

Silo pressure detector

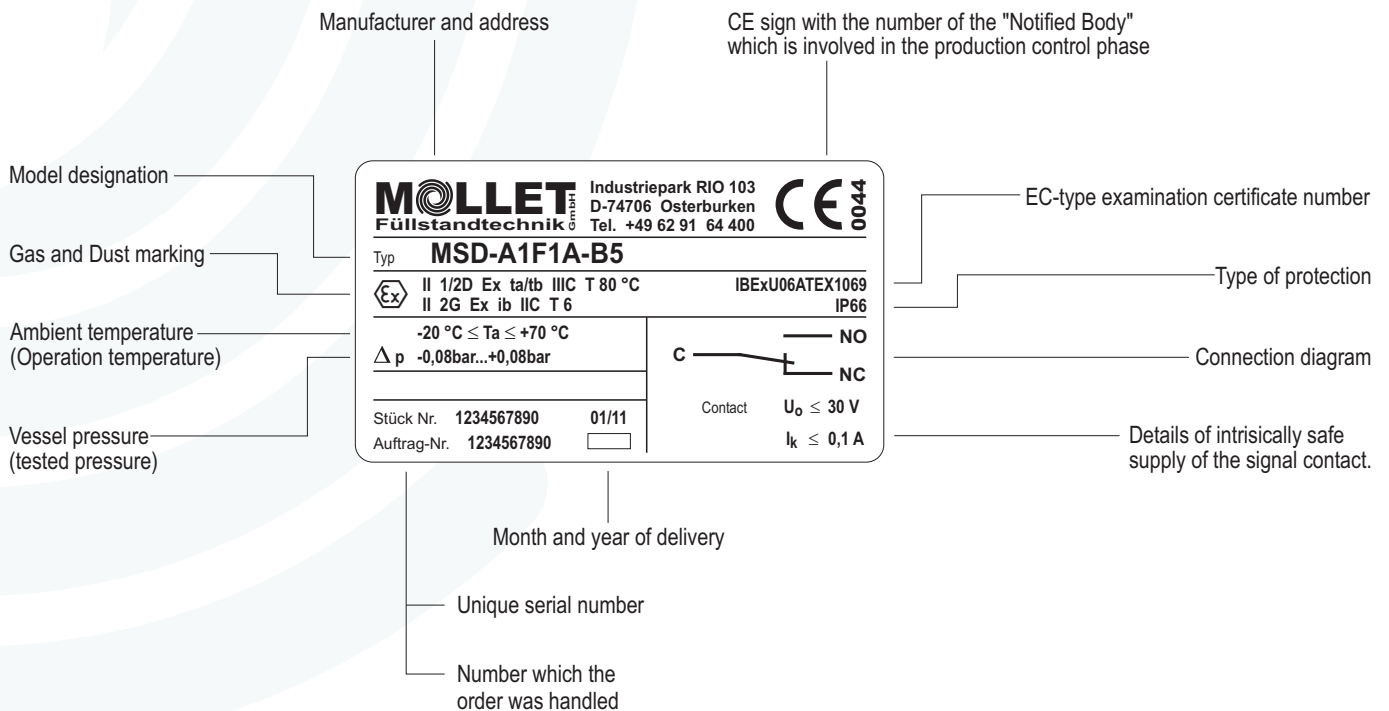
Gas+
Dust



Explosion protection information and supplement to the operating instructions

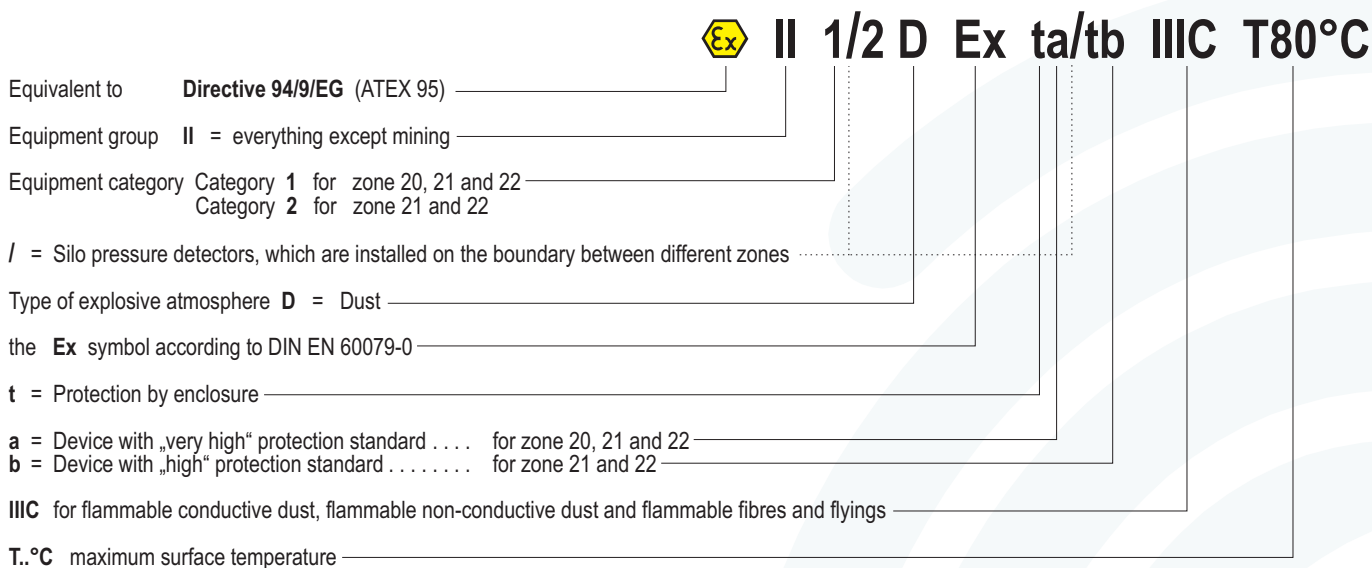
Type plate details

Gas+Dust  and hybrid mixtures

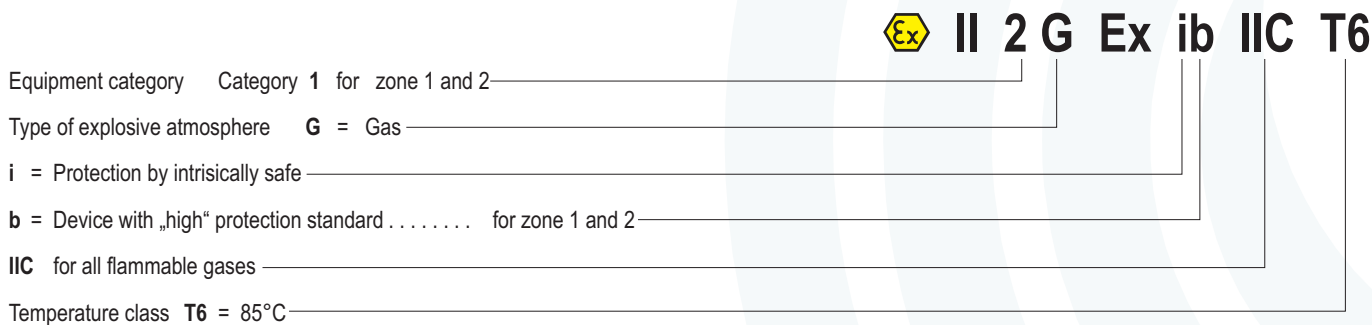


Marking in accordance with ATEX 95 and DIN EN 60079-0:2009

Silo pressure detector for use on the boundary from zone 20 to zone 21.



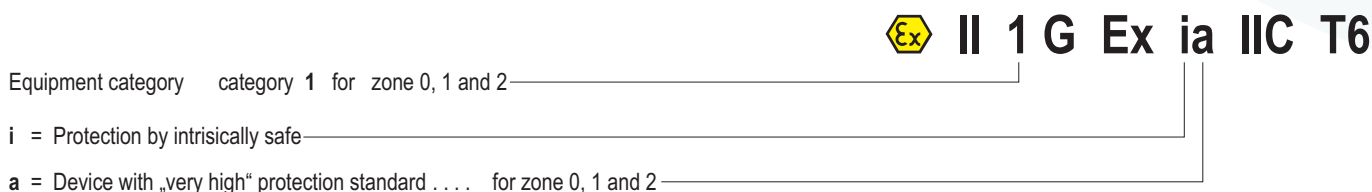
Silo pressure detector for use in zone 1



Silo pressure detector for use in zone 20.



Silo pressure detector for use in zone 0.



Order code **B5**

Marking: II 1D / 2D

II 2G

Gas+Dust  and hybrid mixtures

Equipment category appropriation by zones





Silo pressure detector for use in zone 1 and at the boundary from zone 20 to zone 21.

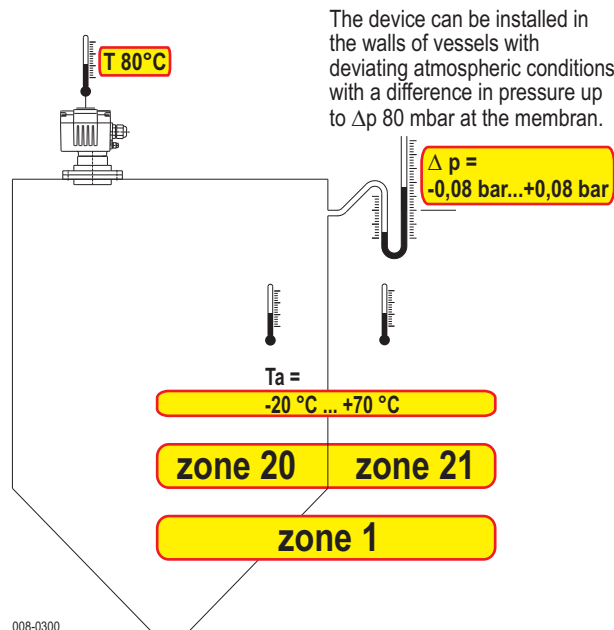
Ambient temperatures T_a

The ambient temperature T_a defines the maximum operating temperature of the detectors. 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. The device matches with temperature class **T6**.

 Industriepark RIO 103 D-74706 Osterburken Tel. +49 62 91 64 400		 0044
Typ MSD-A1F1A-B5		
 II 1/2D Ex ta/tb IIC T 80 °C II 2G Ex ib IIC T 6	IBEExU06ATEX1069 IP66	
$-20\text{ °C} \leq T_a \leq +70\text{ °C}$ $\Delta p = -0,08\text{ bar} \dots +0,08\text{ bar}$		
Stück Nr. 1234567890 01/11 Auftrag-Nr. 1234567890	 Contact $U_o \leq 30\text{ V}$ $I_k \leq 0,1\text{ A}$	



Order code **B22**

Marking: II 1D

II 1G

Gas+Dust  and hybrid mixtures

Equipment category appropriation by zones





Silo pressure detector for use in zone 0 and zone 20.

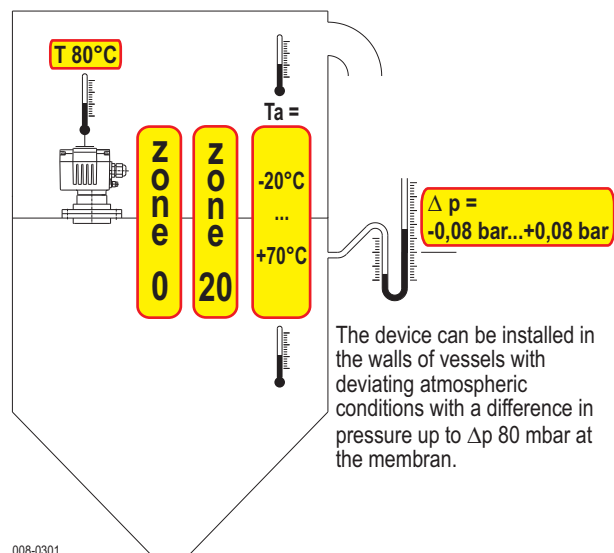
Ambient temperatures T_a

The ambient temperature T_a defines the maximum operating temperature of the detectors. 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. The device matches with temperature class **T6**.

 Industriepark RIO 103 D-74706 Osterburken Tel. +49 62 91 64 400		 0044
Typ MSD-A2F1I-B22		
 II 1D Ex ta IIC T 80 °C II 1G Ex ia IIC T 6	IBEExU06ATEX1069 IP66	
$-20\text{ °C} \leq T_a \leq +70\text{ °C}$ $\Delta p = -0,08\text{ bar} \dots +0,08\text{ bar}$		
Stück Nr. 1234567890 01/11 Auftrag-Nr. 1234567890	 Contact $U_o \leq 30\text{ V}$ $I_k \leq 0,1\text{ A}$	





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.
3. Take notice of the specifications on the data plate.
4. **ATTENTION!** with design **B5**:
For load limitation a certified barrier or a certified isolation amplifier with an intrinsically safe circuit at least for the category “ib” has to be connected in series, witch is certified for gases of explosion group IIC.
4. **ATTENTION!** with design **B22**:
For load limitation a certified barrier or a certified isolation amplifier with an intrinsically safe circuit at least for the category “ia” has to be connected in series, witch is certified for gases of explosion group IIC.
5. 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. Using the device in ambient temperatures $> +60\text{ °C}$, the applied connection cables have to be made for temperatures of min. $+80\text{ °C}$.
7. The cable gland and the plug screw were screwed and protected at the factory. Please check if they have loosened during on the mounting or at the transport. When it is loosened, it has to be fitted again.
8. 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. 5.0 Nm.
ATTENTION! If it will be fastened too strong, the IP-protection can be affected.
9. The earth connection of the device has to be installed in such a way that mechanical damage will be excluded.
10. The device may put into operation with intact cap-sealing and when it is closed, only.
11. Switch off the power supply, before opening the device.
12. Using the Silo pressure detector in the silo wall under deviating atmospheric conditions the maximum differential pressure has not to exceed 80 mbar and the working temperature has not to exceed $+80\text{ °C}$ at the membran.
13. In case of existing combustible dusts with a minimum ignition energy less than 3 mJ or with a minimum ignition temperature under $+300\text{ °C}$ (BAM assessment), the parts in contact with the dust musst be made of stainless steel.
14. In zone 0 all parts in contact with gas and dust must be made of stainless steel.
15. Take notice of the requirements of DIN EN 60079-14, DIN 60079-17 and DIN EN 1127-1, especially regarding the dust deposits and temperatures and follow the pertinent rules and regulations.
16. The device with an intrinsically safe electric circuit can be used in dusty explosive hazardous areas.
17. **Hybrid Mixtures**
The Silo pressure detector is approved for the use in hybrid mixtures.
18. **ATTENTION safety device!**
Don't modify anything at the device or at the switching point adjusting!