

FREELY SCALABLE PRESSURE MEASURING TRANSDUCER FOR ABSOLUTE PRESSURE OR OVER / UNDER PRESSURE AND PRESSURE DIFFERENCE



DISPLAY / CONTROLLER

LOGGER / BUS SYSTEMS

TRANSMITTER

TEMPERATURE PROBE

FREELY SCALABLE



absolute pressure connection

HIGHLIGHTS:

- Change between 4 ... 20 mA / 0 ... 10 V
- With display
- Switching output
- Configuration protected by code lock

**GMUD-MP - S**

Freely scalable pressure measuring transducer for pressure difference or absolute pressure (pressure range >25 mbar)

**GMUD-MP - F**

Freely scalable pressure measuring transducer for pressure difference (fine pressure range ≤25 mbar)

**General:**

Microprocessor controlled, digital pressure transducer with display and operation via 3 buttons. With freely scalable analog output that can be switched between 4 ... 20 mA and 0 ... 10 V. Code lock for input, after code input parameters can be changed (code permanently stored).

**Application:**

For air and non-aggressive gases

**Area of application:** controlling, measuring and monitoring, climate and ventilation, environmental and medical technology

**Messbereiche:**

**Differenz-Feinstdruckbereich:**

<b>GMUD MP-F-MR0:</b> Art. no. 602483	<b>Measuring range:</b> 0.000 ... 1.000 mbar <b>Overload:</b> 250 mbar, <b>Burst pressure:</b> 500 mbar
<b>GMUD MP-F-MR1:</b> Art. no. 602485	<b>Measuring range:</b> 0.00 ... 10.00 mbar <b>Overload:</b> 150 mbar, <b>Burst pressure:</b> 200 mbar
<b>GMUD MP-F-MR2:</b> Art. no. 602487	<b>Measuring range:</b> 0.00 ... 20.00 mbar <b>Overload:</b> 150 mbar, <b>Burst pressure:</b> 200 mbar
<b>GMUD-MP-F-MR3:</b> Art. no. 605958	<b>Measuring range:</b> -1.999 ... +2.500 mbar <b>Overload:</b> 250 mbar, <b>Burst pressure:</b> 500 mbar
<b>GMUD-MP-F-MR31:</b> Art. no. 602970	<b>Measuring range:</b> -10.00 ... +10.00 mbar <b>Overload:</b> 150 mbar, <b>Burst pressure:</b> 200 mbar
<b>GMUD-MP-F-MR4:</b> Art. no. 604355	<b>Measuring range:</b> -19.99 ... +20.00 mbar <b>Overload:</b> 150 mbar, <b>Burst pressure:</b> 200 mbar

**Differenzdruckbereich:**

<b>GMUD MP-S-MR0:</b> Art. no. 602482	<b>Measuring range:</b> 0.0 ... 100.0 mbar <b>Overload:</b> 1000 mbar, <b>Burst pressure:</b> 1500 mbar
<b>GMUD MP-S-MR1:</b> Art. no. 602491	<b>Measuring range:</b> 0.0 ... 500.0 mbar <b>Overload:</b> 1000 mbar, <b>Burst pressure:</b> 1500 mbar
<b>GMUD MP-S-MR2:</b> Art. no. 602493	<b>Measuring range:</b> 0 ... 1000 mbar <b>Overload:</b> 2000 mbar, <b>Burst pressure:</b> 3000 mbar
<b>GMUD MP-S-MR3:</b> Art. no. 602495	<b>Measuring range:</b> 0 ... 2000 mbar <b>Overload:</b> 4000 mbar, <b>Burst pressure:</b> 6000 mbar
<b>GMUD MP-S-MR4:</b> Art. no. 602497	<b>Measuring range:</b> 0 ... 5000 mbar <b>Overload:</b> 7000 mbar, <b>Burst pressure:</b> 7000 mbar
<b>GMUD MP-S-MR50:</b> Art. no. 608650	<b>Measuring range:</b> -50.0 ... +50.0 mbar <b>Overload:</b> 150 mbar, <b>Burst pressure:</b> 200 mbar
<b>GMUD-MP-S-MR5:</b> Art. no. 607278	<b>Measuring range:</b> -100.0 ... +100.0 mbar <b>Overload:</b> 1000 mbar, <b>Burst pressure:</b> 1500 mbar
<b>GMUD-MP-S-MR6:</b> Art. no. 607925	<b>Measuring range:</b> -500 ... +500 mbar <b>Overload:</b> 1000 mbar, <b>Burst pressure:</b> 1500 mbar
<b>GMUD-MP-S-MR7:</b> Art. no. 607252	<b>Measuring range:</b> -1000 ... +1000 mbar <b>Overload:</b> 2000 mbar, <b>Burst pressure:</b> 3000 mbar

**Absolutdruckbereich:**

<b>GMUD MP-S-MA0:</b> Art. no. 602499	<b>Measuring range:</b> 0 ... 1100 mbar abs. <b>Overload:</b> 4000 mbar, <b>Burst pressure:</b> 6000 mbar
<b>GMUD MP-S-MA1:</b> Art. no. 602501	<b>Measuring range:</b> 0 ... 2000 mbar abs. <b>Overload:</b> 4000 mbar, <b>Burst pressure:</b> 6000 mbar
<b>GMUD MP-S-MA2:</b> Art. no. 602490	<b>Measuring range:</b> 600 ... 1100 mbar abs. <b>Overload:</b> 2000 mbar, <b>Burst pressure:</b> 3000 mbar

**Types of pressure:**

**Absolute pressure** is the pressure related to vacuum (zero pressure). When no pressure is applied (pressure port open), the ambient pressure is displayed.

**Examples:** meteorological measurements (eg 1013 hPa abs), vacuum processes

**Differential pressure** is the pressure difference between 2 press. Mostly both pressures are connected to a respective side of the measuring membrane, the sensor must have two pressure connections.

**Examples:** ventilation technology / filters, dynamic pressure measurements

The **relative pressure** is the pressure difference between a pressure / vacuum and the ambient pressure. For relative pressure measurement with a differential pressure sensor (2 pressure ports) one of the terminals is left open.

**Examples:** pneumatic, tire pressure, hydraulic

**Specifications:**

<b>Sensor element:</b>	piezoresistive pressure sensor with integrated temperature
<b>Typ. accuracy:</b>	depends on type (see manual) ±0.15 % (linearity) ±0.6 % FS (hysteresis and temperature 0 ... 70 °C)
<b>Output signal:</b>	4 ... 20 mA / 0 ... 10 V (selectable in menu)
<b>Auxiliary energy:</b>	only needed if 0 ... 10 V output signal is selected (18 ... 30 V DC)
<b>Permissible burden:</b>	(4 ... 20 mA): $R_A[\Omega] \leq (U_V [V] - 12 [V]) / 0.02 A$
<b>Permissible load:</b>	(0 ... 10 V): $\geq 3000 \Omega$
<b>Operating temperature:</b>	-20 ... +70 °C
<b>Storage temperature:</b>	-40 ... +70 °C
<b>Display / Operation:</b>	4-digit 7-segment display and 3 buttons
<b>Display range:</b>	-1999 ... 9999 digit
<b>Pressure connection:</b>	universal pressure connecting pieces for 6 x 1 mm or 8 x 1 mm plastic tubes (4 or 6 mm inner pipe diameter)
<b>Mounting position:</b>	any position (small influence of mounting position for low ranges)
<b>Housing:</b>	ABS (IP65): with fixing holes for wall mounting (accessible after cover has been removed)
<b>Dimensions:</b>	Housing 80 x 82 x 55 mm (without elbow-plug and pressure connecting pieces)
<b>Electric connection:</b>	Elbow-type plug acc. to EN 175301-803/A (IP65) max. wire cross section: 1.5 mm <sup>2</sup> , wire / cable Ø: 4.5 ... 7 mm
<b>Scope of supply:</b>	Device, calibration protocol, manual

**Option:**

**LACK**

card coated on both sides for outdoor application

**OUT**

Switching output (max 28 V, 40 mA), switches if meas. Value falls below or exceeds limit value connection via 2nd elbow-type plug

**WE**

Default settings according to customer's specifications, includes: output signal, measuring range, default state in case of error (without upcharge if together with MBF / MBS)

**MBF**

Option any fine pressure range ≤25 mbar, please state desired measuring range

**MBS**

Option any pressure range >25 mbar ... 5000 mbar, please state desired measuring range

**Accessories and spare parts:**

Tube and accessories: see product catalog (handheld instruments).