





Guided Microwave

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VEGAFLEX series 60	40



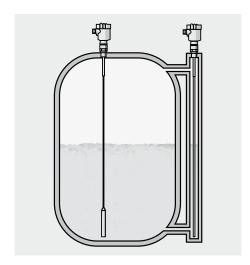
Universal sensors for bulk solids and liquids

Measuring principle

High frequency microwave pulses are coupled on a cable or rod and guided along the probe. The pulse is reflected by the product surface. The time from emission to reception of the signals is proportional to the level in the vessel. An adjustment with product is not necessary. All instruments are preset to the ordered probe length. The shortenable cable and rod versions can be adapted to the individual conditions on site.

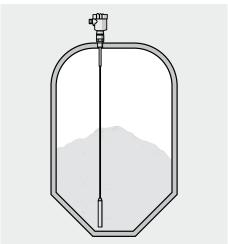
Applications in liquids

Density fluctuations, steam generation or strong pressure and temperature fluctuations do not influence the measuring result. Also buildup on the probe or the vessel wall do not influence the measurement. An ideal application is level measurement in a bypass tube where even products with dielectric values below 1.6 can be measured reliably. Also connection tubes — bypass tubes have no influence.



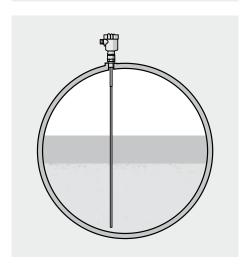
Applications in bulk solids

Typical problems in bulk solids such as e.g. dust and noise generation or condensation do not influence the reliability. Also the shape of the material cone or the product properties, e.g. the change from dry to wet sand do not influence the measuring result. Since the instruments are already preadjusted, setup is limited to connection of the sensor.



Interface measurement in liquids

The measuring principle was developed for detection of the interface. Typical applications are measurements of oil and solvents on water. The microwave pulse is reflected a second time on an interface with different dielectric value. This allows the detection of a second level. The advantage against displacers or floats is that the measuring principle is independent of density and does not use any moving parts. This ensures maintenance-free operation. Through the digital communication interfaces or connection of a VEGAMET 625, the output of both levels is possible.







Overview





VEGAFLEX 61

Measuring range

Application

Process fitting

Process temperature Process pressure

Accuracy

Application

Measuring range

Process fitting

Process temperature

Process pressure

Liquids, light-weight bulk solids

Cable: up to 32 m Rod: up to 4 m

from thread G3/4 A, flange

-40 ... +150 °C -1 ... +40 bar (-100 ... +4000 kPa)

+/- 3 mm

VEGAFLEX 62

Liquids, heavy-weight bulk solids

Cable: up to 60 m Rod: up to 6 m

from thread G11/2 A, flange

-40 ... +150 °C -1 ... +40 bar (-100 ... +4000 kPa)

+/- 3 mm

VEGAFLEX 63

Liquids

Cable: up to 32 m Rod: up to 4 m

Flansch from DN 50 Tri-Clamp from 1"

-40 ... +150 °C

-0.5 ... +16 bar (-50 ... +1600 kPa)

+/- 3 mm



VEGAFLEX 65

Liquids

up to 6 m

from thread G3/4 A, flange

-40 ... +150 °C -1 ... +40 bar (-100 ... +4000 kPa)

Accuracy +/- 2 mm



VEGAFLEX 66

Liquids, light-weight bulk solids

Cable: up to 32 m Rod, coax: up to 6 m

from thread G3/4 A, flange

-200 ... +400 °C -1 ... +400 bar (-100 ... +40000 kPa)

from +/- 3 mm



VEGAFLEX 67

Interface measurement

Cable: up to 32 m Rod, coax: up to 6 m

from thread G3/4 A, flange

-200 ... +400 °C

-1 ... +400 bar (-100 ... +40000 kPa)

+/- 10 mm



SPEED

TDR sensor for continuous level measurement

Application area

VEGAFLEX 61 is a level sensor for continuous level measurement. It is suitable for liquids and light bulk solids in practically all areas of industry. Typical applications are measurements of liquids in storage vessels or bypass tubes. The sensor can be also used in smaller bulk solid silos. All instruments are preset to the ordered probe length.

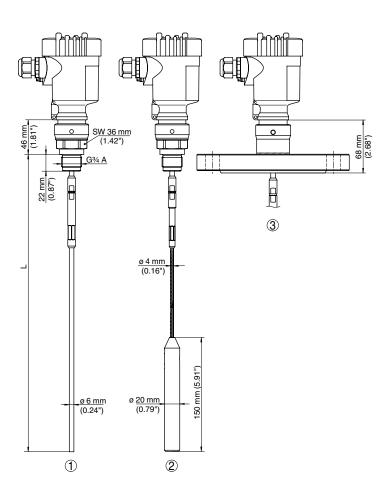
Advantages

Simple setup without adjustment
Unaffected by product properties
Insensitive against dust, vapour, buildup and condensation
Wear and maintenance-free
High measuring accuracy
SIL qualified

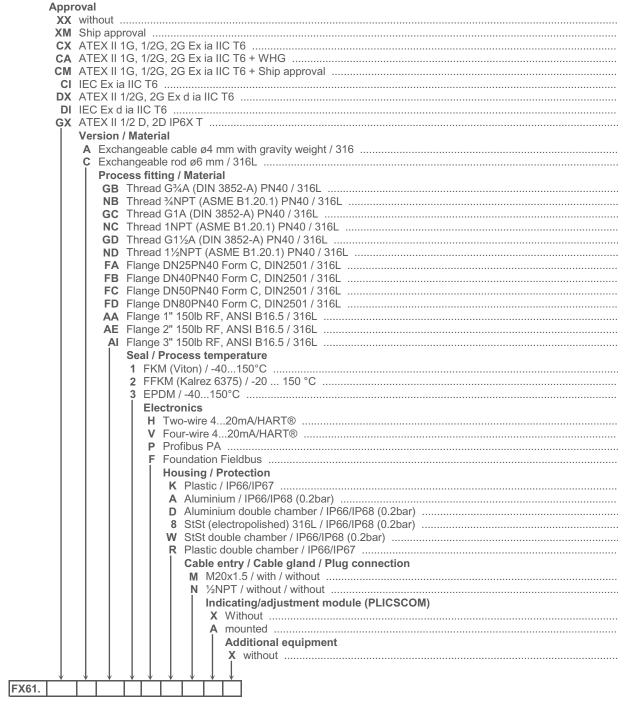
Function

High frequency microwave pulses are coupled onto a cable or rod and guided along the probe. The pulses are reflected by the product surface. The time from emission to reception of the signals is proportional to the level in the vessel.





- 1 Rod version
- 2 Cable version
- 3 Flange version



Cable ø4 mm/316 (1000-32000 mm) per 100 mm Rod ø6 mm/316L (300-4000 mm) per 100 mm



SPEED

TDR sensor for continuous level measurement

Application area

VEGAFLEX 62 is a level sensor for continuous level measurement. It is suitable for liquids and heavy bulk solids in practically all areas of industry. Typical applications are measurements of bulk solids in average-size to high silos. The sensor can be also used in liquids in storage vessels and bypass tubes.

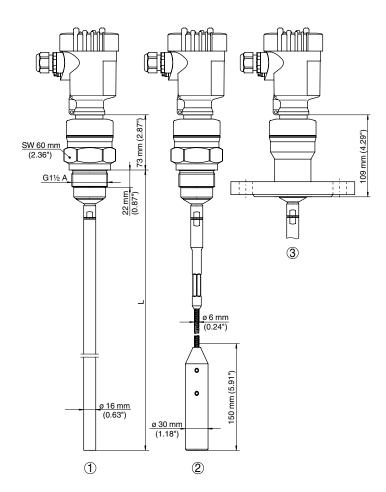
Advantages

Simple setup without adjustment
Unaffected by product properties
Insensitive against dust, vapour, buildup and condensation
Wear and maintenance-free
High measuring accuracy
SIL qualified

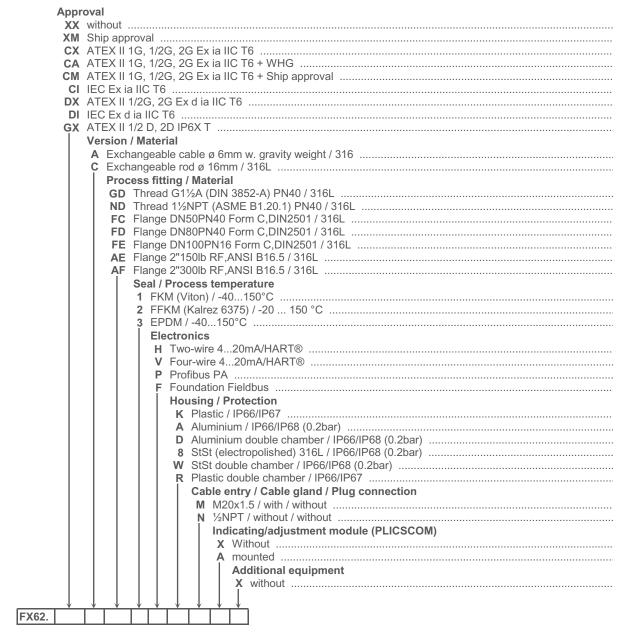
Function

High frequency microwave pulses are coupled onto a cable or rod and guided along the probe. The pulses are reflected by the product surface. The time from emission to reception of the signals is proportional to the level in the vessel.





- 1 Rod version
- 2 Cable version
- 3 Flange version



Cable ø6 mm/316 (1000-60000 mm) per 100 mm Rod ø16 mm/316L (300-6000 mm) per 100 mm



SPEED

TDR sensor for continuous level measurement

Application area

VEGAFLEX 63 is a level sensor for continuous level measurement. It is suitable for liquids in practically all areas of industry. Typical applications are measurements of aggressive and corrosive liquids as well as applications in the food processing/pharmaceutical industry. All instruments are preset to the ordered probe length.

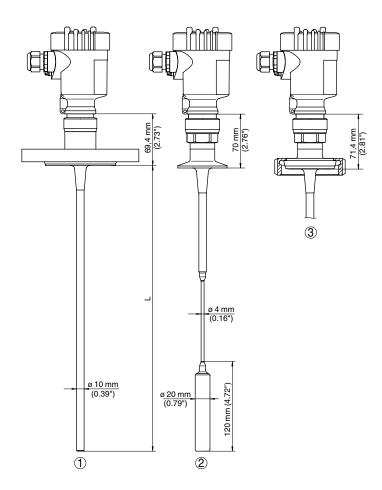
Advantages

Simple setup without adjustment
Unaffected by product properties
Insensitive against dust, vapour, buildup and condensation
Good cleanability and maximum chemical resistance
High measuring accuracy
SIL qualified

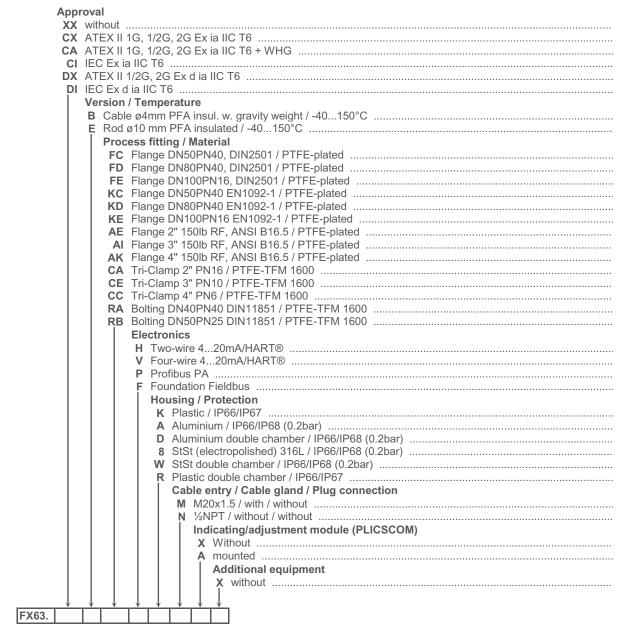
Function

High frequency microwave pulses are coupled onto a cable or rod and guided along the probe. The pulses are reflected by the product surface. The time from emission to reception of the signals is proportional to the level in the vessel.





- 1 Rod version with flange connection
- 2 Cable version with Tri-Clamp
- 3 Bolting



Cable ø4 mm/PFA insulated (1000-32000 mm) per 100 mm Rod ø10 mm/PFA insulated (300-4000 mm) per 100 mm



SPEED

TDR sensor for continuous level measurement

Application area

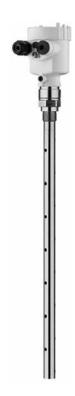
VEGAFLEX 65 is a coaxial level sensor for continuous level measurement of low viscosity liquids. Typical applications are measurements of solvents and fuels. All instruments are preset to the ordered probe length.

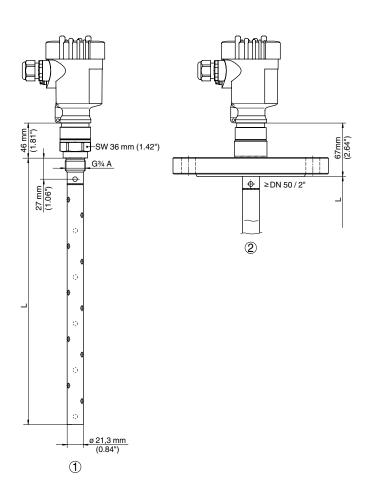
Advantages

Simple setup without adjustment Unaffected by product properties Insensitive against vapour and condensation Independent of socket lengths and lateral installations High measuring accuracy SIL qualified

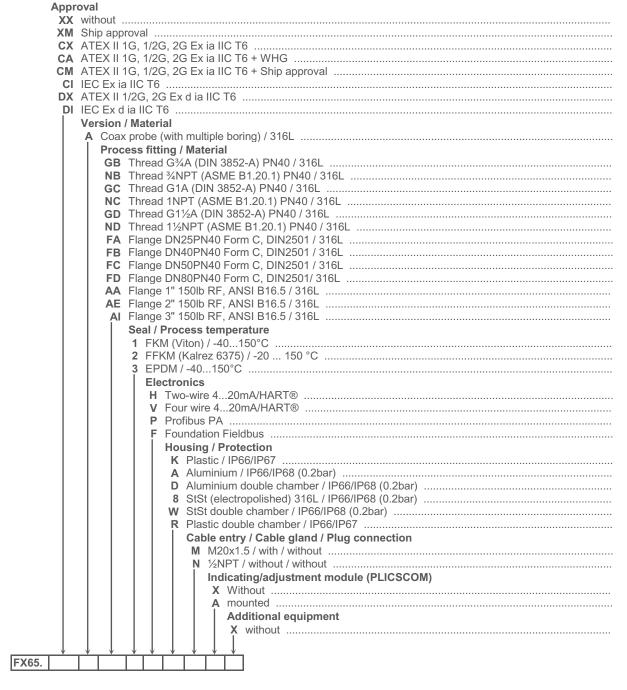
Function

High frequency microwave pulses are coupled onto the internal rod of the coax system and guided along the probe. The pulses are reflected by the product surface. The time from emission to reception of the signal is proportional to the level in the vessel.





- 1 Threaded version
- 2 Flange version



Coax/316L (300-6000 mm) per 100 mm





TDR sensor for continuous level measurement

Application area

VEGAFLEX 66 is a level sensor in coax, rod or cable version for continuous level measurement in applications with high pressures and temperatures. It is designed for industrial use in all areas of process technology. All instruments are preset to the ordered probe length.

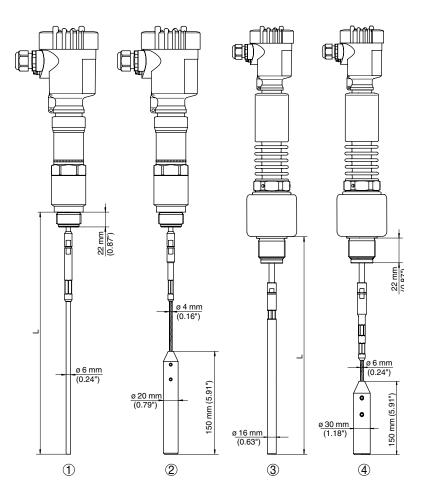
Advantages

Simple setup without adjustment
Unaffected by product properties
Insensitive against dust, vapour, buildup and condensation
Wear and maintenance-free
High measuring accuracy
SIL qualified

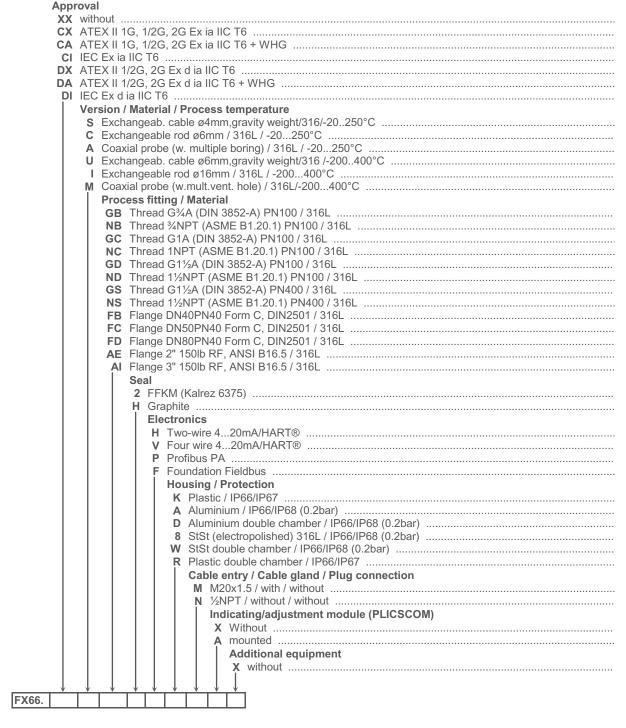
Function

High frequency microwave pulses are coupled onto a cable or rod and guided along the probe. The pulses are reflected by the product surface. The time from emission to reception of the signals is proportional to the level in the vessel.





1 Version – -20 ... +250 °C – rod 2 Version – -20 ... +250 °C – cable 3 Version – -200 ... +400 °C – rod 4 Version – -200 ... +400 °C – cable



Cable ø4 mm/316 (1000-32000 mm) per 100 mm Cable ø6 mm/316 (1000-32000 mm) per 100 mm Rod ø6 mm/316L (300-4000 mm) per 100 mm Rod ø16 mm/316L (300-4000 mm) per 100 mm Coax -20...250°C/316L (300-6000 mm) per 100 mm Coax -200...400°C/316L (300-6000 mm) per 100 mm



SPEED

TDR sensor for continuous interface measurement

Application area

The VEGAFLEX 67 is a level sensor with rod or cable probe for continuous interface measurement in precipitators and separators.

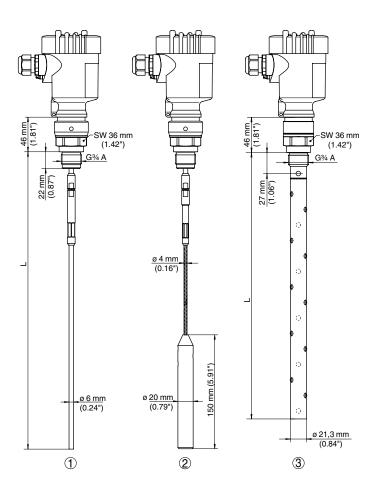
Advantages

Simple setup without adjustment Unaffected by product density Insensitive against vapour and condensation Wear and maintenance-free

Function

High frequency microwave pulses are coupled onto a cable or rod and guided along the probe. When reaching the product surface, a part of the microwave pulses is reflected. The other part passes through the upper product and is reflected a second time by the interface. The running times to the two product layers are evaluated by the instrument.





- 1 Rod version
- 2 Cable version
- 3 Coax version



Approval

Rod ø6 mm/316L (500-4000 mm) per 100 mm Cable ø4 mm/316 (1000-32000 mm) per 100 mm Coax/316L (300-6000 mm) per 100 mm

