

Capacitive

Continuous level measurement



Overview

VEGACAL series 60

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VEGACAL

Level measurement in bulk solids and liquids

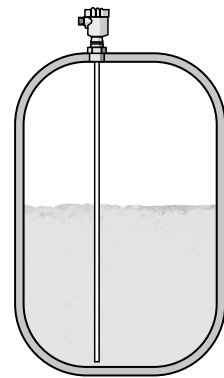
Measuring principle

Sensor and vessel form the two electrodes of a capacitor. A capacitance change caused by a level change is processed by the integrated electronics and converted into a respective output signal. The level measurement is carried out over the complete sensor length without a dead zone. Due to the availability of robust cable and rod versions, suitable instruments are available for all applications. The shortenable, partly insulated cable and rod versions offer also the advantage of an individual adaptation to all local conditions.

Applications

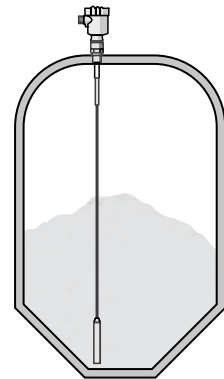
Level in liquids

Mainly fully insulated instrument versions are used in liquids. Hence measurements of corrosive liquids or very adhesive products are no problem. The simple mounting and the robust construction of the instruments is the basis for a long interference and maintenance-free operation.










Level in bulk solids

Partly insulated versions are preferably used in bulk solids. Also here, we have the proven, rugged configuration as basis for the wide-range and reliable use, e.g. in the aggregates and mining industry.



Overview

Instrument type		Version Measuring range	Process fitting	Process temperature	Process pressure
VEGACAL 62 Bulk solids, non-conductive liquids		Partly insulated rod, up to 6 m	Thread from G $\frac{1}{2}$, $\frac{1}{2}$ NPT, flanges from DN 25, 1"	-50 ... +200 °C	-1 ... +64 bar (-100 ... +6400 kPa)
VEGACAL 63 Conductive liquids		Fully insulated rod, up to 6 m	Thread from G $\frac{1}{2}$, $\frac{1}{2}$ NPT, flanges from DN 25, 1"	-50 ... +200 °C	-1 ... +64 bar (-100 ... +6400 kPa)
VEGACAL 64 Adhesive, conductive liquids		Fully insulated rod, up to 4 m	Thread from G $\frac{3}{4}$, $\frac{3}{4}$ NPT, flanges from DN 25, 1"	-50 ... +150 °C	-1 ... +64 bar (-100 ... +6400 kPa)
VEGACAL 65 Bulk solids, non-conductive liquids		Partly insulated cable, up to 32 m	Thread from G1, 1 NPT, flanges from DN 50, 2"	-50 ... +200 °C	-1 ... +64 bar (-100 ... +6400 kPa)
VEGACAL 66 Conductive liquids, bulk solids		Fully insulated cable, up to 32 m	Thread from G1, 1 NPT, flanges from DN 50, 2"	-50 ... +150 °C	-1 ... +40 bar (-100 ... +4000 kPa)
VEGACAL 67 Bulk solids with high process temperatures		Rod or cable, up to 6 m or up to 32 m	Thread from G1 $\frac{1}{2}$, 1 $\frac{1}{2}$ NPT, flanges from DN 50, 2"	-50 ... +400 °C	-1 ... +16 bar (-100 ... +1600 kPa)
VEGACAL 69 Aggressive liquids		Double rod, up to 4 m	Flanges from DN 50, 2"	-50 ... +100 °C	-1 ... +2 bar (-100 ... +200 kPa)

VEGACAL 62



Capacitive rod electrode for continuous level measurement

Application area

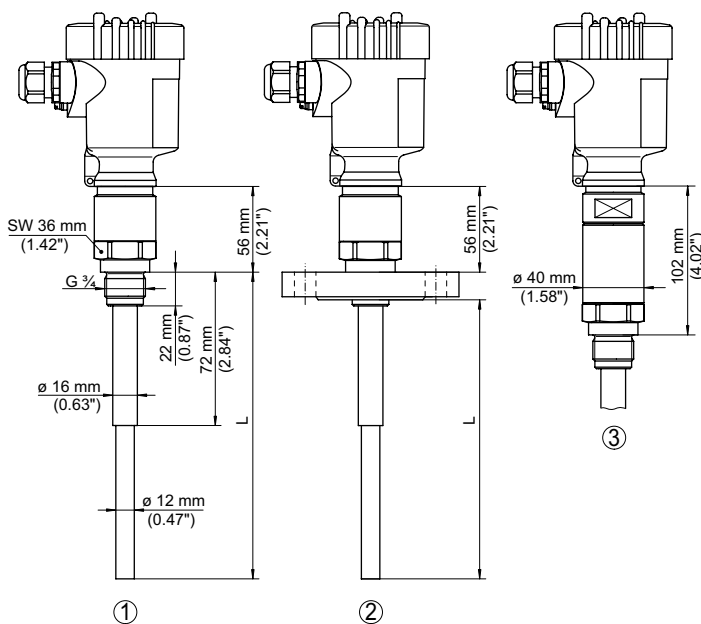
The VEGACAL 62 is a level sensor for continuous level measurement in all areas of industry. The partly insulated probe is designed for the measurement of bulk solids and can also be used in non-conductive liquids such as e.g. oil. The proven mechanical construction ensures high functional safety.

Your benefit

- Long lifetime and low maintenance requirement through robust mechanical construction
- High flexibility through shortenable probe
- Maximum use of the vessel, because measurement over the complete probe length

Technical data

Version:	partly insulated rod
Measuring range:	up to 6 m
Process fitting:	thread from G $\frac{1}{2}$, $\frac{1}{2}$ NPT flanges from DN 25, 1"
Materials:	steel, 316L, PTFE
Process temperature:	-50 ... +200 °C
Process pressure:	-1 ... +64 bar (-100 ... +6400 kPa)
SIL qualification:	optionally up to SIL2



- 1 Threaded version
- 2 Flange version
- 3 Threaded version with temperature adapter +200 °C

You will find further process fittings and options under www.vega.com/configurator.

You will find further drawings and tables under www.vega.com/downloads.

You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

Approval

- XX without
- XM Ship approval
- CX ATEX II 1G, 1/2G, 2G Ex ia IIC T6...T1 Ga, Ga/Gb, Gb
- CA ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + WHG
- CM ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + Ship approval
- CK ATEX II 1G,1/2G,2G Ex ia IIC T6 + 1/2D,2D Ex tD IP66 T*
- CI IEC Ex ia IIC T6 Ga, Ga/Gb, Gb
- DX ATEX II 1/2G, 2G Ex d ia IIC T6
- DI IECEx Ex d ia IIC T6
- GX ATEX II 1/2D, 2D Ex tD IP66 T
- GI IEC Ex tD A20/21, A21 IP66 T*

Version / Process temperature

- E Standard / -20 ... +150°C, steel C22.8 (1.0460)
- A Standard / -50 ... +150°C
- B Standard / -50 ... +200°C
- C with screening tube PN1; 316L / -50 ... +150°C
- D with screening tube PN1; 316L / -50 ... +200°C

Process fitting / Material

- GA Thread G $\frac{3}{4}$ PN64, DIN3852-A / 316L
- NA Thread $\frac{3}{4}$ NPT PN64, ASME B1.20.1 / 316L
- GC Thread G1 PN64, DIN3852-A / 316L
- NC Thread 1NPT PN64, ASME B1.20.1 / 316L
- GD Thread G1 $\frac{1}{2}$ PN64, DIN3852-A / 316L
- GS Thread G1 $\frac{1}{2}$ PN64, DIN3852-A / Steel C22.8 (1.0460)
- ND Thread 1 $\frac{1}{2}$ NPT PN64, ASME B1.20.1 / 316L
- EF Flange DN50 PN40 Form C, DIN2501 / 316L
- KF Flange DN80 PN40 Form C, DIN2501 / 316L
- MF Flange DN100 PN16 Form C, DIN2501 / 316L
- HA Flange 2" 150lb RF, ASME B16.5 / 316L
- OA Flange 3" 150lb RF, ASME B16.5 / 316L
- SA Flange 4" 150lb RF, ASME B16.5 / 316L
- WB Flange 8" 150lb RF, ASME B16.5 / 316L

Electronics

- H Two-wire 4...20mA/HART®
- X for connection to a signal conditioning instrument
- P Two-wire Profibus PA
- F Two-wire Foundation Fieldbus

Housing / Protection

- K Plastic single chamber / IP66/IP67
- A Aluminium single chamber / IP66/IP68 (0.2 bar)
- D Aluminium double chamber / IP66/IP68 (0.2 bar)
- 8 Stainless steel (electropolished)/ IP66/IP68 (0.2 bar)
- W StSt double chamber / IP66/IP68 (0.2bar)
- R Plastic double chamber / IP66/IP67

Cable entry / Cable gland / Plug connection

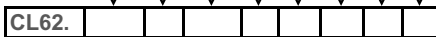
- M M20x1.5 / with / without
- N $\frac{1}{2}$ NPT / without / without

Display/adjustment module (PLICSCOM)

- X Without
- A Mounted

Additional equipment

- X Without



Length (from seal surface)

316L (100-6000 mm) per 100 mm

Length screening tube

316L (50-5960 mm) per 100 mm

Insulation length

PTFE insulated (50-5990 mm) per 100 mm

VEGACAL 63



Capacitive rod electrode for continuous level measurement

Application area

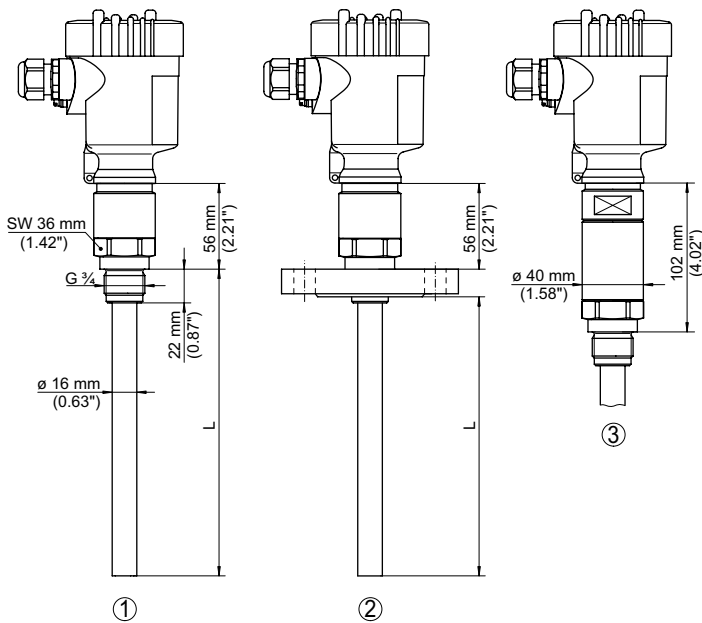
The VEGACAL 63 level sensor can be used universally for the measurement of conductive liquids. The rod electrode is fully insulated and the proven construction ensures high functional safety.

Your benefit

- Long lifetime and low maintenance requirement through robust mechanical construction
- Savings through simple mounting and setup
- Maximum use of the vessel, because measurement over the complete probe length

Technical data

Version:	fully insulated rod
Measuring range:	up to 6 m
Process fitting:	thread from G $\frac{1}{2}$, $\frac{1}{2}$ NPT flanges from DN 25, 1"
Materials:	316L, PE, PTFE
Process temperature:	-50 ... +200 °C
Process pressure:	-1 ... +64 bar (-100 ... +6400 kPa)
SIL qualification:	optionally up to SIL2



- 1 Threaded version
- 2 Flange version
- 3 Threaded version with temperature adapter +200 °C

You will find further process fittings and options under www.vega.com/configurator.

You will find further drawings and tables under www.vega.com/downloads.

You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

Approval

- XX** without
- XM** Ship approval
- CX** ATEX II 1G, 1/2G, 2G Ex ia IIC T6...T1 Ga, Ga/Gb, Gb
- CA** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + WHG
- CM** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + Ship approval
- CK** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + 1/2D, 2D Ex tD IP66 T*
- CI** IEC Ex ia IIC T6 Ga, Ga/Gb, Gb
- DX** ATEX II 1/2G, 2G Ex d ia IIC T6
- DI** IECEx Ex d ia IIC T6
- GX** ATEX II 1/2D, 2D Ex tD IP66 T
- GI** IEC Ex tD A20/21, A21 IP66 T*

Version / Process temperature

- E** PE isolation / -40...+80°C
- F** PTFE isolation / -50...+150°C
- G** PTFE isolation / -50...+200°C
- H** PE isolation and concentric tube 316L / -40...+80°C
- I** PTFE isolation and concentric tube(316L)/ -50...+150°C
- J** PTFE isolation and concentric tube (316L)/ -50...+200°C

Process fitting / Material

- GA** Thread G $\frac{3}{4}$ PN64, DIN3852-A / 316L
- NA** Thread $\frac{3}{4}$ NPT PN64, ASME B1.20.1 / 316L
- NI** Thread $\frac{3}{4}$ NPT PN64, ASME B1.20.1 / Alloy C22 (2.4602)
- GC** Thread G1 PN64, DIN3852-A / 316L
- NC** Thread 1NPT PN64, ASME B1.20.1 / 316L
- GD** Thread G1 $\frac{1}{2}$ PN64, DIN3852-A / 316L
- GS** Thread G1 $\frac{1}{2}$ PN64, DIN3852-A / Steel C22.8 (1.0460)
- ND** Thread 1 $\frac{1}{2}$ NPT PN64, ASME B1.20.1 / 316L
- EF** Flange DN50 PN40 Form C, DIN2501 / 316L
- KF** Flange DN80 PN40 Form C, DIN2501 / 316L
- MF** Flange DN100 PN16 Form C, DIN2501 / 316L
- HA** Flange 2" 150lb RF, ASME B16.5 / 316L
- OA** Flange 3" 150lb RF, ASME B16.5 / 316L
- SA** Flange 4" 150lb RF, ASME B16.5 / 316L

Electronics

- H** Two-wire 4...20mA/HART®
- X** for connection to a signal conditioning instrument
- P** Two-wire Profibus PA
- F** Two-wire Foundation Fieldbus

Housing / Protection

- K** Plastic single chamber / IP66/IP67
- A** Aluminium single chamber / IP66/IP68 (0.2 bar)
- D** Aluminium double chamber / IP66/IP68 (0.2 bar)
- 8** Stainless steel (electropolished)/ IP66/IP68 (0.2 bar)
- W** StSt double chamber / IP66/IP68 (0.2bar)
- R** Plastic double chamber / IP66/IP67

Cable entry / Cable gland / Plug connection

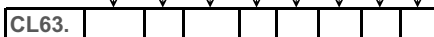
- M** M20x1.5 / with / without
- N** $\frac{1}{2}$ NPT / without / without

Display/adjustment module (PLICSCOM)

- X** Without
- A** Mounted

Additional equipment

- X** Without



Length (from seal surface)

- 316L/PE fully insulated (100-6000 mm) per 100 mm
- 316L/PTFE fully insulated (100-6000 mm) per 100 mm

Length concentric tube / screening tube

- 316L (100-6000 mm) per 100 mm

VEGACAL 64



Capacitive rod electrode for continuous level measurement of adhesive products

Application area

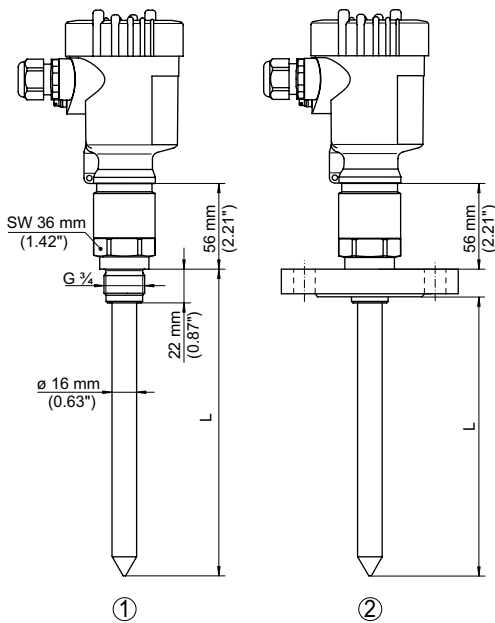
The VEGACAL 64 is a level sensor for conductive liquids. The rod electrode is fully insulated and is particularly suitable for viscous and adhesive products.

Your benefit

- Reduced number of cleaning cycles through measurement insensitive to buildup
- Maximum use of the vessel, because measurement over the complete probe length
- Long lifetime and low maintenance requirement through robust mechanical construction

Technical data

Version:	fully insulated rod
Measuring range:	up to 4 m
Process fitting:	thread from G $\frac{3}{4}$, $\frac{3}{4}$ NPT flanges from DN 25, 1"
Materials:	316L, FEP
Process temperature:	-50 ... +150 °C
Process pressure:	-1 ... +64 bar (-100 ... +6400 kPa)
SIL qualification:	optionally up to SIL2



- 1 Threaded version
- 2 Flange version

You will find further process fittings and options under www.vega.com/configurator.
 You will find further drawings and tables under www.vega.com/downloads.
 You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

Approval

- XX without
- XM Ship approval
- CX ATEX II 1G, 1/2G, 2G Ex ia IIC T6...T1 Ga, Ga/Gb, Gb
- CA ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + WHG
- CM ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + Ship approval
- CK ATEX II 1G,1/2G,2G Ex ia IIC T6 + 1/2D,2D Ex tD IP66 T*
- CI IEC Ex ia IIC T6 Ga, Ga/Gb, Gb
- DX ATEX II 1/2G, 2G Ex d ia IIC T6
- DI IECEx Ex d ia IIC T6
- GX ATEX II 1/2D, 2D Ex tD IP66 T
- GI IEC Ex tD A20/21, A21 IP66 T*

Version / Process temperature

- R FEP insulation / -50...+150°C

Process fitting / Material

- GA Thread G $\frac{3}{4}$ PN64, DIN3852-A / 316L
- NA Thread $\frac{3}{4}$ NPT PN64, ASME B1.20.1 / 316L
- GC Thread G1 PN64, DIN3852-A / 316L
- NC Thread 1NPT PN64, ASME B1.20.1 / 316L
- GD Thread G1 $\frac{1}{2}$ PN64, DIN3852-A / 316L
- GS Thread G1 $\frac{1}{2}$ PN64, DIN3852-A / Steel C22.8 (1.0460)
- ND Thread 1 $\frac{1}{2}$ NPT PN64, ASME B1.20.1 / 316L
- EF Flange DN50 PN40 Form C, DIN2501 / 316L
- KF Flange DN80 PN40 Form C, DIN2501 / 316L
- MF Flange DN100 PN16 Form C, DIN2501 / 316L
- HA Flange 2" 150lb RF, ASME B16.5 / 316L
- OA Flange 3" 150lb RF, ASME B16.5 / 316L
- SA Flange 4" 150lb RF, ASME B16.5 / 316L

Electronics

- H Two-wire 4...20mA/HART®
- X for connection to a signal conditioning instrument
- P Two-wire Profibus PA
- F Two-wire Foundation Fieldbus

Housing / Protection

- K Plastic single chamber / IP66/IP67
- A Aluminium single chamber / IP66/IP68 (0.2 bar)
- D Aluminium double chamber / IP66/IP68 (0.2 bar)
- 8 StSt 1-chamber (electropolished) / IP66/IP68 (0.2 bar)
- W StSt double chamber / IP66/IP68 (0.2bar)
- R Plastic 2-chamber / IP66/IP67

Cable entry / Cable gland / Plug connection

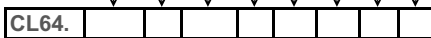
- M M20x1.5 / with / without
- N $\frac{1}{2}$ NPT / without / without

Display/adjustment module (PLICSCOM)

- X Without
- A Mounted

Additional equipment

- X Without



Length (from seal surface)

316L/FEP fully insulated (200-4000 mm) per 100 mm

VEGACAL 65



Capacitive cable electrode for continuous level measurement

Application area

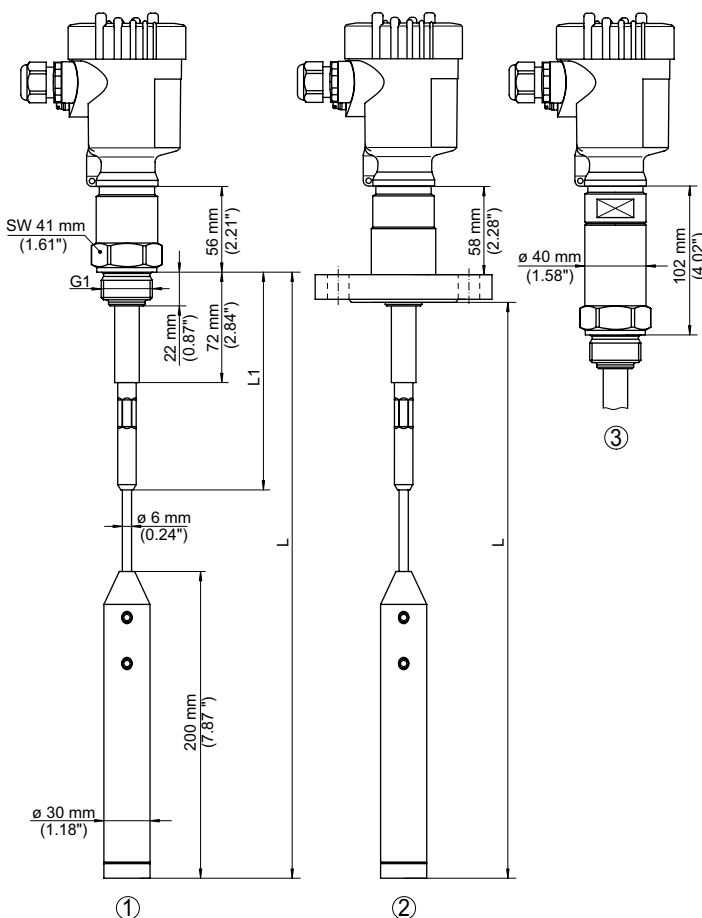
The VEGACAL 65 is a level sensor for use in all industries. The partly insulated probe is ideal for the measurement of bulk solids and can be also used in non-conductive liquids such as for example oil. The proven construction ensures a high functional safety.

Your benefit

- Long lifetime and low maintenance requirement through robust mechanical construction
- High flexibility through shortenable probe
- Maximum use of the vessel, because measurement over the complete probe length

Technical data

Version:	partly insulated cable
Measuring range:	up to 32 m
Process fitting:	thread from G1, 1 NPT flanges from DN 50, 2"
Materials:	steel, 316L, PTFE, PE
Process temperature:	-50 ... +200 °C
Process pressure:	-1 ... +64 bar (-100 ... +6400 kPa)
SIL qualification:	optionally up to SIL2



- 1 Threaded version
- 2 Flange version
- 3 Threaded version with temperature adapter +200 °C

L1 from 142 mm

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 You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

Approval

- XX** without
- XM** Ship approval
- CX** ATEX II 1G, 1/2G, 2G Ex ia IIC T6...T1 Ga, Ga/Gb, Gb
- CA** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + WHG
- CM** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + Ship approval
- CK** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + 1/2D, 2D Ex tD IP66 T*
- CI** IEC Ex ia IIC T6 Ga, Ga/Gb, Gb
- DX** ATEX II 1/2G, 2G Ex d ia IIC T6
- DI** IECEx Ex d ia IIC T6
- GX** ATEX II 1/2D, 2D Ex tD IP66 T
- GI** IEC Ex tD A20/21, A21 IP66 T*

Version / Process temperature

- K** Cable (ø6mm), 316 with gravity weight / -50...+150°C
- U** Cable (ø6mm) w.scr.tube a.gravity weight / -50...+150°C
- L** Cable (ø6mm), 316 with gravity weight / -50...+200°C
- V** Cable (ø6mm) w.scr.tube a.gravity weight / -50...+200°C

Process fitting / Material

- GC** Thread G1 PN64, DIN3852-A / 316L
- NC** Thread 1NPT PN64, ASME B1.20.1 / 316L
- GD** Thread G1½ PN64, DIN3852-A / 316L
- GS** Thread G1½ PN64, DIN3852-A / Steel C22.8 (1.0460)
- ND** Thread 1½NPT PN64, ASME B1.20.1 / 316L
- EF** Flange DN50 PN40 Form C, DIN2501 / 316L
- KF** Flange DN80 PN40 Form C, DIN2501 / 316L
- MF** Flange DN100 PN16 Form C, DIN2501 / 316L
- HA** Flange 2" 150lb RF, ASME B16.5 / 316L
- OA** Flange 3" 150lb RF, ASME B16.5 / 316L
- SA** Flange 4" 150lb RF, ASME B16.5 / 316L

Electronics

- H** Two-wire 4...20mA/HART®
- X** for connection to a signal conditioning instrument
- P** Two-wire Profibus PA
- F** Two-wire Foundation Fieldbus

Housing / Protection

- K** Plastic single chamber / IP66/IP67
- A** Aluminium single chamber / IP66/IP68 (0.2 bar)
- D** Aluminium double chamber / IP66/IP68 (0.2 bar)
- 8** StSt 1-chamber (electropolished) / IP66/IP68 (0.2 bar)
- W** StSt double chamber / IP66/IP68 (0.2bar)
- R** Plastic 2-chamber / IP66/IP67

Cable entry / Cable gland / Plug connection

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

Display/adjustment module (PLICSCOM)

- X** Without
- A** Mounted

Additional equipment

- X** Without



Length (from seal surface)

316 (400-32000 mm) per 100 mm

Length screening tube

316L (70-4000 mm) per 100 mm

Insulation length

PTFE (50-1000 mm) per 100 mm

VEGACAL 66



Capacitive cable electrode for continuous level measurement

Application area

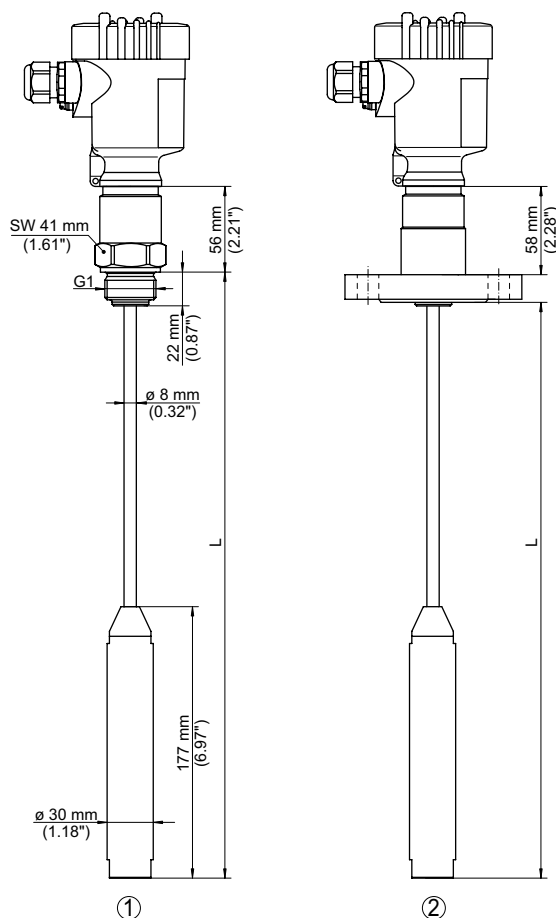
The VEGACAL 66 is a level sensor for use in conductive liquids and bulk solids. The cable probe is fully insulated. The proven construction ensures a high functional safety.

Your benefit

- Long lifetime and low maintenance requirement through robust mechanical construction
- Savings through simple mounting and setup
- Maximum use of the vessel, because measurement over the complete probe length

Technical data

Version:	fully insulated cable
Measuring range:	up to 32 m
Process fitting:	thread from G1, 1 NPT flanges from DN 50, 2"
Materials:	316L, PTFE
Process temperature:	-50 ... +150 °C
Process pressure:	-1 ... +40 bar (-100 ... +4000 kPa)
SIL qualification:	optionally up to SIL2



- 1 Threaded version
- 2 Flange version

You will find further process fittings and options under www.vega.com/configurator.
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Approval

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- XM Ship approval
- CX ATEX II 1G, 1/2G, 2G Ex ia IIC T6...T1 Ga, Ga/Gb, Gb
- CA ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + WHG
- CM ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + Ship approval
- CK ATEX II 1G,1/2G,2G Ex ia IIC T6 + 1/2D,2D Ex tD IP66 T*
- CI IEC Ex ia IIC T6 Ga, Ga/Gb, Gb
- DX ATEX II 1/2G, 2G Ex d ia IIC T6
- DI IECEx Ex d ia IIC T6
- GX ATEX II 1/2D, 2D Ex tD IP66 T
- GI IEC Ex tD A20/21, A21 IP66 T*

Version / Process temperature

- N PTFE insulated cable(ø8mm)w. gravity weight/-50...150°C

Process fitting / Material

- GC Thread G1 PN40, DIN3852-A / 316L
- NC Thread 1NPT PN40, ASME B1.20.1 / 316L
- GD Thread G1½ PN40, DIN3852-A / 316L
- GS Thread G1½ PN40, DIN 3852-A / Steel C22.8 (1.0460)
- ND Thread 1½NPT PN40, ASME B1.20.1 / 316L
- EF Flange DN50 PN40 Form C, DIN2501 / 316L
- KF Flange DN80 PN40 Form C, DIN2501 / 316L
- MF Flange DN100 PN16 Form C, DIN2501 / 316L
- HA Flange 2" 150lb RF, ASME B16.5 / 316L
- OA Flange 3" 150lb RF, ASME B16.5 / 316L
- SA Flange 4" 150lb RF, ASME B16.5 / 316L

Electronics

- H Two-wire 4...20mA/HART®
- X for connection to a signal conditioning instrument
- P Two-wire Profibus PA
- F Two-wire Foundation Fieldbus

Housing / Protection

- K Plastic single chamber / IP66/IP67
- A Aluminium single chamber / IP66/IP68 (0.2 bar)
- D Aluminium double chamber / IP66/IP68 (0.2 bar)
- 8 StSt 1-chamber (electropolished) / IP66/IP68 (0.2 bar)
- W StSt double chamber / IP66/IP68 (0.2bar)
- R Plastic 2-chamber / IP66/IP67

Cable entry / Cable gland / Plug connection

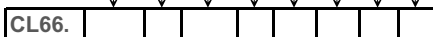
- M M20x1.5 / with / without
- N ½NPT / without / without

Display/adjustment module (PLICSCOM)

- X Without
- A Mounted

Additional equipment

- X Without



Length (from seal surface)

316/PTFE insulated (400-32000 mm) per 100 mm

VEGACAL 67



Capacitive high temperature electrode for level measurement of bulk solids

Application area

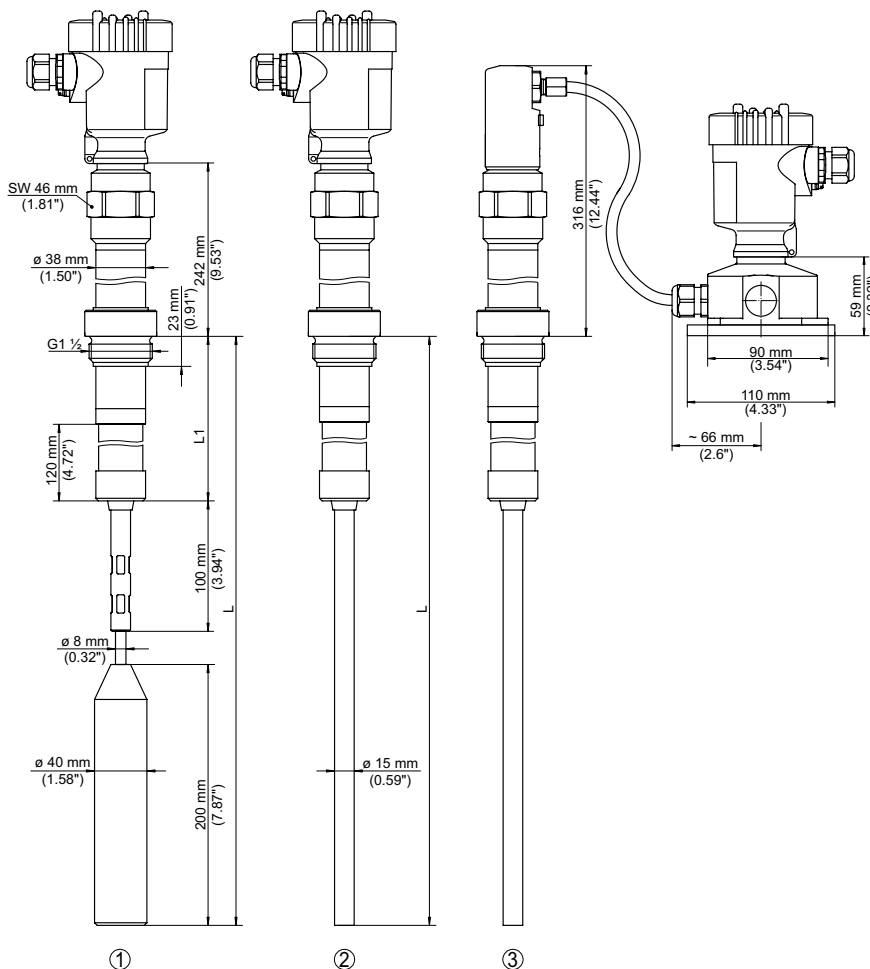
The VEGACAL 67 is a level sensor for continuous level measurement of bulk solids at high temperatures.

Your benefit

- Precise measuring results in virtually all bulk solids and high temperature ranges
- Long service life and low maintenance due to robust mechanical construction
- High flexibility through shortenable probe

Technical data

Version:	rod or cable
Measuring range:	up to 6 m or 32 m
Process fitting:	thread from G1½, 1½ NPT flanges from DN 50, 2"
Materials:	steel, 316L, PTFE, ceramic
Process temperature:	-50 ... +400 °C
Process pressure:	-1 ... +16 bar (-100 ... +1600 kPa)



- 1 Cable version +300 °C
- 2 Rod version +300 °C
- 3 Rod version with external housing +400 °C

L = Probe length
L1 = Supporting tube

You will find further process fittings and options under www.vega.com/configurator.
You will find further drawings and tables under www.vega.com/downloads.
You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

Approval

XX without

Version / Process temperature

- 1 Ceramic-insulated rod probe / -50...+300°C
- 3 Ceramic-insulated rod probe / -50...+400°C
- 2 Ceramic-insulated cable probe / -50...+300°C
- 4 Ceramic-insulated cable probe / -50...+400°C
- 5 Ceramic-insul.cable probe w.crimping sleeve/-50...300°C
- 7 Ceramic-insulated cable probe with crimping sleeve / -50...+400°C

Process fitting / Material

- GD Thread G1½ PN16, DIN 3852-A / 316L
- ND Thread 1½NPT PN16, ASME B1.20.1 / 316L
- EF Flange DN50 PN40 Form C, DIN2501 / 316L
- KF Flange DN80 PN40 Form C, DIN2501 / 316L
- MF Flange DN100 PN16 Form C, DIN2501 / 316L
- HA Flange 2" 150lb RF, ASME B16.5 / 316L
- OA Flange 3" 150lb RF, ASME B16.5 / 316L
- SA Flange 4" 150lb RF, ASME B16.5 / 316L

Electronics

- H Two-wire 4...20mA/HART®
- X for connection to a signal conditioning instrument
- P Two-wire Profibus PA
- F Two-wire Foundation Fieldbus

Housing / Protection

- K Plastic single chamber / IP66/IP67
- A Aluminium single chamber / IP66/IP68 (0.2 bar)
- D Aluminium double chamber / IP66/IP68 (0.2 bar)
- 8 Stainless steel single chamber (electropolished) / IP66/IP68 (0.2 bar)
- B Lateral cable outlet IP68,ext.plastic housing/IP66/IP67
- W StSt double chamber / IP66/IP68 (0.2bar)
- R Plastic 2-chamber / IP66/IP67

Cable entry / Cable gland / Plug connection

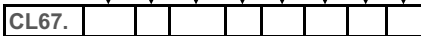
- M M20x1.5 / with / without
- N ½NPT / without / without

Display/adjustment module (PLICSCOM)

- X Without
- A Mounted

Additional equipment

- X Without



Length (from seal surface)

Rod/316L (275-6000 mm) per 100 mm
 Cable/316 (500-40000 mm) per 100 mm

VEGACAL 69



Capacitive double rod electrode for level measurement

Application area

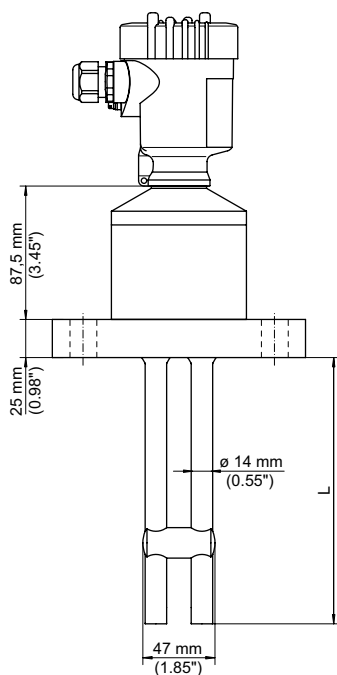
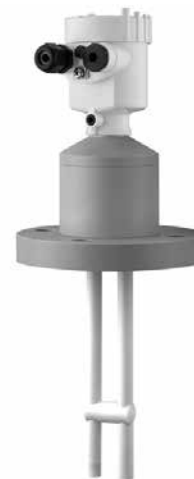
The VEGACAL 69 is a level sensor for continuous level measurement of liquids in non-conductive vessels or corrosive liquids. The double rod probe is fully insulated and highly resistant.

Your benefit

- Low mounting expenditure through compact double rod version
- Long service life and low maintenance due to high resistance materials
- Maximum utilization of the vessel because measurement over the complete probe length

Technical data

Version:	double rod
Measuring range:	up to 4 m
Process fitting:	flanges from DN 50, 2"
Materials:	PTFE, PP, FEP
Process temperature:	-50 ... +100 °C
Process pressure:	-1 ... +2 bar (-100 ... +200 kPa)
SIL qualification:	optionally up to SIL2



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You will find further drawings and tables under www.vega.com/downloads.

You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

Approval

- XX without
- CX ATEX II 1G, 1/2G, 2G Ex ia IIC T6...T1 Ga, Ga/Gb, Gb
- CI IEC Ex ia IIC T6 Ga, Ga/Gb, Gb
- DX ATEX II 1/2G, 2G Ex d ia IIC T6

Version / Process temperature

- 1 FEP isolation / 0...+60°C
- 2 FEP isolation / -40...+100°C

Process fitting / Material

- PA Flange DN50 PN16 / PP
- TA Flange DN50 PN16 / PTFE
- PC Flange DN80 PN16 / PP
- TC Flange DN80 PN16 / PTFE
- PD Flange DN100 PN16 / PP
- TD Flange DN100 PN16 / PTFE
- PE Flange DN125 PN16 / PP
- TE Flange DN125 PN16 / PTFE
- PK Flange 2" 150lb / PP
- TK Flange 2" 150lb / PTFE
- TN Flange 2½" 150lb / PTFE
- PL Flange 3" 150lb / PP
- TL Flange 3" 150lb / PTFE
- PM Flange 4" 150lb / PP
- TM Flange 4" 150lb / PTFE

Electronics

- H Two-wire 4...20mA/HART®
- X for connection to a signal conditioning instrument
- P Two-wire Profibus PA
- F Two-wire Foundation Fieldbus

Housing / Protection

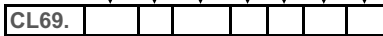
- K Plastic single chamber / IP66/IP67
- R Plastic 2-chamber / IP66/IP67

Cable entry / Cable gland / Plug connection

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

Display/adjustment module (PLICSCOM)

- X Without
- A Mounted



Length (from seal surface)

per 100 mm of FEP isolation (200-4000 mm)

