

Digital Industrial Pressure Gauge Types 2074, 2174 and 2274

Stainless steel thin film sensor element
Accuracy 0,25 % F.S.

Features

- Full scale terminal point accuracy
- Output signal 4-20 mA and up to 2 SPDT switches
- Extra large display with bar graph and optional backlite
- Rugged plastic, aluminum or stainless steel case
- 12 engineering units, min./max. recall, damping
- Auto-Off function
- Menu configure feature and calibration firmware
- Safety meets ASME B40.7
- High proof pressure



Ranges

-1 ... 0 bar up to 0 ... 1400 bar
-30 in. Hg ... 0 psi up to 0 ... 20.000 psi

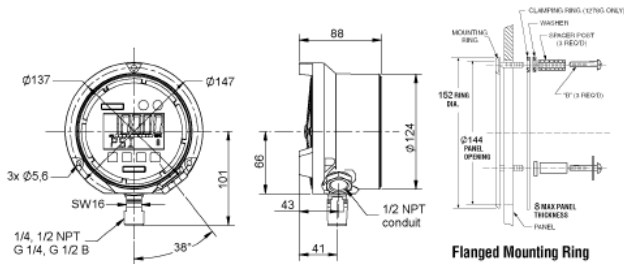
| Technical specification | 2074 | 2174 | 2274 |
|-----------------------------------|---|------|------|
| Measuring principle | Thinfilm sensor element with internal diaphragm, optional AccuSeal™ flush gauge isolator without transmission fluid | | |
| Range in bar | 1 1,6 2,5 4 6 10 16 25 40 60 100 160 250 400 600 | | |
| Range in psi | 15 30 60 100 160 200 300 600 800 1000 1500 2000 3000 5000 | | |
| Range in in. Hg/psi | -30/0 -30/15 -30/30 -30/60 -30/100 | | |
| Overpressure limit | 2-times | | |
| Cycle life | 10 ⁸ cycles (20/80 % F.S.) | | |
| Pressure type | Gauge, vacuum and compound | | |
| Case size | 3 inch (85 mm) stainless steel case, 4 ½ inch (114 mm) plastic or aluminum case | | |
| Process connection | G ¼ B male according to EN 837-1, ¼ NPT, ½ NPT male according to ANSI/ASME B1.20.1, others on request | | |
| Connection orientation | Lower, optional 3, 9 or 12 o'clock | | |
| Material | Process connection: Stainless steel 316 (1.4401) Sensor: Stainless steel 17-4 PH (1.4542/1.4548) Case: Stainless steel series 300, optional electropolished (dial size 3 inch); fiberglass reinforced thermoplastic or cast aluminum, black epoxy coated (dial size 4 ½ inch) Display: Lexan | | |
| Power supply | 12 ... 36 VDC, optional with 2 batteries type AA, t _{life} > 1500 h | | |
| Dial size 3 inch | 2 batteries type AA, t _{life} > 1500 h | | |
| Dial size 4 ½ inch | 2 batteries type C, t _{life} > 3600 h | | |
| Display | Type: LCD, optional with backlite Digits, resolution: 5 digit, 99.999 counts, 15 mm high (dial size 3 inch) or 22 mm high (dial size 4 ½ inch) Features: Four level battery indication, bar graph 0 ... 100 % F.S. (adjustable), warning if pressure is out of range | | |
| Output signal | - | | |
| Switches (optional) | 4-20 mA (2-wire), adjustable | | |
| Accuracy according to DIN 16086 | 0,25 % F.S., terminal point, incl. linearity, hysteresis and repeatability (0,13 % F.S. BFSL) | | |
| Engineering units | psi, in. Hg, cmHg, mmHg, ft. H ₂ O (with 3 reference temperature options), bar, mbar, kPa, MPa, kg/cm ² | | |
| Update rate | 4 options: 10x, 5x, 2x or 1x per second | | |
| Damping | 5 options: none, average of 2, 4, 6 or 8 readings | | |
| Auto off in minutes | 5 options: none, 2, 5, 15 or 30 minutes | | |
| Permissible | Ambient temperature: -10 ... 60 °C Storage temperature: -20 ... 70 °C | | |
| Compensated temperature | -10 ... 60 °C | | |
| Temperature influence | ±0,36 % / 10 K (ref. 20 °C) typical, for span < 3 bar ±(3/span [bar]*0,36) % / 10 K (ref. 20 °C) | | |
| Approvals, explosion proof | Intrinsically safe according to FM Class, I, II and III, groups A, B, C, D, E, F and G hazardous (classified) locations, ATEX EEx ib IIC T4 according to Nemko 04ATEX1355, CE 0518 (E) II 2 GD | | |
| CE-mark/EMC | According to EN 50014 (1997) + A1 (1999) + A2 (1999), EN 50020 (2002) and EN 50281-1-1 (1988) | | |
| Electrical connection | Flying leads, opt. plug connector according to EN 175301-803 (only for dial size 3 inch) | | |
| Protection acc. EN 60 529/IEC 529 | IP65 | | |
| Mounting | Direct mounting, wall mounting for dial size 4 ½ inch, optional panel mounting | | |
| Weight in kg | 0,2 (0,28 with batteries) for dial size 3 inch; 0,6 (0,8 with batteries) for dial size 4 ½ inch | | |
| Accessories, options | Protective rubber boot, ABS carrying case, stainless steel front cover, calibration certificate | | |

All specifications are subject to change without notification.

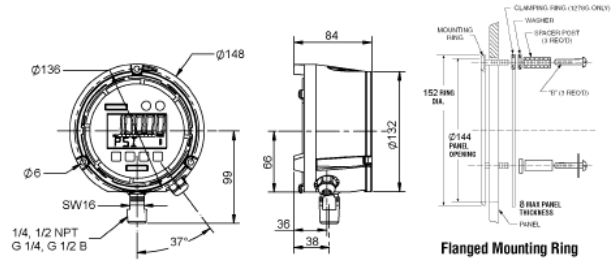
G6.2074/E Rev. E 30/05/2012

General dimensions in mm

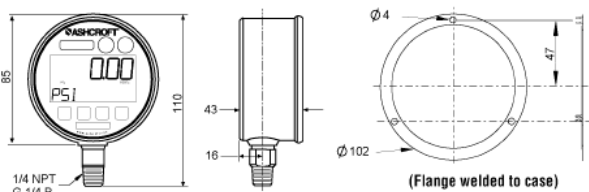
Type 2074 (battery), 2174 (loop), 2274 (line), 4 1/2" aluminum case



Type 2074 (battery), 2174 (loop), 2274 (line), 4 1/2" fiberglass reinforced thermoplastic case



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



**Flush gauge isolator
AccuSeal™**

- Integral to gauge
- Virtually eliminates process dead leg
- Eliminates need for standard diaphragm seal
- Eliminating seal reduces temperature error
- Max. range 2000 psi / 100 bar



Order information

| Size | Type | System material | Process connection | Connection orientation | Range | Eng. unit | Electrical function | Options |
|---|---|-----------------------------------|---------------------------------|------------------------|----------------------------------|-----------|--|--|
| (30) 3" (85 mm) stainless steel case | (2074) Battery powered | (SD) Stainless steel 316 (1.4401) | (02) 1/4 NPT male | (L) Lower | -1/ 0 | BAR | (U1) 1 SPDT switch ²⁾ | (NH) Tagging wired |
| | (2174) Loop powered 4-20 mA | | (04) 1/2 NPT male ¹⁾ | (D) 3 o'clock position | -1/ 1 -1/ 2 -1/ 4 -1/ 7 | | (U2) 2 SPDT switches ²⁾ | (AY) Aluminum case, black epoxy coated ²⁾ |
| (45) 4 1/2" (114 mm) plastic case, optional aluminum case | (2274) Line powered 12-36 VDC | | (13) G 1/4 B male ²⁾ | (E) 9 o'clock position | 0/ 1 | | (AO) Output signal 4-20 mA ²⁾ | (EC) Electropolished case ¹⁾ |
| | | | | | 0/ 1,6 | | (FF) Front flange ¹⁾ | |
| | | | | | 0/ 2,5 | | (56) Flush mounting ring ²⁾ | |
| | | | | | 0/ 4 | | (SU) Flush gauge isolator AccuSeal™ (only for connection 1/2") | |
| | | | | | 0/ 6 | | (BL) Backlight | |
| | | | | | 0/ 10 | | (EN) Flying leads, 1 meter ¹⁾ | |
| | | | | | 0/ 16 | | (HN) Connection plug acc. to EN 175301-803 ³⁾ | |
| | | | | | 0/ 25 | | (TU) Throttle plug ¹⁾ | |
| | | | | | 0/ 40 | | (S7) ABS carrying case ¹⁾ | |
| | | | | | 0/ 60 | | (B1) Protective rubber boot, black ¹⁾ | |
| 0/ 100 | (B2) Protective rubber boot, orange ¹⁾ | | | | | | | |
| 0/ 160 | (PP) Protective stainless steel front cover ¹⁾ | | | | | | | |
| 0/ 250 | (AX) ATEX listed ^{1) 3)} | | | | | | | |
| 0/ 400 | (FM) FM listed ^{3) 4)} | | | | | | | |
| 0/ 600 | (6B) Cleaned for gaseous Oxygen service | | | | | | | |
| 0/1000 | (CD4) 4-points calibration certificate | | | | | | | |
| 0/1400 | | | | | | | | |

How to order

| Size | Type | System material | Process connection | Connection orientation | Range | Engineering unit | Electrical function | Options |
|------|------|-----------------|--------------------|------------------------|-------|------------------|---------------------|---------|
| 30 | 2274 | SD | 13 | L | 0/4 | BAR | U1A0EN | NH |