

PATENTED

Control & Power, Inc. - 1.877.835.5274 - www.controlandpower.com

TRANSMITTER SPECIFICATIONS

Output (Supply):
4-20mA 2 wire (12 to 30 Vdc Supply)
1-5 Vdc 3 wire Regulated (10 to 24 Vdc Supply)
0.5-4.5 Vdc 3 wire Ratio-metric (5 Vdc ±5% Supply)
Ranges: 15 to 1000 psi (see table 3)
Performance:⁽¹⁾
±1% FSO from best fit straight line (includes non-linearity, hysteresis, and non-repeatability)
Temperature:
Storage: -40 to 221°F (-40 to 105°C)⁽⁵⁾
Operating: -40 to 221°F (-40 to 105°C)⁽⁵⁾
Compensated: -4 to 185°F (-20 to 85°C)
Thermal effect: 1.4% per 100°F, 3%/100°C typical (zero & full scale combined)
In addition, .05 psi/°C

CE Conformity: Meets CE heavy industrial Per EN 61326: 1998 Annex A

Enclosure:
Electro-polished SS case IP50 (std), IP65 (XLJ)⁽²⁾

Media: Liquid, gas or vapor

Wetted Materials:
Electro-polished 316L SS (12-20 RA finish)

Electrical Protection:
Reverse polarity 75 Vdc, Over-voltage 60 Vdc continuous, and short-circuit protection.⁽³⁾

Shock: 100g-force per IEC770.

Vibration: 5g's 50 to 2000Hz.

Humidity: 95% non-condensing

Proof Pressure:
0 to 600 psi = 125% of full scale
1,000 psi = 110%

Burst Pressure:
0 to 1000 psi = 10x burst

Response Time: Less than 10 ms (electronics)

Wake-up Time: 1 ms

Insulation: 1 meg ohm at 200 Vdc

Electrical Connection:
2' shielded cable (Standard)

Process Connection: Lower

Process Connection: 1½" and 2" sanitary Tri-Clamp®

GAUGE SPECIFICATIONS

Dial Size: 2½", 3½"

Dial: White with black markings including 3A insignia

Agency Compliance: 3A compliance to standard 74-02 titled - "3A Sanitary Standard for Liquid Pressure and Level Sensing Devices"

System Filling: Pharmaceutical/food quality USP grade glycerin (99.5% pure). Optional: food grade silicone.

Features

- A transducer and gauge in one instrument (2 in 1)
- A 1% performance sanitary transducer
- Electro polished 316L st. st. media compatibility
- Clean-in-place (CIP)
Steam-in-place (SIP)
- Meets 3A sanitary standard & robust CE heavy industrial
- Voltage and 4-20mA outputs
- Ranges compound to 1000 psi
- Vibration dampening PLUS!™ Performance
- Save time, money, space



Gauge Accuracy:

1.5% full-scale on ranges 100psi and above.
2% full-scale on ranges below 100psi.

Window: Polycarbonate

Gauge Movement: Patented PowerFlex™ movement

OPTIONS (Table 1)

IP65 (LJ): Provides hard case plug for IP65/NEMA4 weather protection (not liquid fillable).

(LL): Patented PLUS! performance provides vibration dampening in a dry case.

FS Safety Glass

ELECTRICAL CONNECTORS (Table 2)

Shielded Cable **CODE**
2' shielded cable..... FL

Mini-Hirschmann G Series
No Mating Connection..... HM
With Mate (with 1 meter cable)..... M2
With Mate (no cable)..... M1
With Mate (with 3 meter cable)..... M3

PRESSURE RANGES (Table 3)

psi	kg/cm ² (4)	bar (4)	kPa (4)	mPa (4)
0/15	1	1	100	0.1
0/30	1.6	1.6	160	0.2
0/60	2.5	2.5	250	0.3
0/100	4	4	400	0.4
0/160	6	6	600	0.6
0/200	10	10	1,000	1
0/300	16	16	1,600	1.6
0/400	25	25	2,500	2.5
0/600	40	40	4,000	4
0/1000	60	60	6,000	6

COMPOUND RANGES

30IMV&15	-1, .6	-1, .6	-100, 60	-1, .1
30IMV&30	-1, 1.5	-1, 1.5	-100, 150	-1, .2
30IMV&60	-1, 3	-1, 3	-100, 300	-1, .3
30IMV&100	-1, 5	-1, 5	-100, 500	-1, .5
30IMV&150	-1, 9	-1, 9	-100, 900	-1, .9
30IMV&300	-1, 24	-1, 24	-100, 2400	-1, 2.4

(1) 1% BFSL from 10% to 90% full scale, 1.5% from 0% to 10% and 90% to 100% full scale.

(2) Not Liquid Fillable

(3) For ratio-metric output, reverse polarity 20 Vdc and over-voltage of 25 Vdc continuous.

(4) 10 piece minimum per line item.

(5) Cable rated to 105°C. Higher rated cable upon application.

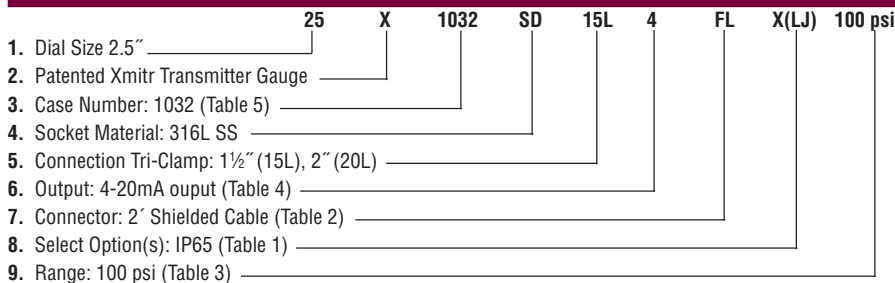
Table 4

Output	Code	Wiring
4-20 mA	4	Red = Supply + Black = Supply -
1-5 Vdc	1	Red = Supply + Black = Supply - (Signal Ref.)
.5-4.5 Vdc Ratiometric	R	White = Signal

Table 5

Dial Size	Code	Type
2.5"	25	1032
3.5"	35	1032

HOW TO ORDER



Consult factory for guidance in product selection
Phone (203) 385-0217, Fax (203) 385-0602 or
visit our web site at www.ashcroft.com

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) 2½", 3½" requires optional polysulfone window XPS.

OTHER FEATURES:

Available in 2½", 3½" and 4½" 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 wash-downs and also available with the PLUS!™ performance option.



PRODUCT SPECIFICATIONS

Dial Sizes: 2½", 3½" and 4½"⁽¹⁾

Process Connection: 1½" and 2" Tri-Clamp* lower and back⁽²⁾

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 3½" dial size)

Windows: 2½", 3½"—Polycarbonate standard
4½"—Glass standard

Dial: White with black markings including 3A insignia

Agency Compliance: 3A compliance to standard 74-02 titled – "3A Sanitary Standard for Liquid Pressure and Level sensing Devices"

System Filling: Pharmaceutical/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 and polysulfon (2½" and 3½")

Autoclave or Sterilize: Temperature limit of 300°F (149°C). We recommend a polysulfone window for autoclave/sterilization. Specify the XPS variation.

Notes:

- (1) 4½" available with lower-connect 2" Tri-Clamp only.
- (2) 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.

STANDARD RANGES⁽¹⁾

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 ⁽²⁾	

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

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 _____

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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 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

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 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 74-02

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

Clean or Steam in Place (CIP or SIP): Temperature limit of 300°F (149°C)

Autoclave or sterilize: Temperature limit of 300°F (149°C)

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

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

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

STANDARD RANGES⁽¹⁾

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 ⁽²⁾	

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

(2) Consult Tri-Clover, Inc. for appropriate clamps on 1000 psi range.

TO ORDER THIS 1036 SANITARY GAUGE:

Select:	35	1036	SD	15L	XXX	100#
1. Dial size—3 1/2"	_____					
2. Family—1036	_____					
3. System material/fill—SS/dry	_____					
4. Connection size/location—1.5" seal/lower	_____					
5. X variations	_____					
6. Range	_____					

HOW TO ORDER 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	

- For use with 3/4" Tri-Clamp connections
- 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
- Unit 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.



PRODUCT SPECIFICATIONS

Size: 2" (50mm)
Process Connection: 3/4" Tri-Clamp, lower connection
Diaphragm & Housing: 316 stainless steel electropolished 12-20Ra (micro-inch)
Accuracy: Upscale accuracy ±2% of span to ±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 glycerin (99.5% pure)

Notes:

- Dual-scale, metric ranges and special dials with logos are available on request
- The Type 1032 sanitary gauge can be produced in many other pressure ranges
- The Ashcroft sanitary gauge can be recalibrated at the factory
- Tri-Clamp is a registered trademark of Tri-Clover, 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—3/4" (75) _____

5. Connection location—Lower (L) _____

6. Pressure range _____

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CODE	DESCRIPTION	PRESSURE GAUGE TYPE							
		STAINLESS STEEL CASE				INDUSTRIAL GAUGE			
		DURAGAUGES	1009 (2 1/2", 3 1/2")	1009 (4 1/2", 6")	1008S	TEST GAUGES	GENERAL SERVICE	SPECIAL SERVICE	1490/1495 SERIES
XLL	PLUS!™ Performance	●	●		●				
XBF	Wall mounting bracket			●					
XFW	Back flange		●						
XFF	Front flange		●	●	●				
XUC	U-clamp		●	●				●	●
XLJ	Dry liquid-fillable gauge		●	●	●				
XOS	Overload stop	●	STD	●	STD ⁽¹⁾	STD	●	●	
XVS	Underload stop	●	STD	●	STD ⁽¹⁾	STD	●	●	
XTS	Throttle screw	●		●		●	●	●	
XTU	Throttle plug		●		●				●
XS4	Slotted link movement (decrease)	●		●			●	●	
XRJ	Slotted link (increase)	●		●			●	●	
XAP	Adjustable pointer		●	●			●	●	
XMP	Micrometer pointer	STD	●	STD			STD	●	
XSH	Red set hand stationary	●	●	●			●	●	
XEO	Red set hand adjustable	●	●	●		●	●	●	
XEP	Maximum pointer	●		●		●	●	●	
XEQ	Minimum pointer	●		●		●	●	●	
XPD	Plastic window	●	STD	●	STD ⁽¹⁾	●	●	●	STD
XSG	Safety glass	●	●	●		●	●	●	
XMG	Metric version gauge		●		●				
XDA	Dial marking	●	●	●	●	●	●	●	●
XNN	Paper tag	●	●	●	●	●	●	●	●
XNH	Stainless steel tag	●	●	●	●	●	●	●	●
XAB	Absolute pressure	●		●			●	●	
XAJ	1/2% optional accuracy	STD		●			●	●	
XAN	1% optional accuracy		STD	STD			STD		●
XRA	Retard scale	●		●			●		
XWN	White dial	STD	●	●	STD	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 40mm and 50mm.