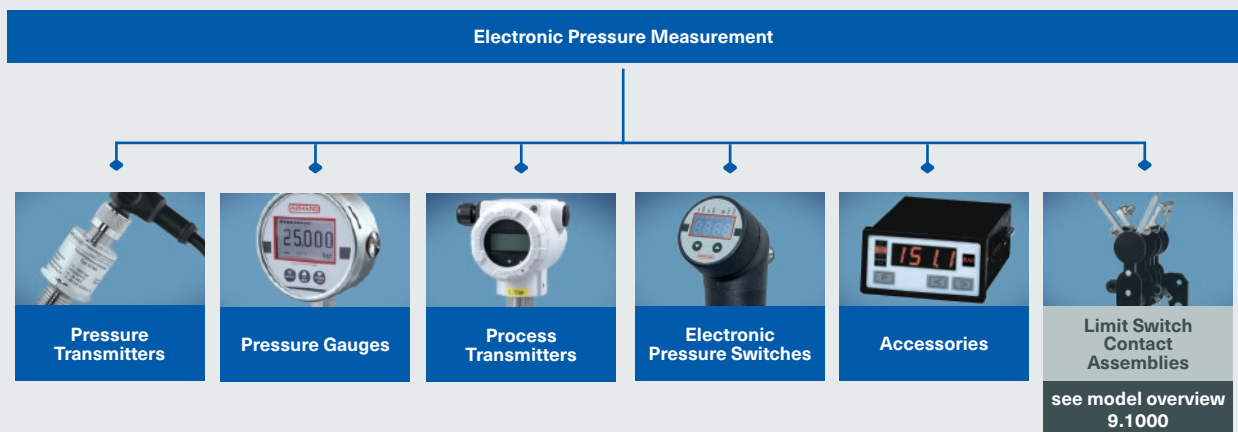


ARMANO



Electronic Pressure Measurement



Quality Made in Germany

Electronic Pressure Measurement

The ARMANO Messtechnik GmbH represents tradition and innovation in the production and distribution of precision pressure and temperature measuring instruments, which have an excellent reputation worldwide – for more than 100 years.

We are continually developing customer-specific solutions for a variety of applications requiring pressure and temperature measuring technology. Their use is manifold and there are always new applications.

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 0.02 % FS. Typical fields of application include general engineering sectors, food and pharmaceutical industries, oil and gas industry, chemistry and petrochemistry, paper industry as well as the energy technology (SF₆).

Specifically approved versions of instruments with electrical measuring and switching outputs are suitable for the application in explosive atmospheres.

In this brochure, you will find our standard range of electronic pressure measuring instruments.

Your instrument is not listed here? Jointly, we will find a suitable solution for your application.

Do not hesitate to contact us!

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Our Products at a Glance



Mechanical Pressure Measurement



Electronic Pressure Measurement



Chemical Seal Mounting



Calibration Technology



Mechanical Temperature Measurement



Electrical Temperature Measurement



Thermowells & Accessories

Applications

Electronic pressure measurement is, along with electrical temperature measurement, the most frequently used technology for monitoring and controlling machines and systems. Information on electrical temperature measurement can be found in model overview 8000E.

The applications of electronic pressure measuring devices can basically be assigned to one of three areas:



Monitoring Critical System Pressures

e.g. limit value monitoring with pressure switches, continuous measurement of the system pressure (filter monitoring)



Pressure Control

maintaining constant pressures (e.g. pump control) or regulation of a specific pressure curve (e.g. autofrettage, leak tests) in combination with an electronic controller for effective control of the respective process



Indirect Measurement of Process Variables in Hydraulic and Pneumatic Systems

e.g. overload monitoring in hydraulic systems on hoists, clamping devices or tools

Fields of Application

In addition to the pressure measurement of liquids, gases or vapours in medical fields, building services, heavy machinery and other general industrial applications, electronic pressure measuring instruments can also be used for the measurement of other physical quantities such as level, density and flow. Our pressure transmitters can be connected to any control technology since they are able to provide standard signals.

Chemical seals extend the application range of electronic pressure measuring devices, e.g. in food / bio / pharmaceutical industries.



Application Range

In order to ensure a long service life, electronic pressure measuring instruments should not be used beyond the specifications given in the data sheets. Nevertheless, the characteristic curve can change gradually due to mechanical and thermal influences. Therefore, also electronic pressure measuring components should be checked regularly.

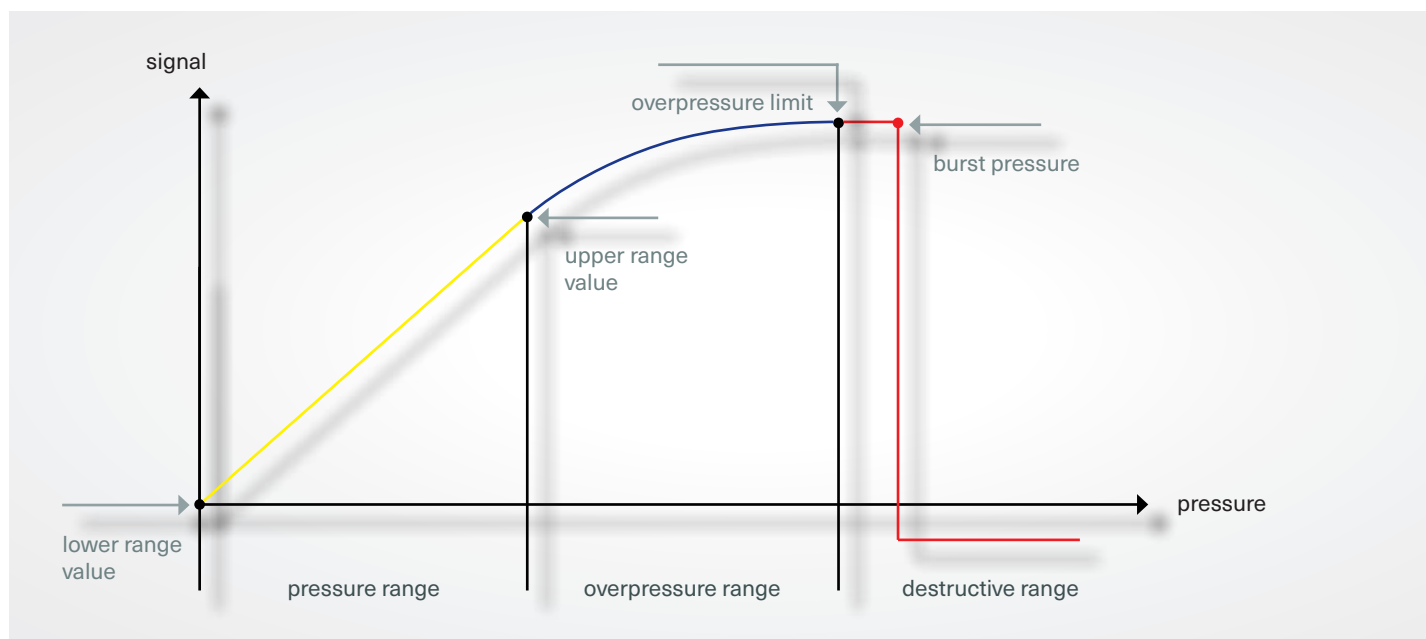
General Features

Process Connections

Our electronic pressure measuring devices can be provided with all common process connections such as G ½ B and G ¼ B according to DIN EN 837-1 or DIN EN ISO 1179-2, M 16x1.5 female for high pressure, connections with NPT, VCR or metric threads. To prevent aggressive media from causing chemical reactions or highly viscous media from clogging pressure inlet ports, process connections are provided with a flush welded stainless steel membrane, often also made of special materials. Available process connections can be found in the respective data sheets.

Pressure Ranges

The pressure range of an electronic pressure measuring device is the range in which the pressure can be measured or monitored. Important parameters are lower range value, upper range value, measurand (absolute pressure or overpressure) and, if applicable, overload pressures. The specifications of the measuring accuracies apply within the defined pressure ranges. Depending on model and version, pressure ranges from 0 – 2.5 mbar up to 0 – 3000 bar are available. Pressure ranges and accuracies can be found in the data sheets.



Media

Physical and chemical properties of the medium must be taken into account when selecting the materials of the wetted parts and the other features of the pressure measuring device.

Special attention must be paid to the fact that sensor membranes are only a few micrometres thick. Material removal due to corrosion or abrasion is not acceptable since metrological properties would change continuously.

For hydrogen applications, materials with or without gold plating are used whose chemical properties minimise or prevent hydrogen embrittlement.

General Features

Output Signals

In order to generate standard industrial signals, very small sensor signals have to be amplified, filtered and standardised by means of electronic components.

Analogue Transfer of the Measured Value

The output signals of our electronic pressure measuring devices are mostly analogue current or voltage signals.

The information transfer is entirely unidirectional (sensor > evaluation unit). The signals are processed in corresponding control or regulation units and are pressure-proportional. The current signal 4...20 mA in 2-wire technology and the voltage signal 0...10 V in 3-wire technology are standard.

Available electronic pressure measuring devices with analogue output signals:

- PTM...
- PTMEx...
- DTM...
- CTMd
- DMU

Analogue Transfer of the Measured Value and Additional Digital Communication

In order to exchange information between sensor and evaluation unit other than the analogue measured value signal, e.g. operating parameters or secondary measured values, a digital signal can be superimposed on the analogue 4...20 mA standard. The information transfer can be unidirectional, as with the analogue signal (sensor > evaluation unit), or bidirectional (sensor <> evaluation unit), e.g. HART protocol.

Available electronic pressure measuring devices with analogue output signals and additional digital communication:

- DIGPTM... (RS-485)
- PTPi, PTDi, PTFi (all HART)

Digital Communication (Measured Value and Additional Information)

Both the transfer of the measured value and any additional communication between sensor and evaluation unit are entirely digital. The data interpretation is determined by the transfer protocol. Here, too, the information transfer can be unidirectional (sensor > evaluation unit) or bidirectional (sensor <> evaluation unit).

A wide variety of communication protocols are available, e.g. RS-485 or IO-Link.

Available electronic pressure measuring devices with digital output signals:

- DIGPTM... (RS-485)
- PS 300 (IO-Link), PS 400 (independent PNP switching outputs only)
- DPG...

Electrical Connections

The electrical connection of an electronic pressure measuring device is made either via standardised plug or via cable output. The IP degree of protection and resistance to aggressive media or environmental influences (e.g. UV radiation, temperatures) are the most important aspects when selecting the electrical connection.

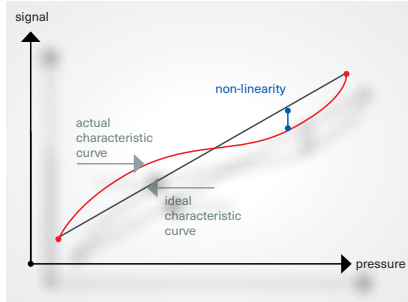
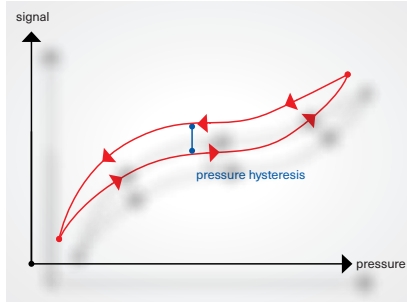
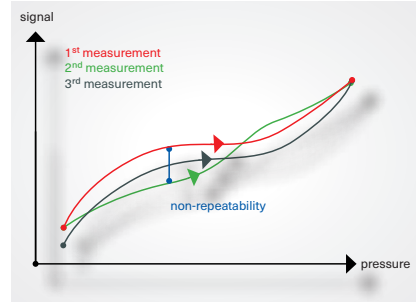
Metrological Features

Measurement Accuracy

The measurement accuracy specified in the data sheets is defined as the degree of conformance between output value / indicated value and actual value, reflected in the characteristic curve of an electronic pressure measuring instrument.

The deviation of the actual from the ideal characteristic curve is the measurement accuracy that applies within the pressure range of the respective pressure measuring instrument.

The measurement accuracy as the sum of non-linearity, hysteresis and non-repeatability is given in all data sheets as percentage of the measuring span, i.e. the difference between the final and initial value of the output signal.

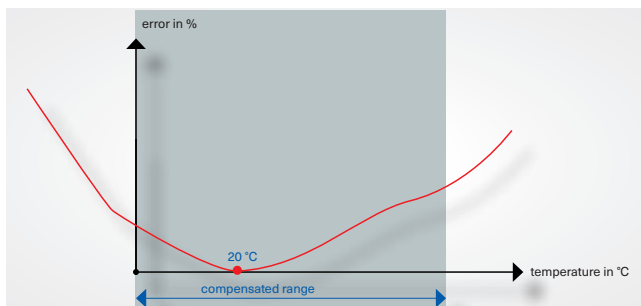
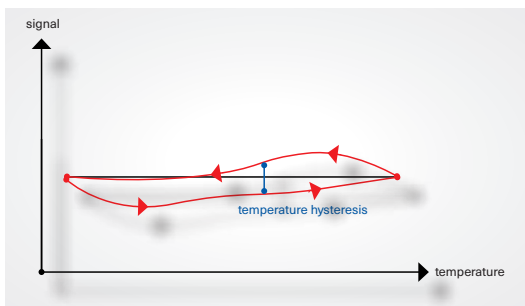
Non-linearity	Hysteresis	Non-repeatability
<p>Non-linearity is the largest deviation of the averaged characteristic curve from a reference line with increasing and decreasing pressure.</p>	<p>Hysteresis is the difference of the output signal when approaching a fixed measured value in the upward and downward movement (i.e. with increasing and decreasing pressure). It describes the maximum deviation when comparing the characteristic curves of a measuring device with continuously increasing and decreasing pressure.</p>	<p>Non-repeatability is the largest difference within the characteristic curve (with increasing or decreasing pressure) when the same pressure is repeatedly approached from the same direction. It describes the maximum deviation (positive or negative) of the characteristic curve from a reference line.</p>
		

Temperature

Measurement-relevant properties of an electronic pressure measuring instrument are directly influenced by any change in temperature. Due to this fact, temperature changes inevitably lead to measuring errors which are compensated either directly at the sensor or in the downstream measuring amplifier.

Nevertheless, a small temperature error remains, which is specified in the data sheets as temperature coefficient.

The reference temperature, also given in the data sheets, is the ambient temperature to which the specification of the electronic pressure measuring instrument applies.

	
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	Instrument	Data sheet	Span from	Span to	Accuracy ¹⁾	Over-pressure	Absolute pressure
Pressure Transmitter	PTM	9810	100 mbar	1000 bar	≤0.5 % (≤250 mbar ≤1.0 %)	✓	✓
	PTMv	9810.2	400 mbar	100 bar	≤0.5 %	✓	✓
	PTMFB	9810.3	1 bar	1000 bar	≤0.5 %	✓	✓
	PTMk	9810.1	100 mbar	1000 bar	≤0.5 % (≤250 mbar ≤1.0 %)	✓	✓
	CTMd	9821	1 bar	100 bar	≤1 %	✓	⊘
	CTMc	9820	40 mbar	60 bar	≤0.2 % (≤60 mbar ≤0.5 %)	✓	✓
	CTMcFG	9820	40 mbar	60 bar	≤0.2 % (≤60 mbar ≤0.5 %)	✓	✓
	CTMcFB	9820.3	40 mbar	60 bar	≤0.2 % (≤60 mbar ≤0.5 %)	✓	✓
	DTM	9830	6 bar	2500 bar	≤0.5 %	✓	⊘
	DTMFB	9830.3	10 bar	1000 bar	≤0.5 %	✓	⊘
	DTMk	9830.1	6 bar	1000 bar	≤0.5 %	✓	⊘
	PTMEx	9812	1 bar	400 bar	≤0.2 % (≥60 bar ≤0.3 %)	✓	✓
	PTMExFB	9812	1 bar	60 bar	≤0.2 %	✓	✓
	PTMExFG	9812	1 bar	400 bar	≤0.2 % (≥60 bar ≤0.3 %)	✓	✓
PTMExFBFG	9812	1 bar	60 bar	≤0.2 %	✓	✓	
Pressure Transmitter	DIGPTM	9860	250 bar	1000 bar	DIGPTM ≤0.1 % DIGPTM005 ≤0.05 %	✓	✓
	DIGPTMv	9860.2	4 bar ¹⁾	160 bar ¹⁾	≤0.08 %	✓	✓
	DIGDTMvUHP	9870.21	4 bar ¹⁾	350 bar ¹⁾	≤0.2 %	✓	⊘
	DIGPTMvSF6	9891	4 bar ¹⁾	10 bar ¹⁾	≤0.5 %	⊘	✓
Pressure Gauge	DPG 300	9661	1.6 bar	250 bar	≤0.5 %	✓	⊘
	DPG 400	9662	400 mbar	600 bar	≤0.25 %	✓	✓
	DPG 1030	9643	2.5 bar	3000 bar	≤1000 bar ±0.1 % (±0.05 %) ³⁾ >1000 bar ±0.25 % (±0.1 %) ³⁾	✓	✓
	DPG 2600	9668	400 mbar	1000 bar	A ≤0.05 % A+ ≤0.02 %	✓	✓
	RSCh / RSChOe DMU	9631	600 mbar	1600 bar	RSCh / RSChOe ≤1.0 % DMU ≤0.5 %	✓	⊘
	KPCh with DIGPTM	9632	2.5 mbar	600 mbar	KPCh ≤1.6 % DIGPTM ≤1 %; 0.5 %; 0.25 %	✓	⊘
	DPG 1500	9651	1600 bar	3000 bar	±0.25 % (±0.1 %) ³⁾	✓	✓
	DPG 1510	9652	2.5 bar	1000 bar	±0.1 % (±0.05 %) ³⁾	✓	✓
Process Transmitter	PTFi	9712	400 mbar	40 bar	≤0.1 %	✓	✓
	PTPi	9711	14 mbar	1000 bar	≤0.075 %	✓	✓
	PTDi	9721	14 mbar	70 bar	≤0.075 %	differential pressure	
Pressure Switch	PS 300	9621	600 mbar	600 bar	≤0.5 % (≤1.0 %)	✓	✓
	PS 400	9622	100 mbar	600 bar	≤0.25 %	✓	✓

¹⁾ others upon request

²⁾ with module DASA 9912 for input 4...20 mA or 0...10 V, not for output 0...20 mA

³⁾ at 23 °C (73.4 °F), limited temperature range 0 – 50 °C (32 – 122 °F)

Analogue output	Digital interface	On-site display	Switching output Switching capacity	Specifics Approval	P.	
☐ ● ○	⊗	✓ ²⁾	⊗	for span ≤ 250 mbar: accuracy ± 1 %	10	
☐ ● ○	⊗	✓ ²⁾	⊗	welded measuring cell		
☐ ● ○	⊗	✓ ²⁾	⊗	with flush welded stainless steel membrane (chemical seal)		
☐ ⊗ ⊗	⊗	✓ ²⁾	⊗			
☐ ● ○	⊗	✓ ²⁾	⊗			
☐ ● ○	⊗	✓ ²⁾	⊗			
☐ ● ○	⊗	⊗	⊗	field housing		
☐ ● ○	⊗	✓ ²⁾	⊗	with quasi flush welded stainless steel membrane		
☐ ● ○	⊗	✓ ²⁾	⊗			
☐ ● ○	⊗	✓ ²⁾	⊗	with flush welded stainless steel membrane		
☐ ● ○	⊗	⊗	⊗		11	
☐ ⊗ ⊗	⊗	⊗	⊗	with flush welded stainless steel membrane field housing with flush welded stainless steel membrane and field housing	SIL2 CENELEC approval ATEX explosion protec- tion intrinsically safe TÜV 04 ATEX 2432 X	 12
☐ ⊗ ⊗	⊗	⊗	⊗			
☐ ⊗ ⊗	⊗	⊗	⊗			
☐ ⊗ ⊗	⊗	⊗	⊗			
☐ ⊗ ⊗	RS-485	✓ ²⁾	2x PNP, each 0.2 A, switching function, switching point and switching hysteresis freely programmable	high pressure, general application	13	
☐ ⊗ ⊗	RS-485	✓ ²⁾		ALL-IN-ONE		
☐ ⊗ ⊗	RS-485	✓ ²⁾		ALL-IN-ONE, UHP		
☐ ⊗ ⊗	RS-485	✓ ²⁾		ALL-IN-ONE, SF ₆ gas, blends with N ₂ or CF ₄		
⊗ ⊗ ⊗	⊗	✓	⊗	display and process connection rotatable	14	
⊗ ⊗ ⊗	⊗	✓	⊗	large, high-contrast display, reference device		
⊗ ⊗ ⊗	RS-232	✓	⊗	Ø 130 mm, large display with lighting, reference device		
☐ ● ○	⊗	✓	⊗	mechanical pressure gauge NCS 100 or NCS 160 with integrated pressure transmitter; safety category S3		
☐ ⊗ ⊗	RS-485	✓	2x PNP, each 0.2 A	switching function, switching point and switching hysteresis freely programmable via PC software	15	
◆ ⊗ ⊗	⊗	✓	⊗	large, high-contrast display, optional with lighting, reference device		
☐ ⊗ ⊗	HART	✓	⊗	food and pharmaceutical industries; with flush welded stainless steel membrane for minimising dead spaces; HART, SIL2; display ±45° rotatable	16	
☐ ⊗ ⊗	HART	✓	⊗	process transmitter with HART, SIL2		
☐ ⊗ ⊗	HART	✓	⊗	process transmitter for differential pressure with HART, SIL2		
☐ ⊗ ⊗	IO-Link	✓	2x PNP/ NPN each 0.15 A	IO-Link	17	
☐ ⊗ ⊗	⊗	✓	max. 2x PNP each 0.125 A	display ±45° rotatable		

☐ 2-wire 4...20 mA ● 3-wire 0...10 V
 ○ 3-wire 0...20 mA ◆ 3-wire 4...20 mA

Pressure Transmitters

Analogue Output Signal



Standard

PTM

Pressure range	0 – 100 mbar to 0 – 1000 bar
Accuracy	≤ 0.5 % (≤ 250 mbar ≤ 1.0 %)
Process connection	G ½ B stainless steel
Sealing	FKM (Viton®)
Case	stainless steel
Degree of protection	IP65
Data sheet	9810



Welded

PTMv

Pressure range	0 – 400 mbar to 0 – 100 bar
Accuracy	≤ 0.5 %
Process connection	G ½ B stainless steel
Sealing	welded measuring cell
Case	stainless steel
Degree of protection	IP65
Data sheet	9810.2



Compact Type

PTMk

Pressure range	0 – 100 mbar to 0 – 1000 bar
Accuracy	≤ 0.5 % (≤ 250 mbar ≤ 1.0 %)
Process connection	G ¼ B stainless steel
Sealing	FKM (Viton®)
Case	stainless steel
Degree of protection	IP65
Data sheet	9810.1



Standard

PTMFB

Pressure range	0 – 1 bar to 0 – 1000 bar
Accuracy	≤ 0.5 %
Process connection	G ½ B stainless steel
Sealing	FKM (Viton®)
Case	stainless steel
Degree of protection	IP65
Data sheet	9810.3

Pressure Transmitters

Analogue Output Signal



General Applications

CTMd

Pressure range	0 – 1 bar to 0 – 100 bar
Accuracy	≤ 1 %
Process connection	G ½ B stainless steel
Sealing	FKM (Viton®)
Case	stainless steel
Degree of protection	IP65
Data sheet	9821



General Applications Field Housing

CTMc / CTMcFG

Pressure range	0 – 40 mbar to 0 – 60 bar
Accuracy	≤ 0.2 % (≤ 60 mbar ≤ 0.5 %)
Process connection	G ½ B stainless steel
Sealing	FKM (Viton®)
Case	stainless steel
Degree of protection	IP65
Data sheet	9820



Food / Bio / Pharma Industries Membrane Flush Welded

CTMcFB

Pressure range	0 – 40 mbar to 0 – 60 bar
Accuracy	≤ 0.2 % (≤ 60 mbar ≤ 0.5 %)
Process connection	dairy pipe, clamp, G 1 B, G 1 ½ B, Varivent, DRD flange stainless steel
Sealing	FKM (Viton®)
Case	stainless steel
Degree of protection	IP65
Data sheet	9820.3



Standard Welded

DTM

Pressure range	0 – 6 bar to 0 – 2500 bar
Accuracy	≤ 0.5 %
Process connection	G ¼ B up to 0 – 1000 bar high-pressure connection M 16x1.5 female from 0 – 1600 bar stainless steel
Sealing	welded measuring cell
Case	stainless steel
Degree of protection	IP65
Data sheet	9830



Membrane Flush Welded

DTMFB

Pressure range	0 – 10 bar to 0 – 1000 bar
Accuracy	≤ 0.5 %
Process connection	G ¼ B 0 – 60 up to 0 – 600 bar G ½ B 0 – 10 up to 0 – 1000 bar stainless steel
Sealing	welded measuring cell
Case	stainless steel
Degree of protection	IP65
Data sheet	9830.3



Compact Type Welded

DTMk

Pressure range	0 – 6 bar to 0 – 1000 bar
Accuracy	≤ 0.5 %
Process connection	G ¼ B stainless steel
Sealing	welded measuring cell
Case	stainless steel
Degree of protection	IP67
Data sheet	9830.1

Pressure Transmitters

Analogue Output Signal – Intrinsically Safe



Protection Type II 2G Ex ib IIC T6 Gb

PTMEx

Pressure range	0 – 1 bar to 0 – 400 bar
Accuracy	≤ 0.2 % (≥ 60 bar ≤ 0.3 %)
Process connection	G ½ B stainless steel
Sealing	welded measuring cell
Case	stainless steel
Degree of protection	IP65
Data sheet	9812



**Protection Type II 2G Ex ib IIC T6 Gb
Membrane Flush Welded**

PTMExFB

Pressure range	0 – 1 bar to 0 – 60 bar
Accuracy	≤ 0.2 %
Process connection	G ½ B (DIN EN ISO 1179-2)
Sealing	welded measuring cell
Case	stainless steel
Degree of protection	IP65
Data sheet	9812



Protection Type II 2G Ex ib IIC T6 Gb

PTMExFG

Pressure range	0 – 1 bar to 0 – 400 bar
Accuracy	≤ 0.2 % (≥ 60 bar ≤ 0.3 %)
Process connection	G ½ B stainless steel
Sealing	welded measuring cell
Case	stainless steel
Degree of protection	IP65
Data sheet	9812



**Protection Type II 2G Ex ib IIC T6 Gb
Membrane Flush Welded**

PTMExFBFG

Pressure range	0 – 1 bar to 0 – 60 bar
Accuracy	≤ 0.2 %
Process connection	G ½ B (DIN EN ISO 1179-2)
Sealing	welded measuring cell
Case	stainless steel
Degree of protection	IP65
Data sheet	9812

Pressure Transmitters

Analogue Output Signal and Additional Digital Interface



Digital Precision Transmitter

DIGPTM

Pressure range	0 – 250 bar to 0 – 1000 bar
Accuracy	≤ 0.1 % (DIGPTM005 ≤ 0.05 %)
Process connection	high-pressure connection 3/8" – 18 UNF female thread for 1/4" high-pressure tube
Sealing	FKM
Case	stainless steel
Degree of protection	IP67
Data sheet	9860



**Digital Precision Transmitter
Welded**

DIGPTMv

Pressure range	0 – 4 bar to 0 – 160 bar
Accuracy	≤ 0.08 %
Process connection	G 1/2 B stainless steel
Sealing	hermetically sealed
Case	stainless steel
Degree of protection	IP67
Data sheet	9860.2



**UHP Transmitter
Welded**

DIGDTMvUHP

Pressure range	0 – 4 bar to 0 – 350 bar
Accuracy	≤ 0.2 %
Process connection	1/4" VCR-M pressure screw 3/8" – 18 UNF male thread stainless steel
Sealing	hermetically sealed
Case	stainless steel
Degree of protection	IP67
Data sheet	9870.21



**SF₆ Gas Density Transmitter
Welded**

DIGPTMvSF6

Pressure range	SF ₆ standardised to 20 °C
Accuracy	≤ 0.5 %
Process connection	G 1/2 B stainless steel
Sealing	hermetically sealed
Case	stainless steel
Degree of protection	IP67
Data sheet	9891

Pressure Gauges With Local Indicator



Battery-operated

DPG 300

Nominal size	63 mm
Pressure range	0 – 1.6 bar to 0 – 250 bar
Accuracy	≤ 0.5 %
Process connection	G ¼" (DIN EN ISO 1179-2) stainless steel
Sealing	FKM
Case	PA 6.6 polycarbonate
Degree of protection	IP65
Data sheet	9661



Battery-operated

DPG 400

Nominal size	63 mm
Pressure range	0 – 400 mbar to 0 – 600 bar
Accuracy	≤ 0.25 %
Process connection	G ½ B (DIN EN 837) stainless steel
Sealing	FKM
Case	PA 6.6 polycarbonate
Degree of protection	IP65
Data sheet	9662



Battery-operated

DPG 1030

Nominal size	100 mm
Pressure range	-1 / +1.5 bar to 0 – 3000 bar
Accuracy	≤ 1000 bar ±0.1 % (±0.05 %)¹) > 1000 bar ±0.25 % (±0.1 %)¹)
Process connection	G ½ B (DIN EN 837) ≤ 2500 bar ¼" HPF ¼" – 18 UNF 0 – 3000 bar stainless steel
Sealing	welded measuring cell
Case	stainless steel
Degree of protection	IP65
Data sheet	9643



NiMH Battery, RS-232

DPG 2600

Nominal size	130 mm
Pressure range	-200 / +200 mbar to 0 – 1000 bar
Accuracy	A ≤ 0.05 % A+ ≤ 0.02 %
Process connection	½" BSP stainless steel
Sealing	-
Case	stainless steel
Degree of protection	-
Data sheet	9668

¹) at 23 °C (73.4 °F), limited temperature range 0 – 50 °C (32 – 122 °F)

Pressure Gauges

With Local Indicator and Additional Analogue Output



Bourdon Tube Pressure Gauge with Integrated Pressure Transmitter DMU

RSCh / RSChOe

Nominal size	100, 160 mm
Pressure range	0 – 600 mbar to 0 – 1600 bar
Accuracy	RSCh / RSChOe ≤ 1.0 % DMU ≤ 0.5 %
Process connection	G $\frac{1}{2}$ B stainless steel
Sealing	–
Case	stainless steel
Degree of protection	IP54
Data sheet	9631



Capsule Gauge for Low Pressure with Integrated DMU, Model DIGPTM

KPCh 100 – 3

Nominal size	100 mm
Pressure range	0 – 2.5 mbar to 0 – 600 mbar
Accuracy	KPCh ≤ 1.6 % DIGPTM ≤ 1 %, ≤ 0.5 %, ≤ 0.25 %
Process connection	G $\frac{1}{2}$ B stainless steel
Sealing	FKM
Case	stainless steel
Degree of protection	IP54
Data sheet	9632



12...30 V DC

DPG 1500

Nominal size	100 mm
Pressure range	0 – 1600 bar to 0 – 3000 bar
Accuracy	± 0.25 % (± 0.1 %) ¹⁾
Process connection	G $\frac{1}{2}$ B (DIN EN 837) ≤ 2500 bar $\frac{1}{4}$ " HPF $\frac{9}{16}$ " – 18 UNF 0 – 3000 bar stainless steel
Sealing	welded measuring cell
Case	stainless steel
Degree of protection	IP65
Data sheet	9651



12...30 V DC

DPG 1510

Nominal size	100 mm
Pressure range	–1 / +1.5 bar to 0 – 1000 bar
Accuracy	± 0.1 % (± 0.05 %) ¹⁾
Process connection	G $\frac{1}{2}$ B (DIN EN 837) stainless steel
Sealing	welded measuring cell
Case	stainless steel
Degree of protection	IP65
Data sheet	9652

¹⁾ at 23 °C (73.4 °F), limited temperature range 0 – 50 °C (32 – 122 °F)

Process Transmitters



Food / Bio / Pharmaceutical Industries

PTFi

Pressure range 0 – 400 mbar to 0 – 40 bar

Accuracy $\leq 0.1\%$

Process connection clamp DN 25 (DIN 32676) stainless steel

Sealing welded measuring cell

Case field housing stainless steel

Degree of protection –

Data sheet 9712



Pressure Process Industry

PTPi

Pressure range $-7 / +7$ mbar to 0 – 1000 bar

Accuracy $\leq 0.075\%$

Process connection G 1/2 B (DIN EN 837) stainless steel

Sealing welded measuring cell

Case die-cast aluminum

Degree of protection IP66

Data sheet 9711



Differential Pressure Process Industry

PTDi

Pressure range $-7 / +7$ mbar to 0 – 70 bar

Accuracy $\leq 0.075\%$

Process connection 4 threads 1/4" NPT female stainless steel

Sealing FKM

Case die-cast aluminum

Degree of protection IP66

Data sheet 9721

Pressure Switches

With Local Indicator and Switching Output



With IO-Link Interface

PS 300

Pressure range 0 – 600 mbar to 0 – 600 bar

Accuracy $\leq 0.5\%$ ($\leq 1.0\%$)

Process connection G $\frac{1}{4}$ " (DIN EN ISO 1179-2) stainless steel

Sealing FKM

Case PA 6.6 polycarbonate

Degree of protection IP67

Data sheet 9621



**Field Housing
Stainless Steel 316L**

PS 400

Pressure range 0 – 100 mbar to 0 – 600 bar

Accuracy $\leq 0.25\%$

Process connection G $\frac{1}{4}$ " (DIN EN ISO 1179-2) stainless steel

Sealing FKM

Case field housing stainless steel

Degree of protection IP67

Data sheet 9622

Accessories



DPM

Version process-controlled digital indicator with integrated power supply, 4 digits

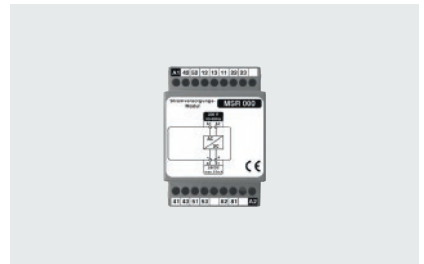
Data sheet 9910



DAS

Version digital display and switching module, 4 digits, 2 limit switches, min / max storage

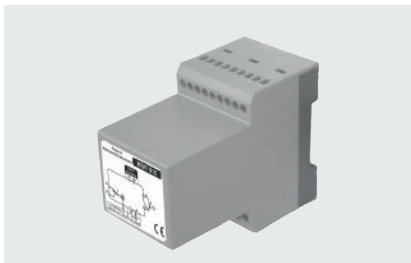
Data sheet 9912



MSR-000

Version power supply module not intrinsically safe

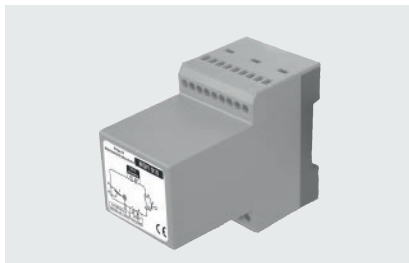
Data sheet 9981



MSR

Version pulse controlled multifunctional relay for limit switch contact assemblies S and M

Data sheet 9521



MSR-I

Version pulse controlled multifunctional relay for inductive limit switch contact assemblies

Data sheet 9531



KFU8-SR-...W

Version switch amplifier intrinsically safe for inductive limit switch contact assemblies

Data sheet 9533

Certificates and Approvals

Standards

Our company is certified according to the highest quality standards and our product portfolio meets the highest quality demands. We do not only manufacture according to product-specific instrument standards, we also offer versions with special approvals for application areas with specific requirements. The ARMANO Messtechnik GmbH is certified according to DIN EN ISO 9001.



SIL 2

SIL 3





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