

## Data Sheet

# 2030 Series Digital Sanitary Pressure Gauge

### FEATURES

- Multi-Functional digital pressure gauge with 4-20 mA output 1 or 2 SPDT Switches (OPT.)
- Large LCD display
- $\pm 0.25\%$  of span terminal point accuracy
- IP65 Weatherproof case
- Material Traceability Certification to EN 10204: 2004 3.1 (Excludes 2036 Series)

### TYPICAL USES

- Specialized OEM equipment
- Filtration
- Food and dairy
- Pharmaceutical
- Biotech
- Medical equipment

### SPECIFICATIONS

Model:	2032: Conventional Tri-Clamp®: Battery
	2132: Conventional Tri-Clamp®: 4-20 mA loop powered
	2232: Conventional Tri-Clamp®: 12-36 Vdc line powered
	2036: In-line Tri-Clamp®: Battery
	2136: In-line Tri-Clamp®: 4-20 mA loop powered
	2236: In-line Tri-Clamp®: 12-36 Vdc line powered
Accuracy:	$\pm 0.25\%$ of span, terminal point (ASME B40.7)
Ranges:	Vacuum, Compound to 1000 psi (food grade mineral oil fill is required for vacuum and compound ranges)
Proof Pressure:	200% of full scale
Dial Size:	3" (optional front flange for panel mount)
Process Connection:	2032, 2132, 2232: $\frac{3}{4}$ " Tri-Clamp® ( $\pm 0.5\%$ positive pressure only, min range 100 psi), $1\frac{1}{2}$ " Tri-Clamp® or 2" Tri-Clamp® 2036, 2136, 2236: $1\frac{1}{2}$ " In-line compatible with model 1037 in-line tee fitting
Process Conn. Location:	Lower, Top, 9 o'clock or 3 o'clock
Fill:	Glycerine, Food Grade Silicone (OPT.), Food Grade Mineral Oil (OPT.) or Silicone (OPT.)
Mounting:	Direct, Remote (OPT.)
Wiring:	3 ft shielded cable standard. Optional custom length cable up to 100ft
Front Cover:	3" Protective cover (OPT.)
Seal Surface Finish:	12-20 Ra
223X Options:	1 or 2 SPDT reed relay, rated 1 Amp at 30 Vdc, 0.5 Amp at 125 Vac 4-20 mA output
Enclosure Rating:	Weatherproof, IP65 <sup>(1)</sup>
Remote Mount Sensor:	3 ft shielded cable standard. Optional custom length cable up to 25 ft ( $1\frac{1}{2}$ " and 2" connection only).



### KEY BENEFITS

- Replaces up to 3 instruments, local pressure indicator, 4-20 mA loop transmitter, pressure switch with one instrument
- Save cost and pipe cut outs
- Available with conventional or in-line style Tri-Clamp® fittings

### DISPLAY

Display:	Full 5 Digital LCD
Bar Graph:	Allows for adjustment of bar graph & 4-20 mA, 10 segment (OPT.)
Battery Life:	400 hours, battery life indicator
Backlight:	Optional, models 2132 and 3136 require battery backup option to power backlight
Character Height:	0.60"

### WETTED COMPONENTS

Diaphragm	Seal Housing	Joints
316L SS electropolished	316L SS	Welded

### NON-WETTED COMPONENTS

Case
304 SS, Electropolished/Tumbled

### MIN/MAX TEMPERATURE LIMITS

Ambient	Process	Storage
-14 °F to 140 °F <sup>(1)</sup> (-10 °C to 60 °C)	-14 °F to 275 °F <sup>(2)</sup> (-10 °C to 135 °C)	-4 °F to 158 °F (-20 °C to 70 °C)

(1) The model 2X3X gauge is not suitable for an autoclave or powerwash.

(2) Re-zero gauge frequently when exposed to elevated temperature and use.

## Data Sheet

### 2030 Series Digital Sanitary Pressure Gauge

#### TEMPERATURE ERROR

±0.04% of span/degree F, above or below 70 °F reference temp.  
 (Span and Zero shift can be corrected by zeroing the gauge at operating temperatures withing stated process temperature limits)

#### MENU MODE

Configuration Mode:	Allows for changes to default settings of gauge including password, zero disable, recalibration, restore factory defaults
Engineering Units:	Allows scrolling through menu to select available options 10 units of measurement are available psi, in. H <sub>2</sub> O with 3 temp. (OPT.): (20 °C), 60 °F, (4 °C), mm Hg, ft H <sub>2</sub> O, mPa, kPa, kg/cm <sup>2</sup> and bar
Auto Off (Off):	Allows for changes to auto off of gauge 5 Options: 30 Min., 10 Min., 5 Min. or Never
Update Rate (Update):	100 ms, 1 sec, 500 ms or 200 ms
Dampening (Damp):	None, Average, 8, 6, 4 or 2 times per 100 ms
Zero Disable:	Zero "lockout" feature
Field Recalibration:	Zero, Span & Midscale (password protected)
Calibration:	Allows for recalibration of zero & span

#### KEYPAD 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
Enter:	Selects items in the menu
Switch Setpoint:	Program and switch setpoints

#### AGENCY APPROVALS

3A Sanitary  
 Material Traceability Certification to EN 10204: 2004 3.1 standard ASME B40.7

#### OPTION "JZ" CUSTOM CABLE LENGTH

Allows the user to specify a custom cable length for the gauge as well as the cable length between the remote seal and gauge display.  
 Gauge models 2X3X with remote mounted seal assembly (XRE) both gauge and cable length and remote seal cable length may be specified.  
 Maximum cable length for XRE seal is 25 feet.  
 Maximum gauge power cable length 100 feet.  
**EXAMPLE - XJZ**  
 Gauge cable length = 15'  
 Seal cable length = 10'

#### STANDARD PRESSURE RANGES - Range abbreviations for part code shown below in ( ) in txt boxes

(#) PSI	(IMM) in. Hg (vacuum)	(#&V) Comp. (psi)	(MM) mm Hg (pressure)	(IM) in. Hg (pressure)	(IW) in. H <sub>2</sub> O	(MBR) mBar	(FW) ft H <sub>2</sub> O	(MP) mPa	(KP) kPa	(BR) or (KSC) Bar/KSC
15	30	-15/0/15	800	30	400	1000	60	1	100	1
30		-15/0/30	1000	60	800	1500	160	1.6	160	1.6
60		-15/0/60	2000	100	1000	2000	200	2.5	250	2.5
100		-15/0/100	3000	160		2500	300	4	400	4
160			5000	200		4000	400	6	600	6
200			10,000	300		5000	600	10	1000	10
300				400		6000	1000	16	1600	16
600				600		10,000		25	2500	25
800				800		15,000		40	4000	40
1000						20,000		60	6000	60

## Data Sheet

### 2030 Series Digital Sanitary Pressure Gauge

ORDERING CODE	Example:	30	2032	S	D	20	L	1000#	-XBL
<b>Dial Size</b>									
30 - 3.0"		30							
<b>Model (Accuracy)</b>									
2032 - Battery power			2032						
2132 - 4-20 mA loop powered									
2232 - 12-36 Vdc									
2036 - Battery power (1½" Inline Tri-Clamp® conn. only)									
2136 - 4-20 mA Loop (1½" Inline Tri-Clamp® conn. only)									
2236 - 12-36 Vdc (1½" Inline Tri-Clamp® conn. only)									
<b>Standard</b>									
S - 316L Stainless steel				S					
<b>Case</b>									
D - Dry					D				
<b>Seal Size Process Connection</b>									
<b>Seal Size (2-32)</b>									
75 - ¾" Tri-Clamp® (Positive pressure only, minimum range 100 psi)									
15 - 1½" Tri-Clamp®									
20 - 2" Tri-Clamp®						20			
<b>Seal Size (2-36)</b>									
15 - 1½" Inline									
<b>Process Connection Location</b>									
L - Lower							L		
E - 9 o'clock									
D - 3 o'clock									
T - Top									
<b>Pressure Range (see range table for standard ranges)</b>									
<b>Vacuum</b> (required option MY food grade mineral oil fill)									
0#V - 0 -15 psi vacuum									
<b>Compound</b>									
15#&V - Vac. to 15 psi (required option MY food grade mineral oil fill)									
30#&V - Vac. to 30 psi (required option MY food grade mineral oil fill)									
<b>Gauge</b>									
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									
500# - 0 to 500 psi									
600# - 0 to 600 psi									
800# - 0 to 800 psi									
1000# - 0 to 1,000 psi								1000#	
<b>Options (if choosing an option(s) must include an "X")</b>									-X _ _
AO - 4-20 mA output for line power gauges with switches (See Note 1)									
BK - Battery back-up									
BL - Backlight (models 2132 and 2136 also requires option BK to power light)									BL
CK - Silicone fill fluid									
CZ - Food grade silicone fill fluid									
FF - Flange for panel mounting	only available with remote mount sensor option								
HN - Mini Hirschmann® connector includes mating connector									
JZ - Custom cable length customer must specify cable length in special instructions									
MF - Free from mercury certificate									
MN - Mylar® tag bonded to case									
MY - Food grade mineral oil (required for Compound and Vacuum ranges) fill fluid									
NH - Metal tag wired to case									
NN - Paper tag bonded to case									
PP - Protective front cover									
RE - Remote mount seal & sensor (3' shielded cable standard), (1½" and 2" connection only)									
CD-1 - Certificate of conformance to specs. and/or drawings									
C4 - <a href="#">Traceable calibration certificate</a>									
U1 - (1) SPDT Switch (line power gauges only, shielded cable standard)									
U2 - (2) SPDT Switch (line power gauges only, shielded cable standard)									
6B - Cleaned for oxygen service									
Note 1. Use option "AO" only if also selecting option U1 or U2 switch output. If only 4-20 mA output is required, select model 213X									

## Data Sheet

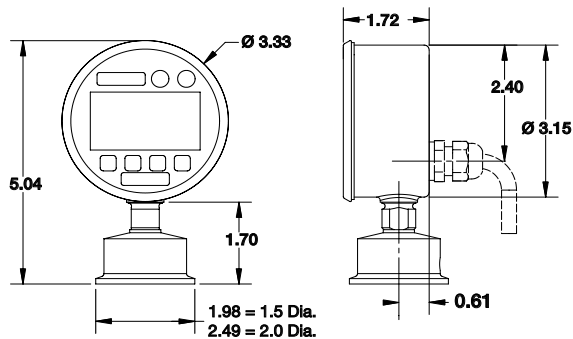
### 2030 Series Digital Sanitary Pressure Gauge

### 1037 Instrument Fittings

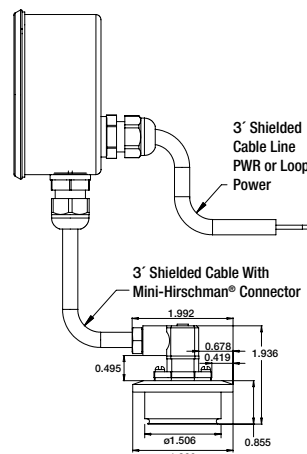
#### DIMENSIONS in [ ] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

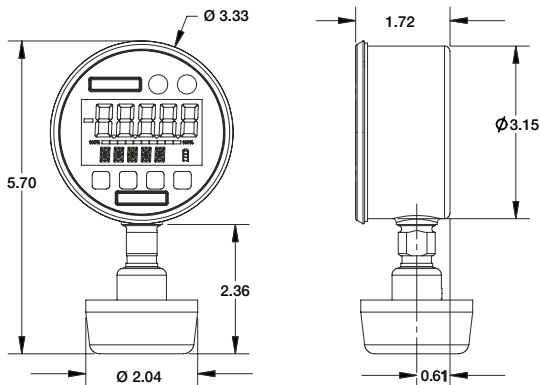
#### 2032, 3132, 2232 With 1½" or 2" Diameter Seal



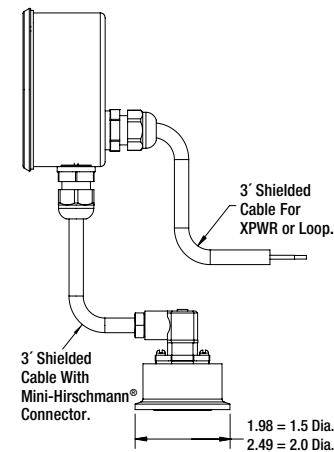
#### 2136, 2236 With Remote Seal In-Line Seal (XRE Opt.)



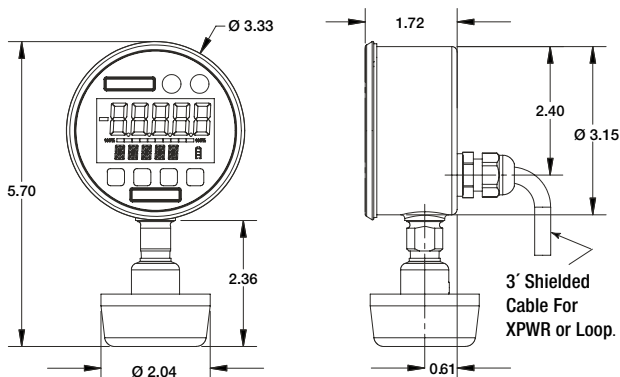
#### 2036 With 1½" In-Line Seal



#### 2132, 2232 With Remote Seal (XRE Opt.)



#### 2136 With 1½" In-Line Seal



#### 1037 SPECIFICATIONS

##### Type 1037 Fitting

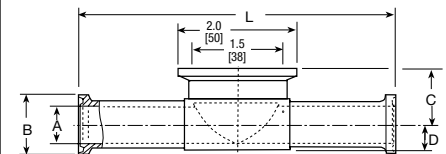
- Pipe O.D. sizes from ½" thru 2"
- 316L Stainless steel
- Electropolished 12-20RA internal surface finish
- Heat number of wetted materials stamped on each fitting
- Actual material certificates and certificate of conformance supplied as standard to EN 10204:2004 3.1

Models 2X36 with in line seal are compatible with Type 1037 in line tee fittings as specified below.

#### HOW TO ORDER

Size	Product Code	Part Number To Order
½"	50 1037	292C139-01
¾"	75 1037	292C139-02
1"	10 1037	292C139-03
1½"	15 1037	292C139-04
2"	20 1037	292C139-05

#### DIMENSIONS in [ ] are millimeters



Pipe Size	A	B	C	D	L
½	0.38 [9.6]	0.98 [24.9]	0.87 [22]	0.31 [7.9]	5.25 [133.4]
¾	0.63 [15.9]	0.98 [24.9]	1.00 [25]	0.43 [10.9]	5.25 [133.4]
1	0.87 [22.1]	1.98 [50.4]	1.13 [28.7]	0.55 [14.1]	4.75 [120.7]
1½	1.37 [34.7]	1.98 [50.4]	1.13 [28.7]	0.81 [20.6]	5.50 [139.7]
2	1.86 [47.2]	2.51 [62.8]	1.13 [28.7]	1.06 [26.9]	7 [177.8]