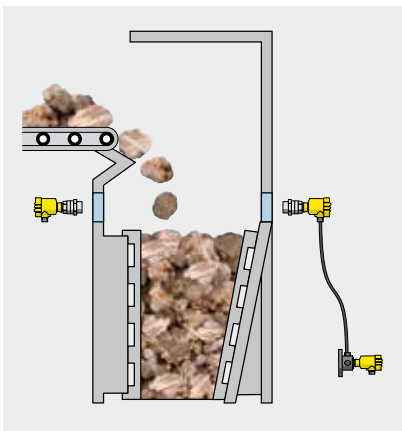




## Overview VEGAMIP



### Area of application


The microwave barriers of the VEGAMIP series are suitable for non-contact point level detection of liquids and bulk solids of any kind. Even point level detection of high-purity liquids through the container wall is possible. When it comes to bulk solids, the microwave barrier lends itself well for heavy and dust-generating media or for backup detection on conveyor belts.

### Measuring principle

The microwave barrier works like a light barrier: if the microwave beam between transmitter and receiver is blocked by the rising medium, the measuring signal is damped. This change is detected by the receiver and converted into a switching signal.

### Advantages

This method allows point level detection without direct contact with the measured product. Dirt, buildup and abrasion on the sensor are thus excluded, allowing wear and maintenance-free operation.

	VEGAMIP T61	VEGAMIP R61	VEGAMIP R62
			
Application	Bulk solids, liquids	Bulk solids, liquids	Bulk solids, liquids in dangerous mounting locations or locations difficult to access
Version	Emitter	Receiver	Receiver with separate version
Measuring range	up to 100 m	up to 100 m	up to 100 m
Antenna	Inside horn antenna with PTFE cover	Inside horn antenna with PTFE cover	Inside horn antenna with PTFE cover
Process fitting	Thread G1½, 1½ NPT, flanges, clamp, mounting strap	Thread G1½, 1½ NPT, flanges, clamp, mounting strap	Thread G1½, 1½ NPT, flanges, clamp, mounting strap
Process temperature	-40 ... +80 °C +450 °C with mounting adapter	-40 ... +80 °C +450 °C with mounting adapter	-40 ... +80 °C +450 °C with mounting adapter
Process pressure	-1 ... +4 bar (-100 ... +400 kPa)	-1 ... +4 bar (-100 ... +400 kPa)	-1 ... +4 bar (-100 ... +400 kPa)
Frequency range	K-band	K-band	K-band
Signal output	–	Relay, transistor	Relay, transistor
Approvals	ATEX, IEC, FM, CSA, GOST	ATEX, IEC, FM, CSA, GOST	ATEX, IEC, CSA

# VEGAMIP T61

## Microwave emitter for level detection of bulk solids and liquids

### Application area

The VEGAMIP T61 is the emitting 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 tubes and vessels. The non-contact measuring principle has no direct contact to the medium and guarantees wear and maintenance-free permanent operation.

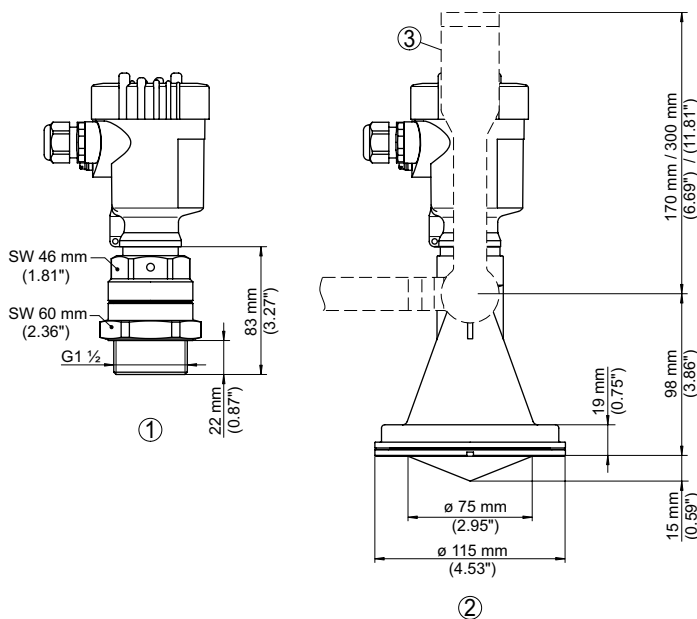
### Your benefit

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

### Technical data

Measuring range:	up to 100 m
Process fitting:	thread G1½, 1½ NPT flanges Clamp
Process temperature:	-40 ... +80 °C +450 °C with mounting adapter
Process pressure:	-1 ... +4 bar (-100 ... +400 kPa)

Delivery time:  **SPEED**



- ① Inside horn antenna with PTFE cover, thread G1½
- ② Plastic horn antenna with PP cover
- ③ Mounting strap

The options shown represent only a limited selection. Additional instrument options and possible restrictions.

[www.vega.com/configurator](http://www.vega.com/configurator)

Instrument documentation and drawings:

[www.vega.com/downloads](http://www.vega.com/downloads)

Mounting accessories, welded sockets and housing overview:

**Chapter Accessory**

**Approval**

- XX** without .....
- DK** ATEX II 1/2G, 2G Ex d IIC, II 1D, 1/2D, 1/3D, 2D Ex t IIIC .....
- GX** ATEX II 1D, 1/2D, 1/3D, 2D Ex t IIIC T\* Da, Da/Db, Db IP66 .....
- AX** IEC EX nAmC or nA IIC T1...T4 Gc .....
- GX** IEC Ex t IIIC T\* Da, Da/Db, Db IP66 .....

**Version / Material**

- A** Inside horn antenna (ø1½") / 316L with PTFE cover .....
- F** Plastic horn antenna (ø80mm) / PP .....

**Process fitting / Material**

- GA** Thread G1½ PN4, DIN3852-A / 316L .....
- NA** Thread 1½NPT PN4, ASME B1.20.1 / 316L .....
- XC** Mounting strap, length: 170mm / 316L .....
- XD** Mounting strap, length: 300 mm / 316L .....
- YD** Compression flange suitable for flanges DN80 PN16, 3" 150lb, DN80 10K / PP-GF30 .....

**Seal / Process temperature**

- 1** FKM (A+P FPM 70.16-06) / -40...+80°C .....

**Electronics**

- T** Voltage supply 20...72 V DC / 20...253 V AC .....

**Housing / Protection**

- K** Plastic single chamber / IP66/IP67 .....
- A** Aluminium single chamber / IP66/IP68 (0.2 bar) .....
- 8** Stainless steel single chamber (electropolished) / IP66/IP68 (0.2 bar) .....

**Cable entry / Cable gland / Plug connection**

- M** M20x1,5 / with / without .....
- N** ½NPT / without / without .....

**Additional equipment**

- X** without .....

MPT61.										
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# VEGAMIP R61

## Microwave receiver for level detection of bulk solids and liquids

### Application area

The VEGAMIP R61 is 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 tubes and vessels. The non-contact measuring principle has no direct contact to the medium and guarantees wear and maintenance-free permanent operation.

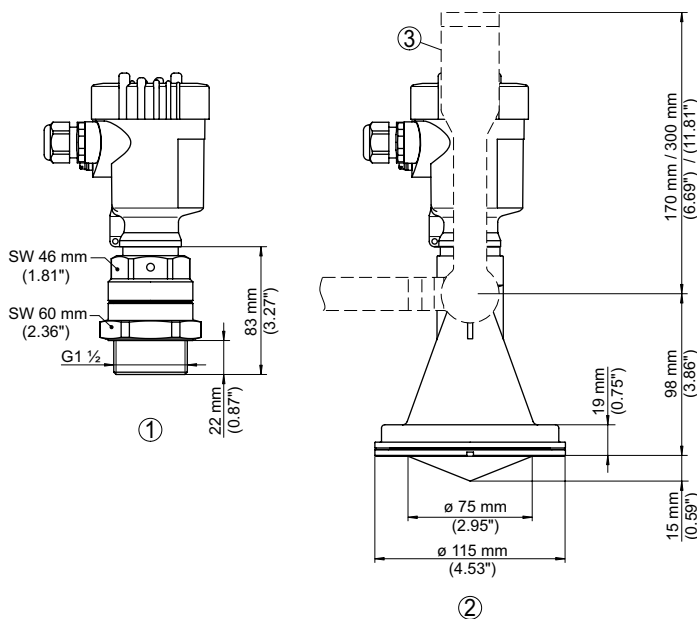
### Your benefit

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

### Technical data

Measuring range:	up to 100 m
Process fitting:	thread G1½, 1½ NPT flanges Clamp
Process temperature:	-40 ... +80 °C +450 °C with mounting adapter
Process pressure:	-1 ... +4 bar (-100 ... +400 kPa)

Delivery time:  **SPEED**



- ① Inside horn antenna with PTFE cover, thread G1½
- ② Plastic horn antenna with PP cover
- ③ Mounting strap

The options shown represent only a limited selection. Additional instrument options and possible restrictions.

[www.vega.com/configurator](http://www.vega.com/configurator)

Instrument documentation and drawings:

[www.vega.com/downloads](http://www.vega.com/downloads)

Mounting accessories, welded sockets and housing overview:

**Chapter Accessory**

**Approval**

- XX without .....
- DK ATEX II 1/2G, 2G Ex d IIC, II 1D, 1/2D, 1/3D, 2D Ex t IIIC .....
- GX ATEX II 1D, 1/2D, 1/3D, 2D Ex t IIIC T\* Da, Da/Db, Db IP66 .....
- AX IEC EX nAmC or nA IIC T1...T4 Gc .....
- GX IEC Ex t IIIC T\* Da, Da/Db, Db IP66 .....

**Version / Material**

- A Inside horn antenna (ø1½") / 316L with PTFE cover .....
- F Plastic horn antenna (ø80mm) / PP .....

**Process fitting / Material**

- GA Thread G1½ PN4, DIN3852-A / 316L .....
- NA Thread 1½NPT PN4, ASME B1.20.1 / 316L .....
- XC Mounting strap, length: 170mm / 316L .....
- XD Mounting strap, length: 300 mm / 316L .....
- YD Compression flange suitable for flanges DN80 PN16, 3" 150lb, DN80 10K / PP-GF30 .....

**Seal / Process temperature**

- 1 FKM (A+P FPM 70.16-06) / -40...+80°C .....

**Electronics**

- R Relay (DPDT) 20...72 V DC / 20...253 V AC(3 A) .....
- T Transistor (NPN/PNP) 20...55VDC .....

**Housing / Protection**

- K Plastic single chamber / IP66/IP67 .....
- A Aluminium single chamber / IP66/IP68 (0.2 bar) .....
- 8 Stainless steel single chamber (electropolished) / IP66/IP68 (0.2 bar) .....

**Cable entry / Cable gland / Plug connection**

- M M20x1,5 / with / without .....
- N ½NPT / without / without .....

**Additional equipment**

- X without .....

MPR61.									
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## VEGAMIP R62

Microwave receiver in separate version for level detection of bulk solids and liquids

### Application area

The VEGAMIP R62 is the receiving unit of the microwave barrier in separate version for level detection of bulk solids and liquids. Typical applications are the detection of bulk solids in silos, bunkers and crushers as well as liquids in tubes and vessels. The non-contact measuring principle has no direct contact to the medium and guarantees wear and maintenance-free permanent operation.

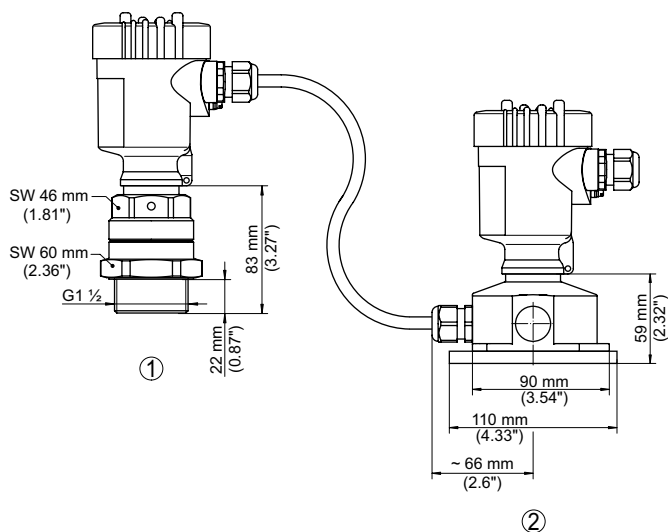
### Your benefit

- Reliable measurement even with very abrasive measured products
- Separate instrument version enables mounting in installation positions difficult to access
- Reliable measurement also with changing product properties

### Technical data

Measuring range:	up to 100 m
Process fitting:	thread G1½, 1½ NPT flanges Clamp
Process temperature:	-40 ... +80 °C +450 °C with mounting adapter
Process pressure:	-1 ... +4 bar (-100 ... +400 kPa)

Delivery time:  **SPEED**



- ① Receiving unit  
② External housing (processing unit) / remote adjustment

The options shown represent only a limited selection. Additional instrument options and possible restrictions.

[www.vega.com/configurator](http://www.vega.com/configurator)

Instrument documentation and drawings:

[www.vega.com/downloads](http://www.vega.com/downloads)

Mounting accessories, welded sockets and housing overview:

**Chapter Accessory**

**Approval**

- XX** without .....
- DK** ATEX II 1/2G, 2G Ex d IIC, II 1D, 1/2D, 1/3D, 2D Ex t IIIC .....
- GX** ATEX II 1D, 1/2D, 1/3D, 2D Ex t IIIC T\* Da, Da/Db, Db IP66 .....
- AX** IEC EX nAmC or nA IIC T1...T4 Gc .....
- GX** IEC Ex t IIIC T\* Da, Da/Db, Db IP66 .....

**Version / Material**

- A** Inside horn antenna (ø1½") / 316L with PTFE cover .....
- F** Plastic horn antenna (ø80mm) / PP .....

**Process fitting / Material**

- GA** Thread G1½ PN4, DIN3852-A / 316L .....
- NA** Thread 1½NPT PN4, ASME B1.20.1 / 316L .....
- XC** Mounting strap, length: 170mm / 316L .....
- XD** Mounting strap, length: 300 mm / 316L .....
- YD** Compression flange suitable for flanges DN80 PN16, 3" 150lb, DN80 10K / PP-GF30 .....

**Seal / Process temperature**

- 1** FKM (A+P FPM 70.16-06) / -40...+80°C .....

**Electronics**

- R** Relay (DPDT) 20...72 V DC / 20...253 V AC(3 A) .....
- T** Transistor (NPN/PNP) 20...55VDC .....

**Sensor housing / Protection**

- K** Plastic single chamber / IP66/IP67 .....
- A** Aluminium single chamber / IP66/IP68 (0.2 bar) .....
- 8** Stainless steel single chamber (electropolished) / IP66/IP68 (0.2 bar) .....

**Connection cable length / Material / Plug connection**

- 1** 5 m / PUR / without .....
- 2** 10 m / PUR / without .....
- 3** 25 m / PUR / without .....
- 7** Customer-specific / PUR / without .....
- 4** 5 m / PUR / M12 .....
- 5** 10 m / PUR / M12 .....
- 6** 25 m / PUR / M12 .....

**Housing / Protection**

- K** Plastic single chamber / IP66/IP67 .....
- A** Aluminium single chamber / IP66/IP68 (0.2 bar) .....
- 8** Stainless steel single chamber (electropolished) / IP66/IP68 (0.2 bar) .....

**Cable entry / Cable gland / Plug connection**

- M** M20x1,5 / with / without .....
- N** ½NPT / without / without .....

**Additional equipment**

- X** without .....



**Cable length**

From 6 m, per additional 100 mm cable of PUR



## Mounting adapter VEGAMIP

Adapter for mounting of a VEGAMIP T61/R61/R62 at high temperatures and/or abrasive products

### Application area

The adapter is used for mounting of VEGAMIP 61/62 in bulk solids applications with high product temperatures and/or very abrasive products. The very robust design is particularly suitable for arduous operating conditions in the mining of minerals, the coal and ore processing and the production of metals. The massive process separation of Aluminium oxide ceramic ensures a very high lifetime also in continuous operation even with very abrasive products. A mounting adapter each is required per emitter and receiver.

### Your benefit

- Simple and quick mounting through compact process fitting
- Wear and maintenance-free operation through high resistance process separation of Aluminium oxide ceramic

### Technical data

Process fitting: thread G2, 2 NPT  
 Process temperature: -40 ... +450 °C  
 Process pressure: -1 ... +20 bar

Delivery time:  **SPEED**

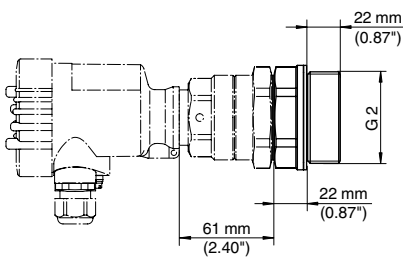


### Version / Temperature range / Pressure range

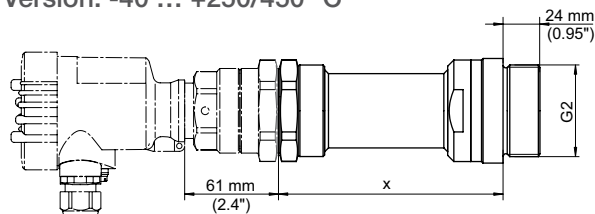
**XA** Thread G2 / -40...+250°C / unpressurized .....  
**XB** Thread G2 / -40...+450°C / unpressurized .....  
**XE** Thread G2 / -40...+80°C / -1...+20 bar .....

**MONTZUB-MIP.**

### Version: -40 ... +80 °C



### Version: -40 ... +250/450 °C



- x Length: 150 mm for +250 °C  
 x Length: 300 mm for +450 °C