

# 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

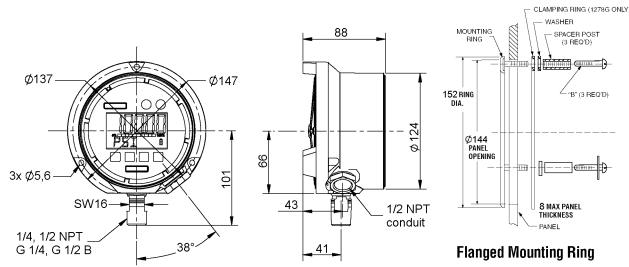
Technical specification	2074	2174	2274
Measuring principle	Thinfilm sensor element with internal diaphragm, optional AccuSeal™ flush gauge isolator without trans-mission fluid		
Range [bar]	1 1,6 2,5 4 6 10 16 25 40 60 100 160 250 400 600		
[psi]	15 30 60 100 160 200 300 600 800 1000 1500 2000 3000 5000		
[in. Hg/psi]	-30/0 -30/15 -30/30 -30/60 -30/100		
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, G ½ 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	Stainless steel 316 (1.4401) Stainless steel 17-4 PH (1.4542/1.4548) Stainless steel series 300, optional electropolished (dial size 3 inch); fiberglass reinforced thermoplastic or cast aluminum, black epoxy coated (dial size 4 ½ inch) Lexan		
Power supply	12 ... 36 VDC, optional with 2 batteries type AA, t <sub>life</sub> > 1500 h 2 batteries type C, t <sub>life</sub> > 3600 h		12 ... 36 VDC, optional with 2 batteries type AA, t <sub>life</sub> > 1500 h 2 batteries type C, t <sub>life</sub> > 3600 h
Display	LCD, optional with backlite 5 digit, 99.999 counts, 15 mm high (dial size 3 inch) or 22 mm high (dial size 4 ½ inch) 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 1 or 2 SPDT, max. 1 A 30 VDC, 0,5 A 125 VAC, adjustable
Switches (optional)			
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 [min]	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 1 Div. 1, (CSA and ATEX Ex II 2 GD EEx ib IIC T4 pending)		
CE-mark/EMC	According to EN 61326 (1997) + A1 (1998)		
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 [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.

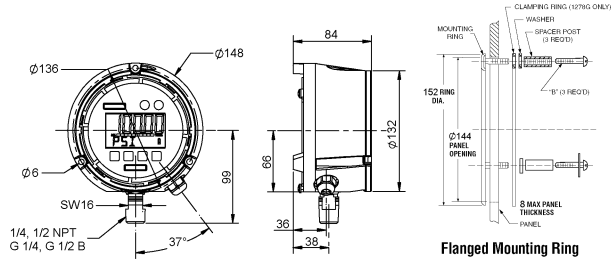
G6.2074/E Rev. A 15/07/2004

## General dimensions [mm]

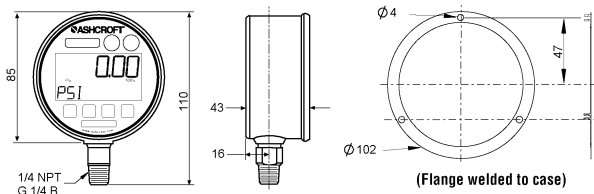
Type 2074 (battery), 2174 (loop), 2274 (line), 4 1/2" aluminum case



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 -1/ 1	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/ 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		(13) G 1/4 B male	(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		(AO) Output signal 4-20 mA <sup>2)</sup>	(EC) Electropolished case <sup>1)</sup>
			(15) G 1/2 B male <sup>1)</sup>		(BK) Backup-Battery <sup>1)4)</sup>		(FF) Front flange <sup>1)</sup>	
			(KJ) 1/4" male straight JIS, BSP				(BL) Backlite	(56) Flush mounting ring <sup>2)</sup>
			(KN) 1/2" male straight (JIS, BSP) <sup>1)</sup>				(EN) Flying leads, 1 meter <sup>1)</sup>	(SU) Flush gauge isolator AccuSeal™ (only for connection 1/2")
							(HN) Connection plug acc. to EN 175301-803 <sup>3)</sup>	(TS) Throttle screw <sup>2)</sup>
								(TU) Throttle plug <sup>1)</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>
								(6B) Cleaned for gaseous Oxygen service
								(CD4) 4-points calibration certificate

1) only for dial size 4 1/2"  
others on request

2) not for type 2074  
3) only for dial size 3" and type 2174  
4) for type 2174 with option BL: BK is standard

psi and others on request

## 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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