

- **A Multi-Functional Digital Gauge with Optional:**
 - 4/20mA Output
 - (1) or (2) SPDT Switches
- **±.25% of Span Terminal Point Accuracy (.13% BFSL)**
- **IP 65 Weatherproof Case**
- **Three Case Options: Stainless Steel, Fiberglass Reinforced Thermoplastic or Aluminum**
- **Extra Large Display**
- **Intrinsically Safe, Class I, 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



PRODUCT SPECIFICATIONS

| | |
|---------------------------|---|
| Type: | 2074 (battery) 2174 (loop) 4-20mA 2274 (line) |
| Accuracy: | ±.25% of span, terminal point |
| Case Size: | 3", 4 1/2" |
| Case Material: | 3" stainless steel, 4 1/2" fiberglass reinforced thermoplastic or black epoxy coated aluminum |
| Case Encl. Rating: | Weatherproof, IP65 |
| Wetted Materials: | 17-4 stainless steel (sensor), 316 stainless steel (socket) |
| Socket Size: | 1/4 or 1/2 NPT, JIS, DIN, SAE, (1/2 NPT only with 4 1/2" case, others on application) |
| Socket Location: | Lower, 3, 9 and 12 o'clock |
| Ranges: | 15 psi/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 1/2" case: .88" |
| Backlite: | Optional |
| Bar Graph: | Yes |
| Battery Life: | 3" >1000 hrs., 4 1/2" >3600 hrs. |
| Agency Approvals: | CE, FM (Intrinsically Safe Class I, Div 1) 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 & max values, arrow key allows for scrolling thru menu items |
| Menu Key: | Provides access to menu options |
| Backlite ▲ (up) Arrow Key: | Manually turns backlite on and off (auto off options in menu), arrow key allows for five menu options. |
| (Backlite optional) ▲ (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. H₂O (with three temp. options: 20°C, 60°F, 4°C*), Ft. H₂O, mPa, mBar, kPa, kg/cm², Bar, inHg and mmHg

| | |
|------------------------------|--|
| Configuration Mode: | Allows for changes to default settings of gauge |
| (Config): | 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, mid-scale and span (password protected) |

OPTIONS

| Description | Code | Case Size |
|---|------|-------------|
| Case Options | | |
| Aluminum Case (black epoxy coated) (Glass reinforced thermoplastic case standard) | AY | 4 1/2" only |
| Electropolished Case (Brushed SS case standard) | EC | 3" only |

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 | | | | | | | | | | |

TO ORDER THIS DIGITAL INDUSTRIAL GAUGE:

- Select:**
1. Dial Size: 3" _____ **30**
 2. Type: 2074 _____ **2074**
 3. Wetted parts: 316 SS _____ **SD**
 4. Connections: 1/4 NPT Lower _____ **XXX***
 5. Range: 100 psi _____ **100#**

*See options chart

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

- Enhanced value versus mechanical gauges
- No-nonsense accuracy – $\pm 0.5\%$ full scale accuracy
- Easy-to-read – $4\frac{1}{2}$ digit display with $1/2$ " character size, optional backlite display feature to enhance visibility
- Versatile – 9 engineering units and stainless steel sensor suitable for a variety of applications
- Standard features – max.-pressure indication; ranges from vacuum to 19,999 psi, including compound
- Competitively priced and can be customized for OEM applications

The Ashcroft® Type D1005PS offers 0.5% of span accuracy, while the stainless steel sensor and socket make this product suitable not only for dry air applications but for other media as well.

This product offers selectable units of measure so rather than purchasing one gauge for each unit of measure required, the solution is one gauge for multiple units of measure.

The D1005PS is standard with many features not offered, or offered only as options, on competitor's digital gauge products, such as peak hold and $4\frac{1}{2}$ digit display. When compared to mechanical gauges the



*Shown with Optional Protective Boot

D1005PS offers overall enhanced value.

PRODUCT SPECIFICATIONS

| | | | |
|-------------------|---|---------|----------|
| Type no.: | D1005PS | | |
| Accuracy: | $\pm 0.5\%$ of span | | |
| Case Size: | $2\frac{1}{2}$ " | | |
| Case Material: | Noryl® | | |
| Wetted Parts: | 17-4 PH stainless steel sensor; 316 stainless steel socket | | |
| Socket Size: | $\frac{1}{4}$ NPT | | |
| Connection: | Lower | | |
| Ranges: | Vac. thru 19,999 psi (see engineering units below for other units of measurement) | | |
| Battery: | Two AAA alkaline batteries; approximately 1000 hours battery life | | |
| Overpressure: | Vac. | 0/3000- | |
| | 0/1000 | 0/5000 | 0/19,999 |
| Proof: | 200% | 150% | 120% |
| Burst: | 800% | 300% | 150% |
| Cycle Life: | 10^8 cycles 20/80% F.S. with negligible performance loss | | |
| Vibration: | Less than $\pm 0.1\%$ F.S. effect for 0/2000 Hz at 20 g's in any axis | | |
| Shock: | Less than $\pm 0.05\%$ F.S. effect for 100 g's, 20msec shock in any axis | | |
| Operating Temp.: | -10°C to 60°C (14°F to 140°F) | | |
| Storage Temp.: | -20°C to 70°C (-4°F to 158°F) (maximum temperature shift is .028% per $^\circ\text{F}$ from -20°F to 180°F starting at 68°F . For vacuum and 30 psi ranges the maximum temperature shift is .04%) | | |
| Update Rate: | 100ms | | |
| Agency Approvals: | CE EN 61326 (1998); CE EN 61326 Annex A (heavy industrial) | | |
| Packaging: | Individual carton | | |
| Opt'l. Features: | $\pm 0.25\%$ of span accuracy; backlite; 3, 9, 12 o'clock connections; Alternate socket configurations – upon application; Customized keypad; Protective boot; Bulk packaging | | |

DISPLAY

| | | |
|---------------------|-------------------------------|--------------------|
| Type: | LCD | |
| Display Digits: | $4\frac{1}{2}$ | |
| Display Resolution: | Full Scale Numerical Value | Display Resolution |
| | $\geq -15 > 0$ | -XX.000 |
| | $> 0 < 2$ | X.0000 |
| | $\geq 2 < 20$ | XX.000 |
| | $\geq 20 < 200$ | XXX.00 |
| | $\geq 200 < 2000$ | XXXX.0 |
| | $\geq 2000 < 19,999$ | XXXXX |
| Character Height: | 0.5" | |
| Backlight: | OFF by default | |
| Battery: | Four-level battery indication | |

STANDARD RANGES

| Vacuum | | | | | | |
|------------|-----------|-------|--------|--------------------|---------------------|--|
| in. Hg | kPa | cmHg | Bar | kg/cm ² | mmHg | |
| -30/0 | -100/0 | -76/0 | -1/0 | -1/0 | -760/0 | |
| Compound | | | | | | |
| in. Hg/psi | kPa | mPa | Bar | kg/cm ² | ft H ₂ O | |
| -30/30 | -100/200 | - | -1/2 | -1/2 | -35/70 | |
| -30/60 | -100/400 | - | -1/2 | -1/2 | -35/140 | |
| -30/100 | -100/700 | - | -1/2 | -1/2 | -35/230 | |
| -30/150 | -100/1050 | - | -1/11 | -1/11 | -35/350 | |
| -30/300 | -100/2100 | - | -1/21 | -1/21 | -35/700 | |
| Pressure | | | | | | |
| psi | kPa | mPa | Bar | kg/cm ² | ft H ₂ O | |
| 0/30 | 0/200 | - | 0/2 | 0/2 | 0/70 | |
| 0/60 | 0/400 | - | 0/4 | 0/4 | 0/140 | |
| 0/100 | 0/700 | - | 0/7 | 0/7 | 0/230 | |
| 0/200 | 0/1400 | - | 0/14 | 0/14 | 0/460 | |
| 0/300 | 0/2100 | - | 0/21 | 0/21 | 0/700 | |
| 0/500 | 0/3500 | - | 0/35 | 0/35 | - | |
| 0/1000 | 0/7000 | - | 0/70 | 0/70 | - | |
| 0/1500 | - | 0/10 | 0/105 | 0/105 | - | |
| 0/2000 | - | 0/14 | 0/140 | 0/140 | - | |
| 0/3000 | - | 0/21 | 0/210 | 0/210 | - | |
| 0/5000 | - | 0/35 | 0/350 | 0/350 | - | |
| 0/10,000 | - | 0/70 | 0/700 | 0/700 | - | |
| 0/15,000 | - | 0/100 | 0/1000 | 0/1000 | - | |
| 0/19,999 | - | 0/140 | 0/1400 | 0/1400 | - | |

TO ORDER THIS TYPE D1005PS GAUGE:

| | | | | |
|--|-------|---------|-------|-------|
| Select: | 25 | D1005PS | 02L | 100# |
| 1. Dial Size: $2\frac{1}{2}$ " | _____ | _____ | _____ | _____ |
| 2. Case Type Number: D1005PS | _____ | _____ | _____ | _____ |
| 3. Wetted Parts: Stainless Steel | _____ | _____ | _____ | _____ |
| 4. Connection: $\frac{1}{4}$ NPT lower | _____ | _____ | _____ | _____ |
| 5. Range: 0/100 psi | _____ | _____ | _____ | _____ |

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