

Vibro level indicators
Level limit switches for bulk goods

VF60

Gas+
Dust



Explosion protection information
and supplement to the operating instructions

Type plate details with option B11

Gas+Dust

Manufacturer and address

CE sign with the number of the "Notified Body" which is involved in the production control phase

EC-type examination certificate number

Model designation

Unique device serial number

Order number

MOLLET Füllstandtechnik GmbH		Industriepark RIO 103 D-74706 Osterburken Tel. +49 62 91 64 400		0044	IBExU15ATEX0000 IP66/IP67
Typ	VF6.A1B11C5i...	II 1/2 D Ex ia IIC TX Da II 1/2 G Ex ia IIB T4 Ga	Ui = 23,7 V DC li = 167 mA		
S#	1234567890	-20 °C ≤ Ta ≤ +80/+60 °C		Pi = 958 mW	
A.- Nr.	1234567890	03/16	p (Process) -0,95bar...+10,0bar	Ci = neglig	Li = neglig

Type of protection

Details to supply voltage, current consumption and intrinsic safety

Month and year of delivery

DustEx identification

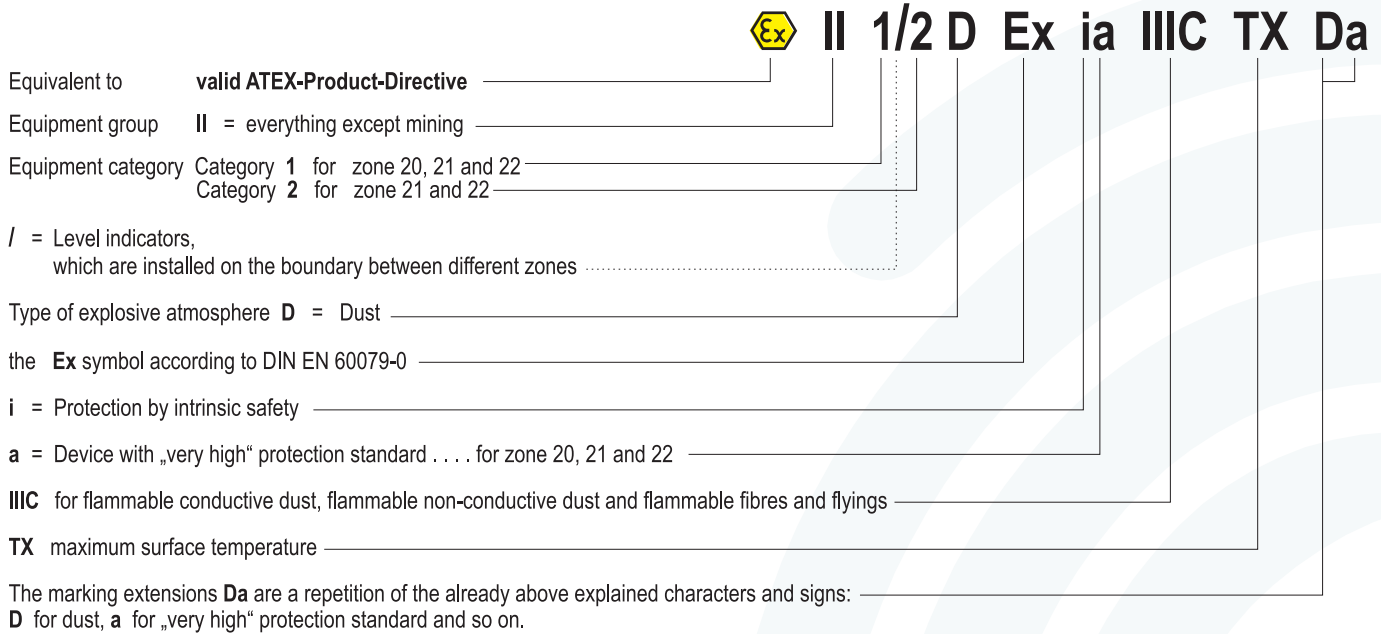
GasEx identification

Ambient temperature (process temperature)

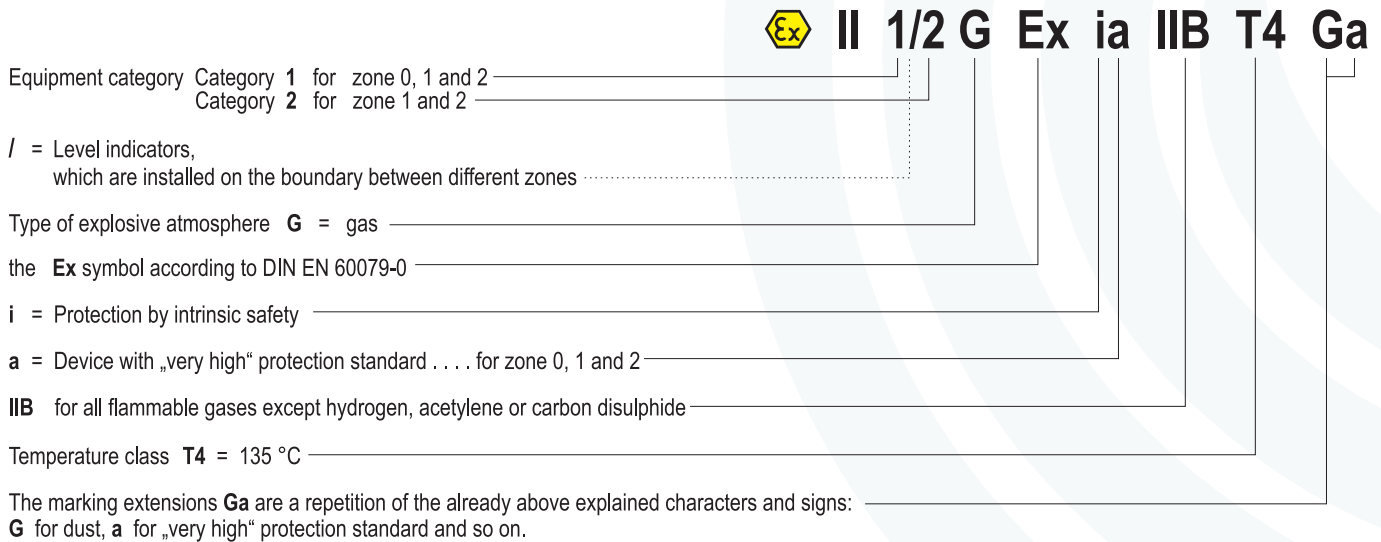
Design of the devices suitable for pressures in the vessel indicated here.

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

Vibro level indicator for use at the boundary from zone 20 to zone 21.



Vibro level indicator for use at the boundary from zone 0 to zone 1.



The „very high“ protection standard of the devices permits although the use complete in zone 20 and zone 0. Please request further information if needed.

Order code VF62A1B11C5i... and VF63A1B11C5i...

Marking:

II 1/2 D



II 1/2 G

Equipment category appropriation by zones

Vibro level indicator for use at the boundary from zone 20 to zone 21 and for use at the boundary from zone 0 to zone 1.

Ambient temperatures T_a

The ambient temperature T_a 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, TX

The maximum surface temperature T means the hottest point at the equipment. The device equates to temperature class **T 4**.

Note:

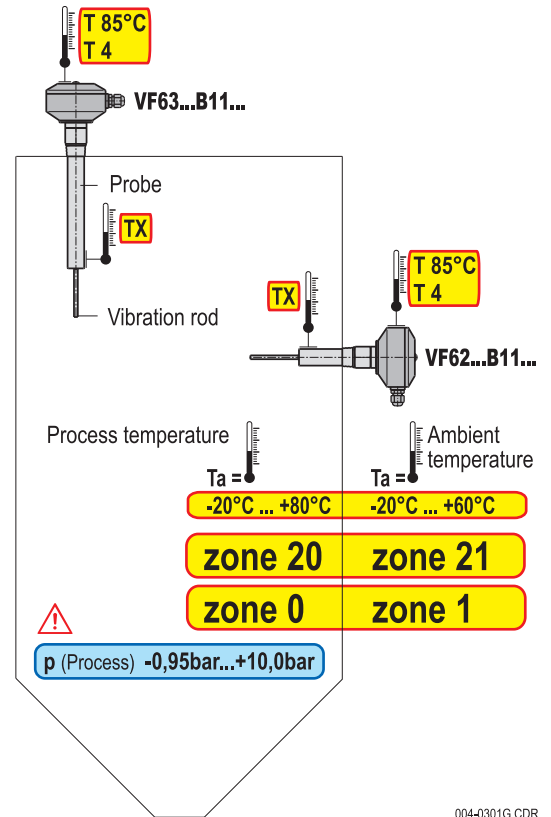
Probe and vibration rod produce no increase of temperature, but they are able to take high temperatures from inside of the vessel and forward it.

Due to this, the surface temperature **TX** has to be determined according to the process temperature (temperature of bulk solids or ambient) inside of the vessel.

Pressure, vacuum

Design of the devices is suitable for indicated pressures in the vessel.

These pressures are outside of the range for atmospheric conditions defined in the guidance to the ATEX-Product-Directive.



004-0301G.CDR

MOLLET Füllstandtechnik GmbH		Industriepark RIO 103 D-74706 Osterburken Tel. +49 62 91 64 400		CE 0044	IExU15ATEX0000 IP66/IP67
Typ	VF6.A1 B11 C5i...	Ex II 1/2D Ex ia IIC TX Da Ex II 1/2G Ex ia IIB T4 Ga	-20 °C ≤ T_a ≤ +80/+60 °C	Ui = 23,7 V DC Ii = 167 mA Pi = 958 mW Ci = neglig Li = neglig	
S#	1234567890				
A.-Nr.	1234567890 03/16	p (Process) -0,95bar...+10,0bar ⚠			

maximum authorised process temperature

$$-20\text{ °C} \leq T_a \leq \overbrace{+80\text{ °C}} / \underbrace{\leq +60\text{ °C}}$$

maximum authorised ambient temperature at the electronic housing

Order code VF65A1B11C5i...

Marking: II 1/2 D
II 1/2 G



Equipment category appropriation by zones

Vibro level indicator for use at the boundary from zone 20 to zone 21 and for use at the boundary from zone 0 to zone 1.

Ambient temperatures T_a

The ambient temperature T_a 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, TX

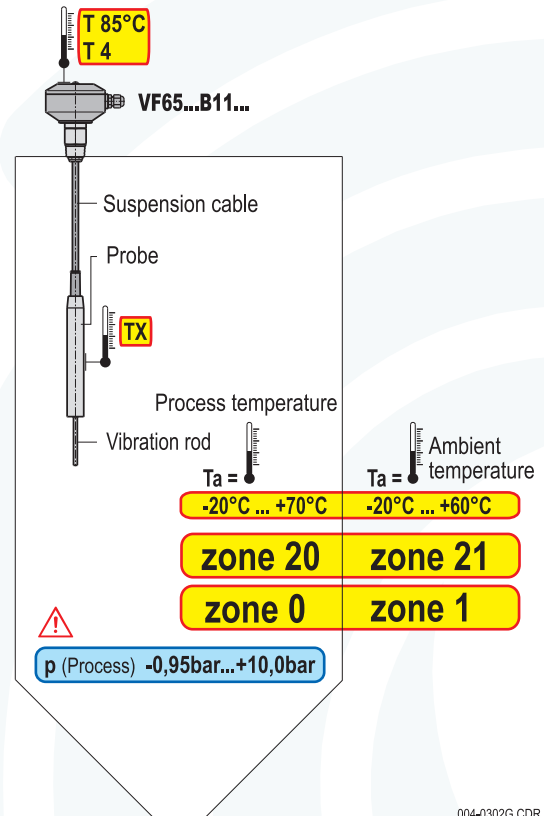
The maximum surface temperature T means the hottest point at the equipment. The device equates to temperature class **T 4**.

Note:

Probe and vibration rod produce no increase of temperature, but they are able to take high temperatures from inside of the vessel and forward it. Due to this, the surface temperature **TX** has to be determined according to the process temperature (temperature of bulk solids or ambient) inside of the vessel.

Pressure, vacuum

Design of the devices is suitable for indicated pressures in the vessel. These pressures are outside of the range for atmospheric conditions defined in the guidance to the ATEX-Product-Directive.



004-0302G.CDR

		Industriepark RIO 103 D-74706 Osterburken Tel. +49 62 91 64 400		0044		IBExU15ATEX0000 IP66/IP67	
Typ VF65A1 B11 G5i...		II 1/2D Ex ia IIC TX Da II 1/2G Ex ia IIB T4 Ga		Ui = 23,7 V DC li = 167 mA		Pi = 958 mW	
S# 1234567890 A.-Nr. 1234567890 03/16		-20 °C ≤ T_a ≤ +70/+60 °C		Ci = neglig Li = neglig		p (Process) -0,95bar...+10,0bar	

maximum authorised process temperature

$$-20\text{ °C} \leq T_a \leq +70\text{ °C} / \leq +60\text{ °C}$$

maximum authorised ambient temperature at the electronic housing

Inside high process temperature, outside ambient temperature

Order code VF62A1B11C5i...E1... and VF63A1B11C5i...E1...

Marking:

II 1/2 D



II 1/2 G

Equipment category appropriation by zones

Vibro level indicator for use at the boundary from zone 20 to zone 21 and for use at the boundary from zone 0 to zone 1.

Ambient temperatures Ta

The ambient temperature T_a 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, TX

The maximum surface temperature T means the hottest point at the equipment. The device equates to temperature class **T4**

Note:

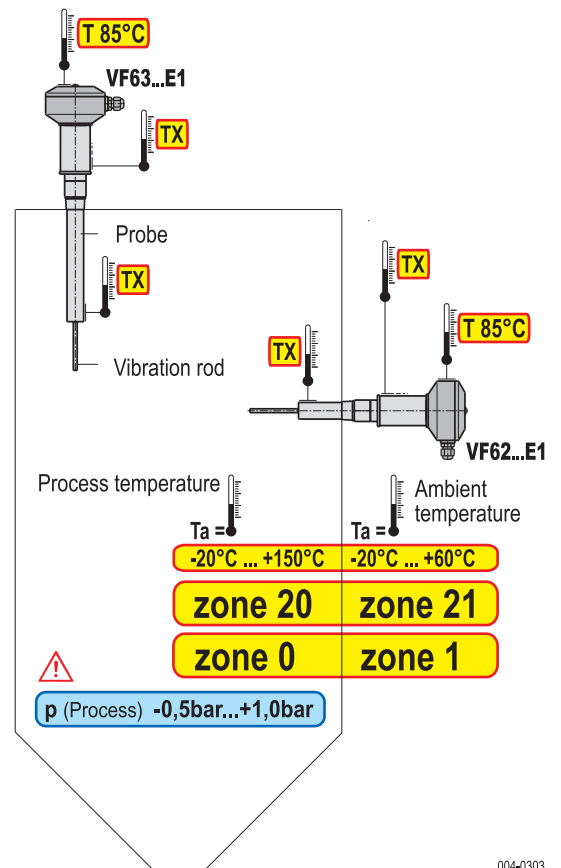
Probe and vibration rod produce no increase of temperature, but they are able to take high temperatures from inside of the vessel and forward it.

Due to this, the surface temperature **TX** has to be determined according to the process temperature (temperature of bulk solids or ambient) inside of the vessel.

Pressure, vacuum

Design of the devices is suitable for indicated pressures in the vessel.

These pressures are outside of the range for atmospheric conditions defined in the guidance to the ATEX-Product-Directive.



004-0303

MOLLET Füllstandtechnik GmbH		Industriepark RIO 103 D-74706 Osterburken Tel. +49 62 91 64 400		CE 0044	IBExU15ATEX0000 IP66/IP67
Typ	VF6.A1 B11 C5i... E1...	Ex	II 1/2D Ex ia IIC TX Da II 1/2G Ex ia IIB T4 Ga	Ui = 23,7 V DC li = 167 mA	
S#	1234567890	-20°C ≤ Ta ≤ +150/+60°C		PI = 958 mW	
A.-Nr.	1234567890 03/16	p (Process) -0,95bar...+10,0bar		Cl = neglig Li = neglig	

maximum authorised process temperature

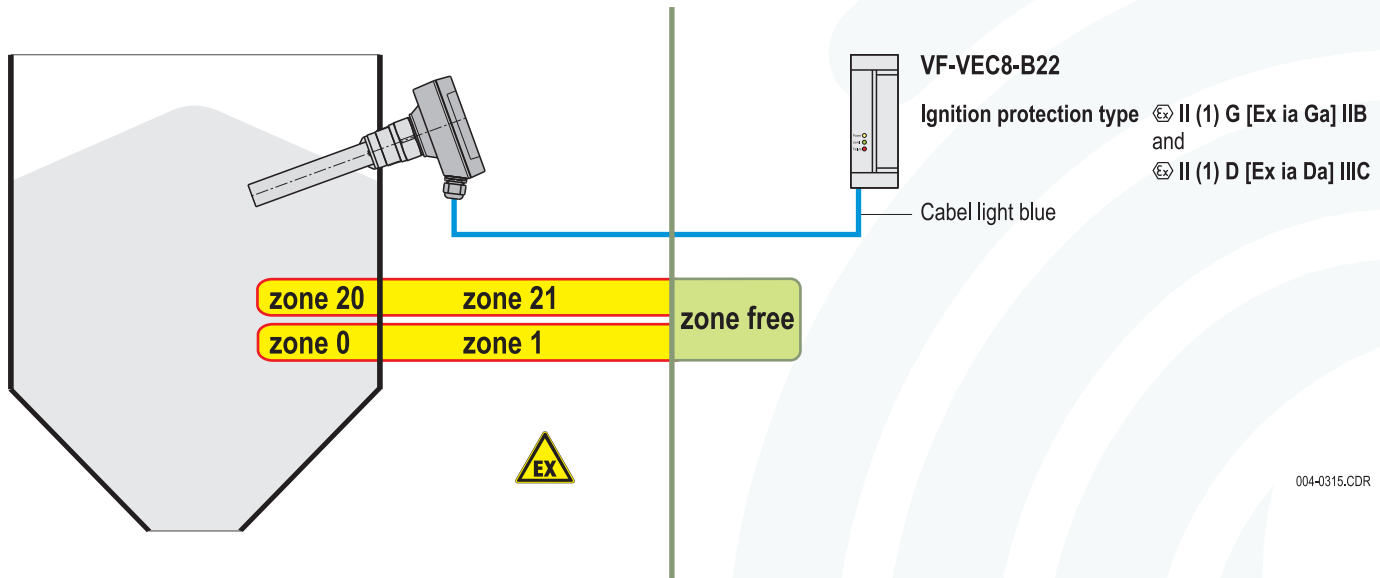
$$-20\text{ °C} \leq T_a \leq +150\text{ °C} / \leq +60\text{ °C}$$

maximum authorised ambient temperature at the electronic housing



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 and has to be done according to the specifications in the operating instructions manual.
2. For the electrical connection you have to take notice of the local and statutory requirements and/or the VDE 0100 as well as the additional requirements for the ignition protection type „i“ - intrinsic safety according EN 60079-14 for associated equipments without galvanic isolation.
3. The power supply must be provided by the associated equipment „Supply and evaluation device VF-VEC8-B22" only.



4. Take notice of the specifications on the data plate.
5. Standards for the connection of intrinsic safe circuits according to EN 60079-14 must be observed.
6. The associated equipment „Supply and evaluation device VF-VEC8-B22" has to be installed in a room without potentially explosive atmosphere (control cabinet).
7. As soon as the device will be brought into the explosion hazardous area it has to be mounted immediately at the intended place and a cable has to be brought into the cable gland.
8. Please check if the cable gland have loosened during mounting process or transport. When it is loosened, it has to be fixed again with a torque of 3.75 Nm.
9. To secure the type of protection, the screw nut of the cable gland has to be fixed at the installation with a minimum torque of 2.7 Nm.
ATTENTION! If it will be fastened too strong, the IP-protection can be affected.
10. The device has to be grounded and the ground connection of the device has to be installed in such a way that mechanical damage will be excluded.
11. The device may put into operation with built-in cap-sealing and when it is closed, only.
12. Remove the dust from the housing before you open it and make sure that no dust turbulences exist.
13. Please check position and intactness of all gaskets before you close the device.
14. Tightening torque of distance nut M6x40: 3 ... 4 Nm and of the lid screw M6x16: 3 Nm.
15. The maximum authorised temperatures for process (bulk solids) and ambience have to be observed.
16. Take notice of the requirements of DIN EN 60079-11, DIN EN 60079-17 and DIN EN 1127-1, especially regarding the dust deposits and temperatures and follow the pertinent rules and regulations.