

Bourdon tube pressure gauge per EN 837-1 S3

high overload protected

Type series BA 4550/4560



Application area

- Machinery construction
- Chemical and petrochemical industry
- Water / wastewater
- Shipping

Features

- High quality safety case NS 100 per EN 837-1-S3
- Nominal ranges -1...0 to 0...40 bar
- Case and measuring element of stainless steel
- Degree of protection IP 65
- Accuracy class 1.0 as per EN 837-1
- Up to 4 times overload protected

Options

- Approvals/Certificates
 - Explosion protection (ATEX/UKEX) for mechanical devices
 - Material certificate per EN 10204-3.1
 - Calibration certificate per EN 10204-3.1
- As per UKCA regulations
- Damping of movement
- Mounting: front flange for flush mounting
- Extended temperature range
- Connection to Zone 0 by using the flame arrester MF21xx, see data sheet D6-025
- Case with liquid filling and degree of protection IP 66

Application

Pressure gauge for universal use in areas with extended requirements as for example in the chemical, petrochemical and foodstuff industry for measuring gaseous, liquid and aggressive media. The device offers overload protection for up to 4 times the measuring range. The safety case offers increased operator protection.

Technical data

Constructional design / case

Design:	High quality safety case with blow-out back and solid baffle wall per EN 837-1 S3, material: stainless steel mat.-no. 1.4301 (304), pressure compensation diaphragm: silicone, filling plug, material: PUR	
Nominal size:	NS 100	
Degree of protection per EN 60529:	■ Without case filling: IP 65 ■ With case filling: IP 66	
Case filling:	Option: Glycerine-water Further liquid fillings upon request.	
Pressure compensation:	To atmosphere via internal pressure compensation diaphragm	
Case seal:	Material gasket: NBR	
Window:	Non-splintering laminated glass. Option: Non-splintering plastic (Macro-lon)	
Measuring element:	Bourdon tube – c-type	
Movement:	Stainless steel segment Option: movement with integrated damping system	
Scale:	Pure aluminium, white with black inscription Option: with red marking, special scale upon request	
Pointer:	Pure aluminium, black with micro adjustment for zero point correction	
Mounting:	Stand-alone, upon request for flush mounting with DIN mounting flange	
Weights:	without filling	approx. 0.7 kg
	with filling	approx. 1.0 kg

Process connection

Design:	Per EN 837-1, G1/2 B, 1/2" NPT or M20 x 1.5; bottom connection. Further process connections upon request.
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Material wetted parts

Measuring element:	Bourdon tube and shanks stainless steel mat.-no. 1.4571 / 1.4404 (316Ti / 316L)
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Nominal range

See order details, further information upon request

Accuracy

Accuracy class:	1.0 per EN 837-1, referring to measuring range Messbereich
Temperature influence:	Max. $\pm 0.4\%$ / 10K of measuring span per EN 837-1

Temperature ranges

	without filling	with filling
Ambient:	-20...70 °C	-20...60 °C
Media: ¹	-40...200 °C	-40...200 °C
Storage:	-20...70 °C	-20...60 °C

Extended temperature range (optional):

	without filling	with filling
Ambient:	-40...100 °C	-40...60 °C
Media: ¹	-40...200 °C	-40...200 °C

¹ Nominal range ≤ 1 bar up to 100 °C

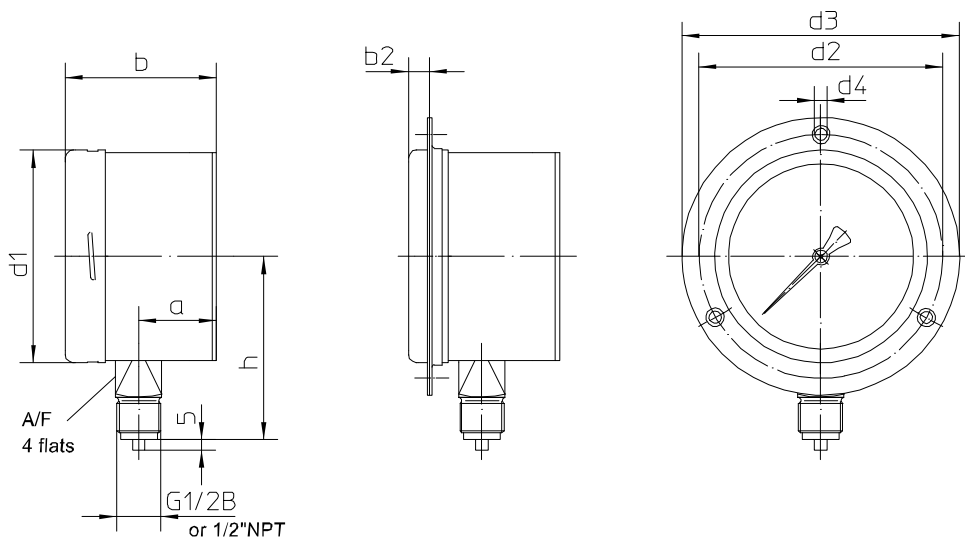
Tests and certificates

Explosion protection:	Ex-protection (ATEX/UKEX) for mechanical devices ⊕ II 2G Ex h IIC T1...T6 Gb X ⊕ II 2D Ex h IIIC Txx°C Db X
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Further details see Ex Instructions XA_005.

Information on other models see order details or upon request.

Dimensions



Standard design

for flush mounting

flush mounting view

Mounting instruction: Ensure full space requirement for operation with rear blow-out device of case!

dimensions (mm)									
case	d_1	a	b	b_2	h	d_2	d_3	d_4	A/F
NS 100	100	37	72	10	87	116	132	4,8	22

Order details

Bourdon tube pressure gauge per EN 8371-1 S3 high overload protected, Type series BA4550, BA4560

Order details BA4550/BA4560			
BA4550	safety case	NS100	process connection bottom
BA4560			IP 66 process connection bottom, with case filling
A2...	process connection	G1/2 B	
B2...		1/2" NPT	
C2...		M20 x 1.5	
	nominal range [bar]	measuring range	overload protected up to ¹
086		-1...0 ²	3
052		0...0.6 ²	2.5
053		0...1	4
054		0...1.6	6
055		0...2.5	10
056		0...4	16
057		0...6	25
058		0...10	40
059		0...16	60
060		0...25	80
061		0...40	100

Additional features (to be indicated if required)		
S30	Ex-protection (ATEX/UKEX) for mechanical device ¹	⊕ II 2G Ex h IIC T1...T6 Gb X
		⊕ II 2D Ex h IIIC Txx°C Db X
R2	window	non-splintering glass with maximum pointer
R3		non-splintering glass with adjustable reference pointer ³
R12		Makrolon with maximum pointer ⁴
R13		Makrolon with adjustable reference pointer ⁴
T2	marking	on scale (please specify)
T3		fixed reference pointer (please specify)
U2	restrictor screw	restrictor screw 0.3 mm
U3		restrictor screw 0.6 mm
U4		restrictor screw 1.0 mm
V3	mounting	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
W2660	as per UKCA regulations	
W4102	damping of movement	with integrated damping system

Order code (example): BA4550 – A2053 - ...

¹ maximum scale value

² for devices with non-splintering glass only

³ without accuracy class

⁴ not for devices with Ex-protection