



Switching - Capacitive

Overview	104
VEGACAP 62 - 66	106
VEGACAP 98	111
Dimensions	112

VEGACAP series 60:

Level detection in solids and liquids

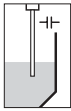
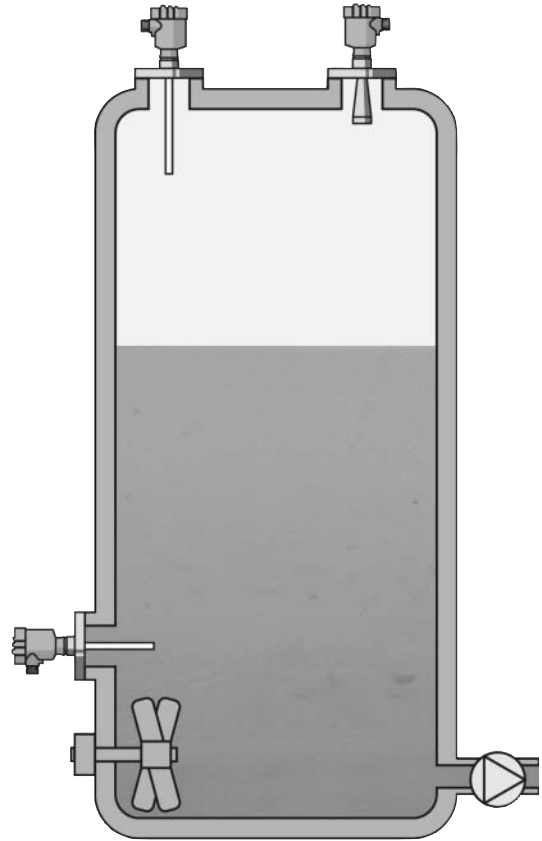
With the introduction of VEGACAP series 60, the proven capacitive measuring principle is now also part of the plics® family and completes the level switch program at VEGA.

To the measuring principle:

Sensor and vessel form the two electrodes of a capacitor. A capacitance change caused by a level change is evaluated by the integrated electronics and converted into an appropriate output signal.

The sensors are extremely rugged and maintenance-free and can be used in all industries. Whereby the fully insulated versions are mainly used in liquids, partly insulated versions are preferably used in solids. Also the measurement of aggressive and very adhesive products is no problem.

As the capacitive measuring principle sets no special requirements to the installation, a number of applications can be equipped with the new VEGACAP series 60 level switches.



Overview

VEGACAP 62



VEGACAP 63



VEGACAP 64



Applications:	solids, non-conductive liquids	conductive liquids	adhesive, conductive liquids
Version:	with partly insulated rod	with fully insulated rod	with fully insulated rod
Process fitting:	from G $\frac{3}{4}$ A	from G $\frac{3}{4}$ A	from G $\frac{3}{4}$ A
Process temperature:	-50...200°C	-50...200°C	-50...200°C
Process pressure:	-1...64 bar (-100...6400 KPa)	-1...64 bar (-100...6400 KPa)	-1...64 bar (-100...6400 KPa)
Replaces:	VEGACAP 11 EL 11, EL 18, EK 11	VEGACAP 21 EL 21, EK 21	VEGACAP 26, 27 EL 26, EK 24



VEGACAP 65



VEGACAP 66



Applications:	solids, non-conductive liquids	liquids, solids
Version:	with cable	with insulated cable
Process fitting:	from G1A	from G $\frac{3}{4}$ A
Process temperature:	-50...200°C	-50...200°C
Process pressure:	-1...64 bar (-100...6400 KPa)	-1...64 bar (-100...6400 KPa)
Replaces:	VEGACAP 31, 33, 34 EL 31, 33, 34	VEGACAP 52 EL 52, 53

VEGACAP 63

Fully insulated, capacitive rod electrode for level detection

For use in conductive liquids

- robust and maintenance-free
- easy installation and mounting
- insulation thickness 2 mm
- instrument from the plics® family



Approval

- XX** without
- XM** Ship approval
- XA** Overfill protection acc. to WHG¹⁾
- CX** ATEX II 1G, 1/2G, 2G EEx ia IIC T6²⁾
- CA** ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + WHG²⁾
- CM** ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + Ship approval²⁾

Version/Temperature range

- E** PE insulation/-40...80°C
- F** PTFE insulation/-50...150°C
- G** PTFE insulation/-50...200°C

Process connection/Material

- GS** Thread G1½A PN64/Steel
- GA** Thread G¾A PN64/316L
- GC** Thread G1A PN64/316L
- GD** Thread G1½ PN64/316L

Electronics

- C** Contactless electronic switch 20...253VAC/DC
- R** Relay (DPDT) 20...72VDC/20...253VAC(5A)
- T** Transistor (NPN/PNP) 10...55VDC
- Z** Two-wire for connection to VEGATOR

Housing/Protection

- K** Plastic/IP66/IP67
- A** Aluminium/IP66/IP67
- V** Stainless steel 316L/IP66/IP67

Cable entry/Plug connection

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

CP63.								
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¹⁾ Only in conjunction with electronics "C" "R" and "T"

²⁾ Only in conjunction with electronics "Z"

Length in mm (from seal surface)

- per 100 mm of 316L, PE fully insulated
- per 100 mm of 316L, PTFE fully insulated

Length: mm (min. 200 mm; max. 6000 mm)

- Further process fittings and options on request



VEGACAP 64

Fully insulated, capacitive rod electrode for level detection

For use in adhesive, conductive liquids

- robust and maintenance-free
- easy installation and mounting
- exact switching point even with very adhesive products
- instrument from the plics® family



Approval

- XX** without
- XM** Ship approval
- XA** Overfill protection acc. to WHG¹⁾
- CX** ATEX II 1G, 1/2G, 2G EEx ia IIC T6²⁾
- CA** ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + WHG²⁾
- CM** ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + Ship approval²⁾

Version/Temperature range

- F** PTFE insulation/-50...150°C
- G** PTFE insulation/-50...200°C

Process connection/Material

- GA** Thread G³/₄A PN64/316L
- GC** Thread G1A PN64/316L
- GD** Thread G1¹/₂ PN64/316L

Electronics

- C** Contactless electronic switch 20...253VAC/DC
- R** Relay (DPDT) 20...72VDC/20...253VAC(5A)
- T** Transistor (NPN/PNP) 10...55VDC
- Z** Two-wire for connection to VEGATOR

Housing/Protection

- K** Plastic/IP66/IP67
- A** Aluminium/IP66/IP67
- V** Stainless steel 316L/IP66/IP67

Cable entry/Plug connection

- M** M20x1.5/without
- N** 1/2NPT/without

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¹⁾ Only in conjunction with electronics "C" "R" and "T"

²⁾ Only in conjunction with electronics "Z"

Length in mm (from seal surface)

per 100 mm of 316L, PTFE fully insulated

Length: mm (min. 200 mm; max. 6000 mm)

- Further process fittings and options on request

VEGACAP 65

Capacitive cable electrode for level detection

For use in non-conductive liquids and solids

- robust and maintenance-free
- easy installation and mounting
- instrument from the plics® family



Approval

XX	without
XM	Ship approval
XA	Overfill protection acc. to WHG ¹⁾
CX	ATEX II 1G, 1/2G, 2G EEx ia IIC T6 ²⁾
CA	ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + WHG ²⁾
CM	ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + Ship approval ²⁾
CK	ATEX II 1G, 1/2G, 2G EEx ia IIC T6+ATEX II 1/2D, 2D IP6X T ³⁾
GX	ATEX II 1/2D, 2D IP6X T ⁴⁾



Version/Temperature range

K	Cable ø 6mm/316 w. gravity weight/-50...150°C
L	Cable ø 6mm/316 w. gravity weight/-50...200°C
M	PA insul.steel cable ø 12mm w.gravity weight/-50...80°C

Process connection/Material

GS	Thread G1½A PN64/Steel
GC	Thread G1A PN64/316L
GD	Thread G1½ PN64/316L

Electronics

C	Contactless electronic switch 20...253VAC/DC
R	Relay (DPDT) 20...72VDC/20...253VAC(5A)
T	Transistor (NPN/PNP) 10...55VDC
Z	Two-wire for connection to VEGATOR

Housing/Protection

K	Plastic/IP66/IP67
A	Aluminium/IP66/IP67
V	Stainless steel 316L/IP66/IP67

Cable entry/Plug connection

M	M20x1.5/without
N	½NPT/without

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- 1) Only in conjunction with electronics "C" "R" and "T"
- 2) Only in conjunction with electronics "Z"
- 3) not in conjunction with housing version "K" and only with electronics "Z"
- 4) Not in conjunction with housing version "K"

Length in mm (from seal surface)

per 100 mm of 316
per 100 mm of steel, PA fully insulated

Insulation length in mm

per 100 mm of PTFE

Length: mm (min. 400 mm; max. 32000 mm)

- Further process fittings and options on request

VEGACAP 66

Fully insulated, capacitive cable electrode for level detection

For use in liquids and solids

- robust and maintenance-free
- easy installation and mounting
- instrument from the plics® family



Approval

- XX** without
- XM** Ship approval
- XA** Overfill protection acc. to WHG¹⁾
- CX** ATEX II 1G, 1/2G, 2G EEx ia IIC T6²⁾
- CA** ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + WHG²⁾
- CM** ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + Ship approval²⁾

Version/Temperature range

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

Process connection/Material

- GS** Thread G1½A PN40/Steel
- GC** Thread G1A PN40/316L
- GD** Thread G1½ PN40/316L

Electronics

- C** Contactless electronic switch 20...253VAC/DC
- R** Relay (DPDT) 20...72VDC/20...253VAC(5A)
- T** Transistor (NPN/PNP) 10...55VDC
- Z** Two-wire for connection to VEGATOR

Housing/Protection

- K** Plastic/IP66/IP67
- A** Aluminium/IP66/IP67
- V** Stainless steel 316L/IP66/IP67

Cable entry/Plug connection

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

CP66.							
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¹⁾ Only in conjunction with electronics "C" "R" and "T"

²⁾ Only in conjunction with electronics "Z"

Length in mm (from seal surface)

per 100 mm of 316 PTFE insulated

Length: mm (min. 400 mm; max. 32000 mm)

- Further process fittings and options on request

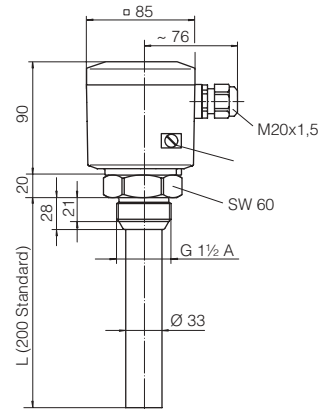
VEGACAP 98

Adjustment-free, capacitive compact level switch for very adhesive products, completely made of PP, thread G1½A

For use as overfill or dry run protection system in products with a dielectric constant from 1.5

- exact switching point also with strong buildup
- setup without adjustment with product
- easy mounting
- very inexpensive level detection

Process temperature : -40...80°C
Process pressure : -1...2 bar (-100...200 kPa)



Approval

- .X** without
- .A** Overfill protection acc. to WHG

Housing

- P** Plastic PBT/IP66/67
- M** Aluminium plastic coated/IP66/67

Length

- X** Standard (200mm)
- Y** Special length

Electronics

- D** Double relay (DPDT) 20...72VDC/20...250VAC(5A)

Application area

- S** Solid
- F** Liquid

CAP98

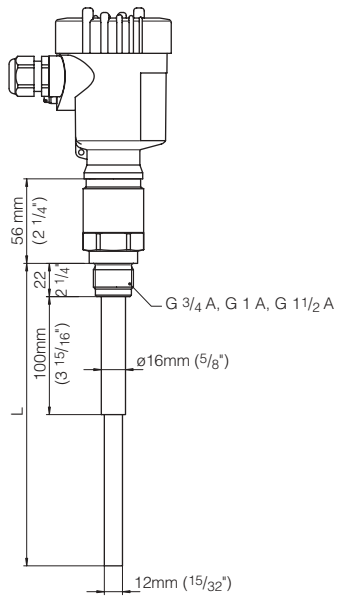
Electrode length in mm
per 100 mm

Length: mm (min. 150 mm; max. 2000 mm)

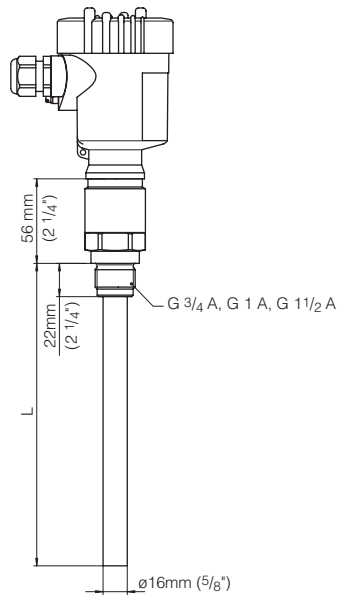
- Further options on request



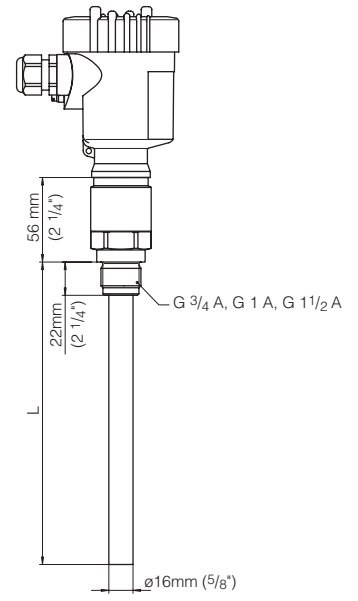
VEGACAP 62



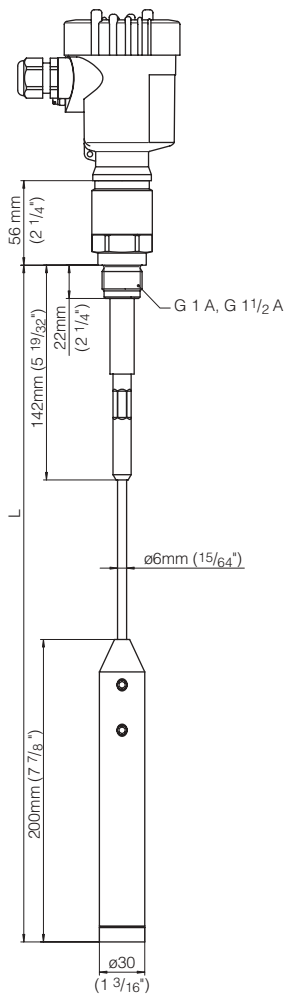
VEGACAP 63



VEGACAP 64



VEGACAP 65



VEGACAP 66

