY**
- 2" gauge size suitable for limited-space applications
- 316L stainless steel process wetted parts
- Self-draining case designed for washdowns
- Small diaphragm to minimize process deadleg
- Autoclavable
- Can be steamed or cleaned-in-place (SIP or CIP)

The Ashcroft® Type 1032 fractional sanitary gauge is designed for applications in the food, pharmaceutical, and biotechnical industries where small size and sanitary conditions are a priority.

This compact 2" gauge features all-stainless steel construction, temperature-vented case, built-in pressure damping and a self-draining case to facilitate washdowns. The Type 1032 can also be cleaned or steamed in place. Available in a wide variety of pressure ranges from 30 psi, including compound.

Actual material certificates supplied as standard to EN 10204: 2004 3.1.



PRODUCT SPECIFICATIONS

Size:	2" (50mm)
Process Connection:	$\frac{3}{4}$ " Tri-Clamp, lower connection only
Diaphragm & Housing:	316 stainless steel electropolished 12-20Ra (micro-inch)
Accuracy:	Upscale accuracy $\pm 2\%$ of span to $\pm 3\%$ of span depending on range. Downscale accuracy up to 5%
Pointer:	Nonadjustable
Window:	Glass standard
Dial:	White with black markings
Accuracy:	2" (50mm)
System Filling:	Pharmaceutical/food quality USP grade Kosher glycerin (99.5% pure)

Notes:

- Dual-scale, metric ranges and special dials with logos are available on request
- The Ashcroft sanitary gauge can be recalibrated at the factory
- Tri-Clamp is a registered trademark of Alpha Laval, Inc.
- Gasket material and clamp torque tightness may effect gauge accuracy. The Ashcroft Type 1032 fractional sanitary pressure gauge is calibrated at the factory using a Buna gasket. The Tri-Clamp type of clamp is tightened to 25 inch pounds during calibration as recommended by the clamp manufacturer. Specify gasket material if other than Buna when ordering the Ashcroft 1032 fractional pressure gauge.


STANDARD RANGES⁽¹⁾

Pressure psi	Compound Vacuum/psi
0/30	30 in.Hg/30 psi
0/60	30 in.Hg/45 psi
0/100	30 in.Hg/60 psi
0/160	30 in.Hg/100 psi
0/200	30 in.Hg/150 psi
0/300	30 in.Hg/300 psi
0/400	
0/600	

TO ORDER THIS 1032 SANITARY GAUGE:

Select:	20	1032	S	75L	100#
1. Dial size—2"					
2. Case type—1032					
3. Diaphragm—316L stainless steel					
4. Process connection Tri-Clamp size— $\frac{3}{4}$ " (75)					
5. Connection location—Lower (L)					
6. Pressure range					

Consult factory for guidance in product selection
Phone (203) 378-8281 or visit our
web site at www.ashcroft.com

CODE	DESCRIPTION	PRESSURE GAUGE TYPE							
		DURAGAUGE GAUGES	1259	1009 (2 1/2", 3 1/2")	1009 (4 1/2", 6")	1008S	TEST GAUGES	1010, 1017, 1220	1490/1495 SERIES
									
XLL	PLUS! Performance	●		●	●	● ⁽¹⁾			
XBF	Wall mounting bracket				●				
XFW	Back flange			●					
XFF	Front flange			●	●	●			
XUC	U-clamp			●	●	●			●
XLJ	Dry liquid-fillable gauge	●	●	●	●	●			
XOS	Overload stop	●	●	STD	●	⁽³⁾	STD	●	
XVS	Underload stop	●	●	STD	●	⁽³⁾	STD	●	
XTS	Throttle screw	●	●	●	●	●	●	●	●
XTU	Throttle plug			●		●			●
XS4	Slotted link movement (decrease)	●			●			●	
XRJ	Slotted link (increase)	●			●			●	
XAP	Adjustable pointer				●			●	
XMP	Micrometer pointer	STD	STD	●	●			●	
XSH	Red set hand stationary	●		●	●			●	
XEO	Red set hand adjustable	●			●		●	●	●
XEP	Maximum pointer	●			●		●	●	
XEQ	Minimum pointer	●			●		●	●	
XPD	Plastic window	●	●	STD	●	STD ⁽²⁾	●	●	STD
XSG	Safety glass	●	●	●	●		●	●	
XRG	Regular glass	STD	STD		STD		STD	STD	
XDA	Dial marking	●	●	●	●	●	●	●	●
XNN	Paper tag	●	●	●	●	●	●	●	●
XNH	Stainless steel tag	●	●	●	●	●	●	●	●
XAB	Absolute pressure	●			●				
XAJ	1/2% optional accuracy	STD	STD		●			●	
XAN	1% optional accuracy			STD	STD				●
XBD	Black dial	●		●	●	●	●	●	●
X6B	Oxygen-cleaned gauges (gaseous)	●	●	●	●	●	●	●	
XTB	Tip bleed	●					●		
XED	High and low electric contacts	●							
XEE	Double high-electric contacts	●							
XEF	Double low-electric contacts	●							
XEG	Electric contacts off at low or high and in-between	●							
XGV	Silicone-filled gauge	●		●	●	●			
XGX	Halocarbon-filled gauge	●		●	●	●			
XCH	Carrying handle						●		
XC4	Calibration Chart	●		●	●	●	●	●	●

NOTES:

The options listed above are only a partial listing. For other options on these or other pressure instruments please call the factory for availability.

(1) Available on 63mm and 100mm.

(2) Available on 40mm and 50mm. Standard window material is glass for 40/50mm 1008S.

(3) Standard 63 & 100mm.

