



Level measurement – Ultrasonic

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VEGASON:

Non-contact measurement of liquids and solids with ultrasonic waves

Measuring principle

Short ultrasonic pulses between 10 kHz and 70 kHz are emitted by the transducer to the measured product, reflected by the product surface and received again by the transducer. They spread with sound velocity and the time from emission to reception of the signals is proportional to the level in the vessel.

Latest microcomputer technology and proven ECHOFOX software detect the level echo reliably from a number of false echoes and measure it precisely.

By simply entering the vessel dimensions, a level-proportional signal can be displayed. An adjustment with emptied and filled vessel is not necessary!

Wide application range

With different emitting frequencies, levels can be measured in a measuring range between 5 m to 45 m. Optional swivelling holders enable an ideal orientation of the sensors in solids.

Unaffected by product properties

Different product compositions or complete product changes do not influence the measuring result. A fresh adjustment is not necessary.



Overview

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Applications: liquids und solids in all industries, especially in the water and sewage water treatment

Measuring range: liquids: 0.25 ... 5 m

solids: 0.25 ... 2 m

Process fitting: G1½A of PVDF

Process temperature: -40...80°C

Process pressure: -0.2...2 bar (-20...200 kPa)

liquids und solids in all industries, especially in the water and sewage water treatment

liquids: 0.4 ... 8 m

solids: 0.4 ... 3.5 m

G2A of PVDF

-40...80°C

-0.2...2 bar (-20...200 kPa)

liquids and solids in all industries

liquids:

0.6 ... 15 m

solids: 0.6 ... 7 m

compression flange or mounting loop

-40...80°C

-0.2...1 bar (-20...100 kPa)

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Applications: solids

Measuring range:

liquids: 1 ... 25 m

solids: 1 ... 15 m

Process fitting: flange with optional swivelling holder

Process temperature: -40...80°C

Process pressure: -0.2...0.5 bar (-20...50 kPa)

solids

liquids: 0.8 ... 45 m

solids: 0.8 ... 25 m

Process fitting: flange with optional swivelling holder

-40...80°C

-0.2...0.5 bar (-20...50 kPa)

VEGASON 62

Compact ultrasonic sensor for continuous level measurement

Especially suitable for measurement of liquids and solids in virtually all industries, particularly in the water and waste water industry

- transducer of PVDF with EPDM seal and integrated temperature sensor for correction of the running time
- accuracy +/- 10mm
- ECHOFOX signal processing with Fuzzy-Logic
- adjustment with PLICSCOM, HART handheld or PC
- instrument from the plics® family

Measuring range:

- Liquids : 0.4...8 m
- Solids : 0.4...3.5 m



Approval

- XX** without
- XM** Ship approval
- CX** ATEX II 1G, 1/2G, 2G EEx ia IIC T6
- CM** ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + Ship approval

Version / Process temperature

- A** Standard / -40...80°C

Process fitting / Material

- G** Thread G2A / PVDF
- N** Thread 2"NPT / PVDF

Electronics

- H** Two-wire 4...20mA/HART®
- V** Four-wire 4...20mA/HART®¹⁾
- P** Profibus PA
- F** Foundation Fieldbus

Housing / Protection

- K** Plastic / IP66/IP67
- A** Aluminium / IP66/IP68 (0.2 bar)
- D** Aluminium double chamber / IP66/IP68 (0.2 bar)
- V** Stainless steel 316L / IP66/IP68 (0.2bar)

Cable entry / Plug connection

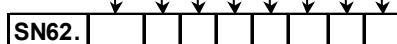
- M** M20x1.5 / without
- N** 1/2NPT / without

Indicating/adjustment module (PLICSCOM)

- X** Without
- A** Top mounted

Additional equipment

- X** without



¹⁾ Only in conjunction with Housing / Protection "D"

- Further options on request

VEGASON 64

Ultrasonic sensor for continuous level measurement

Especially suitable for measurement of solids with optional swivelling holder for optimum adaptation to the vessel geometry and material cone

- transducer of PA with stainless steel diaphragm (316L) and integrated temperature sensor for correction of the running time
- sensor in compact version or with separate transducer
- accuracy +/- 10mm
- ECHOFOX signal processing with Fuzzy-Logic
- adjustment with PLICSCOM, HART handheld or PC
- instrument from the plics® family



Measuring range:

- Liquids : 1...25 m
- Solids : 1...15 m



Approval

- XX** without
- GX** ATEX II 1/2 D IP66 T

Version / Process temperature

- A** compact in flange version (version A) / -40...80°C
- B** compact with swivelling holder (version B) / -40...80°C
- C** separate with swivelling holder (version C) / -40...80°C
- D** separate with thread (version D) / -40...80°C

Process fitting / Material

- GS** Thread G1A / galvanized steel ¹⁾
- AS** Swivelling holder with flange DN50/2" / galvanized St ²⁾
- BS** Swivelling holder with flange DN80/3" / galvanized St ²⁾
- EA** Flange DN200 / Aluminium ³⁾
- EP** Flange DN200 / PP ³⁾
- LA** Flange 8" / Aluminium ³⁾
- LP** Flange 8" / PP ³⁾

Electronics

- V** Four-wire 4...20mA/HART®
- P** Profibus PA
- F** Foundation Fieldbus

Housing / Protection

- D** Aluminium double chamber / IP66/IP67

Cable entry / Plug connection

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

Indicating/adjustment module (PLICSCOM)

- X** Without
- A** Top mounted

Additional equipment

- X** without

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¹⁾ Only for Version / Process temperature "D"
²⁾ Only for Version / Process temperature "B" and "C"
³⁾ Only for Version / Process temperature "A"

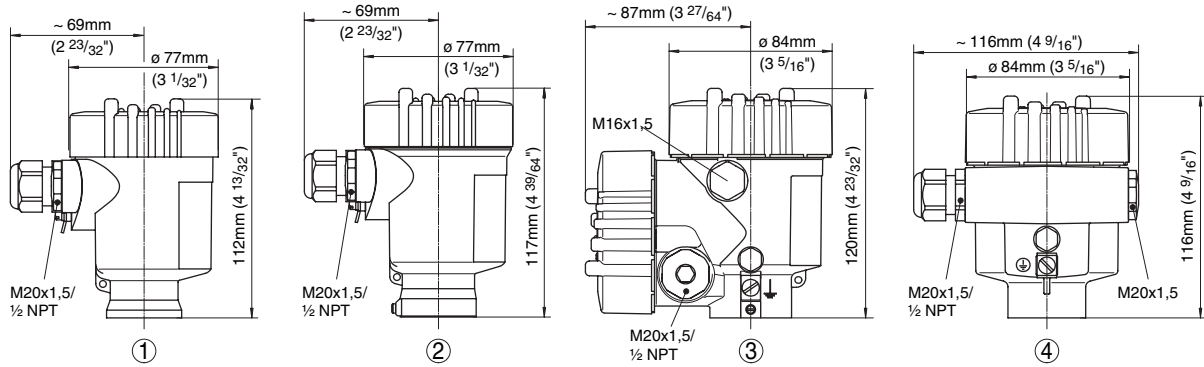
Connection cable in m

Connection cable > 5m f. version C or D; per meter > 5m

- Further options on request
- Electronics "P" and "F" with separate external voltage 20...72VDC, 20...250VAC

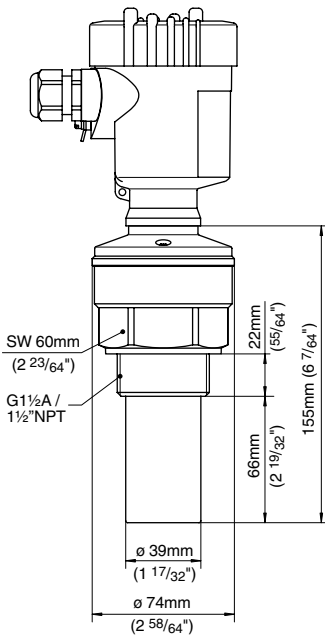
Dimensions

Housings

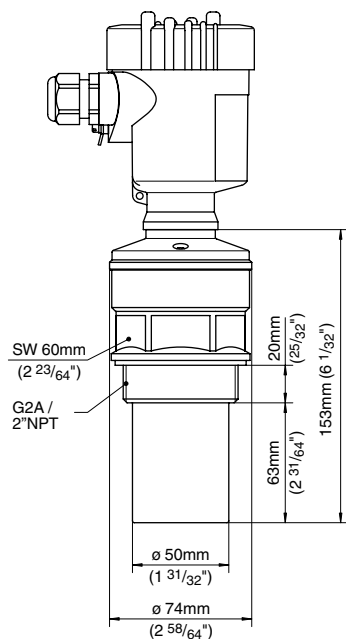


- 1 Plastic housing
- 2 Stainless steel housing
- 3 Aluminium double chamber housing
- 4 Aluminium housing

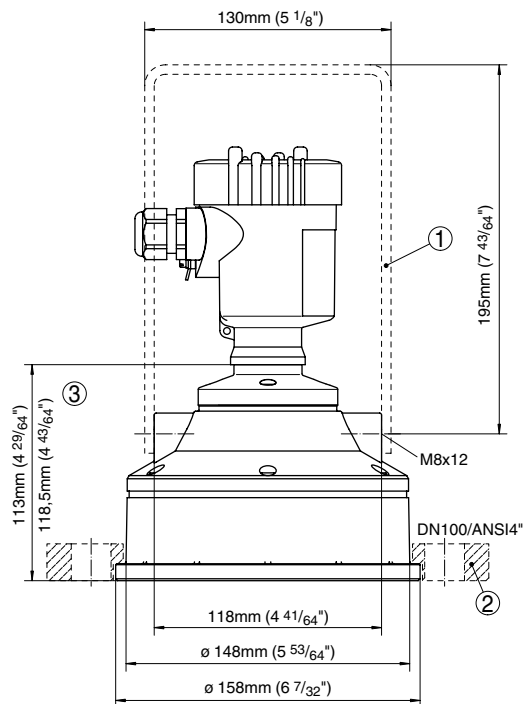
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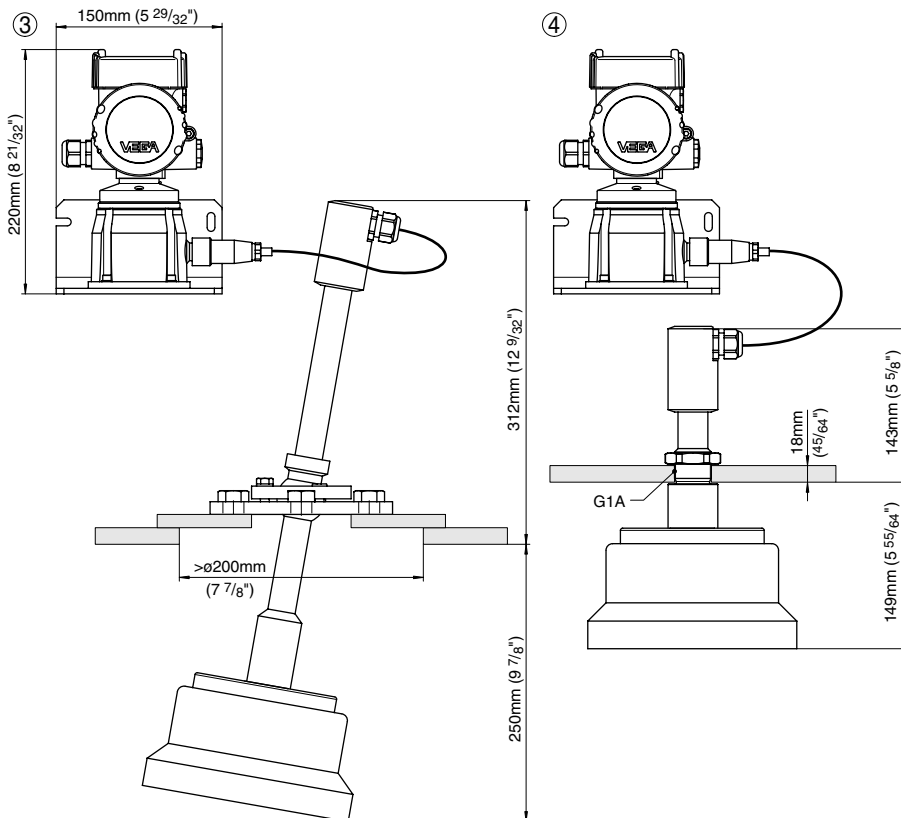
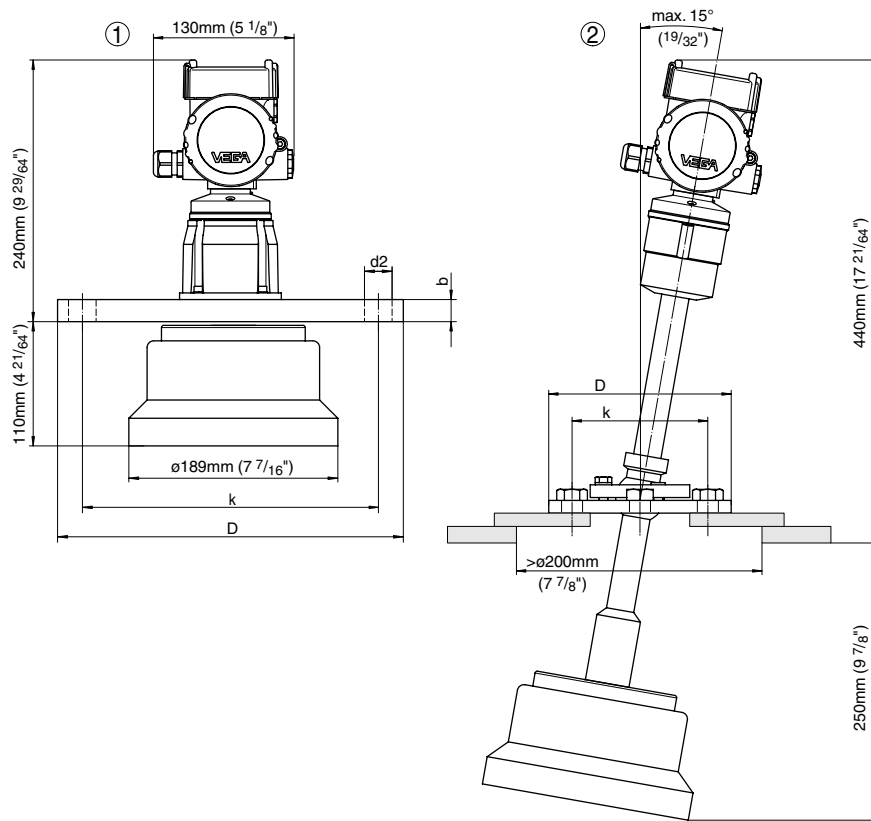


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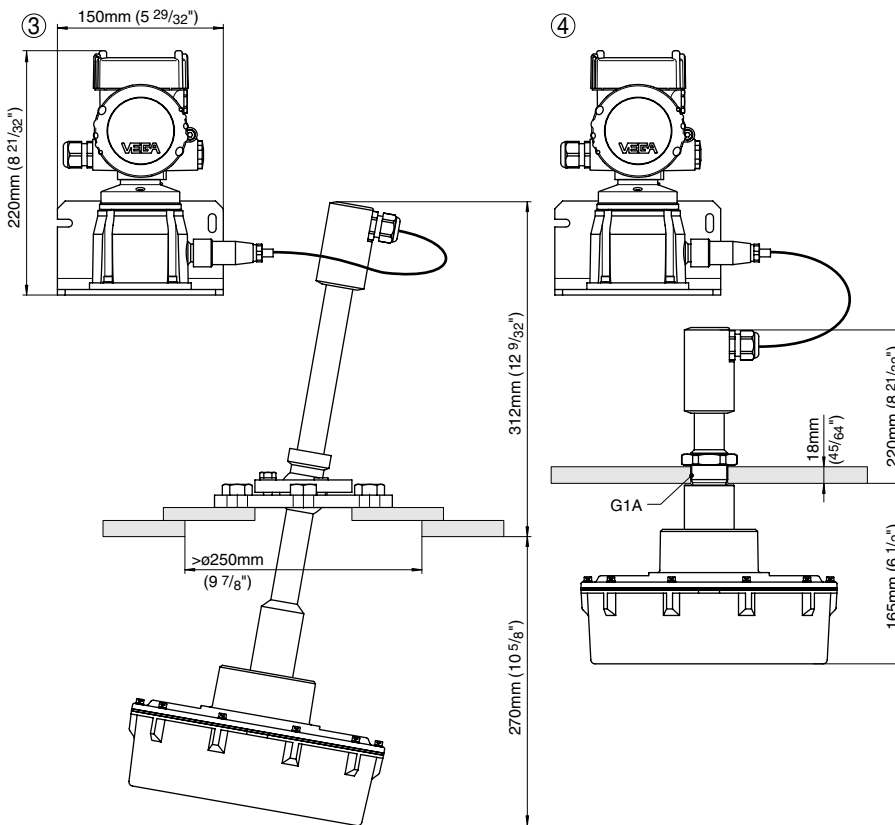
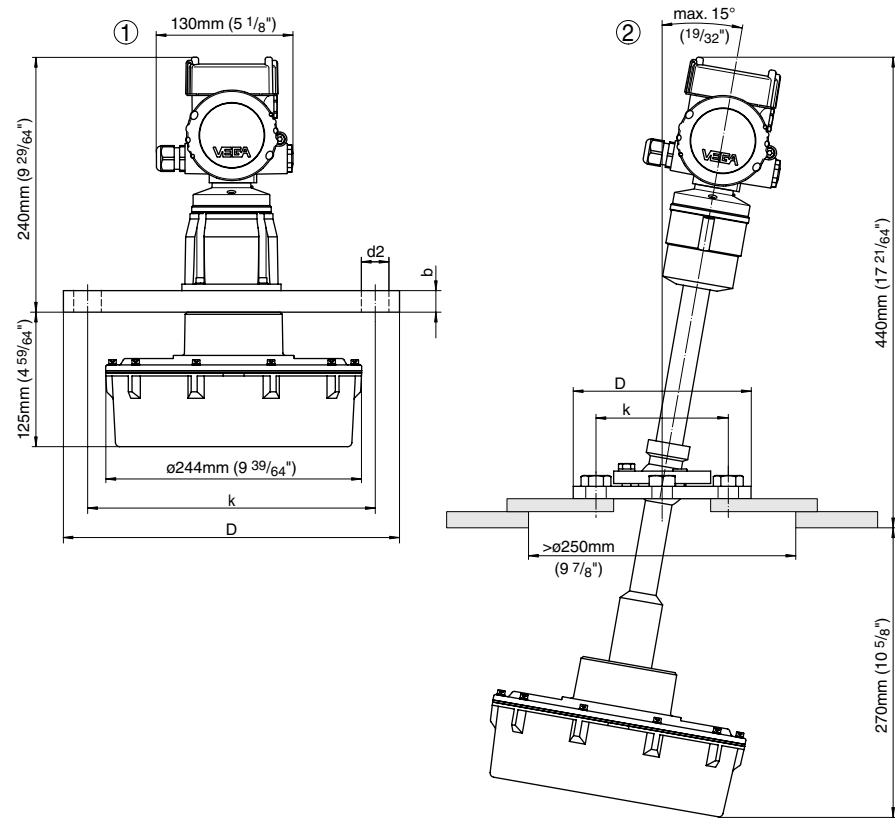
- 1 Mounting loop
 - 2 Compression flange
 - 3 Dimension for Aluminium housing/adaptor
- Specifications in mm or inch

VEGASON 64



- 1 Version A
 - 2 Version B
 - 3 Version C
 - 4 Version D
- Specifications in mm or inch

VEGASON 65



- 1 Version A
 - 2 Version B
 - 3 Version C
 - 4 Version D
- Specifications in mm or inch



