

# Yo-Yo sensing level measurement

continuous level measuring for bulk goods

**LF**




**Dust**



# Explosion protection information

and supplement to the operating instructions

## Type plate details

	Manufacturer and address	
	 <p><b>MOLLET</b> Füllstandtechnik Industriepark RIO 103 D-74706 Osterburken</p>	
Model designation	<b>MOLOSbob</b> LF20-B84B1AD1C1	Year of manufacturing
Unique serial number	S/N: 12345678 A.Nr. 123456789/1	Details to supply voltage and current consumption with 24 V DC
Number which the order was handled	Year: 2021	Details for the signal contact
Ambient temperature (Operation temperature)	⌚ 90-253VAC, 50/60Hz, 150VA	Details for the analog signal output
Marking	⌚ Relay SPDT, 250VAC, 6A Current 4-20mA	Type of protection
	FW: 01.01.10-X3 -20°C<Tamb<+60°C IP67	EU-type examination certificate number
	 II 1/2D Ex ta/tb IIIC T99°C Da/Db BVS 14 ATEX E 120	CE sign with the number of the "Notified Body" which is involved in the production control phase.
	 0044	
	Made in Germany	

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

Yo-Yo sensing level indicator for use at the boundary from zone 20 to zone 21.

**Ex II 1/2 D Ex ta/tb IIIC T99°C Da/Db**

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

**/** = 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 1 / 2 D**



**Equipment category appropriation by zones**

Yo-Yo sensing level device for use at 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 **T** means the hottest point at the equipment.

**MOLLET**  
Füllstandtechnik  
Industriepark RIO 103  
D-74706 Osterburken

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MOLOSbob  
LF20 **B**94B1AD1C1  
S/N: 12345678  
A.Nr. 123456789/1 Year: 2021

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90-253VAC, 50/60Hz, 150VA  
Relay SPDT, 250VAC, 6A  
Current 4-20mA

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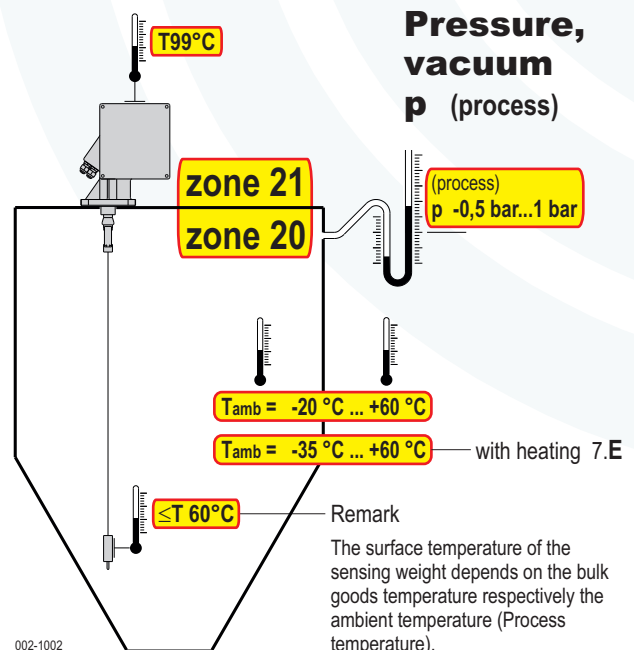
FW: 01.01.10-X3  
**-20°C<Tamb<+60°C** IP67

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**Ex II 1/2D Ex ta/tb IIIC T99°C Da/Db**  
BVS 14 ATEX E 120

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**CE** 0044  
Made in Germany





## Special conditions and instructions for safe application

- 1.1 The installation, maintenance, initial operation, removal and repair have to be controlled resp. checked by an “authorized person” for explosion protection.
- 1.2 The device can also be installed in the walls of silos, vessels, filters and so on when the interior of those are classified as zone 20.
- 1.3 For the electrical connection you have to take notice of the local and statutory requirements and/or the VDE 0100.
- 1.4 Take notice of the specifications on the data plate.
- 1.5 A fuse (with max. 6A) has to be connected in series to the voltage supply.
- 1.6 Before installation of the measuring device into a potentially explosive atmosphere it has to be parametrised. (see parameterisation manual)
- 1.7 As soon as the device will be brought into the explosion hazardous area it has to be mounted immediately at the pre-caused place and a cable has to be brought into the cable gland.
- 1.8 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.
- 1.9 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.
- 1.10 The earth connection of the device has to be installed in such a way that mechanical damage will be excluded.
- 1.11 The device may put into operation when it is closed, only.
- 1.12 Switch off the power supply, before opening the device.
- 1.14 By taking appropriate safety measures you have to ensure that static discharges of the material cone are prevented.
- 1.15 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.

