



Energy | Chemical/petrochemical industry | Oil & gas | Water/wastewater

# Pressure gauges in the process industry



Smart in sensing





# 7 selection criteria lead you to the right standard



Model	Pressure type			Scale range					Aggregate state of the medium		
	Absolute pressure	Gauge pressure	Differential pressure	< 16 mbar	≤ 0.6 bar	≤ 40 bar	≤ 650 bar	≤ 1,600 bar	Gas or vapour	Liquid with low viscosity	Liquid with high viscosity
232.50	○	●	○	○	○	●	●	●	●	●	○
232.30	○	●	○	○	○	●	●	●	●	●	○
432.50	○	●	○	○	●	●	○	○	●	●	●
532.51	●	○	○	○	●	●	○	○	●	●	○
632.50	○	●	○	●	●	○	○	○	●	○	○
732.51	○	○	●	○	●	●	○	○	●	●	○
732.14	○	○	●	○	●	●	●	○	●	●	○

- possible
- not possible



**Model 232.50**

The first choice for scale ranges from 0.6 bar



**Model 232.30**

For the highest safety Category S3 in accordance with EN 837



**Model 432.50**

For low pressure ranges, high overload safety, critical media

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Wetted materials			Indication accuracy				Nominal size			Special features		
Stainless steel	Monel	Special materials	0.6 %	1.0 %	1.6 %	2.5 %	63 mm	100 mm	160 mm	Safety version in accordance with EN 837, category S3	Liquid filling	Increased overload safety
●	●	●	○	●	●	○	●	●	●	○	●	○
●	●	●	○	●	●	○	●	●	●	●	●	○
●	●	●	●	●	●	●	○	●	●	●	●	●
●	●	○	●	●	●	●	○	●	●	●	●	●
●	○	○	○	●	●	○	●	●	●	○	●	○
●	○	○	○	○	●	○	○	●	●	●	●	○
●	○	●	○	○	●	○	○	●	●	○	●	●



**Model 632.50**

For very low pressure ranges



**Model 532.51 – 532.54**

Absolute pressure measurement



**Model 732.51**

Differential pressure with all-welded media chamber



**Model 732.14**

Differential pressure with overload safety

# The products in detail

These measuring instruments for the process industry are manufactured completely from stainless steel for increased corrosion resistance. They are developed, qualified and process-monitored in production in line with the EN 837 standard. The core components are WIKA's internally developed measuring systems and the Swiss precision movement. For harsh operating conditions, all instruments are also available with liquid filling.

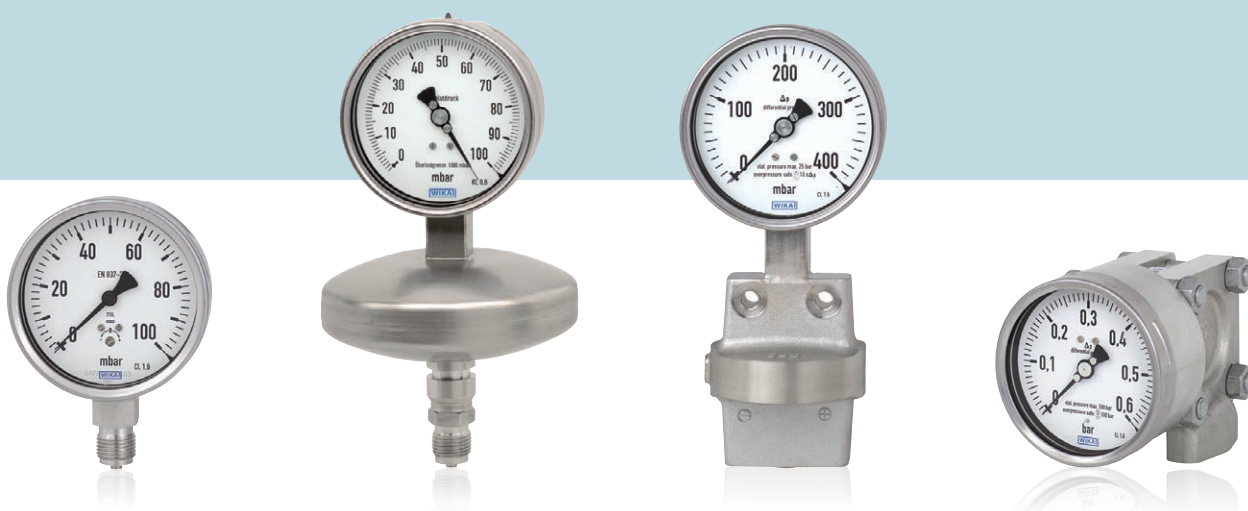
All instruments are also available with electrical output signals or switch contacts. Thus, not only does a measuring point provide an on-site display without the need for a power supply, but also it provides an electrical output signal for monitoring or control.



Mechanical version	Model 232.50	Model 232.30	Model 432.50	
Pressure type	Gauge pressure	Gauge pressure	Gauge pressure	
Scale range	0 ... 0.6 to 0 ... 1,600 bar	0 ... 0.6 to 0 ... 1,600 bar	0 ... 16 mbar to 0 ... 25 bar	
Medium	<ul style="list-style-type: none"> <li>■ Gaseous</li> <li>■ Liquid</li> <li>■ Corrosive</li> <li>■ Aggressive</li> </ul>	<ul style="list-style-type: none"> <li>■ Gaseous</li> <li>■ Liquid</li> <li>■ Corrosive</li> <li>■ Aggressive</li> </ul>	<ul style="list-style-type: none"> <li>■ Gaseous</li> <li>■ Liquid</li> <li>■ Corrosive</li> <li>■ Aggressive</li> <li>■ Highly viscous</li> <li>■ Crystallising</li> </ul>	
Nominal size [mm]	63, 100, 160	63, 100, 160	100, 160	
Accuracy class	1.6 / 1.0	1.6 / 1.0	1.6 / 2.5 optional 0.6 / 1.0	
Safety version	Category S1 in accordance with EN 837	Category S3 in accordance with EN 837	Category S1 in accordance with EN 837	
Overload safety	<b>NS 63</b> <ul style="list-style-type: none"> <li>■ Full scale value</li> </ul> <b>NS 100, 160</b> <ul style="list-style-type: none"> <li>■ 1.3 x full scale value</li> </ul>	<b>NS 63</b> <ul style="list-style-type: none"> <li>■ Full scale value</li> </ul> <b>NS 100, 160</b> <ul style="list-style-type: none"> <li>■ 1.3 x full scale value</li> </ul>	5 x full scale value, max. 40 bar, optional 10 x full scale values	

## Mechatronic version

With switch contacts	Model PGS23	Model PGS23	Model PGS43	
With electrical output signals		Model PGT23	Model PGT43	



	Model 632.50	Models 532.51, 532.52, 532.53, 532.54	Model 732.51	Model 732.14
	Gauge pressure	Absolute pressure	Differential pressure	Differential pressure
	0 ... 2.5 to 0 ... 600 mbar	0 ... 25 mbar to 0 ... 25 bar	0 ... 16 mbar to 0 ... 25 bar	0 ... 60 mbar to 0 ... 40 bar
	<ul style="list-style-type: none"> <li>■ Gaseous</li> <li>■ Dry</li> <li>■ Corrosive</li> <li>■ Aggressive</li> </ul>	<ul style="list-style-type: none"> <li>■ Gaseous</li> <li>■ Liquid</li> <li>■ Corrosive</li> <li>■ Aggressive</li> <li>■ Highly viscous</li> <li>■ Crystallising</li> </ul>	<ul style="list-style-type: none"> <li>■ Gaseous</li> <li>■ Liquid</li> <li>■ Corrosive</li> <li>■ Aggressive</li> </ul>	<ul style="list-style-type: none"> <li>■ Gaseous</li> <li>■ Liquid</li> <li>■ Corrosive</li> <li>■ Viscous</li> <li>■ Aggressive</li> </ul>
	63, 100, 160	100, 160	100, 160	100, 160
	1.6 optional 1.0	0.6 / 1.0 / 1.6 / 2.5	1.6	1.6 / 2.5
	Category S1 in accordance with EN 837	Category S1 in accordance with EN 837	Category S1 in accordance with EN 837	
	Full scale value	max. 25 bar	max. 40 bar	40, 100, 250 or 400 bar

	Model 632.50 with 8xx	Model 532.53 with 8xx	Model DPGS43	Model DPGS43HP
	Model PGT63HP	Model APGT43	Model DPGT43	Model DPGT43HP

# Mechatronic versions

## Pressure gauges with electrical output signal

**intelliGAUGE®**

A pressure gauge with an electrical output signal from the intelliGAUGE series combines all the advantages of a local display, without the need for a power supply, with the requirements of an electrical signal transfer for a modern electronic measured value registration.

A magnet on the pointer shaft rotates proportionally to the instrument pointer as a direct linear function of the process pressure. The electronics positioned opposite the magnet register the rotary motion of the magnet. A magnetic-field-dependent sensor picks up this change on the electronic side, contact-free, wear-free and without influence on the pressure element. The sensor signal, proportional to the deflection, is converted to an electrical output signal via an amplifier (US patent no. 8.030.990).



## Pressure gauges with switch contacts

**switchGAUGE**

Switch contacts built into mechanical pressure measuring instruments close or open circuits depending on the process pressure. They can be used for various monitoring functions when a measured value either falls below or exceeds a preset value. Switch contacts are fitted behind the dial and can be set over the entire scale range using the set pointer. The instrument pointer (actual value pointer) moves freely across the entire scale range, independent of the setting. The contacts can be adjusted individually, using a removable adjustment key in the window.



For general applications

Magnetic snap-action contact



Model 821

For hazardous areas

Inductive contact



Model 831

For PLC

Electronic contact



Model 830 E

For general applications and PLC

Reed contact



Model 851