

BARFLEX[®]4 Portable electronic pressure gauge

Accuracy : $\pm 0.25\%$ (option $\pm 0.1\%$) of measurement range
 ± 1 display point

Range of measurement from 1 to 400 bar gauge or absolute
 (up to 1000 bar on request)

Available units : bar, psi, kPa, kg/cm², mbar, MPa

Quick process connection

Conforms to CE requirements (89/336/CE and 97/23/CE Directives)

3 versions : portable, fixed unit, console only

Calibration of installed devices and checking their correct operation

Verification of the settings of pressure switches, transmitters, etc.


Leakage detection

The BARFLEX[®]4 portable electronic pressure gauge is a self-contained instrument which is ideal for measurements in the field : it has a very rugged case (epoxy-painted aluminium), is sealed against running water IP 55, and the sensor (TRANSBAR[®] 0.25 % - Thim film technology 0.1 %) is compatible with the majority of corrosive fluids.

The BARFLEX[®]4 guarantees immunity to electromagnetic interference (walkie-talkies, portable telephones, power switching devices, etc.).



Technical Data (20°C)

Measurement ranges	0 ... 1 bar to 0 ... 400 bar A/R -1 ... 0.6 bar to -1 ... 24 bar R
Power supply	By standard 9 volt battery (type IEC 6LR61, not supplied) Autonomy greater than 400 hours at 20 °C Indication of discharge by BATT Automatic switch off after 30 minutes
Total error at 20°C	$\pm 0.25\%$ of FS ± 1 display point (gauge version) $\pm 0.5\%$ of FS ± 1 display point (absolute version) (including non-linearity, hysteresis, non-repeatability, gain adjustment)
Zero reset (gauge version only)	Reset to zero is effected by a prolonged press on the ON/OFF key
Operating temperature	- 10 ... + 60°C
Thermal drifts	Gain : $\leq \pm 0.015\%$ /°C max. Zero : $\leq \pm 0.015\%$ F.S./°C max.
Storage temperature	- 20 ... + 70°C
Process fluid temperature	- 20 ... + 85°C
Shock resistance (IEC 68-2-32)	25 impacts from 1 m onto concrete
Vibration resistance (IEC 68-2-6)	0.75 mm (10 - 55 Hz), 10 g (55 Hz - 2 kHz)
Materials in contact with the fluid	Portable version : ceramic (Al ₂ O ₃), NBR seal stainless steel 1.4404 (316 L), flexible cable (polyamide), process connection (steel 1.0718) Fixed/console version : ceramic (Al ₂ O ₃), NBR seal, stainless steel 1.4404 (AISI 316L).
Display	Backlight liquid crystal display (LCD) as standard Display range : ± 9999 Overpressure indicated by "Pres" (110 % of F.S.)
Backlight	Press on the  key on the front panel Switching off: press the same key and then release it Automatic switch off after 5 minutes
Degree of protection (EN 60529) IP 55	
Pressure connection	Version portable : supplied with a 1 m cable fitted on the BARFLEX [®] 4 end with a nut which seals with hand tightening, and on the process end with a threaded end fitting (M16/2) Fixed unit version : supplied with a special intermediate coupling (G1/2 on the process end) compatible with the BARFLEX [®] 4 end fitting (M12 x 1,5) Console : coupling M12x1,5 DIN 2353

Definition of units and measurement range (preset in factory)
 On the front panel (indelible)

0.1% Option

Total error	$\pm 0.1\%$ of FS ± 1 display (including thermal and mechanical errors in the compensated temperature range -10...+60°C)
Zero reset	Reset to zero is effected by a prolonged press on the ON/OFF key. Absolute pressure measurement with atmospheric referencing separated.
Materials in contact with the fluid	Portable version : Stainless steel 1.4404 (316L), stainless steel 1.4542, flexible cable (polyamide), process connection (steel 1.0718) Fixed/console version : Stainless steel 1.4404 (316L), stainless steel 1.4542.
Display	Display range : ± 19999 Other technical data identicals to the standard version

Uncoded (have to be listed after the code number)

Portable version: supplied with a different process connection at the end of the cable : M16x1.5 ; M12x1.5 ; G1/4 female ; G 1/2 female.

Intermediate couplings incorporating a safety valve.

Versions available : M16x2 for G1/4, 1/4 NPT, 7/16-20 UNF.

Other versions : M16x1,5 and M12x1,5 for G1/4, 1/4 NPT, 7/16-20 UNF.

Capillaire et raccord tout inox (please refer to us).

Oxygen quality cleanliness except portable version with connector (M16x2, M16x1,5, M12x1,5).

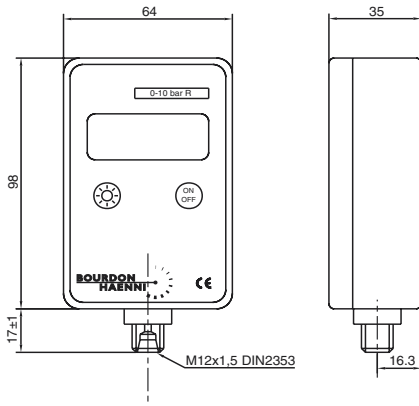
Protective case.

G1/2 male connector for dead weight tester and pressure generator applications.
 Ref 70744-01-A01.

G1/2 connection on the process end for fixed unit.



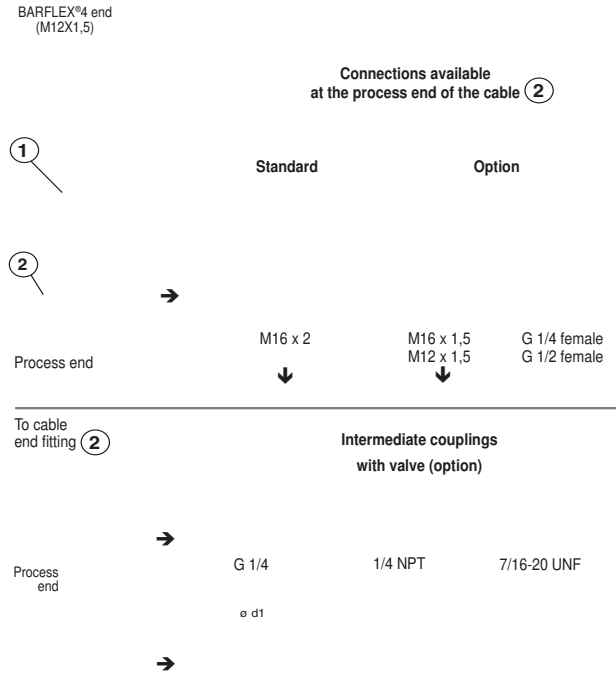
Dimensions (mm), measurement ranges, connections



Standards versions

- PORTABLE (code P) :**
supplied with 1 m cable (1) fitted with a screw coupling (M16x2) (2) on the process end and a carrying case. **Weight : 400 g**
- FIXED UNIT (code F) :**
supplied with a special adapter coupling to the M12x1.5 DIN 2353 connector. Process end threaded G1/2. **Weight : 390 g**
- CONSOLE only (code C) :**
coupling : M12x1,5 DIN 2353. **Weight : 300 g**

Pressure connections portable version



Tapping	a	b	d1	d2	k	t
G 1/4	1.5	12	20			18.5
1/4 NPT						16.5
7/16-20 UNF		11.5	21	12.4	2.4	14

Tapping/standard :	DIN 3852	ANSI/ASME B1-20-1-1983	ASA B11-1960 SAE J514
Sealing :	O-ring	Suitable compound	O-ring

BARFLEX®4															
Measurement ranges (bar)	-1+0.6	-1+1.6	-1+3	-1+10	-1+24	0+1	0+2	0+5	0+10	0+20	0+50	0+100	0+200	0+400	
Permissible overrange (bar)	3	3	6	15	38	3	3	10	15	30	80	150	300	550	
Burst pressure	7	7	12	30	75	7	7	18	30	75	180	300	600	600	
Display at max. range	-1000/+600	-1000/+1600	-1.000/+3.000	-1.00/+10.00	-1.00/+24.00	1000	2000	5.000	10.00	20.00	50.00	100.0	200.0	400.0	

0.1 % OPTION								
Measurement ranges* (bar)	-1+10	-1+24	0+10	0+20	0+50	0+100	0+200	0+400
Permissible overrange (bar)	20	40	20	40	80	200	400	550
Permissible overrange	60	120	60	120	200	500	600	600
Display at max. range	-1.000/+10.000	-1.00/+24.00	10.000	20.00	50.00	100.00	200.0	400.0

* For 400 bar < Ranges ≤ 1000 bar : Please consult us.

Ordering Details - BARFLEX®4

EAxxxxxxx	
Model	1'... 2' digit
Electronic pressure gauge	EA
Version	3' digit
0.25 % gauge version (or 0.5% absolute version)	4
0.1 %	5
Typ	4' digit
Standard	A
Presentation	5' digit
Portable	P
Fixed	F
Console	C
Capsule seal	6' digit
NBR (Nitril) standard	3
EPDM (P ≥ 250 mbar)	5
Kalrez® (P ≥ 1 bar)	7
FKM (Viton®)	9
Without o'ring (0.1% version)	0
<small>Kalrez® and Viton® is registered trademark of DuPont Dow Elastomers BARFLEX® is registered trademark of BOURDON-HAENNI</small>	
Units of measurement	7' digit
bar	B
kpa	D
Mpa	E
Kg/cm²	F
psi	H
mbar	N
Measurement ranges	8'... 9' digit
Voir tableau	xx
Pressure mode	10' digit
Absolute	A
Gauge	R

code	Measurement ranges	
	bar	psi
72	-1 + 0.6 R	
2V	-1 + 1.6 R	
76	-1 + 3 R	
2D	-1 + 10 R	
82	-1 + 24 R	
15	0 + 1 A/R	
1C		0 + 20 A/R
17	0 + 2 A/R	
98	0 + 5 A/R	
21		0 + 100 A/R
22	0 + 10 A/R	
23		0 + 200 A/R
25	0 + 20 A/R	
28	0 + 50 A/R	
30		0 + 1000 A/R
31	0 + 100 A/R	
32		0 + 2000 A/R
34	0 + 200 A/R	0 + 3000 A/R
38	0 + 400 A/R	0 + 6000 A/R