

**BOURDON TUBE PRESSURE GAUGE  
FOR SPECIAL SAFETY**  
according to EN 837-1/S3 (S)



**NS 63, 100, 160**  
**with or without glycerine filling**



**Description**

The pressure gauges for special safety consistently consider the hard operating conditions and the resultant high demands for the pressure measurement in production plants of the chemical industry.

Through the usage of high-grade materials, e. g. stainless steel, for the measuring system as well as for the case, the resistance to aggressive media and surroundings is achieved.

With the execution of a glycerine filled case, the measuring system is damped, when pulsating pressures and mechanical vibrations occur and protected against abrasion.

The safety features of the pressure gauges include a break-proof partition between the dial and the measuring system, a multilayer safety glass and a blow-out back (acc. to EN 837-1/S3).

Pressure gauges with glycerine filling are equipped with a pressure balance device. It avoids a pressure rise in the case, caused through the temperature-dependent volume expansion of the glycerine filling. It avoids a falsification of the display.

**Applications**

Process technology  
Chemical and und petrochemical industry  
Food and beverage industry  
Machine- and apparatus industry

**Features**

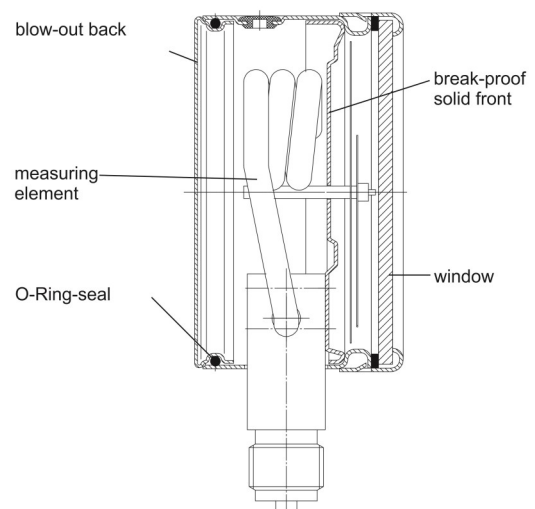
- chemical-proof
- solide construction
- meets safety requirements acc. to EN 837-1/S3
- break-proof partition between measuring system and inspection glass
- vibration-free display and longer life through case filling





**Measuring ranges**

0 ... 0,6 bar up to 0 ... 1000 bar

optional for high pressure applications  
0...2000 bar up to 0...6000 bar

**Schematic drawing**



Type	6505	6507	6513	6516	Options
Nominal size	63	63	100	160	
Symbol					Glycerine filling
Connection position	radial bottom	back excentric	radial bottom	radial bottom	NS 100 back excentric
Accuracy class	class 1,6 class 2,5 for measuring ranges 0...600 and 0...1000 bar		class 1,0		
Display range	0...0,6 bar up to 0...1000 bar		0...0,6 bar up to 0...1600 bar		NS100 + NS160 as high pressure application 0...2000 up to 0...6000 bar
Field of application Static load: Dynamic load: Overload:	75 % of full scale value 65 % of full scale value max. full scale value		Full scale value 90 % of full scale value 1,3 x full scale value		
Case	Stainless steel 1.4301, blow-out back and break-proof partition				
Ring	Stainless steel 1.4301 bayonet ring				
Measuring unit	Stainless steel 316L (1.4404)				
Pressure connection	Stainless steel 316L (1.4404)				
Thread	G 1/4 B		G 1/2 B		HD-connection for 1/4"- female, M16x1,5 others on request
Window	Laminated safety glass				
Pointer mechanism	Stainless steel				
Dial	Aluminium white, scale black				Special scale, Double scale
Pointer	Aluminium black				Drag pointer, Reference pointer
Temperatures unfilled  filled	Store: -40°C up to +70°C, Surrounding: -40°C up to +60°C, Medium up to +200°C Store: -20°C up to +70°C, Surrounding: -20°C up to +60°C, Medium up to +100°C				Surrounding tempera- tures -40°C for filled execution
Optional mounting	Mounting back flange or mounting front flange (front ring)				
Protection class	IP 54 acc. to EN 60529/IEC 529, IP 65 for filled version				
Weight approx. unfilled filled	0,18 kg 0,25 kg	0,18 kg 0,25 kg	0,65 kg 1,00 kg	1,50 kg 2,95 kg	

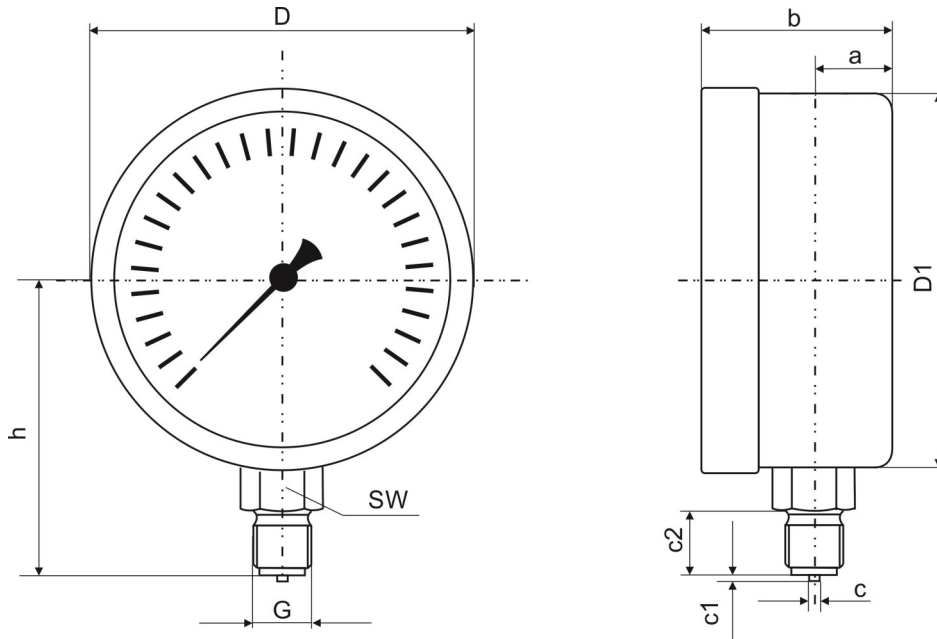
## Dimensional drawings

Dimensions in mm

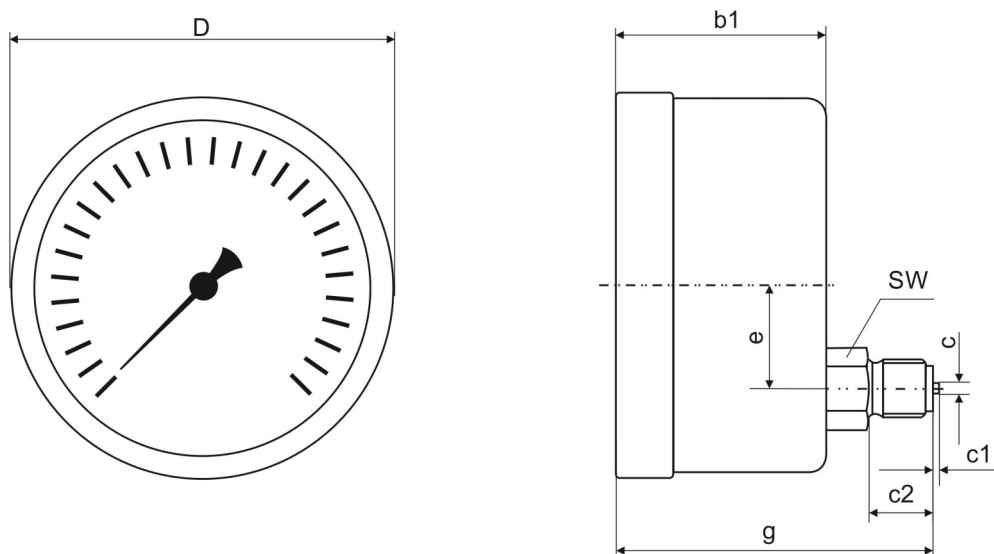


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### Type 6505, 6513, 6516



### Type 6507



Type	NS	D	T	SW	b	b1	a	h	D1	c	c1	c2	e	g
6505	63	64	G1/4B	14	41	-	18	54	62	5	2	13	-	-
6507	63	64	G1/4B	14	-	41	-	-	-	5	2	13	18	63
6513	100	101	G1/2B	22	60	-	27	87	99	6	3	20	-	-
6516	160	161	G1/2B	22	79	-	43	115	159	6	3	20	-	-