

Heavy Duty contact pressure gauges

**Nominal size ND 100
with magnetic snap-action contacts
or inductive alarm contacts**

**Connection position bottom, radial
or back, eccentric**



Description

Contact pressure gauges with electrical alarm contacts are suitable for controlling or regulating process sequences by using the given process pressure. The contacts open or close electrical circuits in relation to the position of the pointer on the pressure gauge.

Our contact pressure gauges with the bourdon tube system are used at process pressures of approximately 1 bar and upwards. The media (gases or liquids) may not attack the copper alloy materials used. Liquids may not be too viscous or be susceptible to crystallization. The inexpensive tried and tested bourdon tube system coupled with a modern modular principle provides a very reliable yet inexpensive contact pressure gauge.

With pressure connection at the bottom or rear different installation methods are possible.

Electrical alarm contacts are used as magnetic snap-action contacts, especially in harsh industrial conditions. The high contact pressure and the choice of different electrical contact materials enable high currents to be switched reliably.

If the electrical switching capacities of the alarm contacts are exceeded or not reached (see DE 1231), a relay is to be used to provide an appropriate current rating (DE 1230).

Inductive alarm contacts operate without physical contact and thus have no unfavourable effects on the pressure measuring system while having an unlimited service life. A control unit is always needed to operate these contacts. Contact pressure gauges with inductive alarm contacts can be used in potentially explosive atmospheres, provided that the appropriate regulations are complied with.

Features

- o Modular construction system ensures high reliability and long service life
- o Overload capacity up to 2.5 x
- o Protection to IP 54
- o Accuracy class 1,0
- o Case, steel black
- o Copper alloy measuring system
- o Up to four alarm contacts possible
- o Suitable for programmable SPS - controller

Measuring Ranges



0 ... 1 bar up to 0 ... 600 bar

Applications

Mechanical engineering
and plant construction,
water treatment,
hydraulic and pneumatic systems

Model: P1601, P1603, P1611, P1613

Technical data

Models	P1601	P1603	P1611	P1613	Options
Nominal size	100				
Symbol					
Contact type	Magnetic snap-action	Inductiv alarm contact	Magnetic snap-action	Inductiv alarm contact	
Number of contacts*	1 to 4 depending on measuring range	1 to 3 depending on measuring range	1 to 4 depending on measuring range	1 to 3 depending on measuring range	
Electrical connection	Cable connector right hand side 6 screw terminals + PE, cross section of the conducting wire 2,5 mm ² Screw type conduit fitting M20x1.5, out going downwards				back (without pressure relief opening)
Accuracy class	Class 1.0 acc. to EN 837-1				
Ranges	0 ... 1 bar to 0 ... 600 bar negative or positive / negative and positive gauge pressure				
Application	Constant load: up to full scale value Alternating load: up to 0.9 x full scale value Short-time: overload capacity 1.3 x				up to 2.5 x (depending on measuring range)
Case	Stainless steel				
Bezel	Bayonet ring, stainless steel				
Mounting flange	none				Front or rear flange: stainless steel
Window	Polycarbonat				
Dial	Aluminium white, scale and imprint black				Dual scale
Pointer	Instrument pointer: Aluminium, black ; Set pointer: red				
Movement	Copper alloy; wear parts: argentan				
Measuring element	< 100 bar: Copper alloy, bourdon tube ≥ 100 bar: stainless steel 316L, spiral spring				
Pressure connection - position - thread	Copper alloy radial , bottom G 1/2, SW22		back eccentric G 1/2, SW22		Other threads on request
Temperatures - Medium - Ambient	Tmax. 80° C Tmin. -20°C, Tmax. 60° C				Higher medium temperature possible
Temperature drift	0.4% /10K if deviation form normal temperature +20°C				
Electrical connection	cable box				
Protection to EN 60 529/IEC 529	IP 54				

* Number of contacts

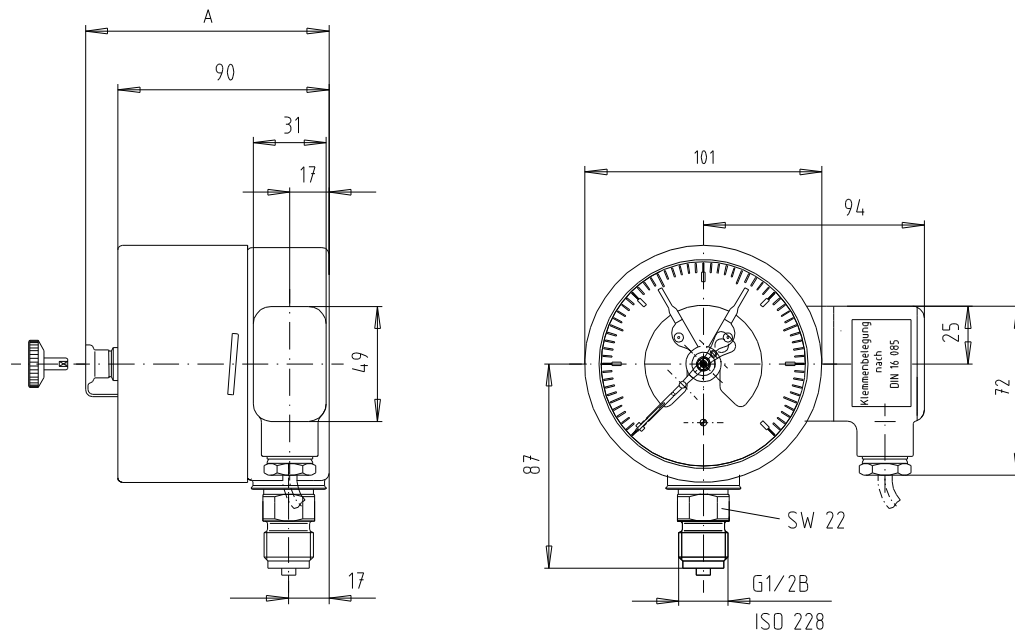
Measuring range	Magnetic snap-action contact	Inductive contact
to 1 bar	2	2
1.6 bar	2	3
above 4 bar	4	--

See data sheet - DE 1231 for electrical data

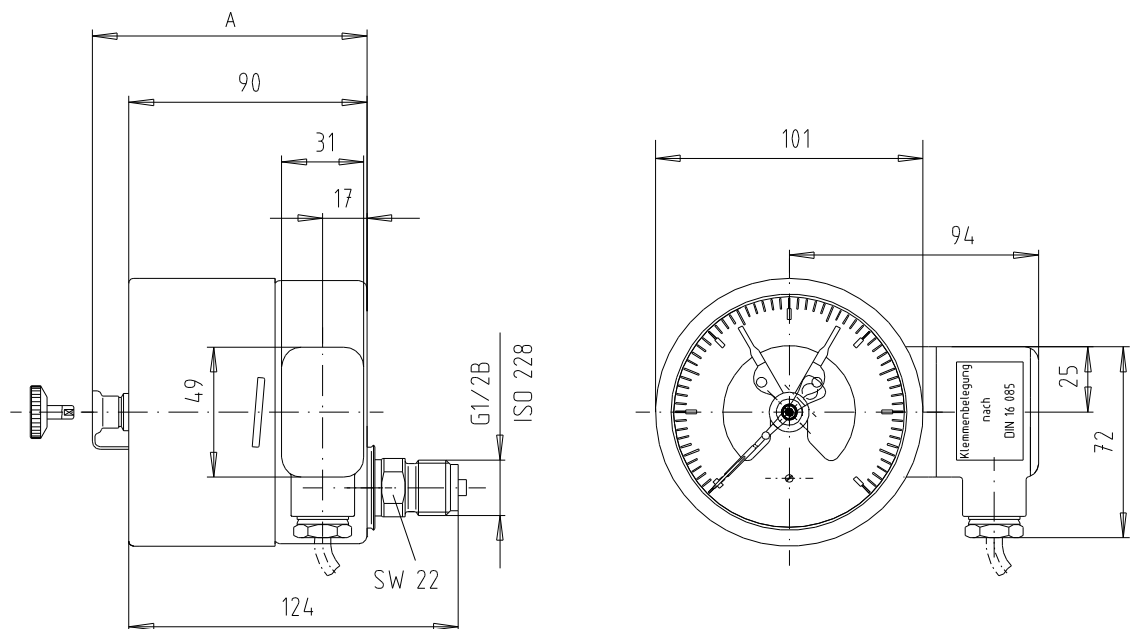
See data sheet - DE 1230 for electrical data

Dimensions

Models: P1601, P1603 - bottom radial connection



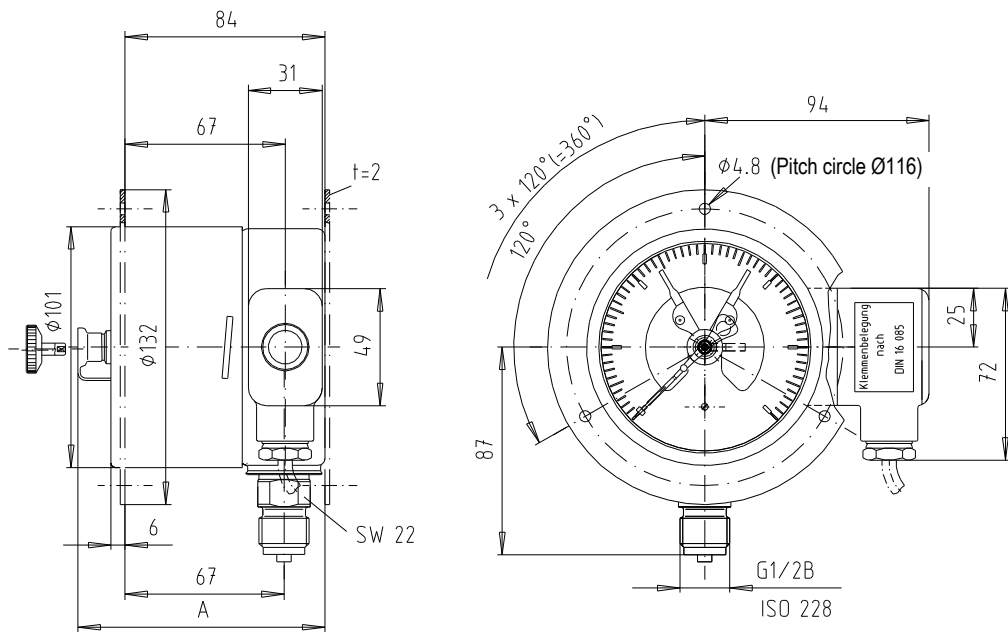
Models: P1611, P1613 - back eccentric connection



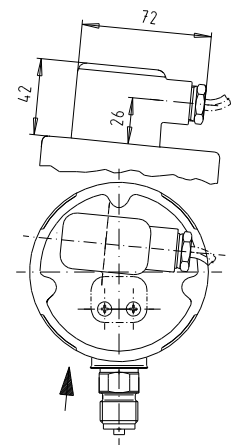
Model	P1601, P1603, P1611, P1613
Dimension " A "	104 mm

Dimensions

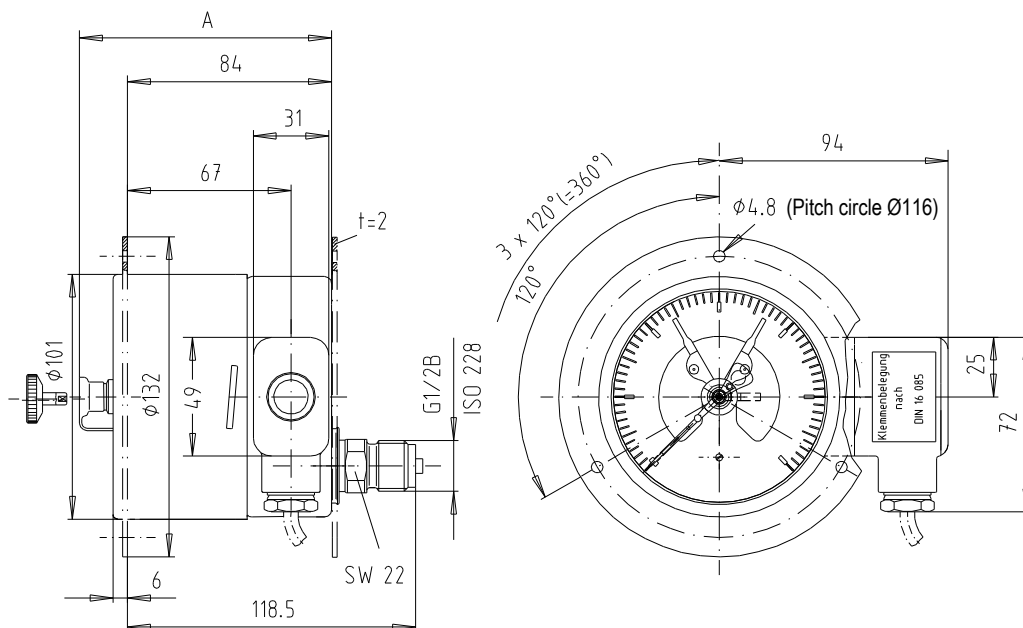
Models: P1601, P1603 - bottom radial connection
Front / rear mounting flange



Cable junction box, back



Models: P1611, P1613 - back eccentric connection
Front / rear mounting flange



Models	P1601, P1603, P1611, P1613
Dimension " A "	104 mm