



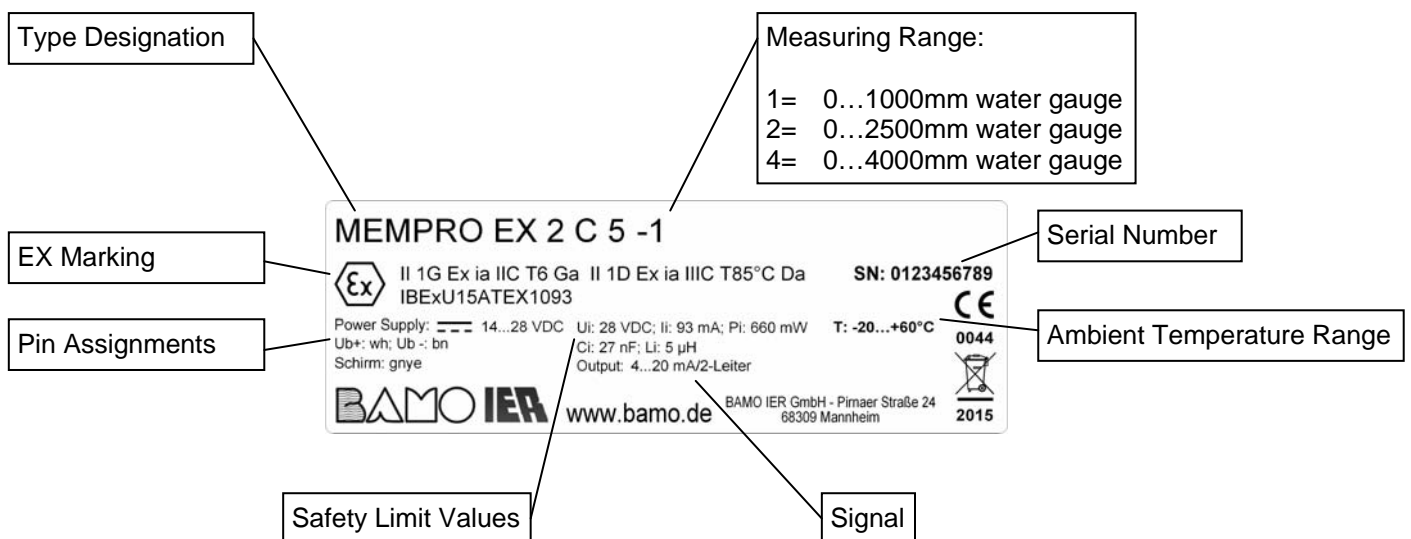
Safety Precautions:

- Installation, initial start-up and maintenance may only be performed by trained personnel!
- Applicable regulations and ordinances regarding explosion protection, as well as accident prevention laws, must be complied with!
- The device may only be connected to power which complies with the specifications included in the technical data and on the serial plate!
- The device must be disconnected from all sources of power during installation and maintenance work!
- The device may only be operated under the conditions specified in these operating instructions!

Functions Description:

The MEMPRO EX 2 C... fill-level measuring instrument functions in accordance with the back-pressure measuring principle. The momentary fill-level is ascertained on the basis of hydrostatic pressure within a tube which is closed at one end and is submerged in the medium. The ceramic measuring cell is not contacted by the medium. The device is approved for use in danger zone 0 for flammable media assigned to explosion group IIC.

Product Identification:



Technical Data:

Supply power:	14 to 28 V DC (safety limit values: $U_i = 28V$, $I_i \leq 93mA$, $P_i \leq 66 mW$, $C_i \leq 27nF$, $L_i \leq 5\mu H$)
Output signal:	4 to 20 mA
Fill-level measuring range:	0 to 1000 mm water gauge (type designation: MEMPRO EX 2 C 5 -1) 0 to 2500 mm water gauge (type designation: MEMPRO EX 2 C 5 -2) 0 to 4000 mm water gauge (type designation: MEMPRO EX 2 C 5 -4)
Cable length:	3 m
Measuring cell:	Ceramic, capacitive, temperature compensated, fluoroelastomer seal
Measuring accuracy:	< 1% of the upper range limit
Process interface:	G1" thread / G½" internal thread (not for variant with tube)
Electrical connection:	Special cable with shield and pressure compensating tube, standard length: 3 m (other lengths upon request)
Material:	Stainless steel 316L
Ambient temperature range:	-20 to +60° C (at p_{Atm} 0.8 to 1.1 bar)
Type of ignition protection:	Ex II 1G Ex ia IIC T6 Ga
Operating pressure:	Atmospheric, not for unpressurised containers

Attention:**Category 1 Equipment**

The sensor included in the pressure gauge may only be operated in potentially explosive atmospheres for which category 1 equipment is required when atmospheric conditions prevail (temperature from -20 to +60° C and pressure from 0.8 to 1.1 bar).

CE Marking

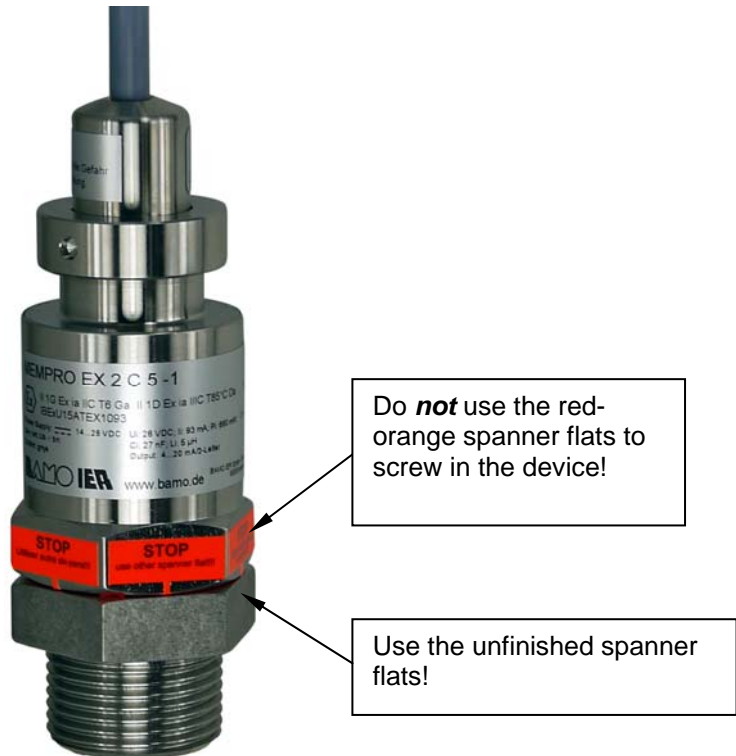
In accordance with EMC directive 2004/108/EC

Used Guidelines / Standards:

The device fulfils the safety and health requirements which are specified in Annex II of the directive 94/9/EG. Therefore the standards EN 60079-0:2012+A11:2013, EN 60079-11:2012 and EN 60079-26:2007 were used.

Installation:

Screw the device into your tank with the help of the spanner flats provided for this purpose. The spanner flats identified in red-orange may **not** be used for screwing in the device.

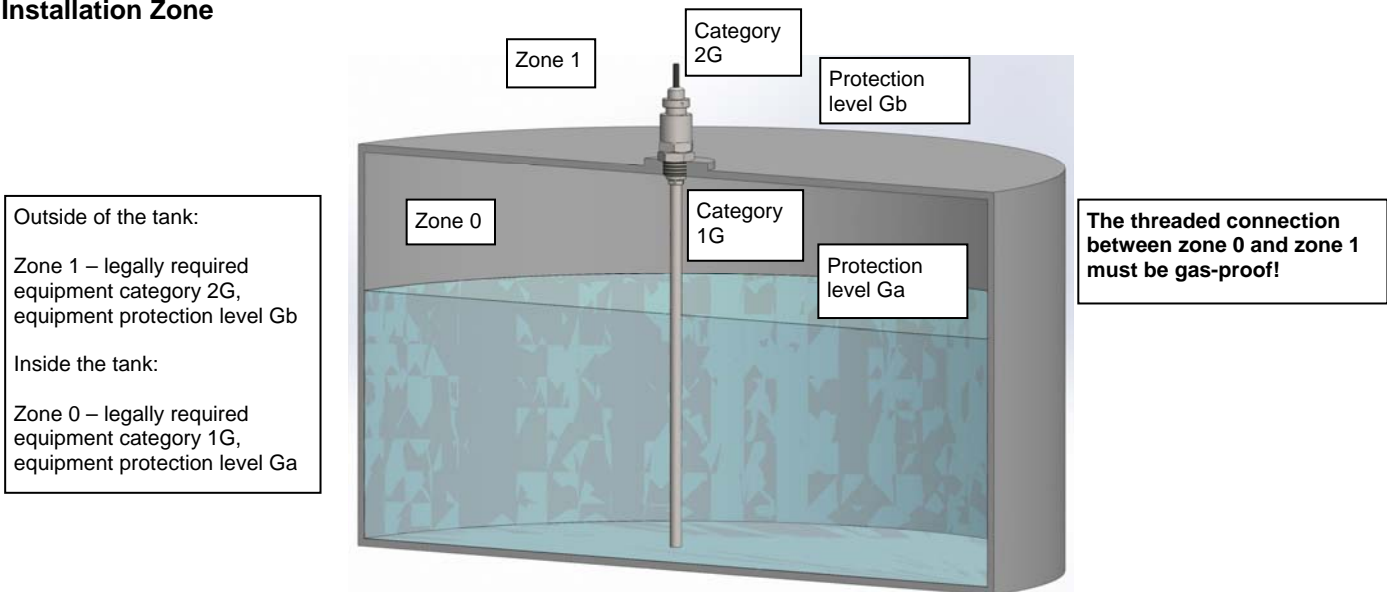


Note: Do not open the seal between the two sets of spanner flats (sealing surface with specified tightening torque)!

Attention!

Do not kink or pinch the cable!
The pressure compensating tube is otherwise clogged and the measuring signal is distorted.

Installation Zone



Outside of the tank:
Zone 1 – legally required equipment category 2G, equipment protection level Gb

Inside the tank:
Zone 0 – legally required equipment category 1G, equipment protection level Ga

Operation Limits:

As a result of the utilised pitot-static measuring method, the MEMPRO Ex 2 C... fill-level measuring instrument is only conditionally suitable for the following applications:

- Media with greatly fluctuating densities (in such cases, the fill-level can only be derived from the average density value).
- Media with a highly viscous or sticky consistency
- Media subject to excessive temperature fluctuations ($\Delta T > 30 \text{ K}$)
- Outgassing media

Maintenance:

The MEMPRO Ex 2 C... fill-level measuring instrument is **maintenance-free** if used for its intended purpose. If used in highly adhesive liquids, the measuring tube must be inspected at regular intervals and cleaned if necessary.

Electrical Connection:

Electrical Connections	Wire colour
Supply power +	White
Supply power -	Brown
Shield	Green-yellow

- Caution: Avoid electrostatic charging!**
- Connection cable must be rigidly laid.
 - Clean in the moist state only.

Connection to MTL 5541 Ex Buffer Amplifier

