

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

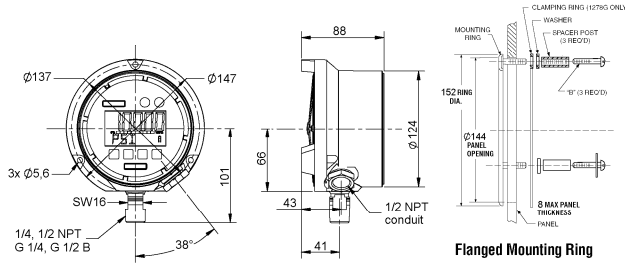


Technical specification	2074	2174	2274
Measuring principle	Thinfilm sensor element with internal diaphragm, optional AccuSeal™ flush gauge isolator without trans-mission fluid		
Range in bar	1 1,6 2,5 4 6 10 16 25 40 60 100 160 250 400 600		
Range in psi	15 30 60 100 160 200 300 600 800 1000 1500 2000 3000 5000		
Range in in. Hg/psi	8000 10000 15000 20000		
Overpressure limit	-30/0 -30/15 -30/30 -30/60 -30/100		
Cycle life	2-times		
Pressure type	10 ⁸ cycles (20/80 % F.S.)		
Case size	Gauge, vacuum and compound		
Process connection	3 inch (85 mm) stainless steel case, 4 ½ inch (114 mm) plastic or aluminum case		
Connection orientation	G ¼ B male according to EN 837-1, ¼ NPT, ½ NPT male according to ANSI/ASME B1.20.1, others on request		
Material	Lower, optional 3, 9 or 12 o'clock		
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 _{life} > 1500 h		2 batteries type AA, t _{life} > 1500 h
Dial size 4 ½ inch	2 batteries type C, t _{life} > 3600 h		2 batteries type C, t _{life} > 3600 h
Display	LCD, optional with backlite		
Type	5 digit, 99.999 counts, 15 mm high (dial size 3 inch) or 22 mm high (dial size 4 ½ inch)		
Digits, resolution	Four level battery indication, bar graph 0 ... 100 % F.S. (adjustable), warning if pressure is out of range		
Features			
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 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 (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		

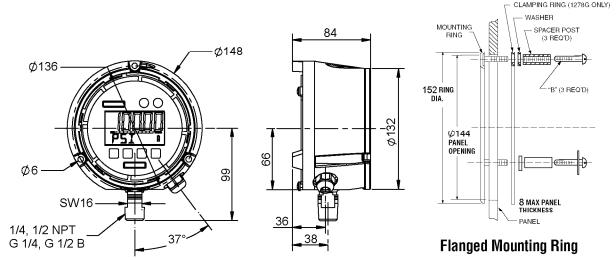
All specifications are subject to change without notification.

General dimensions in mm

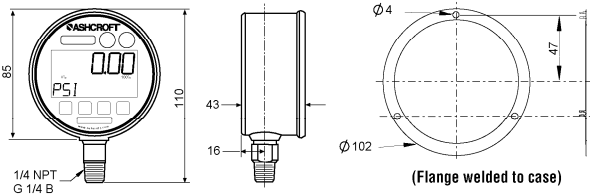
Type 2074 (battery), 2174 (loop), 2274 (line), 4 1/2" aluminum case



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 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	(SD) Stainless steel 316 (1.4401)	(13) G 1/4 B male ²⁾	(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 ²⁾	(EC) Electropolished case ¹⁾
			(KJ) 1/4" male straight JIS, BSP				(BK) Backup-Battery ¹⁾⁴⁾	(FF) Front flange ¹⁾
			(KN) 1/2" male straight (JIS, BSP) ¹⁾				(BL) Backlite	(56) Flush mounting ring ²⁾
							(EN) Flying leads, 1 meter ¹⁾	(SU) Flush gauge isolator AccuSeal™ (only for connection 1/2")
							(HN) Connection plug acc. to EN 175301-803 ³⁾	(6B) Cleaned for gaseous Oxygen service
								(TS) Throttle screw ²⁾
								(TU) Throttle plug ¹⁾
								(S7) ABS carrying case ¹⁾
								(B1) Protective rubber boot, black ¹⁾
								(B2) Protective rubber boot, orange ¹⁾
								(PP) Protective stainless steel front cover ¹⁾
								(AX) ATEX listed ^{1) 3)}
								(FM) FM listed ^{3) 4)}
								(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