



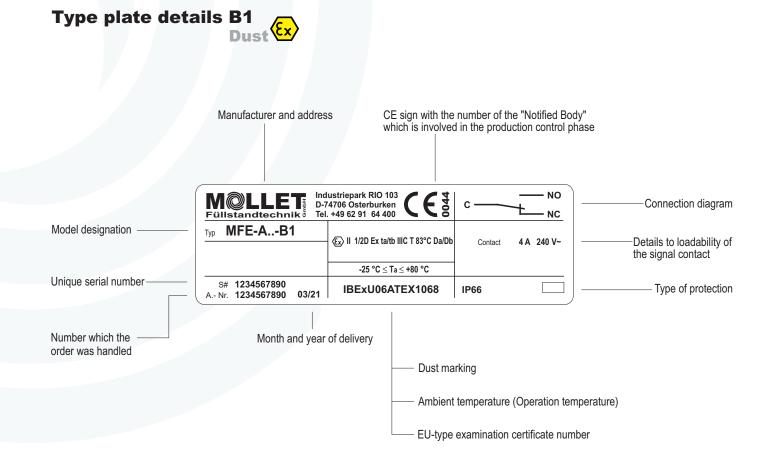
Membrane level indicator MFE-A with aluminium housing

MFE-A



Explosion protection information

and supplement to the operating instructions





Marking in accordance with ATEX and DIN EN IEC 60079-0

Membrane level indicator for use on the boundary from zone 20 to zone 21.

Equivalent to valid ATEX-Product-Directive

Equipment group II = everything except mining

Equipment category Category 1 for zone 20, 21 and 22

Category 2 for zone 21 and 22

- I = Level indicators, which are installed on the boundary between different zones
- **D** = Dust Type of explosive atmosphere
- the Ex symbol according to DIN EN IEC 60079-0
- t = Protection by enclosure
- a = Device with "very high" protection standard. . . . for zone 20, 21 and 22
- **b** = Device with "high" protection standard. for zone 21 and 22
- IIIC for flammable conductive dust, flammable non-conductive dust and flammable fibres and flyings
- T..°C maximum surface temperature

Equipment Protection Level (EPL)

- **D** = Dust Type of explosive atmosphere
- a = Device with "very high level of protection" for use in potentially explosive atmospheres where in normal operation, foreseeable or infrequent faults/malfunctions no ignition hazard is given.
- **b** = Device with "high level of protection" for use in potentially explosive atmospheres where in normal operation or foreseeable faults/malfunctions no ignition hazard is given.

Order code B1

Marking: II 1D / 2D



Equipment category appropriation by zones

Membrane level indicator for use an on the boundary from zone 20 to zone 21.

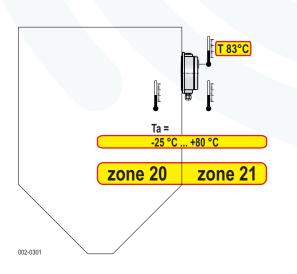
Ambient temperatures Ta

The ambient temperature **Ta** defines the maximum operating temperature of the indicators. Inside the vessel this is process temperature (the air or the bulk goods temperature) nearby the device.

maximum surface temperature T

The maximum surface temperature means the hottest point at the equipment.







Membrane level indicator





Special conditions and instructions for safe application

- 1. The installation, maintenance, initial operation, removal and repair have to be controlled resp. checked by an "authorized person" for explosion protection.
- 2. For the electrical connection you have to take notice of the local and statutory requirements and/or the VDE 0100.
- Take notice of the specifications on the data plate.
- Using the device in ambient temperatures > +60 °C, the applied connection cables have to be made for temperatures of min. +80 °C.
- As soon as the device will be brought into the explosion hazardous area it has to be mounted immediately at the precaused place and a cable has to be brought into the cable gland.
- 6. The cable gland were screwed and protected at the factory. Please check if the cable gland have loosened during on the mounting or at the transport. When it is loosened, it has to be fitted again.
- 7. To secure the type of protection, the screw nut of the cable gland has to be fixed at the installation with a torsional force of min. 5 Nm. **ATTENTION!** If it will be fastened too strong, the IP-protection can be affected.
- 8. The earth connection of the device has to be installed in such a way that mechanical damage will be excluded.
- 9. The device may put into operation with built-in cap-sealing and when it is closed, only.
- 10. Switch off the power supply, before opening the device. (touchdangerous voltage)
- 11. Depending on the bulk goods characteristics and the wear, the carrier has to define resp. to find out in which intervals the membrane of the level indicator has to be checked for leakage to keep the type of protection (Dust-proof). This inspection has to be repeated regularly. If there is a fault, the membrane has to be replaced with a new membrane.
- 12. Take notice of the requirements of DIN EN 60079-14, DIN EN 60079-17 and DIN EN 1127-1, especially regarding the dust deposits and temperatures and follow the pertinent rules and regulations.
- 13. A fuse (with max. 4A) has to be connected in series to the voltage supply.
- 14. Protect the signal contact from voltage peaks when inductive loads are connected.



Membrane level indicator

