Specification sheet

VEGAMIP R61/T61

Transistor

Microwave barrier for level detection in bulk solids and liquids

Application area

The VEGAMIP T61 is the emitting unit, the VEGAMIP R61 the receiving unit of the microwave barrier for level detection of bulk solids and liquids. Typical applications are the detection of bulk solids in silos, bunkers and crushers as well as of liquids in pipelines and vessels. The non-contact measuring principle has no direct contact with the medium and ensures continuous wear-free and maintenance-free operation.

Your benefit

- Reliable measurement even with very abrasive products
- Simple adjustment saves time and costs with setup and commissioning
- Reliable measurement even with changing product properties

Function

The measuring system consists of a microwave emitter and a corresponding receiver. The emitted signal is focused by an antenna system and radiated in the direction of the receiver. A medium in the path of the beam damps the signal. This signal damping is detected by the receiver and converted into a switching signal. The built-in sensitivity adjustment makes it easy to adapt the instrument to the local conditions and the medium.

Technical data

Process pressure	-1 … +4 bar/-100 … +400 kPa (-14.5 … +58 psig)
Process temperature	-40 … +80 °C (-40 … +176 °F)
Process temperature with mounting adapter	-40 … +450 °C (-40 … +842 °F)
Ambient, storage and transport temperature	-40 … +80 °C (-40 … +176 °F)
Hysteresis	approximately 1.33 dB
Process fitting	Thread from G1½, flanges from DN 50
Operating voltage	20 … 55 V DC
Power consumption	max. 0.8 W
Load current	< 400 mA
Voltage loss	< 0.5 V
Switching voltage	< 55 V DC
Blocking current	< 10 µA

Materials

The wetted parts of the instrument are made of stainless steel 316L and PTFE. The optional mounting adapter for process temperatures up to 450 °C is made of 316L and has a cover of ceramic Al_2O_3.

You will find a complete overview of the available materials and seals in the "configurator" on our homepage at www.vega.com/configurator.

Housing versions

The housings are available in plastic, stainless steel or Aluminium.

They are available with protection ratings up to IP67.

Electronics versions

The receiving unit is available in different electronics versions. A transistor or a relay output with two floating spdts is possible.

Approvals

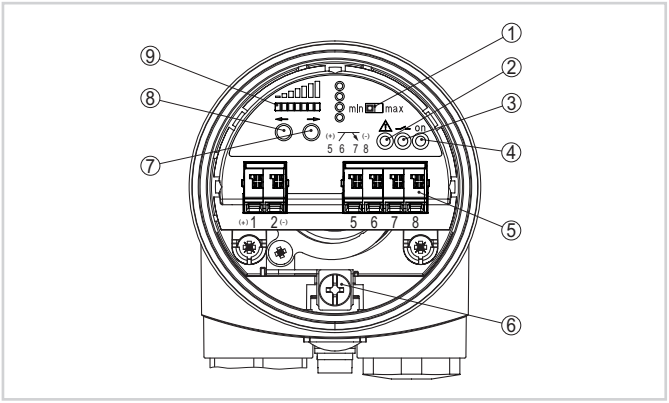
Worldwide approvals are available for VEGA instruments, e.g. for use in hazardous areas, on ships or in hygienic applications.

The technical data in the respective safety instructions are valid for approved instruments (e.g. with Ex approval). In some cases, these data can differ from the data listed herein.

You can find detailed information on the existing approvals with the appropriate product on our homepage.

Adjustment

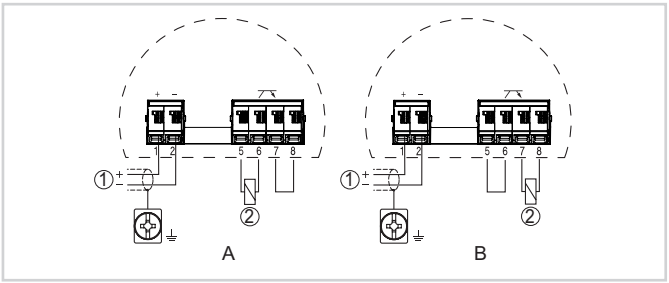
You can adjust the mode and sensitivity of the level switch on the electronics module of the receiving unit (R). Control lamps indicate operation, switching status of the instrument and possible faults.



Electronics module MP60EE.S receiver unit - Transistor output

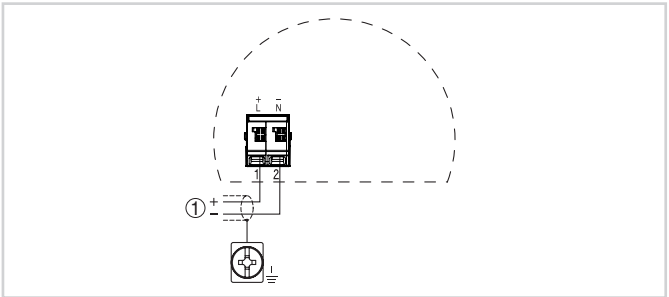
1 *Mode switch for selecting the switching behaviour (min./max.)*
2 *Control lamp (LED) for indication of a fault (red)*
3 *Signal lamp (LED) for indication of the switching status (yellow)*
4 *Control lamp (LED) for indication of the instrument function (green)*
5 *Connection terminals*
6 *Ground terminal*
7 *Key for adjustment of the sensitivity and the switching delay (-->)*
8 *Key for adjustment of the sensitivity and the switching delay (<--)*
9 *LED indicating board for indication of reception strength (yellow)*

Electrical connection



Wiring plan, Receiving unit - VEGAMIP 61 R (receiver)

A *PNP action*
B *NPN action*
1 *Voltage supply*
2 *Load*



Wiring plan, Emitting unit - VEGAMIP 61 T (transmitter)

1 *Voltage supply*

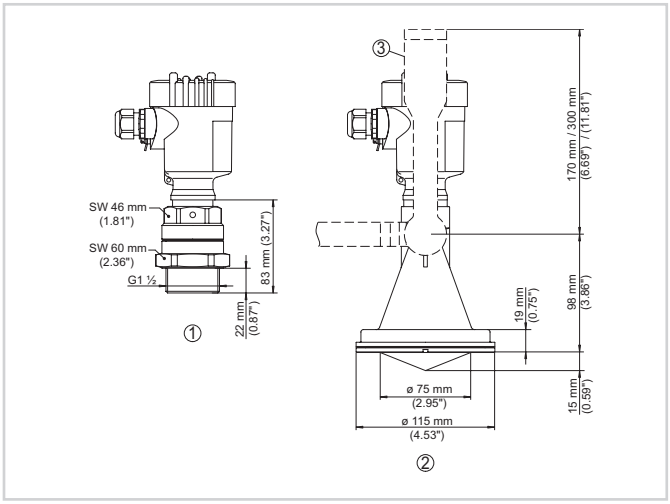
You can find details on electrical connection in the instrument operating instructions on our homepage at www.vega.com/downloads.

For more VEGA product please visit: www.ainstru.com

Mail: Sales@ainstru.com

Dimensions

VEGAMIP 61



1 *Threaded version with PTFE cover*
2 *Plastic antenna with PP cover*
3 *Mounting strap*
4 *Adapter flange*

Information

You can find further information on the VEGA product line on our homepage.

In the download section on our homepage you'll find operating instructions, product information, brochures, approval documents, instrument drawings and much, much more.

Software accessories such as the current device software and the appropriate operating software are also available there.

Instrument selection

On our homepage under "*Products*" you can select the suitable measuring principle and instrument for your application.

There you will also find detailed information on the available device versions.

Contact

You can find your personal contact person at VEGA on our homepage under "*Contact*".