

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



FREELY SCALABLE



HIGHLIGHTS:

- change between 4-20 mA / 0-10 V
- with display
- switching output
- Configuration protected by code lock

GMUD-MP-S

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

GMUD-MP-F

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:

Suitable for: air and non-aggressive gases

Area of application:

controlling, measuring and monitoring, climate and ventilation, environmental and medical technology

Measuring ranges:

Difference fine pressure range:

GMUD MP-F-MD0: Product-ID: 602483	Measuring ranges: 0,000 ... 1,000 mbar Overload: 150 mbar, Burst pressure: 200 mbar
GMUD MP-F-MD1: Product-ID: 602485	Measuring ranges: 0,00 ... 10,00 mbar Overload: 150 mbar, Burst pressure: 200 mbar
GMUD MP-F-MD2: Product-ID: 602487	Measuring ranges: 0,00 ... 20,00 mbar Overload: 150 mbar, Burst pressure: 200 mbar
GMUD-MP-F-MD3: Product-ID: 605958	Measuring ranges: -1,999 ... +2,500 mbar Overload: 250 mbar, Burst pressure: 500 mbar
GMUD-MP-F-MD4: Product-ID: 604355	Measuring ranges: -19,99 ... +20,00 mbar Overload: 150 mbar, Burst pressure: 200 mbar

Difference pressure range:

GMUD MP-S-MD0: Product-ID: 602482	Measuring ranges: 0,0 ... 100,0 mbar Overload: 1000 mbar, Burst pressure: 1500 mbar
GMUD MP-S-MD1: Product-ID: 602491	Measuring ranges: 0,0 ... 500,0 mbar Overload: 1000 mbar, Burst pressure: 1500 mbar
GMUD MP-S-MD2: Product-ID: 602493	Measuring ranges: 0 ... 1000 mbar Overload: 2000 mbar, Burst pressure: 3000 mbar
GMUD MP-S-MD3: Product-ID: 602495	Measuring ranges: 0 ... 2000 mbar Overload: 4000 mbar, Burst pressure: 6000 mbar
GMUD MP-S-MD4: Product-ID: 602497	Measuring ranges: 0 ... 5000 mbar Overload: 7000 mbar, Burst pressure: 7000 mbar
GMUD-MP-S-MD5: Product-ID: 607278	Measuring ranges: -100,0 ... +100,0 mbar Overload: 1000 mbar, Burst pressure: 1500 mbar
GMUD-MP-S-MD6: Product-ID: 607925	Measuring ranges: -500 ... +500 mbar Overload: 1000 mbar, Burst pressure: 1500 mbar
GMUD-MP-S-MD7: Product-ID: 607252	Measuring ranges: -1000 ... +1000 mbar Overload: 2000 mbar, Burst pressure: 3000 mbar

Absolute pressure range:

GMUD MP-S-MA0: Product-ID: 602499	Measuring ranges: 0 ... 1100 mbar abs. Overload: 2000 mbar, Burst pressure: 3000 mbar
GMUD MP-S-MA1: Product-ID: 602501	Measuring ranges: 0 ... 2000 mbar abs. Overload: 4000 mbar, Burst pressure: 6000 mbar

Types of pressure:

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:

Sensor element:	piezoresistive pressure sensor with integrated temperature
Typ. accuracy:	depends on type (see manual) ± 0.15 % (linearity) ± 0.6 % FS (hysteresis and temperature 0 ... 70 °C)
Output signal:	4 ... 20 mA / 0 ... 10 V (selectable in menu)
Auxiliary energy:	only needed if 0 ... 10 V output signal is selected (18 ... 30 V DC / 24 V AC)
Permissible burden:	(4 ... 20 mA): $R_{L,Q} \leq (U_v [V] - 12 [V]) / 0.02 A$
Permissible load:	(0 ... 10 V): $\geq 3000 \Omega$
Operating temperature:	-20 ... +70 °C
Storage temperature:	-40 ... +70 °C
Display / operation:	4-digit 7-segment display and 3 buttons
Display range:	-1999 ... 9999 digit
Pressure connection:	universal pressure connecting pieces for 6 x 1 mm or 8 x 1 mm plastic tubes (4 or 6 mm inner pipe diameter)
Mounting position:	any position (small influence of mounting position for low ranges)
Housing:	ABS (IP65): with fixing holes for wall mounting (accessible after cover has been removed)
Dimensions:	Housing 80 x 82 x 55 mm (without elbow-plug and pressure connecting pieces)
Electric connection:	elbow-type plug acc. to EN 175301-803/A (IP65) max. wire cross section: 1.5 mm ² , wire/cable Ø: 4.5 ... 7 mm

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 page 62-63.