

Supplementary instructions

Mounting strap

For cable holder, as well as ceiling and wall mounting

For radar sensors VEGAPULS series 10, 20, 30, VEGAPULS Air 40 and other VEGA sensors



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VEGA

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Safety instructions for Ex areas



Please note the Ex-specific safety information for installation and operation in Ex areas. These safety instructions are part of the operating instructions and come with the Ex-approved instruments.

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1 About this document

1.1 Function

This supplementary instructions manual is valid in conjunction with the operating instructions of the instrument. It gives you all necessary information for a quick setup and safe operation of the instrument with accessory. Therefore read both instructions manuals before you start setup.

1.2 Target group

This operating instructions manual is directed to trained personnel. The contents of this manual must be made available to the qualified personnel and implemented.

1.3 Symbols used



Document ID

This symbol on the front page of this instruction refers to the Document ID. By entering the Document ID on www.vega.com you will reach the document download.



Information, note, tip: This symbol indicates helpful additional information and tips for successful work.



Note: This symbol indicates notes to prevent failures, malfunctions, damage to devices or plants.



Caution: Non-observance of the information marked with this symbol may result in personal injury.



Warning: Non-observance of the information marked with this symbol may result in serious or fatal personal injury.



Danger: Non-observance of the information marked with this symbol results in serious or fatal personal injury.



Ex applications

This symbol indicates special instructions for Ex applications.



List

The dot set in front indicates a list with no implied sequence.



Action

This arrow indicates a single action.



Sequence of actions

Numbers set in front indicate successive steps in a procedure.



Battery disposal

This symbol indicates special information about the disposal of batteries and accumulators.

2 For your safety

2.1 Authorised personnel

All operations described in this operating instructions manual must be carried out only by trained qualified personnel authorised by the plant operator.

During work on and with the device, the required personal protective equipment must always be worn.

2.2 Appropriate use

The mounting straps are used for mounting VEGAPULS series 10, 20, 30, VEGAPULS Air 40 radar sensors as well as further VEGA sensors on the respective measuring point.

2.3 Warning about incorrect use

Inappropriate or incorrect use of the instrument can give rise to application-specific hazards, e.g. vessel overfill or damage to system components through incorrect mounting or adjustment.

2.4 General safety instructions

The safety information in the operating instructions manual of the respective sensor must be noted.

2.5 Environmental instructions

Protection of the environment is one of our most important duties. That is why we have introduced an environment management system with the goal of continuously improving company environmental protection. The environment management system is certified according to DIN EN ISO 14001.

Please help us fulfil this obligation by observing the environmental instructions in this manual:

- Chapter "*Storage and transport*"
- Chapter "*Disposal*"

3 Product description

3.1 Configuration

Scope of delivery

The scope of delivery encompasses:

- Mounting strap
- Fixing material:
 - 4 pieces hexagon screws $\varnothing 6 \times 40$ mm
 - 4 washers
 - 4 pieces straddling dowel $\varnothing 8 \times 40$ mm
 - Counter nut G1½" (with mounting strap with sensor holder 1½")
- Self-adhesive drilling template
- Information sheet "*PINs and Codes*" with:
 - Bluetooth access code

Types

The mounting brackets are available in different designs:

- For cable holder
- For ceiling mounting
- For wall mounting

The sensor holders of the mounting brackets are designed for sensors with mounting thread G1 or G1½.

3.2 Area of application

Cable holder

These mounting straps are used as cable holder of the sensors:

- VEGAPULS C 11, C 21, C 23

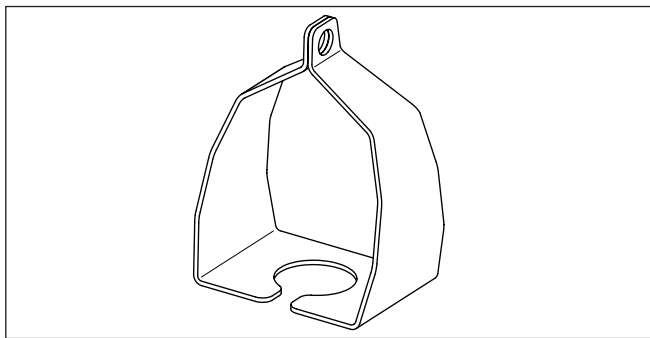


Fig. 1: Mounting strap as cable holder

Ceil mounting

These mounting straps are used for ceiling mounting of the sensors:

- VEGAPULS C 11, C 21, C 23 (sensor holder 1")
- VEGAPULS C 22 (sensor holder 1½")

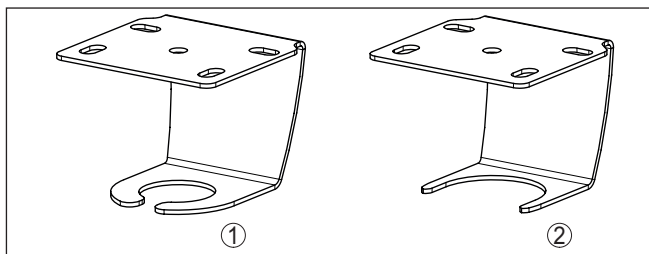


Fig. 2: Mounting strap for ceiling mounting

- 1 Sensor holder 1"
- 2 Sensor holder 1½"

Wall mounting swivelling, rigid

These mounting straps are used for wall mounting of:

- VEGAPULS C 11, C 21, C 22, C 23 (sensor holder 1")
- VEGAPULS 11, 21, 31, VEGAPULS Air 41 (sensor holder 1½")
- Further VEGA sensors with mounting thread G1½

Wall mounting - swivelling

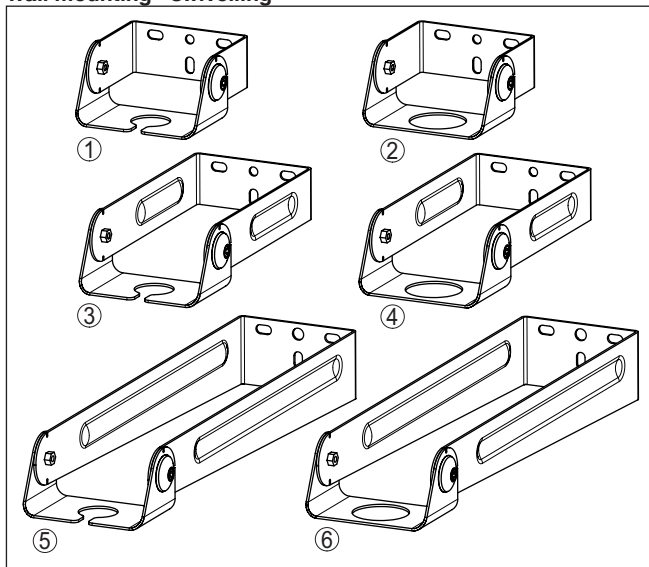


Fig. 3: Mounting strap for wall mounting - swivelling

- 1 L = 80 mm, sensor holder 1"
- 2 L = 80 mm, sensor holder 1½"
- 3 L = 200 mm, sensor holder 1"
- 4 L = 200 mm, sensor holder 1½"
- 5 L = 400 mm, sensor holder 1"
- 6 L = 400 mm, sensor holder 1½"

Wall mounting - rigid

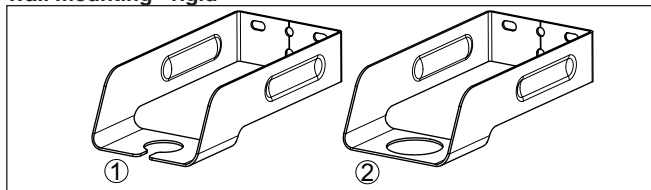


Fig. 4: Mounting strap for wall mounting - rigid

- 1 Sensor holder 1"
- 2 Sensor holder 1½"

Wall mounting turnable, extendable, foldable

These mounting straps are used for wall mounting of:

- VEGAPULS C 11, C 21, C 22, C 23 (sensor holder 1")
- VEGAPULS 11, 21, 31, VEGAPULS Air 41 (sensor holder 1½")
- Further VEGA sensors with mounting thread G1½

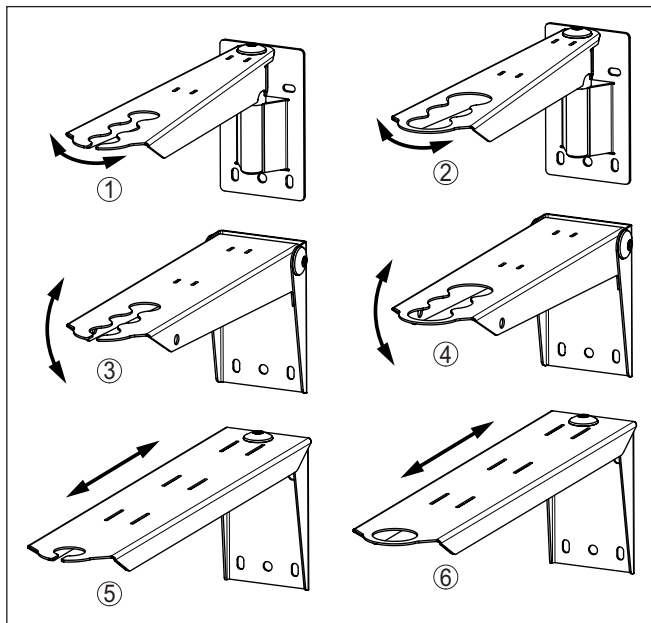


Fig. 5: Mounting strap for wall mounting - turnable, extendable, foldable

- 1 Turnable, sensor holder 1"
- 2 Turnable, sensor holder 1½"
- 3 Extendable, sensor holder 1"
- 4 Extendable, sensor holder 1½"
- 5 Foldable, sensor holder 1"
- 6 Foldable, sensor holder 1½"

4 Mounting

4.1 Mounting preparations

The following tool is required for mounting:

- Wrench (size 10) for the hexagon screws
- Wrench (size 41) for counter nut 1"
- Wrench (size 60) for counter nut 1½"
- Allen key size 5 for the moving parts

4.2 Cable holder



Fig. 6: Mounting bracket for cable holder - Sensors with mounting thread G1 and axial cable outlet

4.3 Ceil mounting

Sensor holder for G1



Fig. 7: Mounting bracket for ceiling mounting - Sensors with mounting thread G1 and axial cable outlet

Sensor holder for G1½

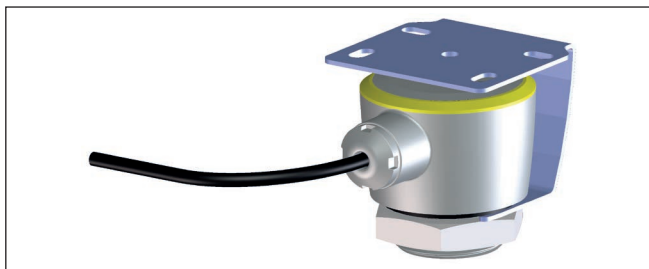


Fig. 8: Mounting bracket for ceiling mounting - Sensors with mounting thread G1½ and lateral cable outlet

4.4 Wall mounting - rigid, swivelling

Rigid

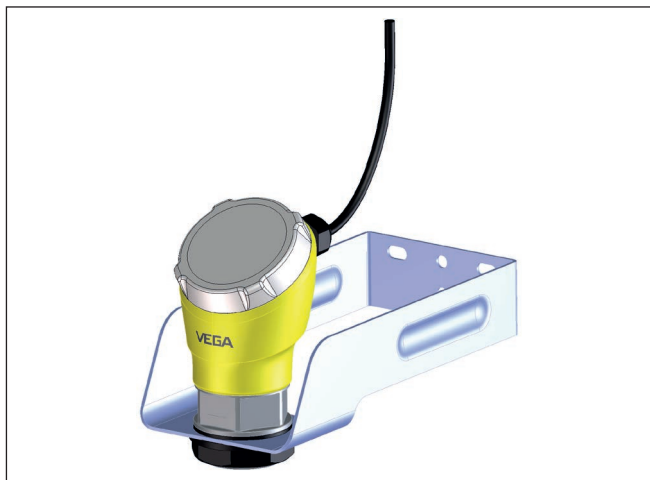


Fig. 9: Mounting bracket for rigid wall mounting - example compact sensor with mounting thread G1½

Swivelling



Fig. 10: Mounting bracket for swivelling wall mounting - example autarkic sensor with mounting thread G1½

4.5 Wall mounting - turnable, extendable, foldable

Turnable

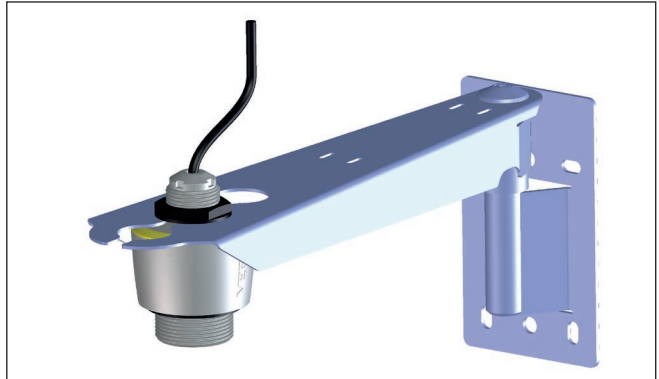


Fig. 11: Mounting bracket for turnable wall mounting - Example sensor with G1 mounting thread and axial cable outlet

Extendable

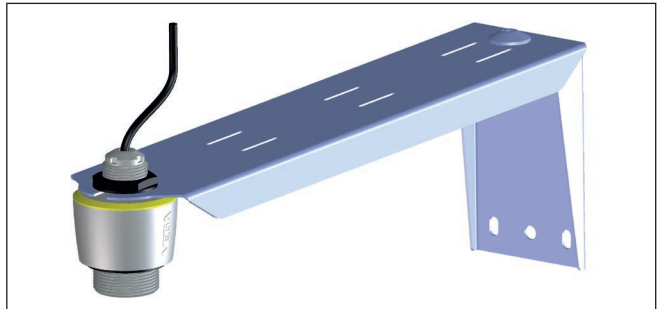


Fig. 12: Mounting bracket for extendable wall mounting - example compact sensor with mounting thread G1½

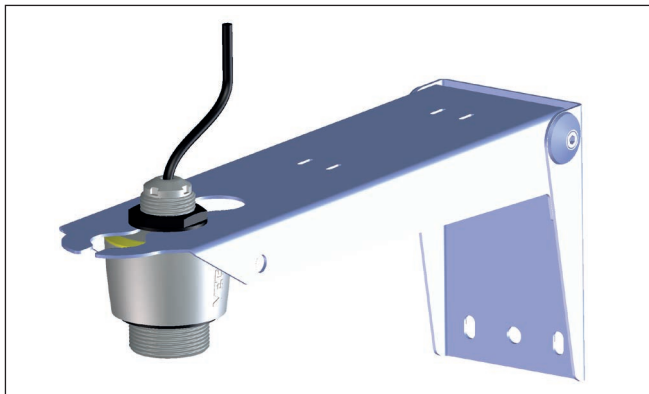
Foldable

Fig. 13: Mounting bracket for foldable wall mounting - example autarkic sensor with mounting thread G1½

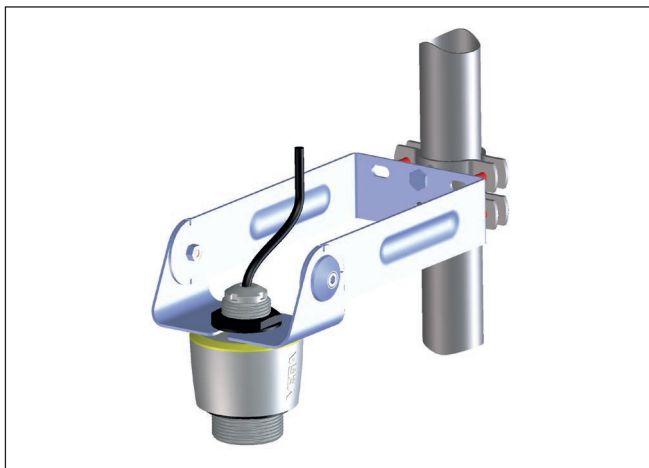
4.6 Tube mounting**Pipe mounting vertical**

Fig. 14: Mounting bracket for pipe mounting vertically via on-site pipe clamps - Example sensor with G1 mounting thread and axial cable outlet

Example pipe mounting horizontally



Fig. 15: Mounting bracket for vertical pipe mounting using on-site pipe clamps - example compact sensor with mounting thread G1½

5 Technical data

Materials and weights

Material mounting strap	1.4571
Material fixing screws	StSt
Weight mounting strap, depending on version	0.5 ... 0.7 kg (1.102 ... 1.543 lbs)

Torques

Max. torque	
– Hexagon socket screws	5 Nm (3.688 lbf ft)
– Hexagon head screws (depending on wall condition)	5 Nm (3.688 lbf ft)

Mechanical environmental conditions

Max. static load capacity	
– Ceil mounting	5 kg (11.02 lbs)
– Wall mounting 80 mm	20 kg (44.09 lbs)
– Wall mounting 200 mm	10 kg (22.05 lbs)
Sinusoidal vibrations	Class 4M5 acc. to IEC 60271-3-4
Impacts	50 g, 2.3 ms acc. to IEC 60271-3-6 (mechanical shock)

6 Dimensions

6.1.1 Cable holder

Cable holder

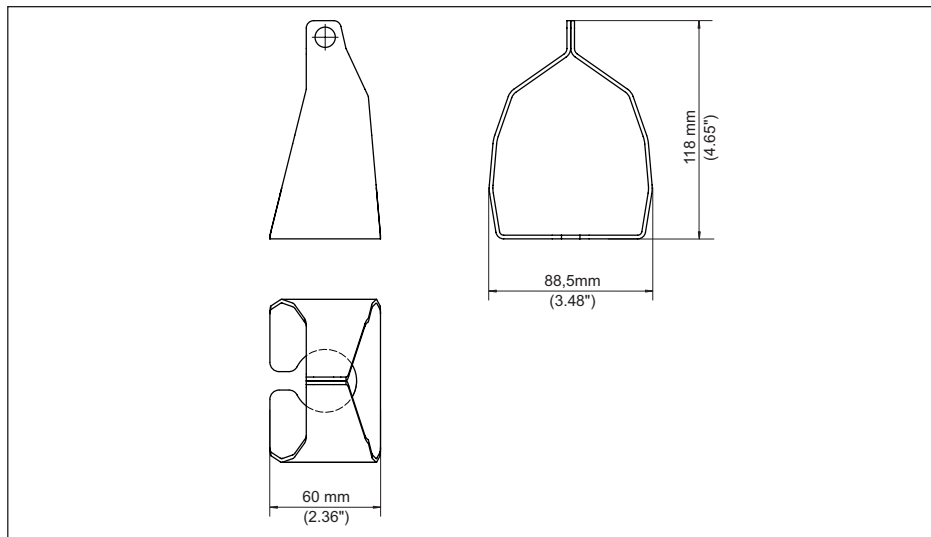


Fig. 16: Cable holder

6.1.2 Ceil mounting

Mounting strap for ceiling mounting

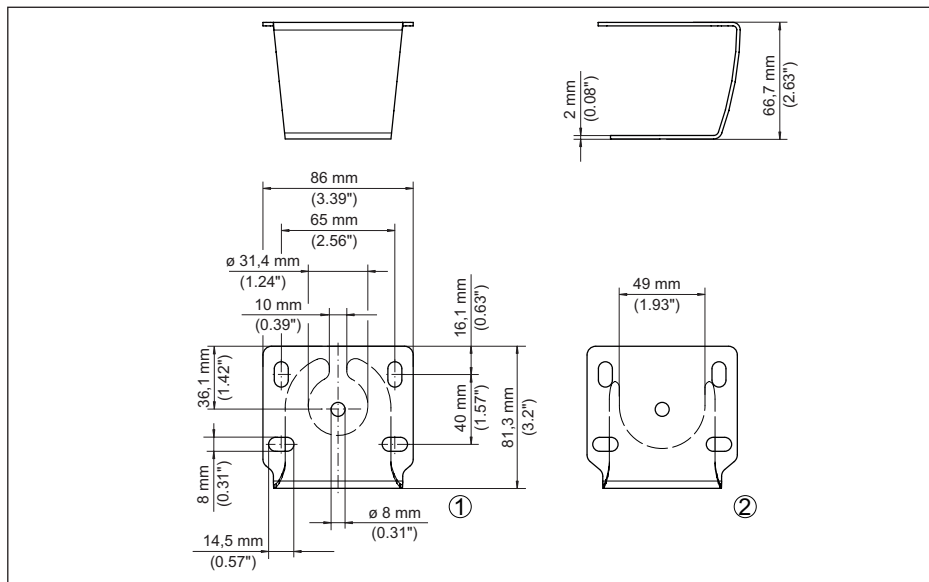


Fig. 17: Mounting strap for ceiling mounting

- 1 Sensor holder 1"
- 2 Sensor holder 1½"

6.1.3 Wall mounting

Mounting strap for wall mounting, rigid

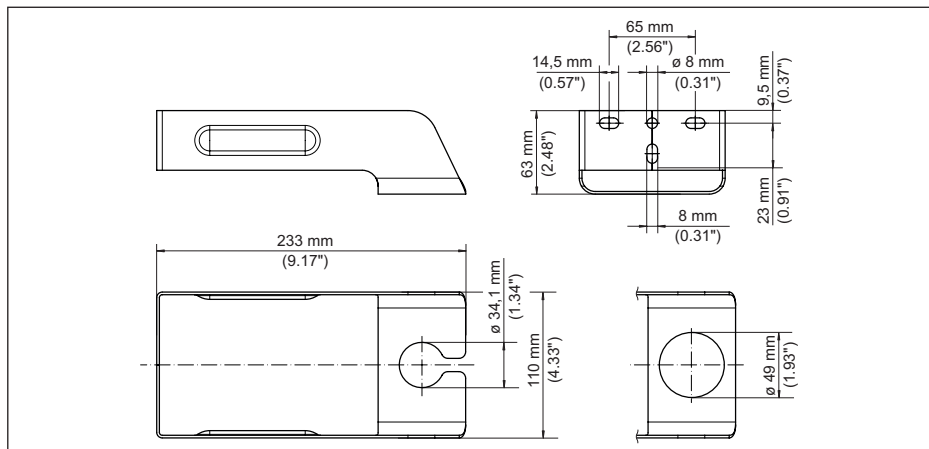


Fig. 18: Mounting strap for wall mounting, rigid - bracket 200 mm

- 1 Sensor holder 1"
- 2 Sensor holder 1½"

Mounting strap for wall mounting, adjustable - bracket 80 mm

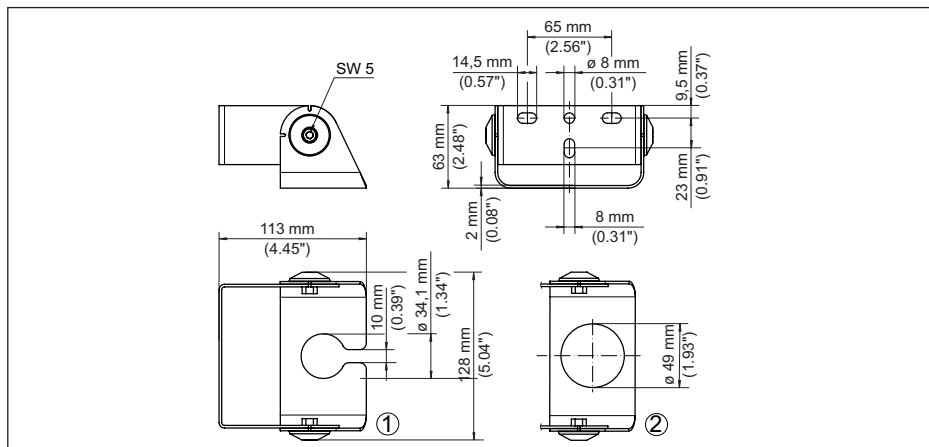


Fig. 19: Mounting strap for wall mounting, adjustable - bracket 80 mm

- 1 Sensor holder 1"
- 2 Sensor holder 1½"

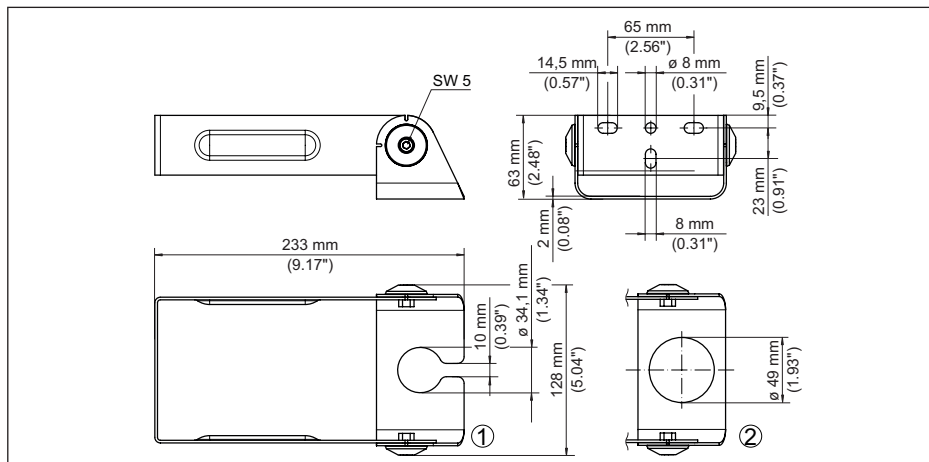
Mounting strap for wall mounting, adjustable - bracket 200 mm

Fig. 20: Mounting strap for wall mounting, adjustable - bracket 200 mm

- 1 Sensor holder 1"
2 Sensor holder 1½"

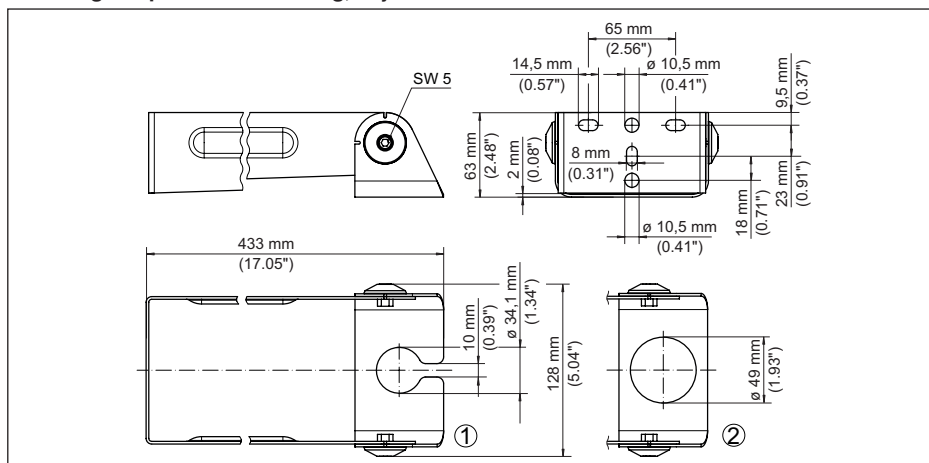
Mounting strap for wall mounting, adjustable - bracket 400 mm

Fig. 21: Mounting strap for wall mounting, adjustable - bracket 400 mm

- 1 Sensor holder 1"
2 Sensor holder 1½"

Mounting strap for wall mounting, turnable

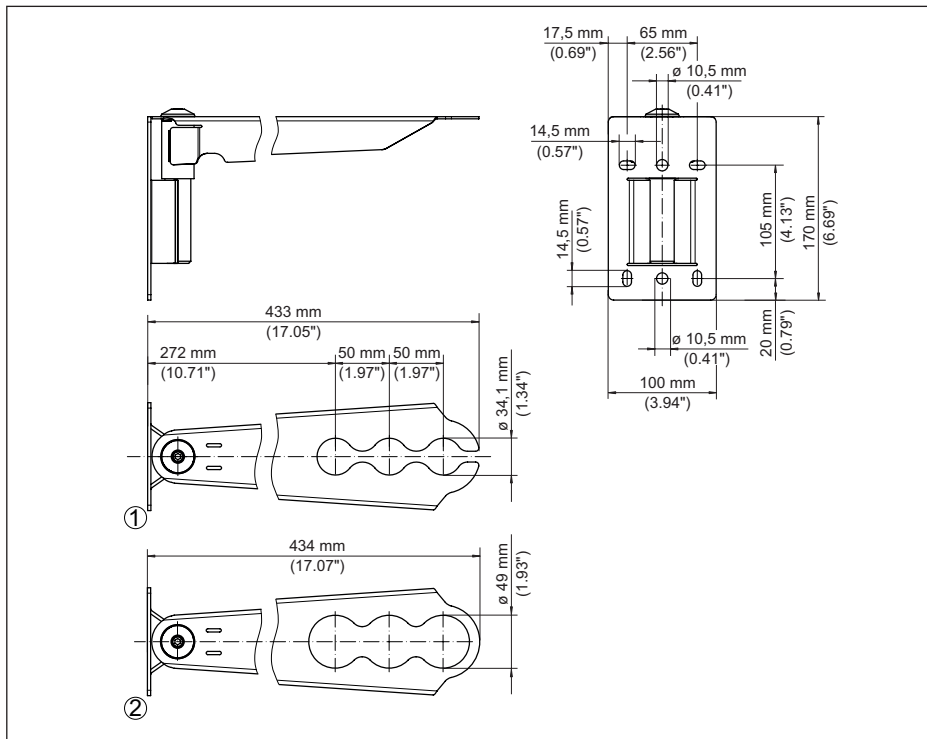


Fig. 22: Mounting strap for wall mounting, turnable

- 1 Sensor holder 1"
- 2 Sensor holder 1½"

Mounting strap for wall mounting, extendable

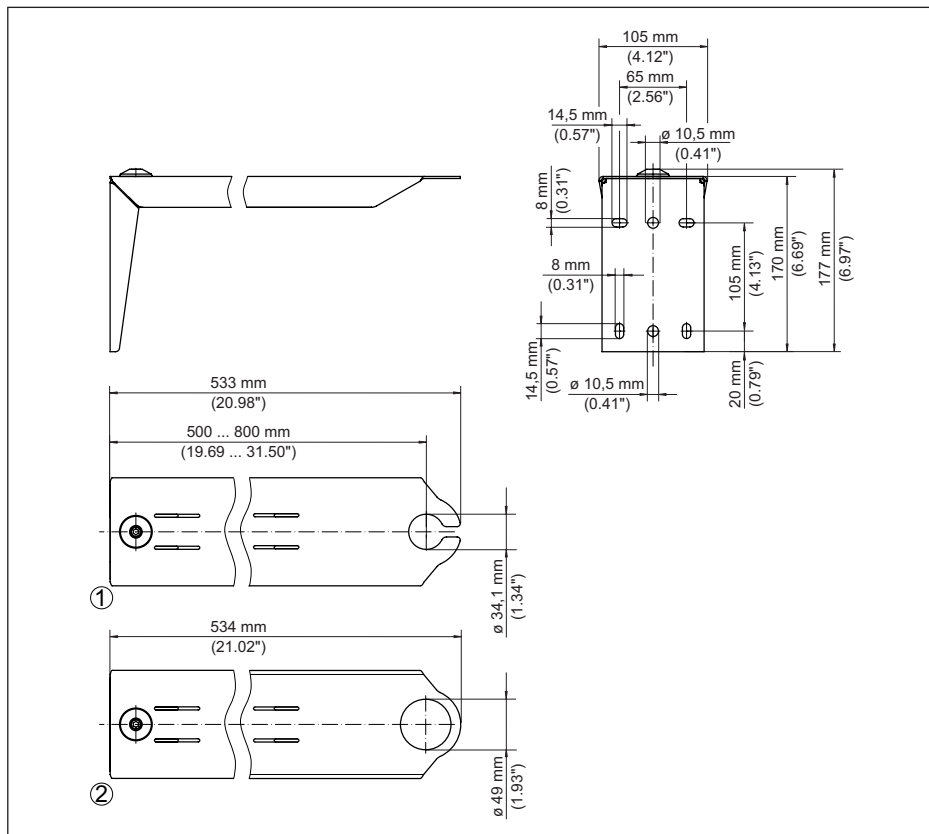


Fig. 23: Mounting strap for wall mounting, extendable

- 1 Sensor holder 1"
- 2 Sensor holder 1½"

Mounting strap for wall mounting, foldable

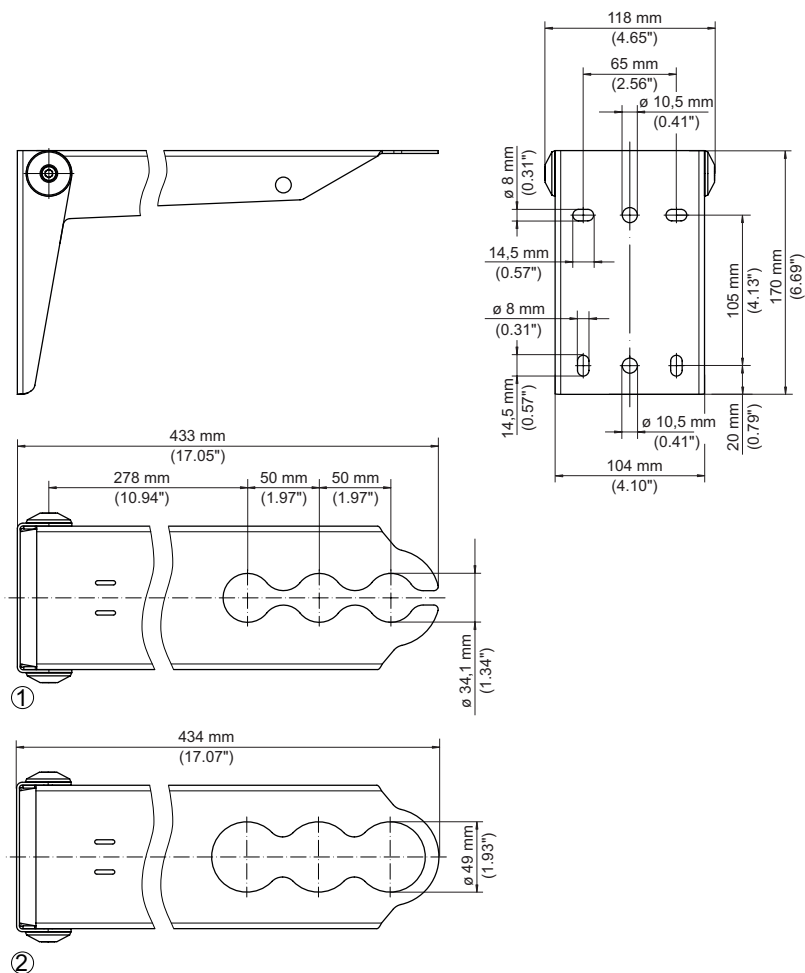


Fig. 24: Mounting strap for wall mounting, foldable

- 1 Sensor holder 1"
- 2 Sensor holder 1½"

6.1.4 Reference plane of the sensors

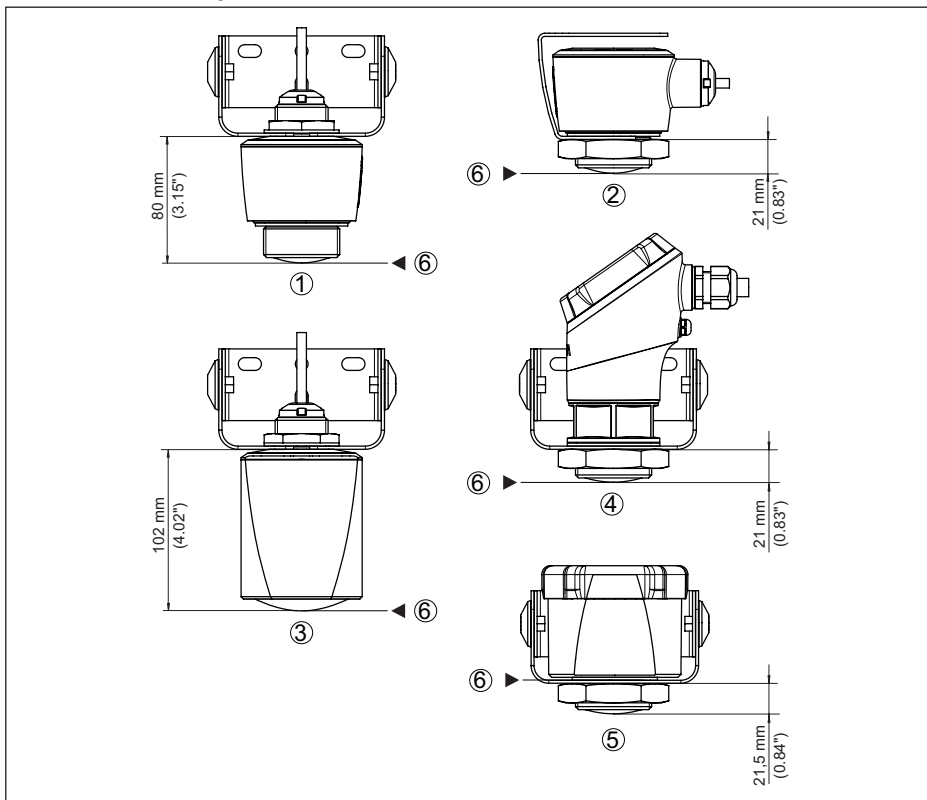


Fig. 25: Mounting bracket for ceiling and wall mounting - Distance of the sensor reference plane to the bottom of the sensor holder

- 1 VEGAPULS 11, 21, 31
- 2 VEGAPULS C 21
- 3 VEGAPULS C 22
- 4 VEGAPULS C 23
- 5 VEGAPULS Air 41
- 6 Sensor reference plane

Printing date:

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All statements concerning scope of delivery, application, practical use and operating conditions of the sensors and processing systems correspond to the information available at the time of printing.

Subject to change without prior notice

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