Supplementary instructions

Mounting bracket KV 31

For tubes with ø 400 … 600 mm

Vertical sensor mounting

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Contents

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1 Product description

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

For vertical sensor mounting

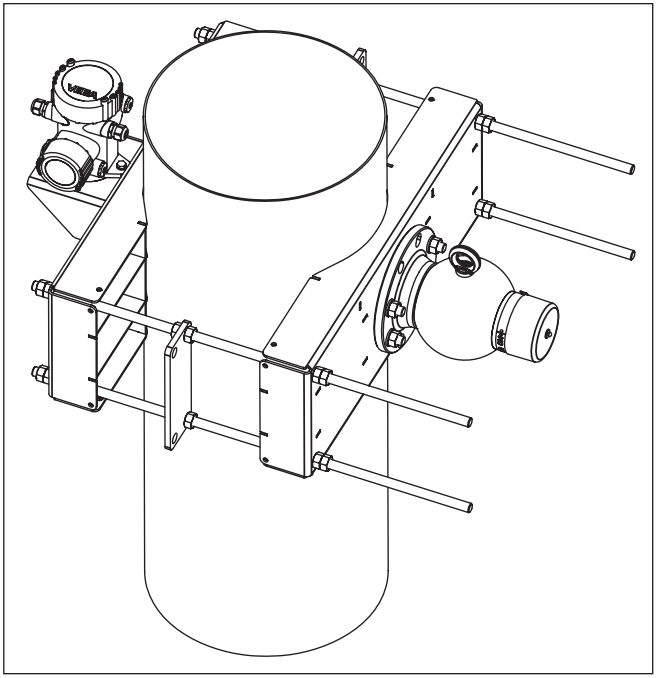

Fig. 1: Mounting bracket with vertically mounted sensor

Scope of delivery

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

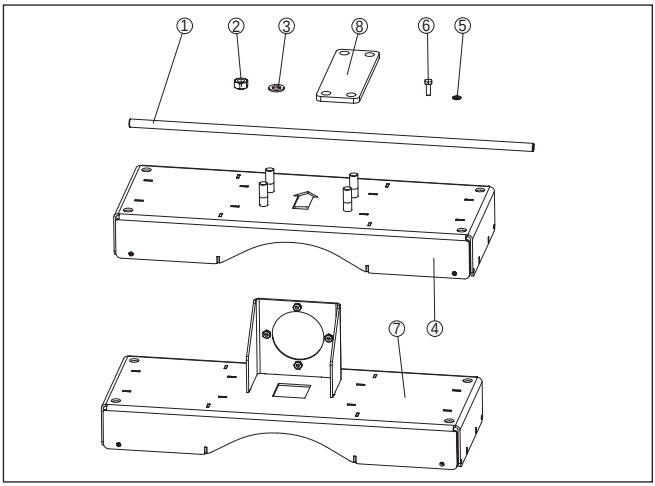

Fig. 2: Mounting bracket KV 31 for pipes irradiated at right angles - vertical sensor mounting

1 *Threaded rods M16 x 800 mm (M16 x 31.5 in), (4 pieces)*
2 *Hexagon nuts M16 (28 pieces)*
3 *Washers for M16 (4 pieces)*
4 *Clamp - Source holder side (1 Stück)*
5 *Washers for M8 (2 pieces)*
6 *Hexagon screws M8 x 25 (2 pieces)*
7 *Clamp - Sensor side (MINITRAC), (1 piece)*
8 *Fixing plates (2 pieces)*

49229-EN-170724

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 (4 and 7) of the bracket are in parallel. 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:

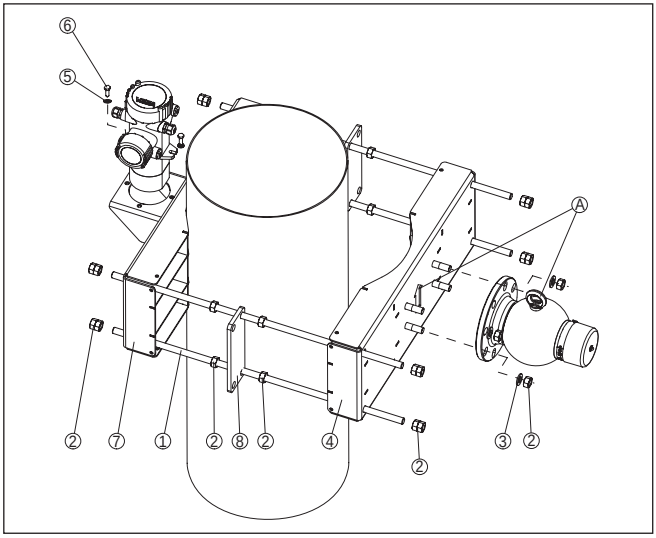

Fig. 3: Mounting bracket KV 31 with vertically mounted sensor

1 Threaded rods M16 x 800 mm (M16 x 31.5 in), (4 pieces)
2 Hexagon nuts M16 (28 pieces)
3 Washers for M16 (4 pieces)
4 Clamp - Source holder side (1 Stück)
5 Washers for M8 (2 pieces)
6 Hexagon screws M8 x 25 (2 pieces)
7 Clamp - Sensor side (MINITRAC), (1 piece)
8 Fixing plates (2 pieces)
A Arrow cutouts of the clamp and eyebolt point in the same direction

1. Make sure that the two clamps (4 and 7) of the bracket are in parallel. Do this by measuring the lateral distances between the clamps.
2. Tighten the nuts (2) of the threaded rod (1) 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:

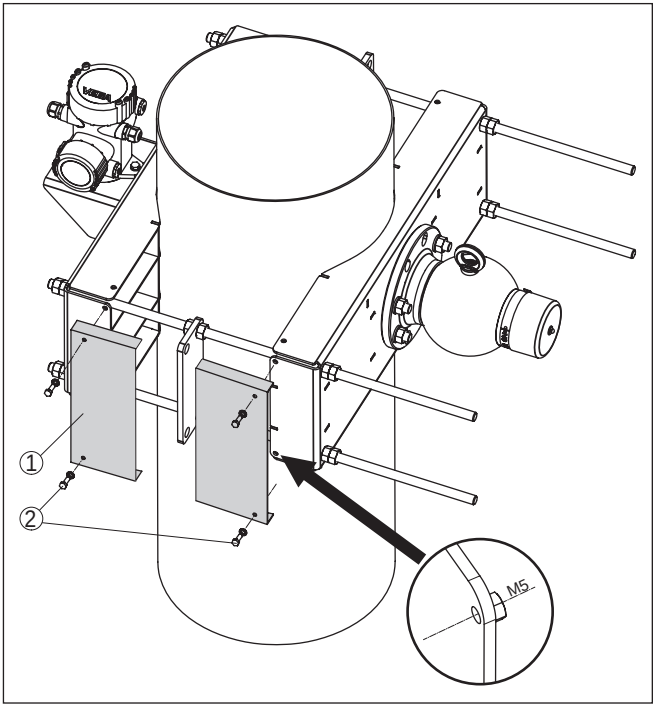

Fig. 4: Install the protective grid on both sides of the mounting bracket

1 Protective grid or shrouds (provided by customer)
2 Screws M5 (4 pieces), (provided by customer)

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 (without sensor and source holder)	39 kg (86 lbs)
Torques	
– Screws - Sensor mounting (M8)	15 Nm (11.06 lbf ft)
– Nuts - VEGASOURCE (M16)	20 Nm (14.75 lbf ft)
– Threaded rods (M16)	Dependent on the tube material

3.2 Dimensions

KV 31 - for vertical sensor mounting

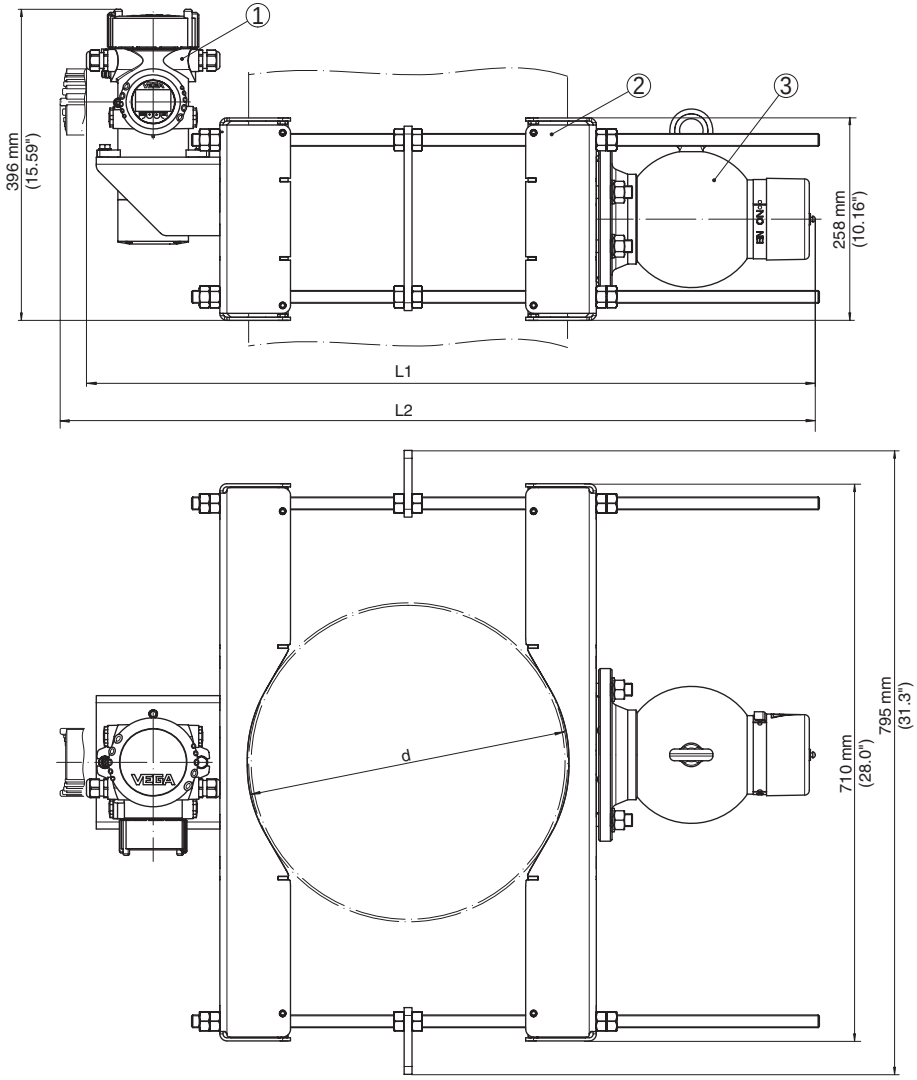

Fig. 5: Mounting bracket with vertically mounted sensor

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

Tube DN (in)	Tube diameter (d)	Total length (L1)	Total length (L2)
DN 400 mm (16 in)	ø 406.4 mm (16 in)	929 mm (36.6 in)	962 mm (37.9 in)
DN 450 mm (18 in)	ø 457.2 mm (18 in)	988 mm (38.9 in)	1021 mm (40.2 in)
DN 500 mm (20 in)	ø 508 mm (20 in)	1046 mm (41.2 in)	1080 mm (42.5 in)
DN 550 mm (22 in)	ø 559 mm (22 in)	1105 mm (43.5 in)	1139 mm (44.8 in)
DN 600 mm (24 in)	ø 610 mm (24 in)	1163 mm (45.8 in)	1197 mm (47.1 in)

49229-EN-170724

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