

## DA10 || Differential Pressure Gauge

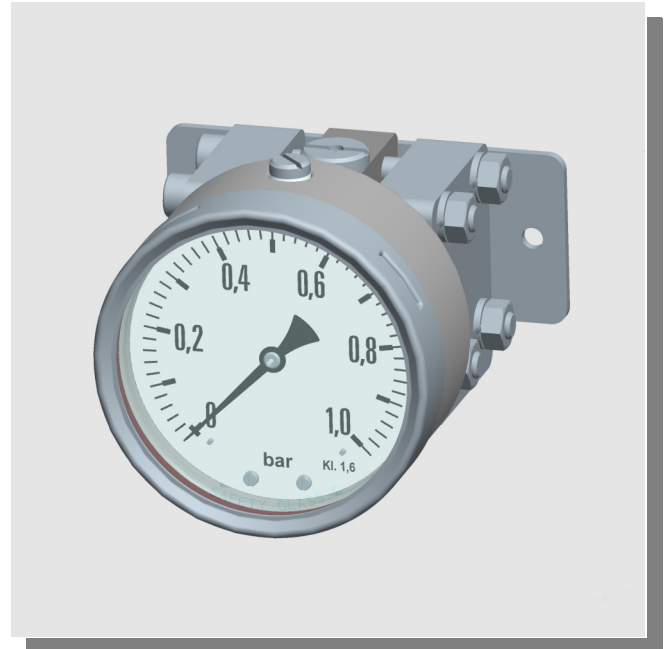
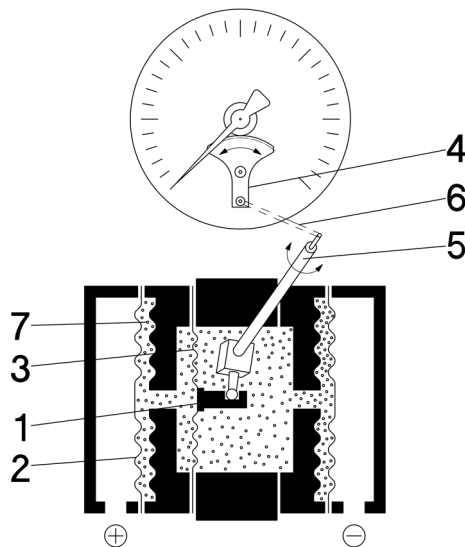
The Differential Pressure Gauge DA10 serves as direct differential pressure indicator.

### Construction and Operation

The pressures to be compared act by separating diaphragms hydraulically on the sensing diaphragm. The sensing diaphragm is in normal position during equal pressure. Pressure differences deflect the sensing diaphragm to the lower pressure side. The measurement is lead out of the closed measuring system using a torque rod and translated by the motion work to a 0-270° rotation angle.

When the measuring system is stressed one-sided beyond the measuring range the separating diaphragms rest on identical shaped parts inside the system and protect the measuring system from overload.

### Functional Scheme



### Main Features

- Highly corrosion resistant
- Robust, wear resistant mechanism
- Unaffected by dirt

### Typical Applications

- Chemical industries, petrochemistry
- Process industries

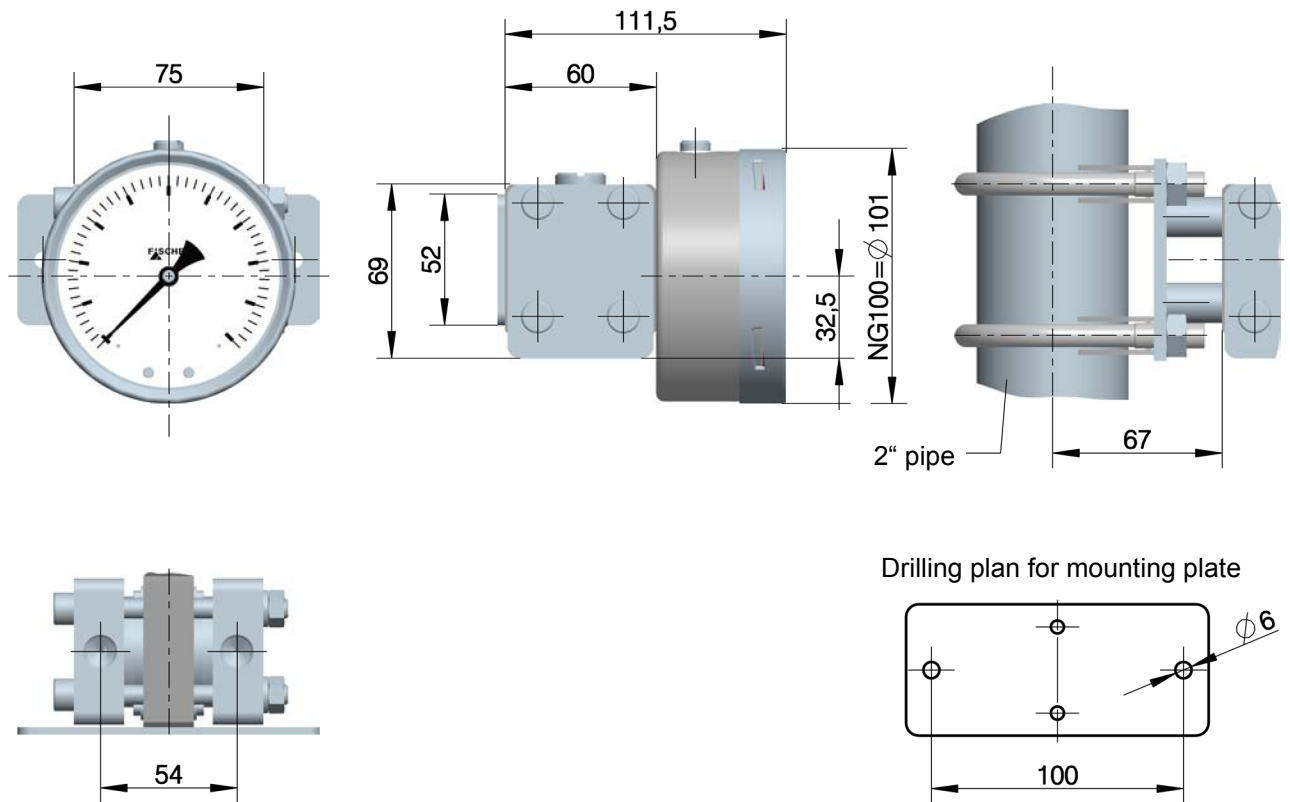
- 1 Connecting rod
- 2 Separating diaphragm
- 3 Sensing diaphragm
- 4 Motion work
- 5 Torque rod
- 6 Lever
- 7 Pressure transfer liquid



## Specifications

	<p><b>General</b></p> <p>Measuring ranges 0...1 bar to 0...16 bar</p> <p>Nominal pressure rating 100 bar (max. stat. operating pressure)</p> <p>Accuracy <math>\pm 2.5\%</math> FS (<math>\pm 1.6\%</math> on request)</p> <p>Max. differential overpressure Safe up to max. static pressure; pressure differential in either direction</p> <p>Indicator Circular dial type, 100 mm diameter</p> <p>Perm. ambient temperature <math>-20^{\circ}\text{C} \dots +80^{\circ}\text{C}</math></p> <p>Perm. medium temperature <math>+100^{\circ}\text{C}</math></p> <p>Zero adjustment Micro adjustment pointer</p> <p>Protection class IP 65 acc. to DIN EN 60529</p> <p>Pressure chambers Smooth internal surfaces without recesses; flush separating diaphragms</p> <p>Pressure connections <math>G\frac{1}{4}</math> female thread, misc. connection shanks, cutting ring connections (see Ordering Code)</p>
	<p><b>Materials</b></p> <p>Model „R“</p> <p>Pressure chamber (media contact) CrNi-steel 1.4404 (316L)</p> <p>Separating diaphragms (media contact) CrNi-steel 1.4571</p> <p>Intermediate plate AlMgSiPb HART-COAT<sup>®</sup></p> <p>Dial mechanism, gauge housing CrNi-steel 1.4301</p> <p>Dial window Laminated safety glass</p> <p>Dial scale and pointer Aluminium</p> <p>Gaskets Viton<sup>®</sup> O-rings</p>
	<p><b>Accessory Equipment</b></p> <p>Liquid filling For operating conditions involving vibration, pressure fluctuations, and/or moisture condensation inside, the gauge can be supplied with glycerine filling.</p> <p>Reference pointer Adjustable pointer for visual marking of limit / reference value</p> <p>Options (on special order) PTFE coated gaskets (medium compatibility), special dial scales, gauge housing of 1.4404 / 316 L</p> <p>Pressure connections Process pipe connection by using bite type ferrule connectors or direct fitting of pipe into <math>G\frac{1}{4}</math> thread. Make sure that the connection is firmly sealed.</p>
	<p><b>Mounting</b></p> <p>Wall mounting (Model „W“) With mounting plate on back of instrument</p> <p>Pipe mounting (Model „R“) With mounting parts for vertical or horizontal mounting on 2" pipes</p>

**Dimensions** (all units in mm unless stated otherwise)



## Ordering Code

<b>Differential Pressure Gauge</b>	<b>DA10</b>			<b>L</b>				<b>L</b>				<b>0</b>	<b>0</b>
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### Measuring Range

0 ... 1 bar	>	0	2
0 ... 1.6 bar	>	0	3
0 ... 2.5 bar	>	0	4
0 ... 4 bar	>	0	5
0 ... 6 bar	>	0	6
0 ... 10 bar	>	0	7
0 ... 16 bar	>	0	8

### Nominal Pressure Rating

100 bar	>	L
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### Measuring System Material

Pressure chamber of chrome-nickel-steel 1.4404 / AISI 316 L / separating diaphragm 1.4404	>	R
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### Pressure Connection

Female thread G1/4	>	0	1
Female connection 1/4-18 NPT	>	0	4
Female connection 1/2-14 NPT	>	0	5
Male connection shank G1/2 B stainless steel	>	1	3
Male connection shank 1/4-18 NPT EXT stainless steel	>	1	4
Male connection shank 1/2-14 NPT EXT stainless steel	>	1	5
Cutting ring connection of 1.4571 for 12 mm pipe	>	2	7

### Indication

Bayonet ring case ø 100 mm of 1.4301	>	L
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### Mounting

Wall mounting	>	W
Pipe mounting	>	R

### Liquid filling

Without liquid filling	>	0
Dial with liquid filling (glycerine)	>	1
Dial with liquid filling (silicone oil)	>	5

### Additional pointer

Without additional pointer	>	0
Adjustable reference pointer	>	1