



#### Application area

- Machinery construction
- Chemical and petrochemical industry
- Power generation
- Test laboratory
- Shipping

#### Technical data

##### Constructional design / case

Design:	High quality case with bayonet ring per EN 837-1 S1, material: stainless steel mat.-no.-1.4301 (304) ; with blow-out device, material: PUR, ventilation valve, material: PUR
Nominal size:	NS 100 or NS 160
Degree of protection per EN 60529:	IP 65
Case filling:	Option for NS 160 only: Glycerine-water Further liquid fillings upon request
Atmosph. pressure compensation:	Via ventilation valve.
Case seal:	Material gasket: NBR
Window:	Non-splintering laminated glass. Option: Non-splintering plastic (Macrolon)

#### Features

- High quality case with bayonet ring NS 100/160 with rear blow-out device per EN 837-1 S1
- Nominal ranges -0.6...0 bar to -1...24 bar, 0...0.6 to 0...600 bar
- Case and measuring element of stainless steel
- Accuracy class per EN 837-1:
  - for NS 100/160 accuracy class 0.6
  - for NS 160 accuracy class 0.25 and 0.6

#### Options

- Approvals/Certificates
  - Explosion protection (ATEX) for mechanical devices
  - Material certificate per EN 10204
  - Calibration certificate per EN 10204
- Case with liquid filling
- Mounting: Front flange for flush mounting, rear flange for surface mounting
- EAC declaration (upon request)

#### Application

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

Measuring element:	Bourdon tube  < 60 bar: c-type ≥ 60 bar: spiral
Movement:	Stainless steel segment
Scale:	Mirror scale Optional with red marking or with fixed reference pointer. Special scale upon request.
Pointer:	Knife edge pointer, black, 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:	<u>NS 160:</u> Without filling: approx. 1.2 kg With filling: approx. 2.4 kg <u>NS 100:</u> Without filling: approx. 0.7 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: Accuracy class 0.6:  
Standard: 1.3 times  
For ranges  $\geq 160$  bar: 1.0 times  
Accuracy class 0.25:  
Standard: 1.0 times

### Accuracy

Accuracy class: 0.6 per EN 837-1 for NS 100/160  
0.25 per EN 837-1 for NS 160 (for ranges  $\leq 40$  bar and devices without case filling)  
Temperature influence: Max.  $\pm 0.4\%$  / 10K of measuring span per EN 837-1

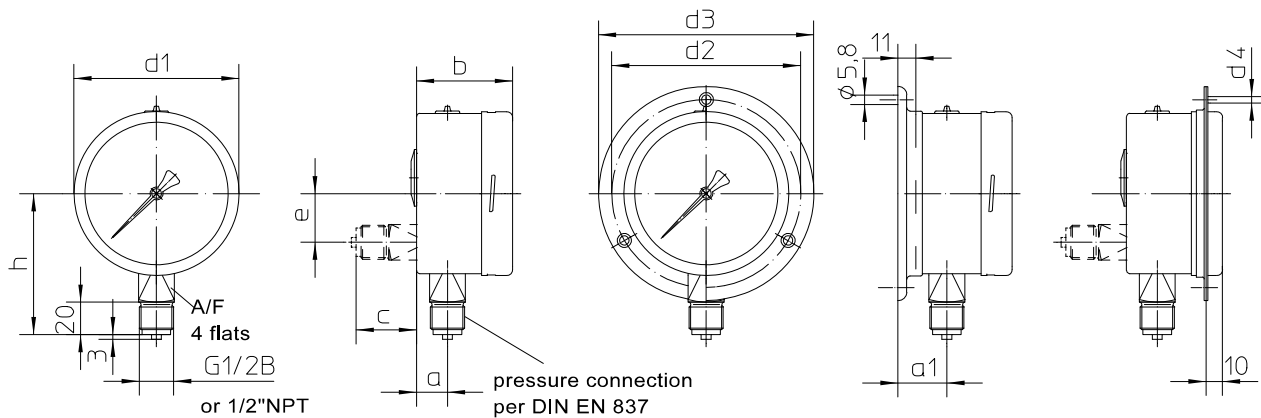
### Temperature ranges

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

Information on other models see order details or upon request.

## Dimensions

### Bourdon tube pressure gauges NS 160 per EN 837-1, safety case S1



Further process connections see order code

Dimensions (mm) BA63..											
case	d1	a	b	d2	d3	d4	e	h	a1	c	A/F
NS 100	100	19	55.5	116	132	4.8	30	83	30	37	22
NS 160	160	19	55.5	178	196	5.8	60	113	30	37	22

## Order details

### Bourdon tube pressure gauge, precision instrument, NS 100/160, EN 837-1 degree of protection IP 65, Type series BA6...

Order details BA6...				
BA6200	case design NS 100 per EN 837-1 S1	degree of protection IP 65	process connection bottom	
BA6210			process connection at back	
BA6300	case design NS 160 per EN 837-1 S1	degree of protection IP 65	process connection bottom	
BA6310			process connection at back	
BA6320		degree of protection IP 65, with case filling	process connection bottom	
BA6330			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 <sup>1</sup>		
065		0...250 <sup>1</sup>		
066		0...400 <sup>1</sup>		
068		0...600 <sup>1</sup>		
Additional features (to be indicated if required)				
Q20		Accuracy class	0.25 per EN 837-1 <sup>2</sup>	
S30		Ex-protection (ATEX) for mechanical devices	⊕ II 2G c TX	
	⊕ II 2D c TX			
R11	window	non-splintering glass		
		Macrolon		
T2	marking	on scale (please specify)		
T3		fixed reference pointer (please specify)		
U2	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, wetted parts		
W1204	calibration certificate	per EN 10204-3.1, 3 measuring points		
W1201		per EN 10204-3.1, 5 measuring points		
Z1	connection to Zone 0	with Zone 0 adapter (coupling element KF6)		

Order code (example): BA6300 – A2057 – T2 – V2 - ...

<sup>1</sup>Overload protection 1 times, for accuracy class 0.6

<sup>1</sup>For ranges ≤ 40 bar and devices without case filling