Absolute Pressure Gauges

With Diaphragm Element, Stainless Steel Series

Class 0.6 • Model 532.51
Class 1.0 • Model 532.52
Class 1.6 • Model 532.53
Class 2.5 • Model 532.54

Pressure Gauges

Service intended
Measurement of absolute pressure excluding the effect of barometric pressure variation. All stainless steel pressure gauge. Suitable for corrosive environments and gaseous and liquid media. With optional flange connection also for viscous and contaminated media.

Design
WIKA trade pattern DT-GM 86 08 176
All welded construction of pressure and datum chamber

Nominal size
100 and 160 mm

Accuracy class per EN 837-3 /6
Model 532.51 160 mm: 0.6
Model 532.52: 1.0
Model 532.53: 1.6
Model 532.54: 2.5
Accuracy in consideration of ambient pressure variation between 955 and 1065 mbar

Scale ranges per EN 837-3 /5
0 ... 25 mbar to 0 ... 25 bar absolute pressure or equivalent other units of absolute pressure

Working pressure
Steady: full scale value
Fluctuating: 0.9 x full scale value

Overpressure safety
10 x scale range 25 bar maximum. Minimum 1 bar absolute (atmospheric pressure) with all scale ranges

Operating temperature
Ambient: -20 ... +60 °C
Medium: +100 °C maximum

Temperature effect
When temperature of the pressure element deviates from reference temperature (+20 °C):
max. ±0.8 %/10 K of true scale value

Ingress protection
IP 54 per EN 60 529 / IEC 529

Dial
White aluminium with black lettering

Pointer
Adjustable black aluminium pointer

Zero adjustment
By means of adjustable pointer. Contact gauges and liquid filled gauges with external zero adjustment

Case
Natural finish stainless steel case

Window
Laminated safety glass

Bezel ring
Cam ring (bayonet type), natural finish stainless steel

Gauge mounting
Requires mounting by means of rigid tailpipe
Additional pipe or surface mounting bracket is optionally available

Standard features

Pressure connection (exposed to pressure medium)
Material: stainless steel 1.4571
Threaded entry per EN 837-3 /7.3
G ½ B (male), 22 mm flats

Pressure element (exposed to pressure medium)
≤ 0.4 bar: stainless steel 1.4571
> 0.4 bar: Duratherm (NiCrCo-alloy)

Pressure chamber (exposed to pressure medium)
Stainless steel 1.4571

Movement
Stainless steel

Optional extras

- Other pressure connection
- Liquid filling (**model 533.XX**)
- Safety pattern case (**model 53X.3X**)
- Overpressure safety in excess of 10 x scale range
- Medium temperature in excess of 100 °C
- Pressure connection with DIN or ASME flange
- Pressure connection with vacuum-type flange DN 10/32 to DIN 28 403
- 3-hole panel or surface mounting flange (consider possible conflict with pressure chamber)
- Pipe or surface mounting bracket (see data sheet AM 09.07)
- 100 mm only: alarm contacts (see data sheet AE 08.01)
- 100 mm only: transmitters (see data sheet AE 08.02)

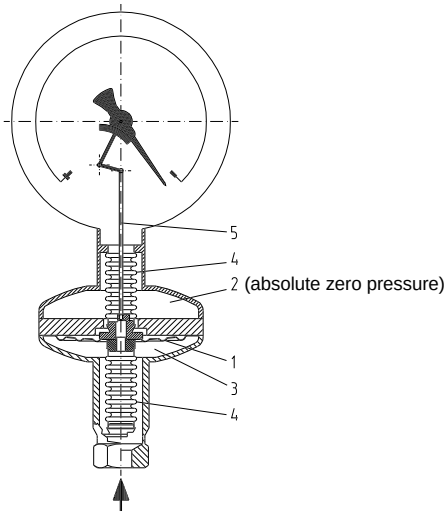
Special version

Model 532.53 with expanded lower scale range
Pressure range 0 ... 1020 mbar absolute,
Scale range 0 ... 30 mbar expands over 130°,
Accuracy class 1.6

Design and opperating principle

- The diaphragm (1) separates pressure chamber (3) and pressure datum chamber (2) which represents absolute zero pressure.
- Difference of pressure between pressure chamber (3) and pressure datum chamber (2) will deflect the diaphragm (1).
- The diaphragm will rest against a contoured metal bolster if the pressure applied is greater than maximum scale value.
- Metal bellows (4) will seal the datum chamber and provide transmission (5) of the pressure applied to the instruments movement and pointer.

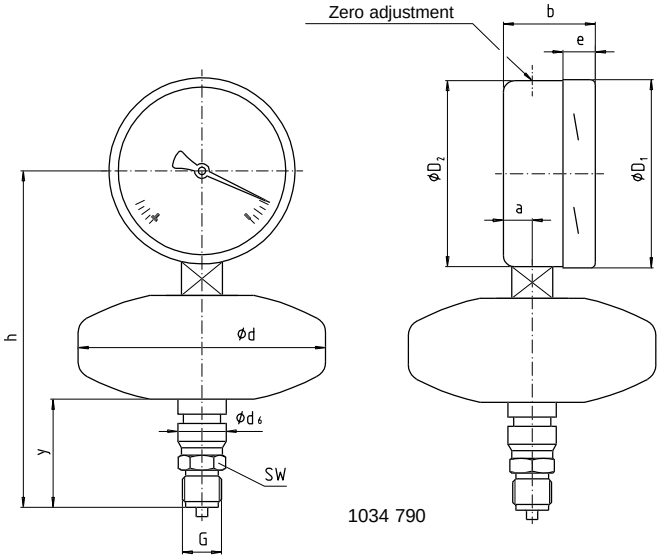
Illustration of the principle



289 752.01

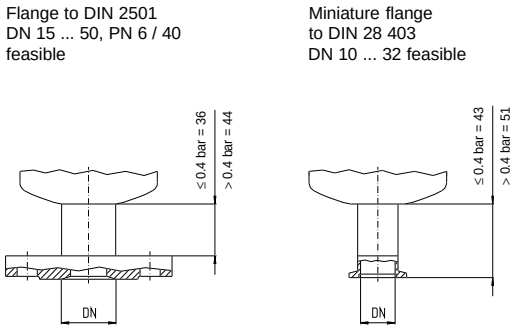
Dimensions

Standard version



1034 790

Flanged pressure connection



1036 785

Nominal size	Pressure range [bar]	Dimensions [mm]											Weight [kg]
		a	b	D_1	D_2	d	d_6	e	G	h ± 1	y	SW	
100	≤ 0.4	15.5	49.5	101	99	133	26	17.5	G ½ B	185	58	22	1.8
	> 0.4	15.5	49.5	101	99	76	26	17.5	G ½ B	177	66	22	1.2
160	≤ 0.4	15.5	49.5	161	159	133	26	17.5	G ½ B	215	58	22	2.3
	> 0.4	15.5	49.5	161	159	76	26	17.5	G ½ B	207	66	22	1.6

Standard pressure entry with parallel thread and sealing to EN 837-3 /7.3.

Ordering information

State:
Pressure gauge model / Nominal size / Scale range / Size of connection / Optional extras required

W 883 GB 10 02.02 CM 9020 209 Printed in Germany