

## Bourdon tube pressure gauge

per EN 837-1, NS 63

Type series BA41.../BA44...



### Application area

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

### Features

- Bourdon tube pressure gauge
- Nominal range -0.6...0 to -1...24 bar, 0...0.6 to 0...1000 bar
- High quality case with bajonet ring NS 63 per EN 837-1, optional safety case per EN 837-1 S3
- Case and measuring element of stainless steel
- Degree of protection IP 65
- Accuracy class 1.6 or 2.5 per EN 837-1

### Options and additional features

- Approvals/Certificates
  - Explosion protection (ATEX) for mechanical devices
  - Certificate of measuring equipment for Russian Federation
  - Calibration certificate as per EN 10204
- Accuracy class 1.0 per EN 837-1
- Case with liquid filling
- Damping of movement
- Mounting: Front flange for flush mounting, rear flange for surface mounting
- Connection to Zone 0
- Oxygen free of oil and grease

### Application

The bourdon tube pressure gauge is suitable for use in various industries. Stainless steel design for measuring gaseous, liquid and aggressive media, designed according to safety standards per EN 837-1.

## Technical data

### Constructional design / case

Design:	High quality case with bajonet ring per EN 837-1, material: stainless steel mat.-no. 1.4301 (304), ventilation valve, material: PUR
	Option: Safety case with blow-out back and solid baffle wall per EN 837-1 S3, material: stainless steel mat.-no. 1.4301 (304)
Nominal size:	NS 63
Degree of protection per EN 60529:	IP 65
Case filling:	Option: Glycerine-water Further liquid fillings upon request.
Atmosph. pressure compensation:	Via ventilation valve.
Case seal:	Material gasket: NBR
Window:	Non splintering laminated glass
Measuring element:	Bourdon tube  < 60 bar: c-type ≥ 60 bar: spiral
Movement:	Stainless steel segment Option: with integrated damping system
Scale:	Pure aluminium, white with black inscription Option: with red marking, special scale upon request
Pointer:	Pure aluminium, black with adjusting unit
Mounting:	Via process connection. Optional with flange for surface mounting or for flush mounting with DIN mounting flange.
Weights:	Without filling    approx. 0.2 kg With filling        approx. 0.3 kg

### Process connection

Design:	Per EN 837-1. G 1/4 B or 1/4" NPT. Bottom or back centric connection, option: eccentric back connection. Further process connections upon request.
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### Material wetted parts

Measuring element:	Bourdon tube and process connection: stainless steel 316ss
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### Nominal range

See order details, further ranges upon request	
Overload - protection:	Steady pressure max. scale value short-term 1.3times Option: 2times up to and including 40 bar

### Accuracy

Accuracy class	1.6 per EN 837-1 Optional 1.0 per EN 837-1  2.5 per EN 837-1 (for 0...600 and 0...1000 bar)
Temperature influence:	Max. ± 0.4% / 10K of measuring span per EN 837-1

### Temperature ranges

	without liquid filling	with liquid filling
Ambient:	-40...60 °C	-20...60 °C
Media:	-20...150 °C	-20...100 °C
Storage:	-20...60 °C	-20...60 °C

Extended temperature range upon request.

Option:

- Autoclavable at 121 °C for 30 minutes

### Tests and certificates

Explosion protection:	Ex-protection (ATEX) 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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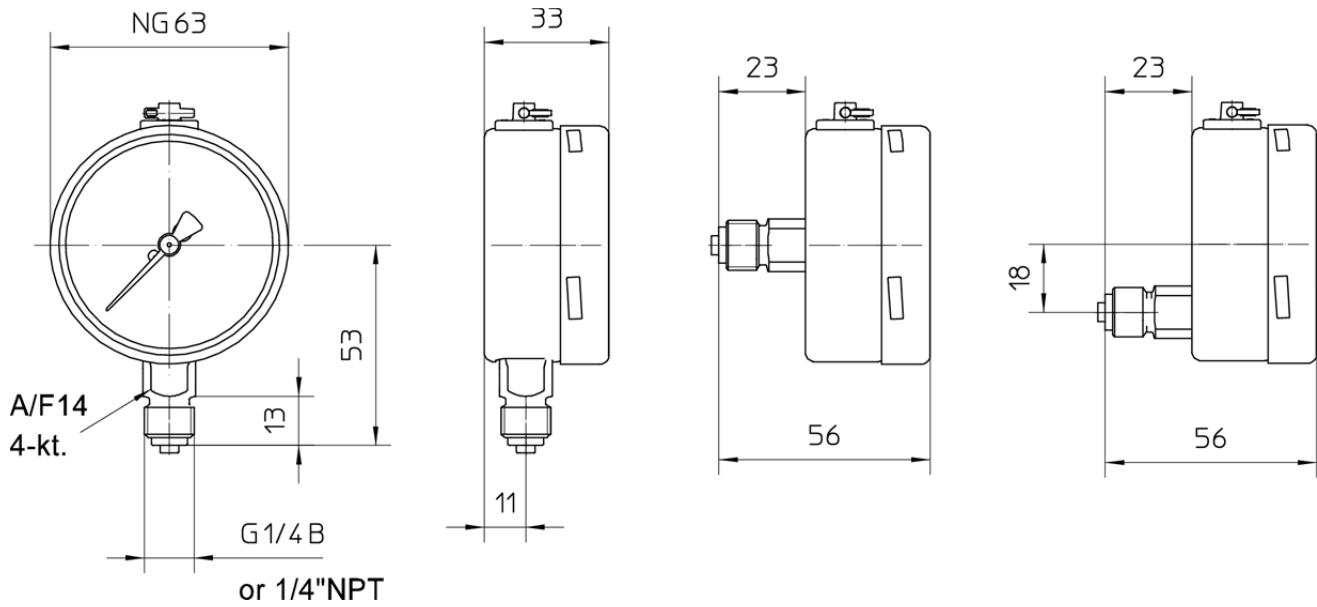
Further details see Ex Instructions XA\_005.

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

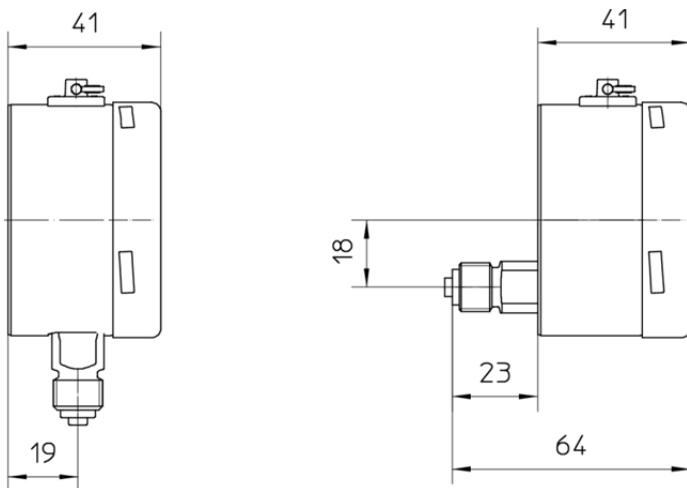
**Information on other models see order details or upon request.**

## Dimensions

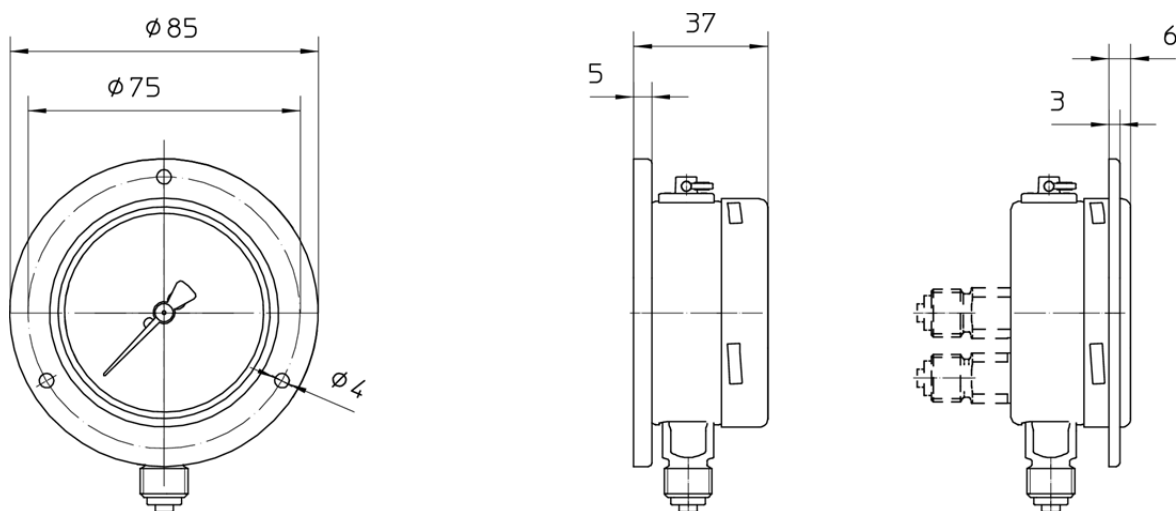
### Case with bajonet ring per EN 837-1



### Safety case per EN 837-1 S3



### Surface mounting and flush mounting



## Order details

### Bourdon tube pressure gauge per EN 837-1, NS 63, Type series BA41../BA44..

Order details BA41../BA44..				
BA4100	case design NS 63 degree of protection IP 65	without case filling	process connection bottom	NS 63
BA4400				NS 63 safety design S3
BA4110			process connection eccentric back	NS 63
BA4410				NS 63 safety design S3
BA4170				NS 63
BA4120			with case filling	process connection bottom
BA4420		NS 63 safety design S3		
BA4130		process connection eccentric back		NS 63
BA4430				NS 63 safety design S3 <sup>1, 2, 3, 4</sup>
BA4180		process connection centre back	NS 63	
A...	process connection	G1/4 B		
B...		1/4" NPT		
85	nominal range [bar]	-0.6...0		
86		-1..0		
87		-1...0.6		
88		-1...1.5		
89		-1...3		
90		-1...5		
91		-1...9		
92		-1...15		
93		-1...24		
52		0...0.6		
53		0...1		
54		0...1.6		
55		0...2.5		
56		0...4		
57		0...6		
58		0...10		
59		0...16		
60		0...25		
61		0...40		
62		0...60		
63		0...100		
64		0...160		
65		0...250 <sup>1, 2, 4, 5</sup>		
66		0...400 <sup>1, 2, 4, 5</sup>		
68		0...600 <sup>1, 4, 5, 6</sup>		
70		0...1000 <sup>1, 4, 5, 6</sup>		

Additional features (to be indicated if required)		
Q22	accuracy class 1.0 per EN 837-1	
S30	Ex-protection (ATEX) for mechanical devices	II 2G Ex h IIC T1...T6 Gb X
		II 2D Ex h IIIC Txx°C Db X
H2	overload protection	2 times up to and including 40 bar
T2	marking	on scale (please specify)
U2	system damping	restrictor screw 0.3 mm
U3		restrictor screw 0.6 mm
U4		restrictor screw 1.0 mm
V2	mounting	rear flange for surface mounting
V3		front flange for flush mounting
V4		front flange with clamp clip for flush mounting <sup>7</sup>
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 <sup>1,2</sup>	
W4001	Oxygen free of oil and grease	
W4102	damping of movement with integrated damping system	
W4126	autoclavable at 121 °C for 30 minutes	
Z1	connection to Zone 0 <sup>8</sup>	with Zone 0 adapter (coupling element KF6)

**Order code (example): BA4100 – A56 – T2 – V2 - ...**

<sup>1</sup> not for devices with Ex-protection

<sup>2</sup> not with accuracy class 1.0 per EN 837-1

<sup>3</sup> only for overload protection 1.3 times

<sup>4</sup> not available with integrated damping system

<sup>5</sup> not autoclavable

<sup>6</sup> only with accuracy class 2,5 per EN 837-1

<sup>7</sup> with process connection at back only

<sup>8</sup> for devices with process connection G1/4 B and Ex-protection only