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ASHCROFT[®]

- **A Multi-Functional Digital Gauge with Optional:**
 - 4/20mA Output
 - (1) or (2) SPDT Switches
- **¼% Full Scale Terminal Point Accuracy (.13% BFS)**
- **IP 65 Weatherproof Case**
- **Three Case Options:**
Stainless Steel, Fiberglass Reinforced Thermoplastic or Aluminum
- **Extra Large Display**
- **Intrinsically Safe, Class 1, Div. 1, pending**
- **Easy-to-Use Menu Options:** (all password protected)
 - Five Backlite Display Options
 - Twelve Engineering Units
 - Menu Configure Feature
 - Update Rate
 - Dampen Rate
 - Auto-Off

Digital Industrial Gauge, Types 2074, 2174 and 2274



NOW
AVAILABLE WITH
CE & FM AGENCY
APPROVALS

ISO 9001
REGISTERED FIRM**DRESSER**

Instruments

BULLETIN DIG-1

FOR THE BEST DIGITAL CHOOSE THE ASHCROFT

At last, a multi-functional gauge from the experts in pressure measurement

When any combination of local indication, a 4-20mA signal and switching are required to meet your needs, the Ashcroft® digital industrial gauge provides the solution.

THE MULTI-FUNCTIONAL SOLUTION SAVES MONEY, TIME AND SPACE...

- Battery powered local indication standard
 - Optional 4-20mA output with turndown adjustable within range of gauge*
 - Optional line powered (12-36 Vdc)
 - Optional (1) or (2) SPDT switches with deadband adjustable to pressure range of gauge
- *Accuracy based on full scale range of gauge

The benefit, one digital pressure gauge replaces three instruments... mechanical pressure gauge, transducer and switch

- Saves installation costs
- Saves on instrument costs
- Save on additional pipe cut-out(s)
- Save space

INDUSTRY LEADING FEATURES

Rugged design

- Three case styles: all welded stainless steel, fiberglass reinforced thermoplastic or cast aluminum case
 - Weatherproof, NEMA4 (pending), IP 65 case
 - SS and aluminum case offered with FM certification, Class 1, Div. 1 (pending)
- Polyester window protects display from damage
- Strain relief to protect wiring while replacing batteries

Industry leading display

- Extra large display height of .88" (4½" case)
- Five digit display
- 12 units of measure
- % of range bar graph

Safety

- Meets ASME B40.7
- Pressure range on keypad and bar graph reduces accidental overpressure
- Proof pressure = 2X gauge range

Breakthru AccuSeal™ Gauge Isolator*

- Integral to gauge
 - Virtually eliminates process dead-leg
 - Eliminates need for standard diaphragm seal
 - Eliminating seal reduces temperature error
- *Available soon



.88" high digital display (4½" case)

Press to display minimum or maximum pressure gauge measured by



Range on keypad, complies with ASME B40.7 to reduce the possibility of accidental overpressure

INDUSTRIAL GAUGES, T[®] DIGIGAUGE[®] FAMILY.

Bar graph % of full scale range



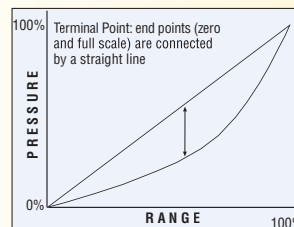
Optional:

- 4-20mA output (adjustable within pressure range)
- Line power (12/36Vdc, 1 amp)
- (1) or (2) SPDT switch(es) (adjustable to 100% of pressure range)

Battery level indicator

What you should know about digital gauge accuracy...Terminal Point versus Best Fit Straight Line Accuracy.

Ashcroft 2070 Series Digital Gauge with Terminal Point Accuracy

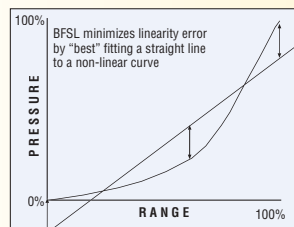


BENEFIT

- All points between zero and full-scale will be within stated accuracy
- Allows zeroing of gauge at start-up to eliminate any sensor offset

Competitive Digital Gauges with Best Fit Straight Line (BFSL) Accuracy

- Linearity error minimized by "best" fitting a straight line to a non-linear curve
- BFSL gauges may have a zero offset at calibration that must be maintained to ensure accuracy throughout range



PROBLEM WITH BFSL

- Re-zeroing gauge may invalidate published accuracy specification
- Zero offset at start-up may be the result of either:
 - BFSL Calibration
 - Zero Drift

OPTIONS

Description	Code	Case Size
Case Options		
Aluminum Case (black epoxy coated) (Glass reinforced thermoplastic case standard)	AY	4½" only
Electropolished Case (Brushed SS case standard)	EC	3" only
Switch Options		
(1) SPDT Switch (12-36Vdc)	U1	3", 4½"
(2) SPDT Switch (12-36Vdc)	U2	3", 4½"
Line Power with 4-20mA output (Line power (Type 2274) required for switching options.) (Terminal blocks standard with 4½" case.) (Flying leads standard with 3")	A0	3", 4½"
Wiring Options		
Flying leads (Terminal blocks standard with 4½" case.) Flying leads standard with 3" case.	EN	4½"
Keypad Options		
Backlite	BL	3", 4½"
Miscellaneous Options		
Battery Backup (Battery standard with Type 2074) (Available with Types 2174 & 2274)	BK	3", 4½"
Weatherproof ABS Gauge Carrying Case	S7	3" only
Protective Rubber Boot (black)	B1	3" only
Protective Rubber Boot (orange)	B2	3" only
Protective Front Cover	PP	3" only
AccuSeal [™] (½ NPT lower only)	SU	4½" only

PRODUCT SPECIFICATIONS

Type:	2074 (battery), 2174 (loop), 2274 (line)
Accuracy:	.25% Full Scale, terminal point
Case Size:	3", 4"
Case Material:	3" SS, 4" fiberglass reinforced thermoplastic or black epoxy coated aluminum
Case Encl. Rating:	Weatherproof, IP65
Wetted Materials:	17-4 SS (sensor), 316SS (socket)
Socket Size:	¼ or ½ NPT, JIS, DIN, SAE, (½ NPT only with 4" case, others on application)
Socket Location:	Lower, 3, 9 and 12 o'clock
Ranges:	Vac. thru 20,000 psi (see engineering units below for other units)
Operating Temp.:	14/140°F (-10/60°C)
Temp. Error: (Zero & Span)	.04%/°F (<.02%°F Typical)
Storage Temp.:	-4/158° (-20°/70°F)

DISPLAY

Type:	LCD
Display Digits:	Five (5)
Character Height:	3" case: .60", 4" case: .88"
Backlite:	Optional
Bar Graph:	Yes
Battery Life:	3" >1000 hrs., 4" >3600 hrs.
Agency Approvals:	(FM, CSA optional), CE, FM (Intrinsically Safe Class 1, Div. 1 optional), CSA and CENELEC (pending)

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 thru menu items
Menu Key:	Provides access to menu options
Backlite ▲ (up) Arrow Key: (Backlite optional)	Manually turns backlite on and off (auto off options in menu), arrow key allows for five menu options. ▲ (up) arrow key allows for scrolling thru menu options
Enter:	Selects items in the menu

MENU MODE

Engineering Units:	10 units of measurement are available; psi, In. H ₂ O (with three temp. options: 20°C, 60°F, 4°C*), Ft. H ₂ O, mPa, mBar, kPa, kg/cm ² , Bar, inHg and mmHg
Configuration Mode (Config):	Allows for changes to default settings of gauge including zero disable feature
Bar Graph (Graph):	Allows for adjustment of bargraph and 4-20 (optional 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 100ms
Backlite:	Five options: Never, 10 sec., 30 sec., 1 min., 5 min.
Field Recalibration:	Allows for recalibration of zero, midscale and span (password protected)

OPTIONS

4-20mA Display:	12-36 Vdc, mA with unlimited turndown (within gauge range)
Line Powered:	12-36 Vdc, 2VA max.
Switching*:	(1) or (2) SPDT switches, (max. contact 30Vdc, 1 amp, 125Vac .5 Amp), Switches adjustable to 100% of range

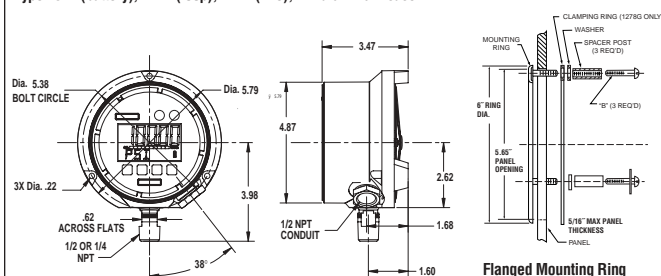
*Deadband adjustable to 100% of range limited by gauge resolution

DIGITAL INDUSTRIAL GAUGE RANGES:

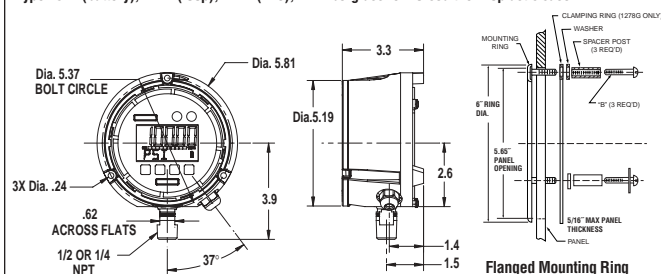
psi	in. Hg (vacuum)	Comp. (psi)	mmHg (pressure)	in. Hg (pressure)	in. H ₂ O	mBar	ft. H ₂ O	mPa	kPa	Bar/KSC
15	30	15#&Vac	800	30	400	1000	60	1	100	1
30		30#&Vac	1000	60	800	1500	160	1.6	160	1.6
60		60#&Vac	2000	100	1000	2000	200	2.5	250	2.5
100		100#&Vac	3000	160		2500	300	4	400	4
160			5000	200		4000	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
1500								100	10,000	100
2000								140	16,000	160
3000									25,000	250
5000									40,000	400
8000									60,000	600
10,000									100,000	1000
15,000									140,000	1400
20,000										

DIGITAL INDUSTRIAL GAUGE DIMENSION DRAWINGS

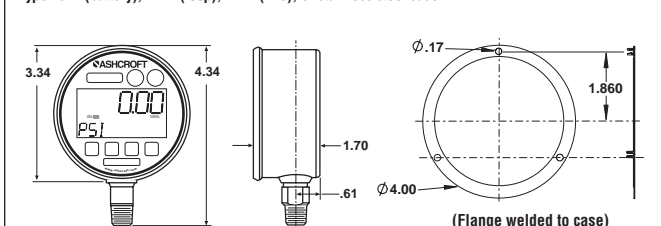
Type 2074 (battery), 2174 (loop), 2274 (line), 4" aluminum case



Type 2074 (battery), 2174 (loop), 2274 (line), 4" fiberglass reinforced thermoplastic case



Type 2074 (battery), 2174 (loop), 2274 (line), 3" stainless steel case

**TYPICAL PRODUCT CODING**

1. Case Size: 4"	2. Type: 2074	3. Wetted Parts: 316 SS Socket, 17-4SS Sensor	4. Connection: ¼ NPT lower	5. Range: 100 psi
45	2074	SD	02L	100#

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