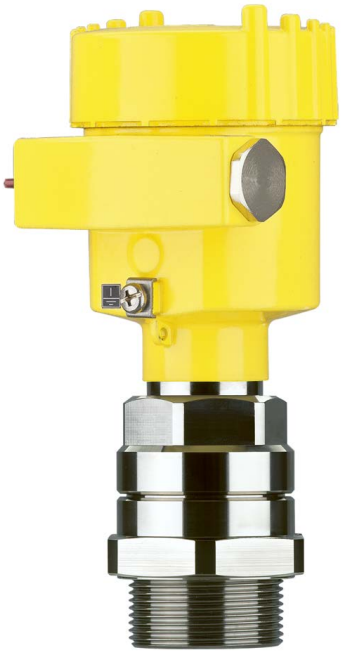
Safety instructions
VEGAMIP T61, R61

Protection by enclosure

FM18US0075X

FM18CA0036X



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Supplementary documentation:

- Operating instructions VEGAMIP T61, R61, R62
- Certificate of Conformity FM18US0075X and FM18CA0036X, Supplement 1 (Document ID: 56857)

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1 Area of applicability

These safety instructions apply to the microwave barrier VEGAMIP MPR/T61.GX****R/T*** according to the FM approval certificate FM18CA0036X and FM18US0075X, Supplement 1.

2 General information

The limit level switch on radar basis VEGAMIP MPR/T61.GX****R/T*** is used for detection of a limit value from a product surface between an emitter unit VEGAMIP MPT61.GX****T*** and a receiver unit VEGAMIP MPT61.GX****R*** by means of high frequency electromagnetic waves in the GHz range.

The VEGAMIP MPR/T61.GX****R/T*** are used for monitoring or control of levels also in areas with combustible, dust-generating bulk solids requiring instruments rated DIP CL II, III, Div. 1, Groups E, F, G

The VEGAMIP MPR/T61.GX****R/T*** consist of an emitter and receiver unit, a housing and a process connection element.

As an option, a housing cover with inspection window can be used.

If the VEGAMIP MPR/T61.GX****R/T*** are installed and operated in hazardous areas these safety instructions must be observed.

The operating instructions as well as the applicable, valid Hazardous (classified) Locations mounting regulations and standards for electrical equipment must be observed.

The installation of explosion-endangered systems must always be carried out by qualified personnel.

2.2 DIP, Class II, III, Division 1 instruments

The electronics housing and the antennas with the mechanical fixing element are installed in explosion-endangered areas, in areas requiring instruments Class II, III, Div. 1.

Technical data

.1 Electrical data

VEGAMIP MPT61(*).GX**T***

Voltage supply: (terminals 1, 2 in the connection compartment)	U = 20 … 253 V AC, 50/60 Hz, U = 20 … 72 V DC
Power consumption	1,8 VA (AC), approximately 1.3 W (DC)

VEGAMIP MPR61(*).GX**R***

Voltage supply: (terminals 1, 2 in the connection compartment)	U = 20 … 253 V AC, 50/60 Hz, U = 20 … 72 V DC
Power consumption	1,8 VA, 1,6 W
Relay circuit, contact set 1: (terminals 3, 4, 5), contact set 2: (terminals 6, 7, 8)	Maximum values: 253 V AC, 5 A 4 A, 30 V DC; 0,2 A, 125 V DC

VEGAMIP MPR61(*).GX**R***

Voltage supply: (terminals 1, 2 in the connection compartment)	U = 20 … 55 V DC
Power consumption	max. 1 W

Signal circuit: (terminals 4, 5)	Maximum values: U_{Load} = 20 … 55 V DC I_{Load} ≤ 400 mA DC

Emitting/Receiving frequency	
Radiation power (normal operation)	P_{EIRP} = 0.1 W

3 Application conditions

Permissible ambient temperatures **On the electronics housing**	
VEGAMIP MPR61.GX*****R/T***, VEGAMIP MPT61.GX*****T***	-40 … +60 °C

Surface temperature increases **On the sensor**	
VEGAMIP MPR61.GX*****R/T***, VEGAMIP MPT61.GX*****T***	Process temperature +3 K

On the electronics housing	
Restricted by temperature protection to	+102 °C

4 Grounding

The VEGAMIP MPR/T61.GX****R/T*** must be grounded.

5 Cable entries

Cable entries are ½ inch NPT type or metric M20 x 1,5 type. For ½ inch NPT type suitable thread sealant is reguired (e.g. Teflon tape) for maintaining type 4x and IP ratings.

6 Installation/mounting

The VEGAMIP MPR/T61.GX****R/T*** must be mounted in a way that sufficiently ensures that the antenna extensions cannot bend or touch the vessel wall due to the influence of vessel installations and measured product.

7 Material resistance

The VEGAMIP MPR/T61.GX****R/T*** must only be used in media against which the materials of the wetted parts are sufficiently resistant.

8 Locking mechanism of housing cover

With single chamber housing versions before setup and use of the VEGAMIP MPR/T61. GX****R/T*** in hazardous atmospheres, the lid must be screwed in to the stop. It must also be secured with the lid lock. With double chamber housing version before setup and use of the VEGAMIP MPR/T61.GX****R/T*** in hazardous atmospheres, the lid of the connection compartment and the lid of the electronics compartment must be screwed in to the stop. They must also be secured with the respective lid lock.

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9 Installation with swivelling holder

The VEGAMIP MPR/T61.GX****R/T*** in the version with swivelling holder must be mounted so that, after the antenna has been aligned by means of the swivelling holder and the clamping flange has been screwed down, protection class IP 66, type 4x is maintained.

10 Versions with rinsing connection

For the VEGAMIP MPR/T61.GX****R/T*** in the version with rinsing connection, please make sure that protection IP 66 is ensured at the connection to the reflux valve. After removal of the reflux valve or the rinsing connection on the reflux valve, the opening must be closed with a suitable plug screw in order to maintain protection IP 66.

Please make sure that there is no dust hazardous atmosphere present during rinsing processes in the antenna or sensor cleaning.

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