



**Your Partner for Pressure and  
Temperature Measurement**

**There is always a solution ...  
... for demanding measuring tasks**

## » Mechanical Pressure Measurement



<b>Pressure ranges</b>	0 – 2.5 mbar to 0 – 5000 bar
<b>Nominal case sizes</b>	40, 50, 63, 80, 100, 125, 160, 250, 96x96, 144x144 mm, 4½"
<b>Case</b>	stainless steel, polyamide, brass (nostalgic instruments)
<b>Wetted parts</b>	brass/bronze, stainless steel, Monel, PTFE and others
<b>Process connections</b>	thread or flange connection
<b>Accuracy classes</b>	according to EN 2.5, 1.6, 1.0, 0.6, 0.25 according to ASME Grade 1A, 2A, 3A, GOST
<b>Special versions</b>	high-temperature resistant up to +300 °C, up to 100-fold overrange protected, high-pressure instruments according to DIN 16 001, for ambient temperatures down to –60 °C, with customised dial and others
<b>Model overviews</b>	1000, 2000, 3000, 4000, 6000

Pressure gauges are indicating pressure measuring instruments for **gauge pressure**, **absolute pressure** and **differential pressure**. For the **ideal solution** of various applications, we differentiate between the following product groups: Bourdon tube pressure gauges, test gauges, diaphragm pressure gauges (horizontal, vertical), duplex and differential pressure gauges and capsule gauges for low pressure.



## » Chemical Seal Mounting



### Wetted parts

materials: stainless steel, Hastelloy, Monel, tantalum, duplex steel, Inconel and others  
coatings: PTFE, PTFE for Ex-applications, PTC, PFA, gold, Halar® and others

### Process connections

male threads, female threads, flange connections, diaphragm placed inside, diaphragm flush welded, hygienic and aseptic connections for food/bio/pharmaceutical industries, also with 3-A and EHEDG certification

### Model overview

7000

Diaphragm seals extend the application range of pressure gauges and pressure transmitters. The diaphragm separates the medium from the measuring unit. A suitable filling fluid is responsible for the pressure transmission.

We gladly fit your [provided instruments](#) (transmitters, pressure switches, etc.) to our chemical seals. In coordination with you, we can find [ideal process-sided solutions](#) with our chemical seals.



## » Electronic Pressure Measurement



<b>Pressure ranges</b>	0 – 25 mbar to 0 – 2500 bar
<b>Accuracy</b>	from 0.05 to 1 % –40 °C to +80 °C, temperature-compensated
<b>Output signals</b>	4...20 mA, 0...20 mA, 0...10 V, 4...20 mA with HART® communication or RS 485, IO-Link, semiconductor switch directly within the transmitter (DIGPTM)
<b>Limit switch</b>	direct (electromechanical) indirect (contact-free)
<b>Model overview</b>	9.1000

Limit switch contact assemblies for pressure measuring instruments close or open electric or pneumatic circuits on a pressure-dependent basis. Pressure measuring instruments with analogue or digital output signal are suitable for the measurement of absolute pressures, differential pressures as well as positive and negative gauge pressures of liquid or gaseous media. They stand out due to a **high measuring and switching accuracy of up to 0.05 % of the full scale value**. Typical fields of application include the food and pharmaceutical industries, the oil and gas industry, chemistry and petrochemistry, the paper industry as well as increasingly the energy technology (SF<sub>6</sub>). Specifically approved versions of instruments with electrical measuring and switching outputs are also suitable for the **application in explosive atmospheres**.



## » Calibration Technology

**barotec**<sup>®</sup>  
KALIBRIERTECHNIK



<b>Pressure ranges</b>	from vacuum up to 5000 bar gauge pressure and absolute pressure, differential pressure $\pm 30$ mbar to $\pm 300$ mbar, digital barometers
<b>Measuring principle</b>	mechanical primary standards, fully digital transfer standards, fully automatic pressure controllers/calibrators, portable hand-held measuring instruments
<b>Services</b>	development and construction of laboratory and calibration work stations, development of customer-specific software solutions
<b>Calibration service</b>	realisation of numerous national and international calibration standards
<b>Model overview</b>	10000

The instruments of barotec<sup>®</sup> Kalibriertechnik (barotec<sup>®</sup> Calibration Technology) were developed for customers whose demands for **accuracy, flexibility and speed** are as high as the standards in our own production. We thoroughly focused on applying **proven and industrial mature technology**, which meets all requirements from laboratory calibration to calibration in the series production.

*for Pressure and Temperature in all Industries*



## » Mechanical Temperature Measurement



<b>Accuracy</b>	class 1
<b>Nominal case sizes</b>	63, 80, 100, 160, 125, 250 mm, 5"
<b>Case</b>	stainless steel
<b>Stem</b>	stainless steel, also with 3-A and EHEDG certification
<b>Stem connections</b>	rigid, every angle and with capillary line
<b>Model overview</b>	8000

Our mechanical temperature measuring instruments comprise bimetal thermometers, gas-actuated thermometers as well as machine glass thermometers. They are suitable for temperature measurements in the range of  $-100\text{ °C}$  up to  $+650\text{ °C}$ .

Gas-actuated thermometers are optionally available with limit switch contact assembly. For the ideal measuring point design, we offer customer-specific solutions with stem models and stem connections for almost all applications.

*for Pressure and Temperature in all Industries*



## » Electrical Temperature Measurement



<b>Measuring principles</b>	resistance thermometers and thermocouples
<b>Temperature ranges</b>	from $-200$ up to $+1600$ °C
<b>Versions</b>	for measuring liquid and gaseous media, surfaces and ambient temperatures, for the application in explosion protected areas
<b>Data processing</b>	only display devices, $4 \dots 20$ mA, $0 \dots 10$ V, HART® or PROFIBUS® PA/FOUNDATION™ Fieldbus
<b>Special versions</b>	special fabrications, such as multipoint thermocouples for the collection of temperature profiles
<b>Model overview</b>	8000E

Our electrical temperature measuring instruments comprise resistance thermometers, thermocouples and digital thermometers for almost all applications and industries. [From very large to very small, from high- to low-temperature](#) – no matter which requirements you have for your application, together we will find the ideal solution.



## » Thermowells



### Materials

stainless steel, creep-resistant steel grades, duplex and super duplex steels, heat-resistant steel grades, nickel-base alloys (Monel, Hastelloy, etc.), titanium, tantalum and others

### Mounting options

screw, weld and flange connection, hygienic and aseptic connections for food/bio/pharmaceutical industries

### Specialties

surface electropolished, roughness Ra < 0.4 µm, also with 3-A and EHEDG certification, solid drilled thermowells with a total length up to 1.4 m

### Model overview

8000

Thermometer thermowells are important components of temperature measuring points. They protect the actual temperature sensors from **aggressive media as well as high pressures and flow velocities** and they seal the process towards the atmosphere. Only then, temperature measurements in highly stressed processes or in aggressive or toxic media are possible. Since the fields of application are almost unlimited, we offer thermowells in a wide range of construction types and materials. In addition to our extensive standard range, we provide almost any **customer-specific version or coating**.

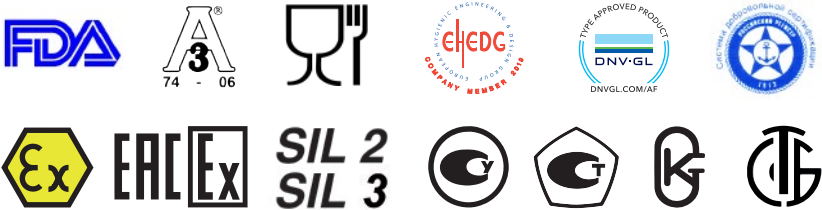




## » Accessories



## » Certificates and Approvals



A high quality standard is a matter of course for us! Not only our company is **certified according to the highest quality standards**, our products are **manufactured according to varied regulations** and approved for the most part as well.



*Special Customer Requests  
Are Challenges  
We Readily Meet ...*



**Our Demand**

Customer-specific solutions for demanding measuring tasks

**Our Basis**

Customer satisfaction  
Development of innovative products  
Germany as production location  
Continuous growth



The ARMANO Messtechnik GmbH is an internationally operating, medium-sized, innovative company with two manufacturing plants in Germany.

Our product range comprises high-quality pressure measuring instruments, temperature measuring instruments as well as calibration devices for pressure measurement, for whose quality we **enjoy an excellent reputation worldwide for more than 100 years**. We are proud to state that our customers appreciate **our quality, our expertise** as well as **our flexibility and reliability**.

[www.armano-messtechnik.com](http://www.armano-messtechnik.com)

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