

SANITARY PRESSURE GAUGES

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VASHCROFT®

Type 2030 Series Digital Sanitary Gauge 3

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

The new 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⁾ (4-20mA), 2232⁽¹⁾ (line)

In-line Tri-clamp: 2036 (battery), 2136 (4-20mA),

2232 (line)

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

Tri-Clamp Connection: Direct, in-line 11/2", 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 Bar Graph: Yes

Battery Life: 1000 Hrs., Battery Life Indicator -

Features

- 4/20mA Output
- (1) or (2) SPDT Switches
- .25% F.S. Terminal Point Accuracy (.13
- IP 65 Weatherproof Case Suitable For Wash Downs
- Extra 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*

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

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

Engineering Units (Units): Allows scrolling through menu to select available options. 10 units of measurement are available; psi, inH₂O with 3 temp. options: 20°C, 60°F, 4°C*, mmHg, ftH2O, mPa, kPa,

Configuration Mode (Config): Allows for changes to default settings of gauge

Bar Graph (Graph): Allows for adjustment of bargraph & 4-20

Auto Off (Off): Allows for changes to auto off of gauge: 5 options:, 30 min., 10 min., 5 min., 2 min.,

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

*Excludes 2036 Series



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 Display

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

- (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.

psi	in. Hg (Vacuum)	Comp. (psi)	mmHg (pressure)	in. Hg (pressure)	in. H₂O
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. H₂O	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

HOW TO ORDER 30 2032 SD 15L 160# Dial Size: 3"_ Case Type Number: 2032 Battery 2132 4-20mA loop powered 2232 12-36 Vdc 2036 In-line battery 2136 In-line 4-20mA loop powered 2236 In-line 12-36Vdc Wetted Parts: 316L SS Process Connection: 1.5, "2.0" Tri-Clamp Range: 160 psi. Variations: RE remote mount in-line design



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
- New PLUS!™ Performance Option:
- Liquid-filled performance in a dry gauge
- Fights vibration and pulsations without liquid-fill headaches
- Autoclavable to 300°F (149°C)(1)
- Order as option XLL
- True Zero™ pointer indication no stop pin to mask false zero reading – ensures safety and process control
- (1) Available in 31/2" 1032 only with option XPS polysulfone window.

OTHER FEATURES:

Available in 21/2," 31/2" and 41/2" 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 200 psi thru 1000 psi. ±2.0% of span for vacuum, compound and pressure ranges below 100 psi

Pointer: Adjustable (external zero adjust on 3½ dial size)

Windows: 2¹/₂", 3¹/₂"–Polycarbonate standard 4¹/₂"–Glass standard

Dial: White with black markings including 3A insignia

Agency Compliance: 3A compliance to standard 74-03 titled – "3A Sanitary Standard for Liquid Pressure and Level sensing Devices"

System Filling: Pharmacuetical/food quality 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 $(2^{1/2}" \text{ and } 3^{1/2}")$ and polysulfone $(3^{1/2}" \text{ only})$.

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 (31/2" dry gauge only).

Notes:

- (2) 4¹/₂" 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 regstered trademark of Alfa Laval Inc.

STANDARD RANGES)
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 Tri-Clover, Inc. for appropriate clamps on 1000 psi range.

TO ORDER THIS 1032 SANITARY GAUGE:

Select:	35	1032S	L	15L	100#
1. Dial size-2½", 3½" & 4½"				1	
2. Case type-1032					
3. Liquid-filled case, if required					
otherwise eliminate					
4. Process connection Tri-Clamp size-1½" (15), 2" (20) _					
5. Connection location-Lower (L), Back (B)					
6 Standard pressure range					

VASHCROFT®

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
- New PLUS!™ Performance Option:
- Liquid-filled performance in a dry gauge
- Fights 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 11/2"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

Dial Size: 31/2"

 $\begin{array}{l} \textbf{Accuracy:} \ \pm 1.5\% \ \text{of span for pressure ranges } 100 \\ \text{psi thru } 1000 \ \text{psi.} \ \pm 2.0\% \ \text{of span for vacuum,} \\ \text{compound and pressure ranges below } 100 \ \text{psi} \\ \end{array}$

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 Fill: USP food grade glycerin

Windows: Polycarbonate

Pointer: Black-painted aluminum with external

zero adjust (Easy Zero™)

Dial: White with black markings including

3A insignia

Movement: 300 series stainless steel

Agency Approvals: 3A compliance to sanitary

standard 74-03

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 (3¹/2″ dry gauge only).

We recommend a polysulfone window for autoclave/sterilization. Specify the XPS variation.

Available 3¹/₂" 1032 only

Feature 1 4 1

ASHCROFT® TYPE 1037 INSTRUMENT FITTING

Code

316L SS construction	Standard
Wetted parts electropolished to	Ctondord
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 0-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 SA	NITARY GAUGE:						TO ORDER 1037 FITTING:
Select:	35	1036	SD	15L	ххх	100#	75 – 1037
1. Dial size–3½″ 2. Family–1036							50 – ½"Tri-Clamp connection 75 – ¾"Tri-Clamp connection
 System material/fill–SS Connection size/location 	•						10 – 1″Tri-Clamp connection
F. V	III—1.5 Seal/IOWei						15 – 1½" Tri-Clamp connection 20 – 2" Tri-Clamp connection
6. Range							20 2 III olamp connection

SASHCROFT

Fractional Sanitary Pressure Gauge, Type 1032 Accuracy (±2.0% of span)

- For use with 3/4"Tri-Clamp connections
- 2" gauge size suitable for limitedspace applications
- 316L stainless steel process wetted parts
- Self-draining case designed for washdowns
- Small diaphragm to minimize process deadleg
- Autoclavable
- Unit can be steamed or cleanedin-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.



PRODUCT SPECIFICATIONS Size: 2"(50mm) Notes: **Process** Dual-scale, metric ranges and special dials Connection: 3/4" Tri-Clamp, lower connection with logos are available on request The Type 1032 sanitary gauge can be pro-Diaphragm 316 stainless steel electropolished duced in many other pressure ranges & Housing: 12-20Ra (micro-inch) · The Ashcroft sanitary gauge can be recalibrated at the factory Accuracy: Upscale accuracy ±2% of span to ±3% of span depending on range. · Tri-Clamp is a registered trademark of Downscale accuracy up to 5% Tri-Clover, Inc. Pointer: Nonadjustable · Gasket material and clamp torque tightness may effect gauge accuracy. The Ashcroft Type Window: Glass standard 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 recom-Dial: White with black markings Accuracy: 2"(50mm) System mended by the clamp manufacturer. Specify Pharmaceutical/food quality USP Filling: gasket material if other than Buna when ordergrade glycerin (99.5% pure) ing the Ashcroft 1032 fractional pressure

gauge.

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-3/4" (75)					
5. Connection location–Lower (L)					
6. Pressure range					

