

# Supplementary instructions

## Mounting bracket KV 31

For tubes with  $\varnothing$  50 ... 200 mm

Vertical sensor mounting



Document ID: 38482



# VEGA

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## 1 Product description

The KV 31 is a mounting bracket for the radiation-based measuring system MINITRAC. It is suitable for pipes irradiated at right angles.

### For vertical sensor mounting

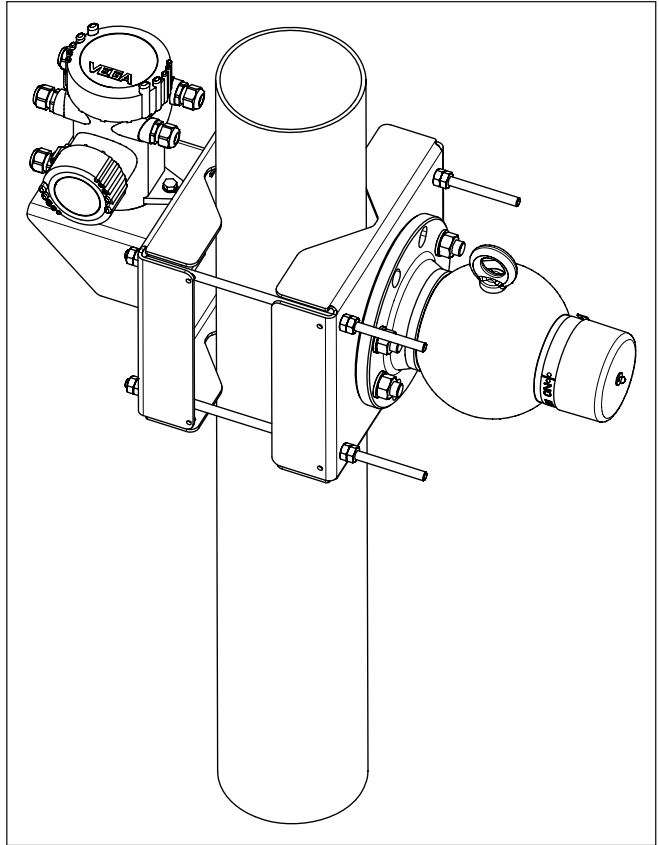


Fig. 1: Mounting bracket with vertically mounted sensor

### Scope of delivery

The following parts belong to the scope of delivery of KV 31.

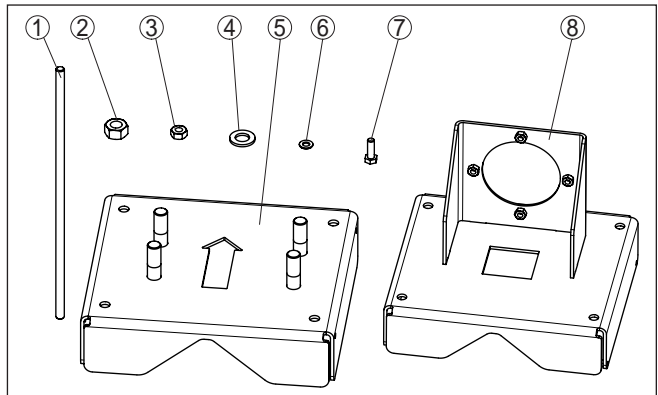


Fig. 2: Mounting bracket for pipes irradiated at right angles KV 31 - vertical sensor mounting

- 1 Threaded rod M10 x 360 mm (M10 x 14.17 in), (4 pcs.)
- 2 Hexagon nut M16 (4 pieces)
- 3 Hexagon nut M10 (16 pieces)
- 4 Washer for M16 (4 pieces)
- 5 Clamp - Source holder side (1 Stück)
- 6 Washer for M10 (8 pieces)
- 7 Hexagon screw M8 (2 pieces)
- 8 Clamp - Sensor side (MINITRAC), (1 piece)

## 2 Mounting

### Operating instructions

Take note of the operating instructions of the corresponding sensor MINITRAC and the source holder.

### Mounting brackets for vertical mounting

Take note of the following mounting instructions:

- Mount the bracket first, then the sensor and the source holder
- The arrow cutouts in the clamp (source container side) and in the transport lug of the source holder must point in the same direction (A) after mounting
- Make sure that the two clamps (5 and 8) of the bracket are parallel to each other. Do this by measuring the distances between the clamps
- To avoid injuries, shorten the threaded rods (1) of the brackets to a suitable length after mounting

### Vertical sensor mounting

Mount the bracket according to the following assembly drawing:

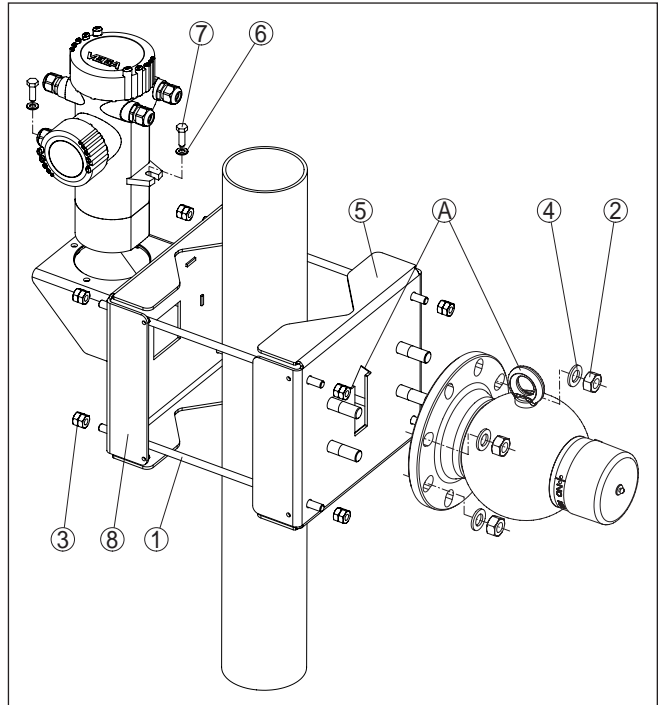


Fig. 3: Mounting bracket with vertically mounted sensor

- 1 Threaded rod M10 x 360 mm (4 pieces)
- 2 Hexagon nut M16 (4 pieces)
- 3 Hexagon nut M10 (16 pieces)
- 4 Washer for M16 (4 pieces)
- 5 Clamp - Source holder side (1 Stück)
- 6 Washer for M10 (8 pieces)
- 7 Hexagon screw M8 (2 pieces)
- 8 Clamp - Sensor side (MINITRAC), (1 piece)
- A Arrow cutouts of the clamp and eyebolt point in the same direction

1. Make sure that the two clamps of the bracket are parallel to each other. Do this by measuring the lateral distances between the clamps.
2. Tighten the nuts of the threaded rod evenly. Keep the tube diameter and the stability of the tube material in mind. Avoid deformation of the tube through an overtightening of the mounting bracket. If you have the impression that the tube cannot permanently carry the weight of the mounting bracket, sensor and source container, mount a suitable support below the mounting bracket.
3. Shorten the threaded rods after mounting to avoid injuries.

### Install a protective grid

If there are gaps or intervening spaces around the installation, provide protective fences or grids to keep hands away from the dangerous area. Such areas must be marked accordingly.

Install a protective grid on both sides of the mounting bracket. A sheet metal cover or a correspondingly shaped plastic sheet can also be used.

Corresponding holes for screws of size M5 are provided on the mounting bracket.

Mount the protective grid according to the following assembly drawing:

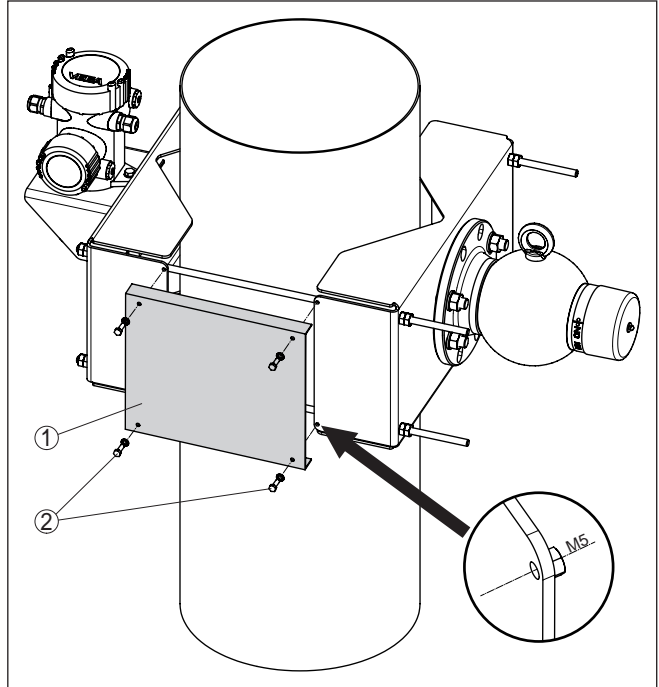


Fig. 4: Install the protective grid on both sides of the mounting bracket

- 1 Protective grid
- 2 Screws M5 (4 pieces)

## 3 Supplement

### 3.1 Technical data

#### General data

Take note of the information in the operating instructions manual of the installed MINITRAC level sensor and the source holder

Material 316L corresponds to 1.4404 or 1.4435

#### Materials

- |                    |      |
|--------------------|------|
| - Mounting bracket | 316L |
| - Threaded rods    | 316L |

Weight	12.2 kg (26.9 lbs)
--------	--------------------

#### Torques

- |                                  |  |
|----------------------------------|--|
| - Screws - Sensor mounting (M8)  | 15 Nm (11.06 lbf ft)   |
| - Screws - Cooling options (M10) | 15 Nm (11.06 lbf ft)   |
| - Nuts (M16)                     | 20 Nm (14.75 lbf ft)   |
| - Threaded rods (M10)            | Dependent on the tube material and the thickness of the tube |



### 3.2 Dimensions

#### KV 31, for vertical sensor mounting

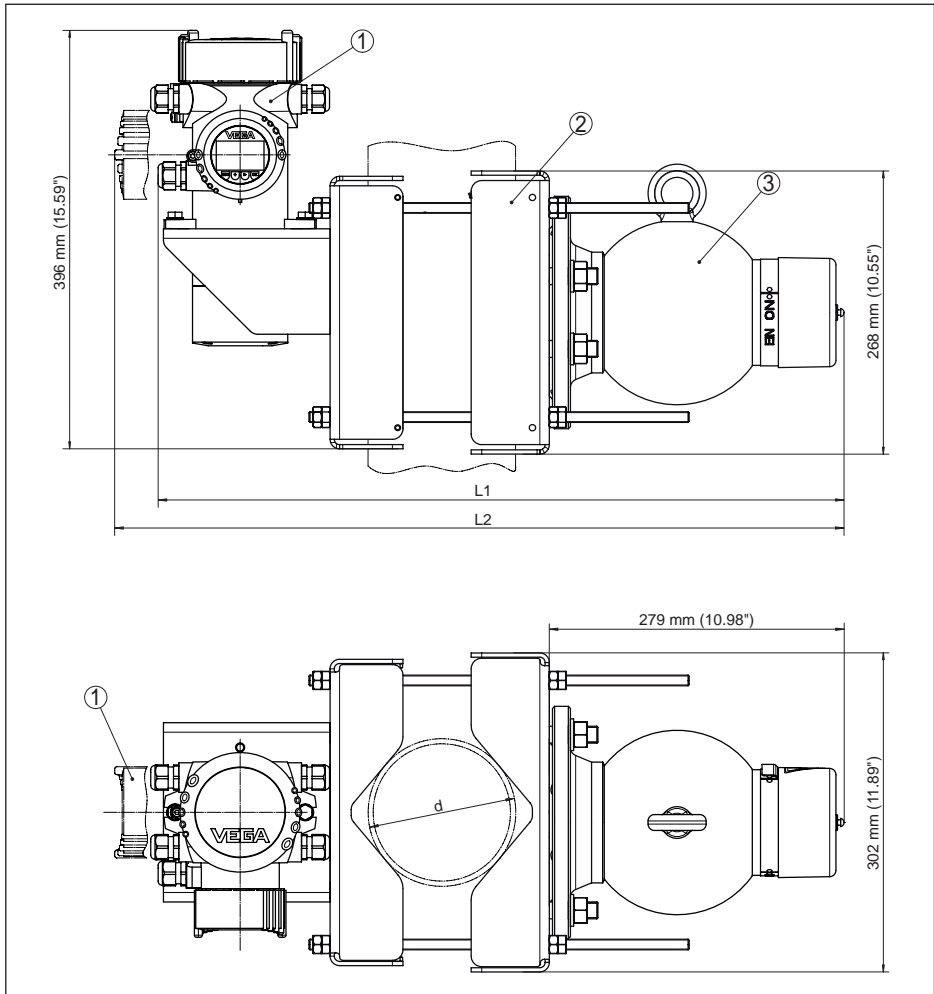


Fig. 5: Mounting bracket with vertically mounted sensor

- 1 Level sensor MINITRAC
- 2 Mounting bracket - KV 31
- 3 Source holder

L1 = total length of the measuring system (see following table)  
 L2 = total length of the measuring system - 90° rotated (see following table)  
 d = tube diameter (see following table)

<b>Tube DN (in)</b>	<b>Tube diameter (d)</b>	<b>Total length (L1)</b>	<b>Total length (L2)</b>
ø 50 mm (2 in)	ø 60.3 mm (2.37 in)	540 mm (21.26 in)	574 mm (22.60 in)
ø 100 mm (4 in)	ø 114.3 mm (4.5 in)	605 mm (23.82 in)	639 mm (25.16 in)
ø 125 mm (5 in)	ø 139.7 mm (5.5 in)	637 mm (25.08 in)	671 mm (26.42 in)
ø 150 mm (6 in)	ø 168.3 mm (6.63 in)	670 mm (26.38 in)	704 mm (27.72 in)
ø 175 mm (7 in)	ø 193.7 mm (7.63 in)	702 mm (27.64 in)	736 mm (28.98 in)
ø 200 mm (8 in)	ø 219.1 mm (8.63 in)	735 mm (28.94 in)	769 mm (30.28 in)

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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.

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