

## Data Sheet

# 2074, 2174 & 2274 Digital Pressure Gauges

### FEATURES

- Multi-Functioning Digital Pressure Gauge with optional 4-20 mA output, 1 or 2 SPDT switches
- Optional FM and CSA Approval Intrinsically Safe, Class I, Div. 1
- Battery powered visual pressure indicator
- IP65 weatherproof case
- Easy to use menu options
- Large LCD display

### TYPICAL USES

- Hydraulic and pneumatic equipment
- Test bench/gauge repair facilities
- Specialized OEM equipment
- Measurement and validation
- Weighing systems
- Pump control



### SPECIFICATIONS

Accuracy:	±0.25% of span, terminal point
Input Power Requirements:	2074: Battery powered 2174: Loop powered 4-20 mA (12-36 Vdc) 2274: DC Line powered (12-36 Vdc)
Sizes:	3", 4½"
Inlet Fitting:	¼ or ½ NPT typical, see ordering code on page 3 for additional options
Ranges:	Vacuum to 20,000 psi
Process Connection Location:	Lower, top, left or right side
Electrical Connection for Loop or Line Power:	4½" case screw down terminals 3" case jacketed cable extended 3 feet Custom cable length available (OPT.)
Temperature Error (Zero & Span):	0.04% of span/°F, (from 70 °F/reference temperature)
Enclosure Rating:	Weatherproof, IP65

2074, 2174, 2274  
3", 4½" dial size

### DISPLAY

Type:	LCD
Display Digits:	5
Character Height:	3" case: 0.60" 4½" case: 0.88"
Backlight:	Model 2174 requires battery backup as well to power the light (OPT.)
Bar Graph:	10 segment
Battery Life:	3" > 400 hours 4½" > 2,000 hours

### KEY BENEFITS

- Replaces 3 instruments, local pressure indicator, 4-20 mA loop transmitter, pressure switch with one instrument
- Save cost and pipe cut outs
- Save space

### WETTED COMPONENTS

Model	Diaphragm	Process Connection	Joints
2074, 2174, 2274	17-4 Stainless steel	316L Stainless steel	Laser weld

### NON-WETTED COMPONENTS

Model	Case
3"	304 Stainless steel
4½"	Fiberglass reinforced thermoplastic or black epoxy coated aluminum

### MIN/MAX TEMPERATURE LIMITS

Version	Process	Storage
2074, 2174, 2274	14 °F to 140 °F (10 °C to 60 °C)	-4 °F to 158 °F (-20 °C to 70 °C)

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### 2074, 2174 & 2274 Digital Pressure Gauges

#### PRESSURE RATINGS

Overpressure:	Proof:	Burst:
15 to ≤2,000 psi	2 X Range	8 X Range
≥3,000 to ≤5,000 psi	1.5 X Range	3 X Range
≥7,500 to ≤20,000 psi	1.2 X Range	1.5 X Range

#### AGENCY APPROVALS

Optional Intrinsically Safe, FM (Class I Div. I, Groups A-G) and CSA (Class I Div. I, Groups A-D, Class II Div. I, Groups E-G) 15,000 psi Max full scale range 15,000 psi

#### MENU MODE

**Engineering Units:** Up to 10 units of measurement are available; psi, in. H<sub>2</sub>O (with three temp. options: 20 °C, 60 °F, 4 °C\*), ft. H<sub>2</sub>O, mPa, mBar, kPa, kg/cm<sup>2</sup>, Bar, in. Hg and mm Hg. Units available are based on full scale range of gauge.

**Configuration Mode (Config):** Allows for changes to default settings of gauge including zero disable feature

**Auto Off (Off):** Allows for changes to auto off of gauge, five options: Never, 2 min., 5 min., 15 min., 30 min.

**Update Rate (Update):** Four options: 100 ms, 200 ms, 500 ms, 1 sec

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

**Backlite:** Five options: Never, 10 sec., 30 sec., 1 min., 5 min.

**Field Recalibration:** Allows for recalibration of zero, midscale and span (password protected)

**Graph:** Program bar graph and scale 4-20 mA output

**Switch Setpoint (Swset):** Programmable switch set and reset points

#### KEYPAD FUNCTIONS

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

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

**Min./Max. (down) Arrow Key:** Stores min and max values, arrow key allows for scrolling through menu items

**Menu Key:** Provides access to menu options

**Enter:** Selects items in the menu

**Backlite (up) Arrow Key:** Manually turns backlite on and off (auto off options in menu), arrow key allows for five menu options. (up) arrow key allows for scrolling through menu options

#### OPTIONAL FEATURES

Battery backup

Back light

4-20 mA output (model 2274 only)

One or two SPDT dry contact switches (max contact rating 1 amp at 30 Vdc, 0.5 amp at 125 Vac)

FM and CSA approved intrinsically safe (subject to some restrictions see ordering code)

Metal tagging

Cleaned for oxygen service

Traceable calibration certificate

Mercury free certificate

Throttle screw/plug

Custom cable length

Mini Hirschmann connector (3" only) front flange for panel mount (3" only)

Protective front cover

Black or orange protective rubber boot (3" only)

Aluminum case (4½" only)





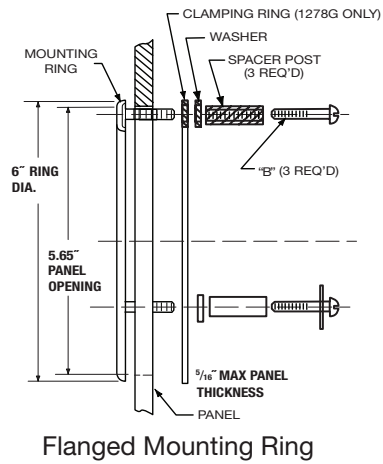
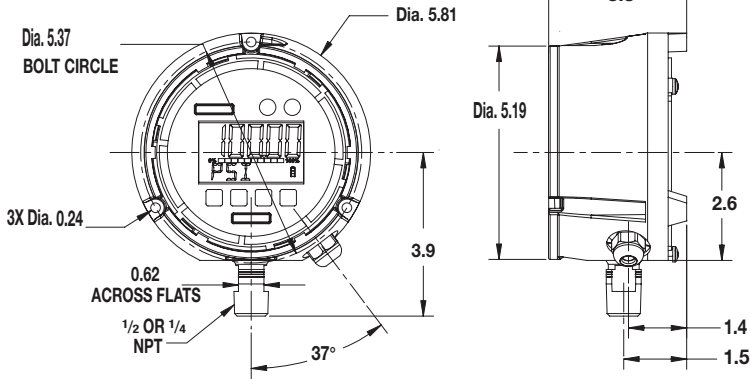
**Data Sheet**

**2074, 2174 & 2274 Digital Pressure Gauges**

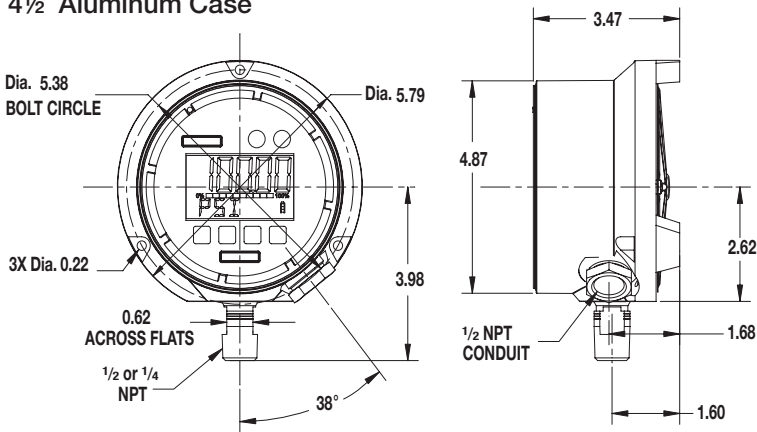
**DIMENSIONS in inches**

For reference only, consult Ashcroft for specific dimensional drawings

**4 1/2" Fiberglass Reinforced Thermoplastic Case**



**4 1/2" Aluminum Case**



**HIRSCHMAN CONNECTOR WIRING (option XHN)**

**MODEL 2174**

- Pin 1 Loop +
- Pin 3 Loop -

**MODEL 2274**

- Pin 1 DC +
- Pin 3 DC -

**3" Stainless Steel Case**

