



Application area

- Shipping
- Machinery construction
- Chemical and petrochemical industry
- General process technology

Technical data

Constructional design / case

Design:	High quality case with bajonet ring per EN 837-1 S1, material: stainless steel mat.-no. 1.4301 (304); with blow-out device (material: PUR) and internal pressure compensation diaphragm (material: silicone)
Nominal size:	NS 100 or NS 160
Degree of protection per EN 60529:	IP 66
Case filling:	Glycerine-water Further filling liquids upon request.
Pressure compensation:	To atmosphere via internal pressure compensation diaphragm
Case seal:	Material gasket: NBR

Features

- Bourdon tube pressure gauge
- Nominal ranges -0.6...0 bar to -1...24 bar, 0...0.6 to 0...1600 bar
- High quality case with bajonet ring NS 100/160 with internal pressure compensation diaphragm per EN 837-1-S1
- Case and measuring element of stainless steel
- Degree of protection IP 66
- Accuracy class 1.0 as per EN 837-1
- EAC declaration (upon request)

Options

- Approvals/Certificates
 - Explosion protection (ATEX) for mechanical devices
 - Certificate of measuring equipment for Russian Federation
 - Material certificate per EN 10204
 - Calibration certificate per EN 10204
- Mounting: Front flange for flush mounting, rear flange for surface mounting
- Connection to Zone 0

Application

The case is liquid filled and suitable especially for applications with high dynamic pressure pulsations or vibrations. An integrated pressure compensating diaphragm compensates the temperature related change of volume of the liquid filling. This high quality stainless steel version is suitable for measuring gaseous, liquid and aggressive media.

Window:	Non-splintering laminated glass. Option: Non-splintering plastic (Macrolon)
Measuring element:	Bourdon tube < 60 bar: c-type ≥ 60 bar: spiral
Movement:	Stainless steel
Scale:	Pure aluminium, white with black inscription Option: with red marking, special scale upon request.
Pointer:	Pure aluminium, black. Option: with micro adjustment for zero point correction.

Mounting: Via process connection. Optional with flange for surface mounting or for flush mounting with DIN mounting flange.

Weights: NS 100: approx. 0.9 kg
NS 160: approx. 1.8 kg

Process connection

Design: Per EN 837-1.
G1/2 B, 1/2" NPT or M20 x 1.5, bottom or back eccentric connection.
Optional with throttle screw for system damping, further process connections upon request

Material wetted parts

Measuring element: Bourdon tube and pressure connection material stainless steel mat.-no. 1.4571 (316Ti)

Nominal range

See order details, further ranges upon request

Overload-protection: standard: 1.3 times
higher overload protection see order details

Accuracy

Accuracy class: 1.0 per EN 837-1

Temperature influence: Max. $\pm 0,4\%$ / 10K of measuring span per EN 837-1

Temperature ranges

Ambient: -20...70 °C

Media: ¹ -40...200 °C

Storage: -40...70 °C

¹ Nominal range ≤ 1 bar up to 100 °C

Extended temperature range upon request

Approvals/Certificates

Explosion protection: Ex-protection (ATEX) for mechanical devices

⊗ II 2G c TX

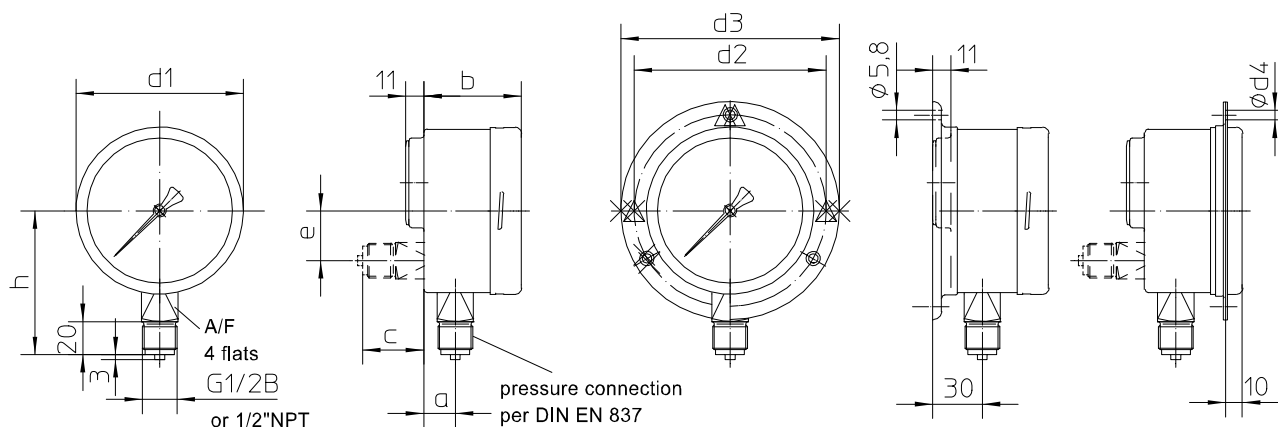
⊗ II 2D c TX

Further details see Ex Safety Instruction XA_005.

- EAC declaration (upon request)
- Certificate of measuring equipment for Russian Federation

Information on other models see order details or upon request.

Dimensions



dimensions (mm)										
case	d1	a	b	d2	d3	d4	e	h	c	A/F
NS 100	100	21	59	116	132	4,8	30	87	37	22
NS 160	160	21	59	178	196	5,8	60	120	37	22

Order details

Bourdon tube pressure gauge, NS 100/160, high quality design case with liquid filling (IP 66), Type series BA42../BA43..

Order details BA42../BA43			
BA4240	case design with glycerin/water-case filling IP 66	NS 100	process connection bottom
BA4250			process connection at back
BA4340		NS 160	process connection bottom
BA4350			process connection at back
A2...	process connection	G1/2 B	
B2...		1/2" NPT	
C2...		M 20 x 1.5	
085	nominal range [bar]	-0.6...0	
086		-1...0	
087		-1...0.6	
088		-1...1.5	
089		-1...3	
090		-1...5	
091		-1...9	
092		-1...15	
093		-1...24	
052		0...0.6	
053		0...1	
054		0...1.6	
055		0...2.5	
056		0...4	
057		0...6	
058		0...10	
059		0...16	
060		0...25	
061		0...40	
062		0...60	
063		0...100	
064		0...160	
065		0...250	
066		0...400	
068		0...600	
070		0...1000	
071		0...1600	

Additional features (to be indicated if required)		
S30	Ex –protection (ATEX) for mechanical devices ¹	⊕ II 2G c TX
		⊕ II 2D c TX
H2	overload protection	2 times (measuring range 1...4 bar)
H3		2 times (measuring range 6...40 bar)
H4		1.5 times (measuring range 60...160 bar)
I2	pointer	with micro adjusting advice
R2	window	non-splintering glass with maximum pointer
R3		non-splintering glass with adjustable reference pointer
R12		Makrolon with maximum pointer ²
R13		Makrolon with adjustable reference pointer ²
T2	marking	on scale (please specify)
T3		fixed reference pointer (please specify)
U2	system damping	0.3 mm restrictor screw
U3		0.6 mm restrictor screw
U4		1.0 mm restrictor screw
V2	mounting	rear flange for surface mounting
V3		front flange for flush mounting
W1020	material certificate	per EN 10204-3.1, wetted parts
W1204	calibration certificate	per EN 10204-3.1, 3 measuring points
W1201		per EN 10204-3.1, 5 measuring points
W2673	certificate of measuring equipment for Russian Federation	
Z1	connection to Zone 0 ³	with Zone 0 adapter (coupling element KF6)

Order code (example): BA4240 – A2057 – T2 – V2 - ...

¹ for devices with non-splintering glass only

² not for devices with Ex-protection

³ for devices with Ex-protection only