

# Digital Industrial Pressure Gauge

## Types 2074, 2174 and 2274

Stainless steel thinfilm 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

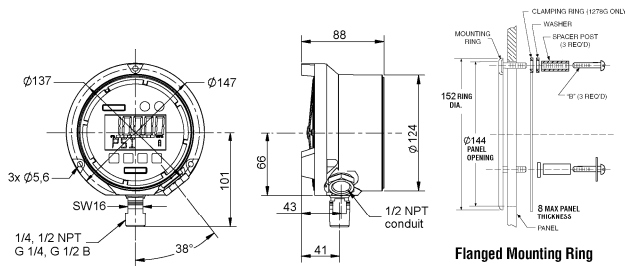
-1 ... 0 bar up to 0 ... 1400 bar  
-30 in. Hg ... 0 psi up to 0 ... 20.000 psi

Technical specification	2074				2174				2274						
Measuring principle	Thinfilm sensor element with internal diaphragm, optional AccuSeal™ flush gauge isolator without trans-mission fluid														
Range in bar	1	1,6	2,5	4	6	10	16	25	40	60	100	160	250	400	600
Range in psi	1000	1400		-1/0	-1/1	-1/2	-1/4	-1/7							
Range in in. Hg/psi	15	30	60	100	160	200	300	600	800	1000	1500	2000	3000	5000	
Overpressure limit	2-times														
Cycle life	10 <sup>8</sup> 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				12 ... 36 VDC, optional with						
Dial size 3 inch	2 batteries type AA, t <sub>life</sub> > 1500 h				2 batteries type AA, t <sub>life</sub> > 1500 h				2 batteries type AA, t <sub>life</sub> > 1500 h						
Dial size 4 ½ inch	2 batteries type C, t <sub>life</sub> > 3600 h				2 batteries type C, t <sub>life</sub> > 3600 h				2 batteries type C, t <sub>life</sub> > 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					4-20 mA (2-wire), adjustable				Opt. 4-20 mA (4-wire), adjustable						
Switches (optional)									1 or 2 SPDT, max. 1 A 30 VDC, 0,5 A 125 VAC, 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 <sub>2</sub> O (with 3 reference temperature options), bar, mbar, kPa, MPa, kg/cm <sup>2</sup>														
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 (Ex) 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)				Flying leads						
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														

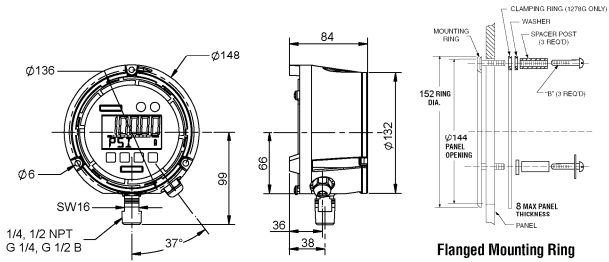
All specifications are subject to change without notification.

## General dimensions in mm

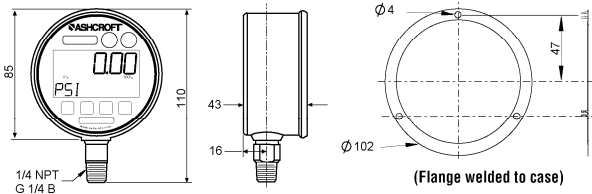
Type 2074 (battery), 2174 (loop), 2274 (line), 4 1/2" aluminum case



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



## 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 <sup>2)</sup>	(NH) Tagging wired
	(2174) Loop powered 4-20 mA		(04) 1/2 NPT male <sup>1)</sup>	(D) 3 o'clock position	-1/ 1 -1/ 2 -1/ 4 -1/ 7		(U2) 2 SPDT switches <sup>2)</sup>	(AY) Aluminum case, black epoxy coated <sup>2)</sup>
(45) 4 1/2" (114 mm) plastic case, optional aluminum case	(2274) Line powered 12-36 VDC	(SD) Stainless steel 316 (1.4401)	(13) G 1/4 B male <sup>2)</sup>	(E) 9 o'clock position	0/ 1 0/ 1,6 0/ 2,5 0/ 4 0/ 6 0/ 10 0/ 16 0/ 25 0/ 40 0/ 60 0/ 100 0/ 160 0/ 250 0/ 400 0/ 600 0/1000 0/1400	psi and others on request	(AO) Output signal 4-20 mA <sup>2)</sup>	(EC) Electropolished case <sup>1)</sup>
			(KJ) 1/4" male straight JIS, BSP	(EN) Flying leads, 1 meter <sup>1)</sup>	(FF) Front flange <sup>1)</sup>		(56) Flush mounting ring <sup>2)</sup>	
			(KN) 1/2" male straight (JIS, BSP) <sup>1)</sup>				(BK) Backup-Battery <sup>1)4)</sup>	(SU) Flush gauge isolator AccuSeal™ (only for connection 1/2")
							(BL) Backlite	(TS) Throttle screw <sup>2)</sup>
							(EN) Flying leads, 1 meter <sup>1)</sup>	(TU) Throttle plug <sup>1)</sup>
							(HN) Connection plug acc. to EN 175301-803 <sup>3)</sup>	(S7) ABS carrying case <sup>1)</sup>
								(B1) Protective rubber boot, black <sup>1)</sup>
								(B2) Protective rubber boot, orange <sup>1)</sup>
								(PP) Protective stainless steel front cover <sup>1)</sup>
								(AX) ATEX listed <sup>1) 3)</sup>
								(FM) FM listed <sup>3) 4)</sup>
								(6B) Cleaned for gaseous Oxygen service
								(CD4) 4-points calibration certificate

## 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

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