

Pressure measuring transducer for absolute pressure or over/under pressure and pressure difference



FREELY SCALABLE

- change between 4-20 mA / 0-10 V
- with display
- switching output

GMUD MP-S

(pressure range > 25 mbar)

GMUD MP-F

(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 switch between 4-20 mA and 0-10 V.

Application:

Suitable for: air and non-aggressive gases

Area of application:

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

Types of pressure:

Absolute pressure (vacuum used as reference) for measuring over pressure over absolute zero (sensor displaying barometric air pressure when coming into contact with atmospheric pressure).

Relative pressure (reference atmosphere or ambient pressure) for over/under pressure measurements and pressure difference measurements (sensor displaying zero when coming into contact with atmospheric or ambient pressure).

Specification:

Sensor element:	piezoresistive pressure sensor with integrated temperature		
Relative fine pressure range:	Measuring range	Overload	Burst pressure
MP-F-MR0	0.000 ... 1.000 mbar rel.	150 mbar	200 mbar
MP-F-MR1	0.00 ... 10.00 mbar rel.	150 mbar	200 mbar
MP-F-MR2	0.00 ... 20.00 mbar rel.	150 mbar	200 mbar
Optimized special ranges possible: see option - MBF (e.g. -15 ... +15 mbar)			
Relative pressure range:	Measuring range	Overload	Burst pressure
MP-S-MR0	0.0 ... 100.0 mbar rel.	1000 mbar	1500 mbar
MP-S-MR1	0.0 ... 500.0 mbar rel.	1000 mbar	1500 mbar
MP-S-MR2	0 ... 1000 mbar rel.	2000 mbar	3000 mbar
MP-S-MR3	0 ... 2000 mbar rel.	4000 mbar	6000 mbar
MP-S-MR4	0 ... 5000 mbar rel.	7000 mbar	7000 mbar
Absolute pressure range:	Measuring range	Overload	Burst pressure
MP-S-MA0	0 ... 1100 mbar abs.	2000 mbar	3000 mbar
MP-S-MA1	0 ... 2000 mbar abs.	4000 mbar	6000 mbar
Optimized special ranges possible: see option - MBS (e.g. -350 ... +350 mbar)			

Typ. accuracy:	<p>GMUD MP-S: ±0,15 % FS (lin.), ±0,6 % FS (hysteresis and temperature 0 ... 70 °C)</p> <p>GMUD MP-F: ±0,35 % FS (lin.), ±0,6 % FS (hysteresis and temperature 0 ... 70 °C)</p>
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): $R_A[\Omega] \leq (U_v[V] - 12[V]) / 0.02 A$
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
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)
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
ordering example:	GMUD MP-S/MBS: -700 ... +700 mbar, OUT: ±700 mbar rel. with switching output GMUD MP-S-MR0/LACK, OUT: 0 ... 100 mbar rel. with lacquering and switching output

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
Tube and accessories: see page 54 - 55.