

Operating manual for digital pressure sensors

GMSD....E



Specification: (measuring range: 0,35 ... 35bar rel.)

	GMSD 350 MRE	GMSD 1 BRE	GMSD 3,5 BRE	GMSD 7 BRE	GMSD 10 BRE	GMSD 35 BRE
Measuring range:	0,0 ... 350,0 mbar	0 ... 1000 mbar	0 ... 3500 mbar	0 ... 7000 mbar	0,00 ... 10,00 bar	0,00 ... 35,00 bar
Overload:	max. 1,4 bar	max. 4 bar	max. 14 bar	max. 28 bar	max. 40 bar	max. 140 bar
Resolution:	0,1 mbar	1 mbar	1 mbar	1 mbar	10 mbar	10 mbar
Accuracy: (typ. values)						
(hysteresis and linearity)	±0,2%FS	±0,2%FS	±0,2%FS	±0,2%FS	±0,2%FS	±0,2%FS
(temperature influence from 0-50°C)	±0,4%FS	±0,4%FS	±0,4%FS	±0,4%FS	±0,4%FS	±0,4%FS
Sensor:	stainless steel relative pressure sensor. Parts coming into contact with media. Suitable for aggressive media, water, etc. <u>Caution:</u> The pressure compensation hole has to be kept clean! It is placed at the back part of the housing. Do not cover with sticks or similar things!					
Pressure connection:	connection thread G1/4" (other threads or adapter on request). Key width: 27 mm					
Electronics:	PC board with amplifier and data memory for sensor data (meas. range / calibration etc.) integrated in sensor housing					
Nominal temperature:	25 °C					
Working temperature:	0 to +70 °C					
Relative humidity:	0 to +95 %RH (not condensing)					
Storage temperature:	-40 to +80 °C					
Housing:	made of stainless steel outer dia approx. 26 mm (31 mm), length does not incl. anti-buckling glanding approx. 103 mm (GMSD 35 BRE: approx. 110 mm)					
Connection:	1m PVC connection cable screened with integral 6-pin Mini-DIN-plug, lockable.					
Weight:	approx. 195 g (GMSD 35 BRE: approx. 230 g)					
EMC:	The GMSD unit corresponds to the essential protection ratings established in the Regulations of the Council for the Approximation of Legislation for the member countries regarding electromagnetic compatibility (89/336/EWG) additional fault: <1%					

Specification: (measuring range: 1 ... 70bar abs.)

	GMSD 1 BAE	GMSD 3,5 BAE	GMSD 7 BAE	GMSD 35 BAE	GMSD 70 BAE
Measuring range:	0 ... 1000 mbar abs.	0 ... 3500 mbar abs.	0 ... 7000 mbar abs.	0 ... 35,00 bar abs.	0,0 ... 70,0 bar abs.
Overload:	max. 4 bar abs.	max. 14 bar abs.	max. 28 bar abs.	max. 140 bar abs.	max. 280 bar abs.
Resolution:	1 mbar	1 mbar	1 mbar	10 mbar	0,1 bar
Accuracy: (typ. values)					
(hysteresis and linearity)	±0,2%FS	±0,2%FS	±0,2%FS	±0,2%FS	±0,2%FS
(temperature influence from 0-50°C)	±0,4%FS	±0,4%FS	±0,4%FS	±0,4%FS	±0,4%FS
Sensor:	stainless steel absolute pressure sensor. Parts coming into contact with media. Suitable for aggressive media, water, etc.				
Housing:	made of stainless steel outer dia approx. 26 mm (31 mm), length does not incl. anti-buckling glanding approx. 103 mm (GMSD 35 BAE, ...70 BAE: approx. 110 mm)				

Other data identical to relative pressure sensors



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Specification: (measuring range: 160 ... 400bar abs.)

	GMSD 160 BAE	GMSD 250 BAE	GMSD 400 BAE
Measuring range:	0,0 ... 160,0 bar abs.	0,0 ... 250,0 bar abs.	0 ... 400,0 bar abs.
Overload:	max. 600 bar abs.	max. 600 bar abs.	max. 600 bar abs.
Resolution:	0,1 bar	0,1 bar	0,1 bar
Accuracy: (typ. values)			
(hysteresis and linearity)	±0,2%FS	±0,2%FS	±0,2%FS
(temperature influence from 0-50°C)	±0,4%FS	±0,4%FS	±0,4%FS
Sensor:	stainless steel absolute pressure sensor. Parts coming into contact with media. Suitable for aggressive media, water, etc.		
Pressure connection:	connection thread G1/4" (other threads or adapter on request). Key width: 27 mm		
Electronics:	PC board with amplifier and data memory for sensor data (meas. range / calibration etc.) integrated in sensor housing		
Nominal temperature:	25 °C		
Working temperature:	0 to +70 °C		
Relative humidity:	0 to +95 %RH (not condensing)		
Storage temperature:	-40 to +80 °C		
Housing:	made of stainless steel outer dia approx. 26 mm (31 mm), length does not incl. anti-buckling glanding approx. 110 mm		
Connection:	1m PVC connection cable screened with integral 6-pin Mini-DIN-plug, lockable.		
Weight:	approx. 230 g		
EMC:	The GMSD unit corresponds to the essential protection ratings established in the Regulations of the Council for the Approximation of Legislation for the member countries regarding electromagnetic compatibility (89/336/EWG) additional fault: <1%		

 Safety requirements:

This unit has been designed and tested in accordance with the safety regulations for electronic devices. However, its trouble-free operation and reliability cannot be guaranteed unless the standard safety measures and special safety advises given in this manual will be adhered to when using the unit.

1. Trouble-free operation and reliability of the unit can only be guaranteed if the unit is not subjected to any other climatic conditions than those stated under "Specification".
2. If the unit is transported from a cold to a warm environment condensation may result in a failure of the unit. In such a case make sure the unit temperature has adjusted to the ambient temperature before trying a new start-up.
3. If unit is to be connected to other devices (e.g. via serial interface) the circuitry has to be designed most carefully. Internal connection in third party units (e.g. connection GND and earth) may result in not-permissible voltages impairing or destroying the unit or another device connected.
4. If there is a risk whatsoever involved in running it, the unit has to be switched off immediately and to be marked accordingly to avoid re-starting.
Operator safety may be at risk if:
 - there is visible damage to the unit
 - the unit is not working as specified
 - the unit has been stored under unsuitable conditions for a longer time.

In case of doubt, please return unit to manufacturer for repair and/or maintenance.

How to operate and maintain device:

- a.) Treat sensor carefully. Use only in accordance with above specification. (do not throw, hit against etc.).
Protect plug from soiling.
- b.) To disconnect pressure sensor do not pull at the cable but at the plug (to open lock).
When connecting the sensor make sure that arrows are pointing upwards and that plug is entered into device socket centrally.
Do not twist plug when entering socket.
If plug is entered correctly, it will slide in smoothly.
If plug is twisted or entered incorrectly the connecting pins of the plug can be spoilt by bending or broken. => Plug can no longer be used and connecting cable needs to be replaced.

c.) Caution:

**The pressure compensation hole of the relative pressure sensors has to be kept clean!
It is placed at the back part of the housing. Do not cover with sticks or similar things!**

Disposal instruction:

The device must not be disposed in the unsorted municipal waste! Send the device directly to us (sufficiently stamped), if it should be disposed. We will dispose the device appropriate and environmentally sound.