



Special Documentation

FHG51-E#1

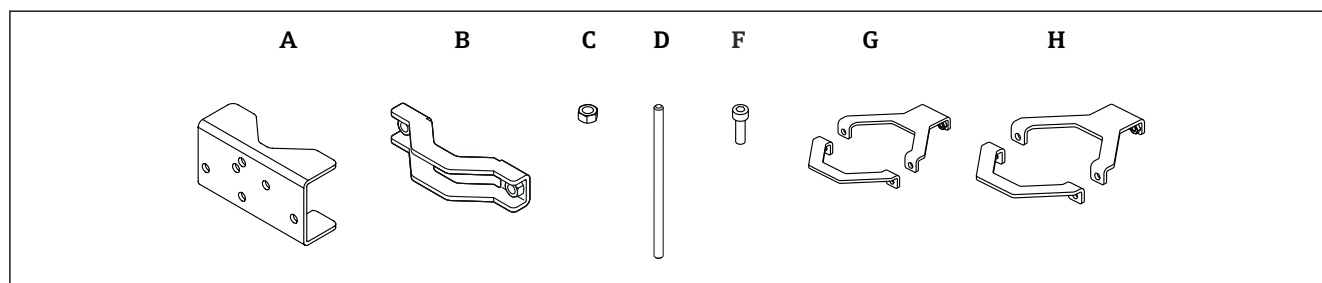
Clamping device for density measurement

For pipes with an outer diameter of 48 to 77 mm (1.89 to 3.03 in) and FQG60

Designated use

Clamping device to secure a radiometric measuring system on pipes with an outer diameter of 48 to 77 mm (1.89 to 3.03 in). The radiometric measuring system comprises an FQG60 source container and the Gammapiot FMG50 compact transmitter.

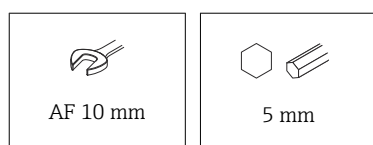
Overview of clamping device



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- A 2 × clamp; 106 mm (4.17 in) × 56 mm (2.2 in) × 35 mm (1.38 in), 316L (1.4404)
- B 4 × pipe holder; 102 mm (4.02 in) × 22 mm (0.87 in) × 32 mm (1.26 in), 316L (1.4404)
- C 16 × nut DIN EN ISO4032 M6, A4
- D 8 × threaded bolt M6 × 120 mm (4.72 in), A4
- F 8 × screw DIN EN ISO4762 M6×20, A4
- G 1 × pipe holder Ø80 mm (3.15 in); 126 mm (4.96 in) × 171 mm (6.73 in) × 18 mm (0.71 in), 316L (1.4404)
- H 1 × pipe holder Ø95 mm (3.74 in); 140 mm (5.51 in) × 178 mm (7.01 in) × 20 mm (0.79 in), 316L (1.4404)

Tools list



Safety instructions

⚠ CAUTION

Heavy components and devices

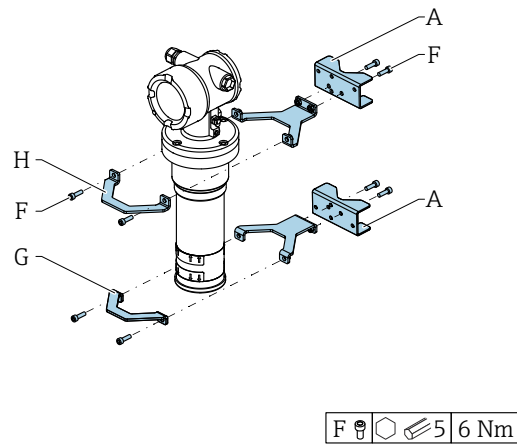
Risk of injury, damage to equipment

- Use hoists
- Pay attention to the weight information in the TI for the device

Assembly

- At least two people are required for the installation
- Pay attention to the mounting position of the Gammapiot FMG50.

Pre-assembly

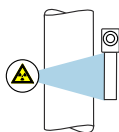


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1 FMG pre-assembly

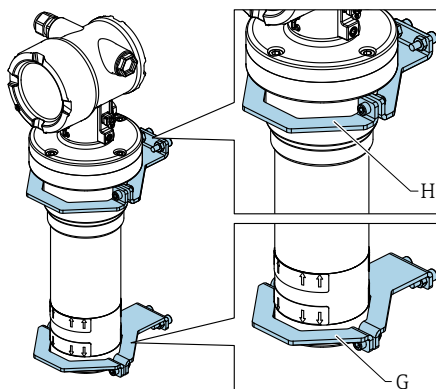
i Pay attention to the orientation of the pipe holders → depends on the mounting position, sensor length and the type of irradiation (90° or 30°).

90° vertical irradiation



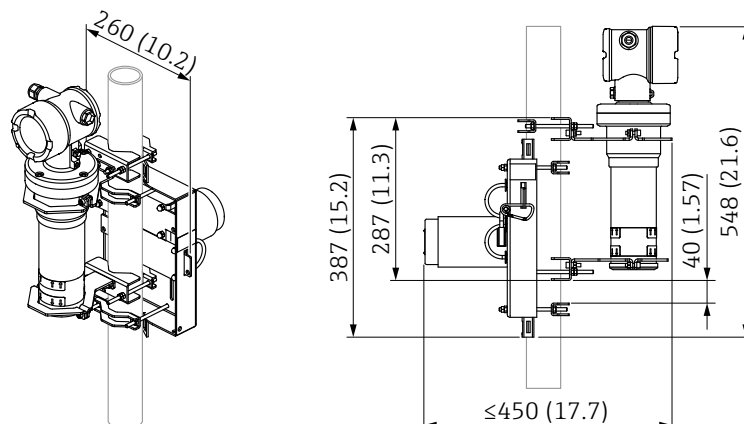
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• - Sensor length 50×50 mm; NaI crystal



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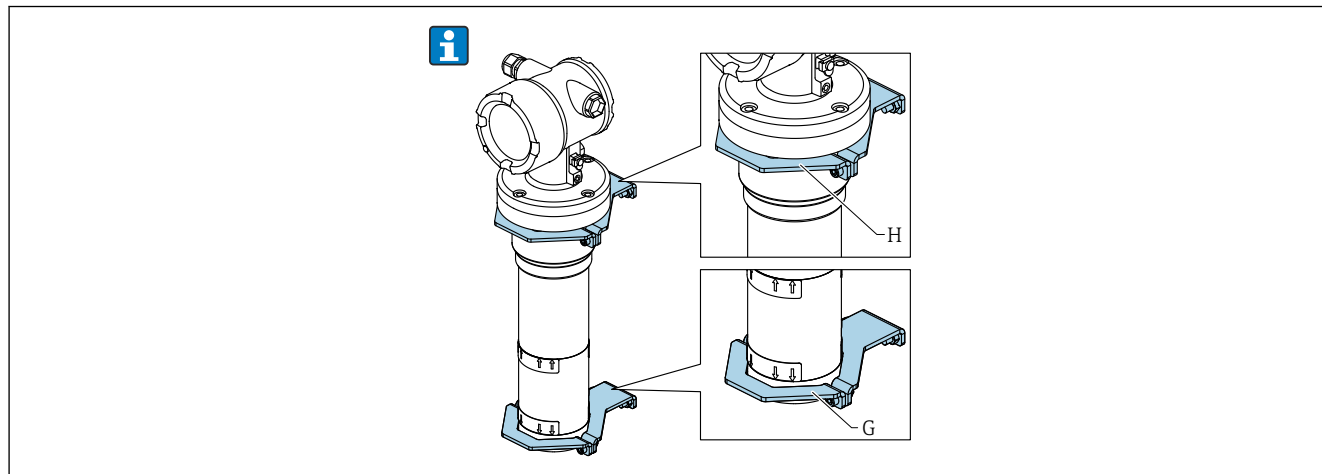
2 Mounting position and alignment of the pipe holders; sensor length 50×50 mm; NaI crystal



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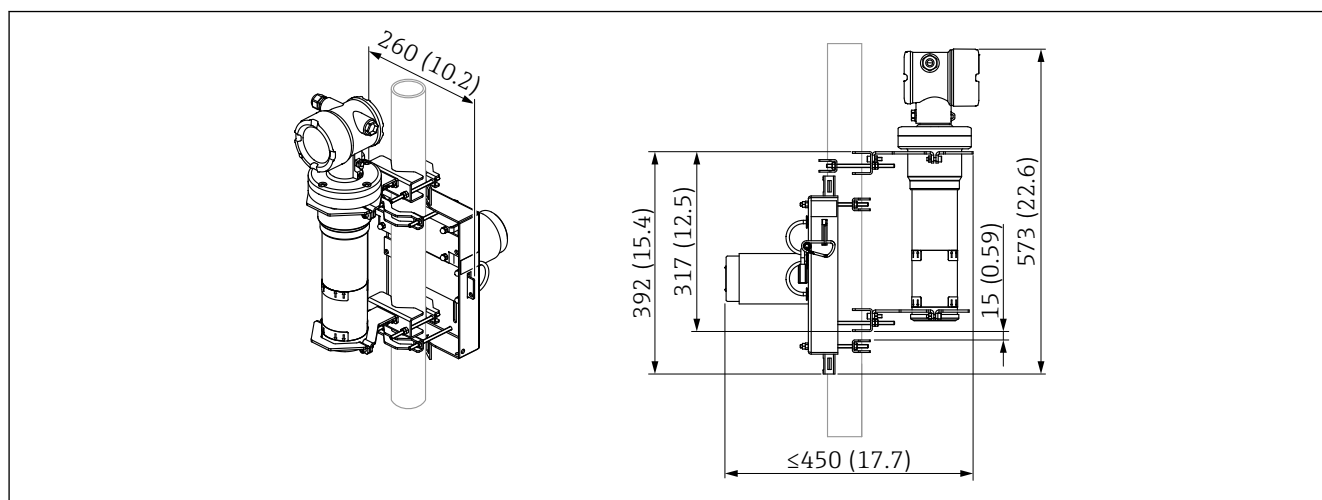
3 Dimensions: sensor length 50×50 mm; NaI crystal

 - Sensor length 50×100 mm; NaI crystal



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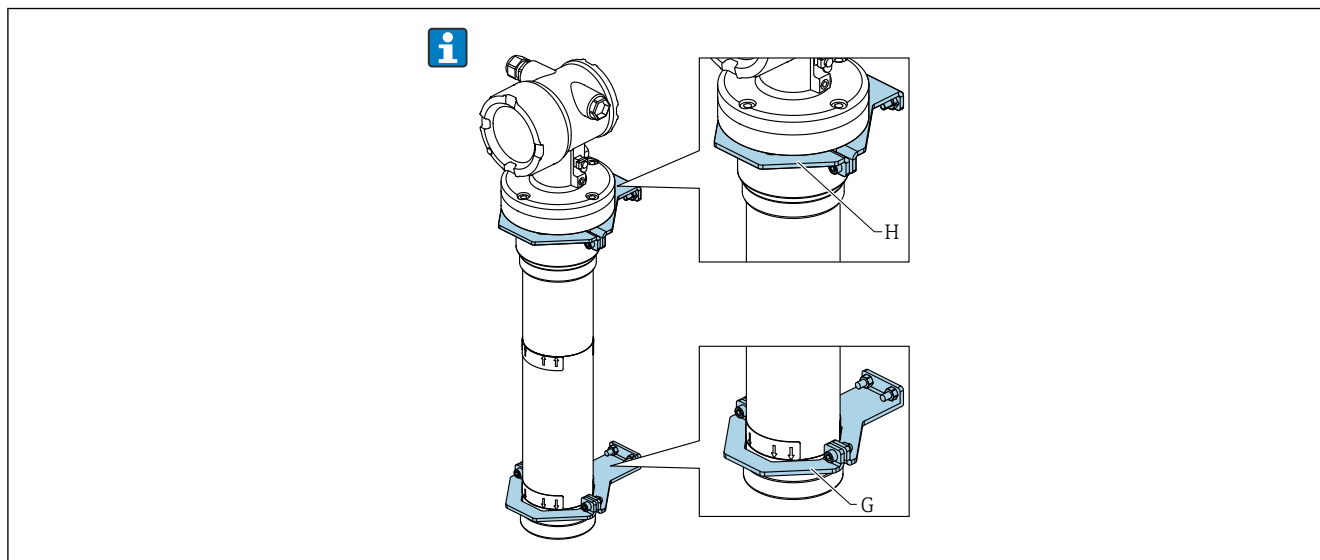
 4 Mounting position and alignment of the pipe holders; sensor length 50×100 mm; NaI crystal



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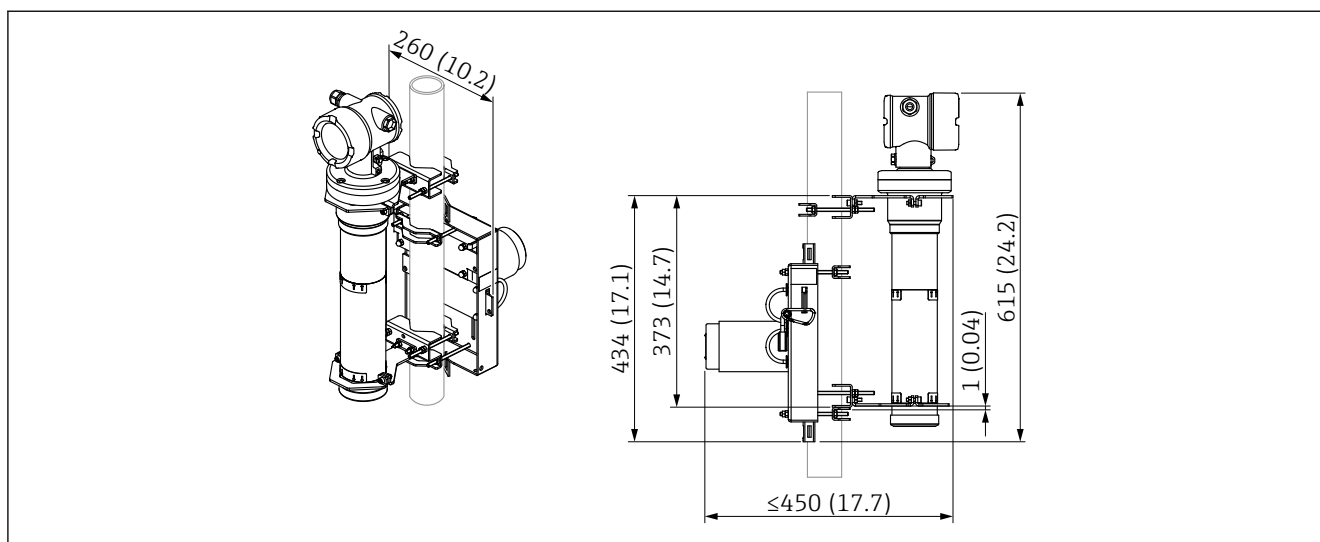
 5 Dimensions: sensor length 50×100 mm; NaI crystal

•  - Sensor length 50×200 mm; NaI crystal and PVT 200 mm (7.87 in)



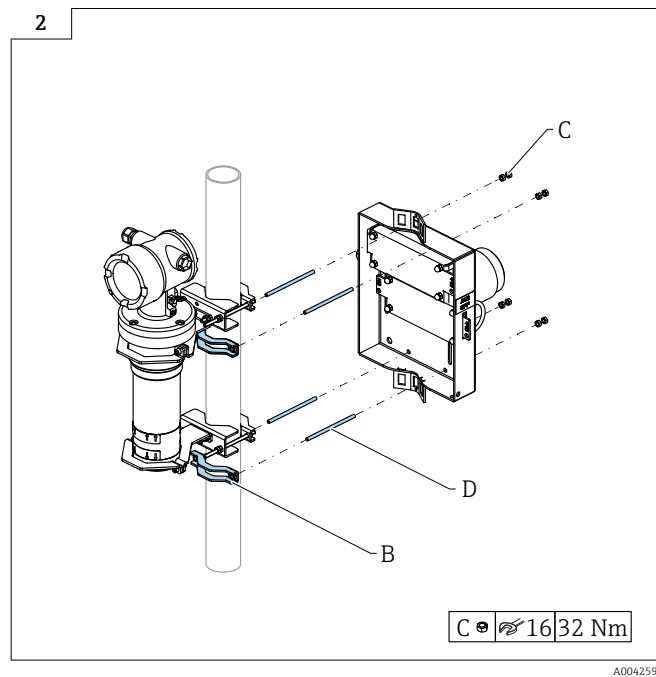
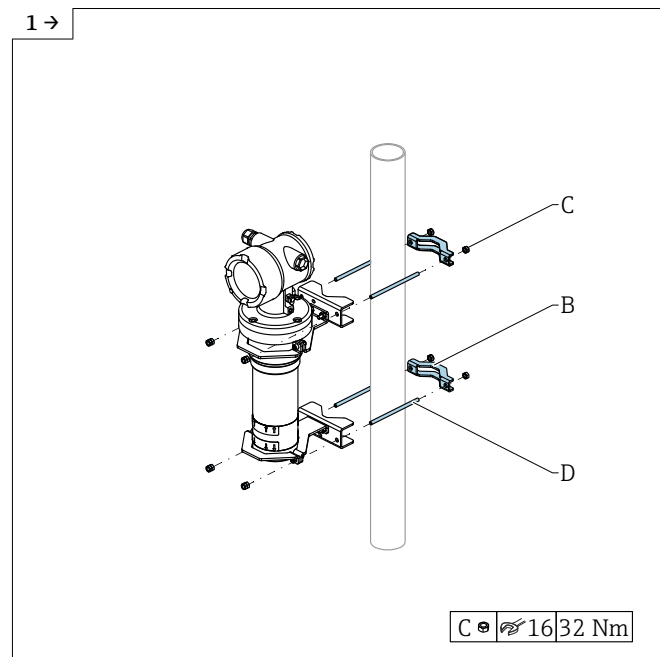
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 6 Mounting position and alignment of the pipe holders; sensor length 50×200 mm; NaI and PVT 200 mm (7.87 in)

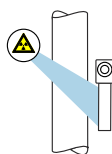


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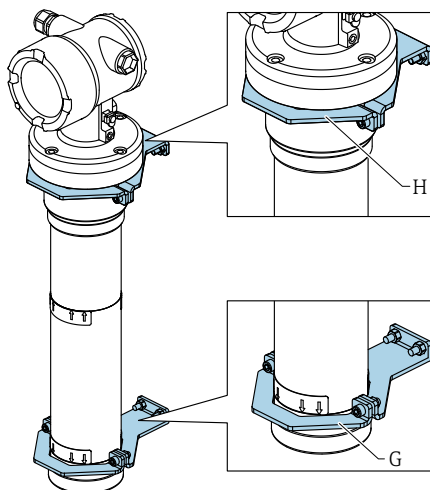
 7 Dimensions: sensor length 50×200 mm, NaI and PVT 200 mm (7.87 in)

 Assembly steps

30° diagonal irradiation



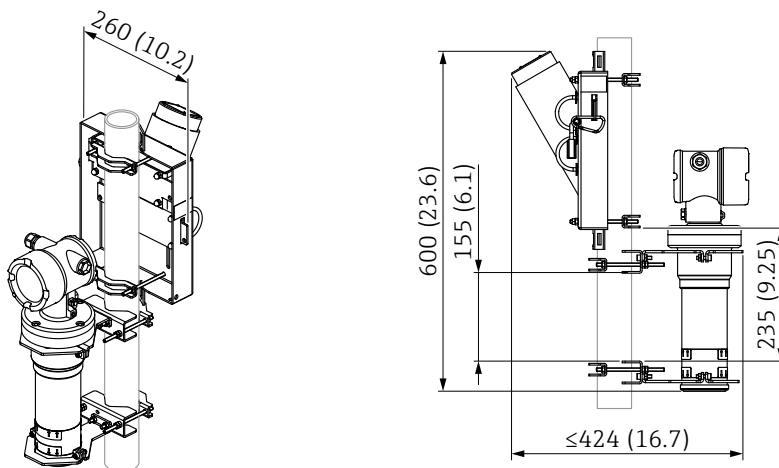
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8 Mounting position and alignment of the pipe holders with 30° diagonal irradiation

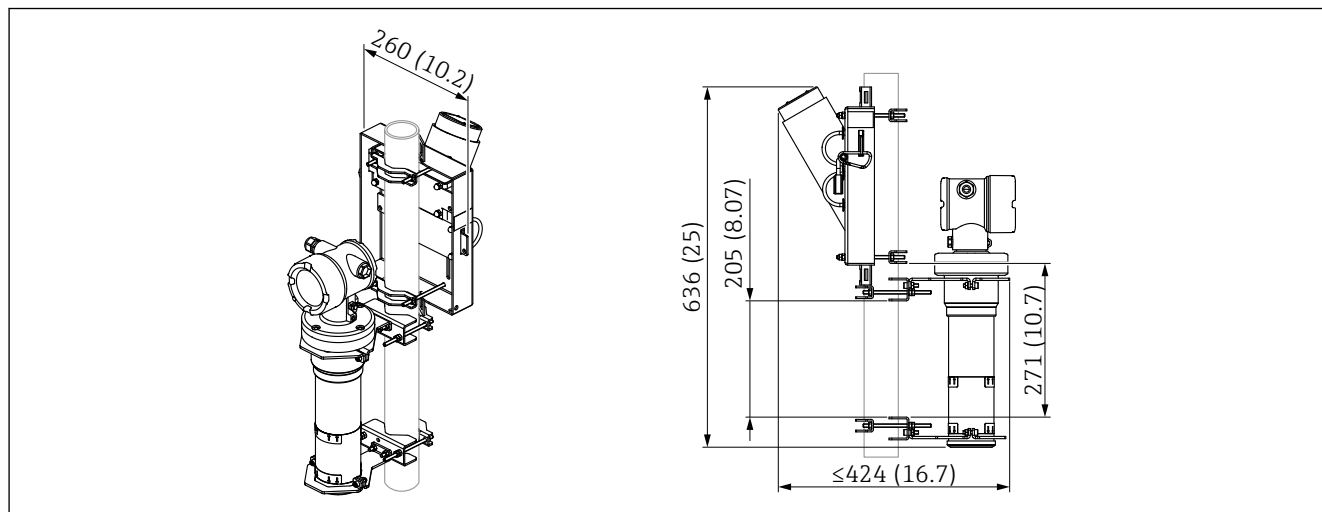
- Sensor length 50×50 mm; NaI crystal



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9 Dimensions: sensor length 50×50 mm; NaI crystal

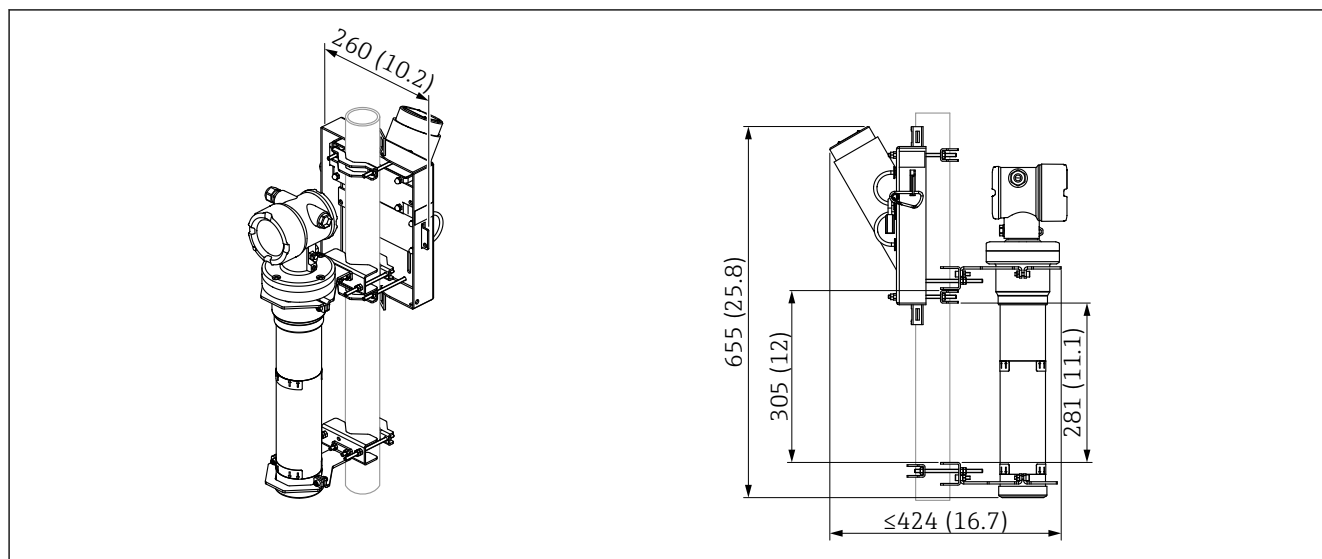
✚ - Sensor length 50×100 mm; NaI crystal



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10 Dimensions: sensor length 50×100 mm; NaI crystal

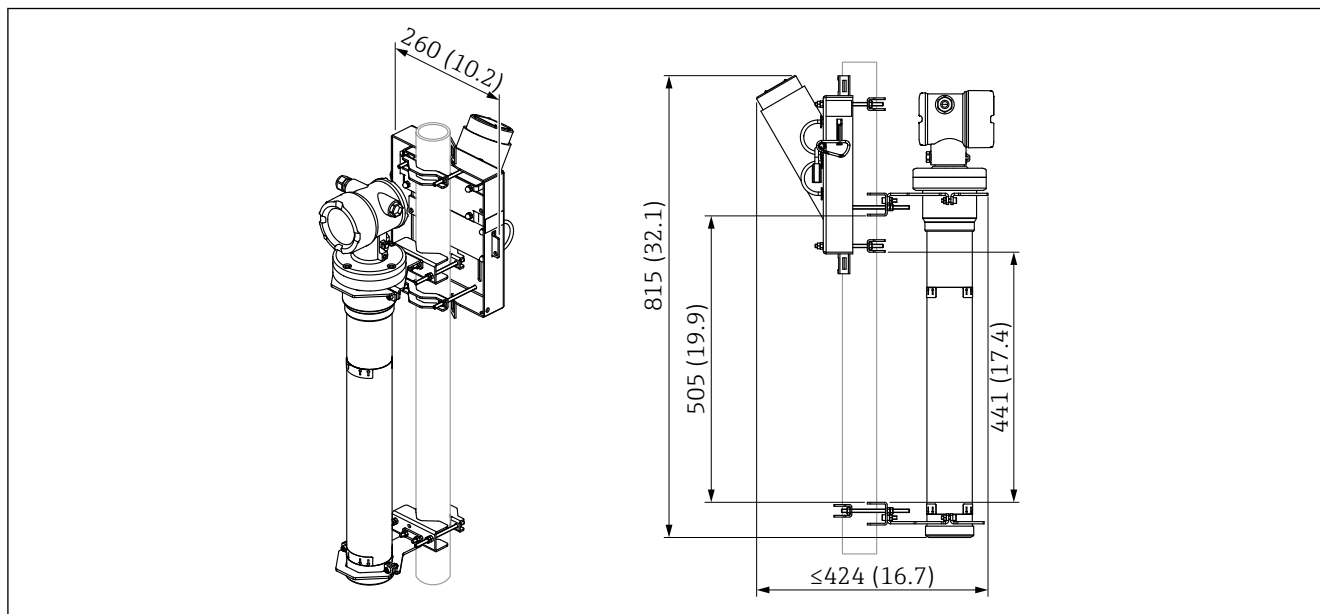
✚ - Sensor length 50×200 mm; NaI crystal and PVT 200 mm (7.87 in)



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11 Dimensions: sensor length 50×200 mm, NaI crystal and PVT 200 mm (7.87 in)

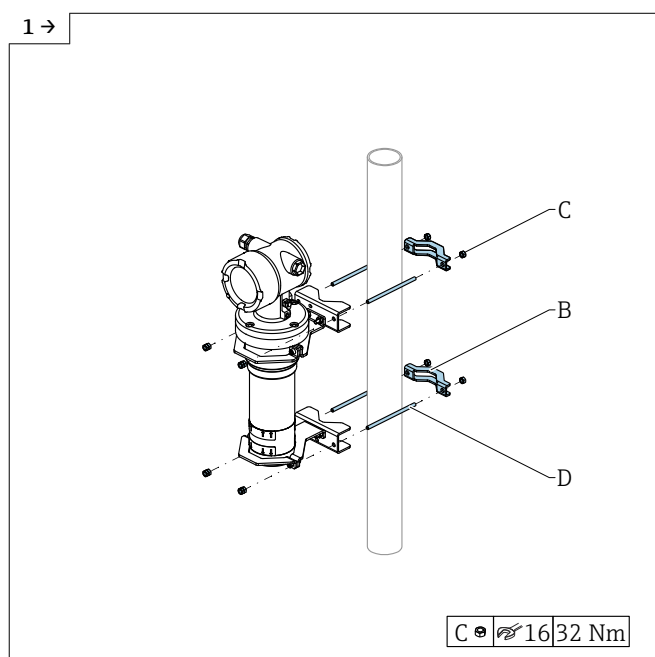
• - Sensor length PVT 400 mm (15.75 in)



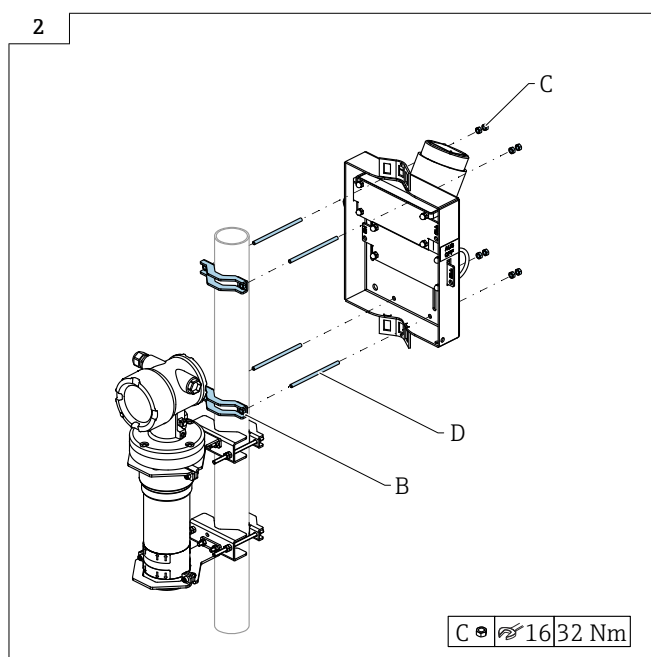
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12 Dimensions: sensor length PVT 400 mm (15.75 in)

• Assembly steps



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Weight

Weight: approx. 2 kg (excluding detector and source container)

Supplementary documentation

The following supplementary documentation is available in the Downloads section of the Endress+Hauser website (www.endress.com/downloads):

Gammapilot FMG50



BA01966F

Source container FQG60



TI00445F