

# USER'S GUIDE



## Outdoor Mounting Kit PTU200MIK1

PUBLISHED BY

Vaisala Oyj  
P.O. Box 26  
FIN-00421 Helsinki  
Finland

Phone (int.): +358 9 8949 1  
Fax: +358 9 8949 2227

Visit our Internet pages at <http://www.vaisala.com/>

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## CHAPTER 1

# GENERAL INFORMATION

### Safety

Throughout the manual, important safety considerations are highlighted as follows:

#### **WARNING**

Warning denotes a serious hazard. It calls attention to a procedure, practice, condition or the like, which, if not correctly performed or adhered to, could result in injury to or death of personnel.

#### **CAUTION**

Caution denotes a hazard. It calls attention to a procedure, practice, condition or the like, which, if not correctly performed or adhered to, could result in damage to or destruction of part or the entire product.

#### **NOTE**

Note highlights important information. It calls attention to an essential procedure, practice, condition or the like.

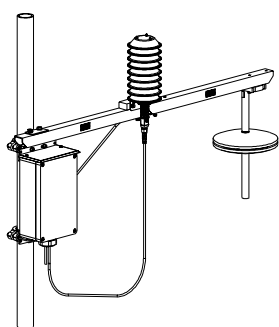
### Warranty

Vaisala issues a guarantee for the material and workmanship of this product under normal operating conditions for one (1) year from the date of delivery. Exceptional operating conditions: damage due to careless handling and misapplication will void the guarantee.

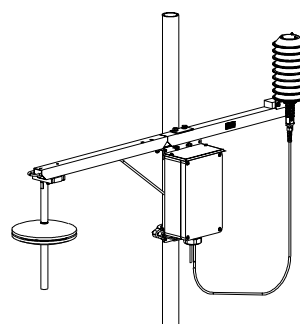
## CHAPTER 2

# PRODUCT DESCRIPTION

PTU200MIK1 mounting kit is for outdoor installation of the PTU200 transmitter and humidity probes HMP45/HMP233 or HMP 243. The kit consists of a protective transmitter box, a support arms, a radiation shield, the static pressure head, pole attachment clamps, a pressure pipe, and a pressure hose. The kit can be attached to any pole with diameter of either 2" or 60 mm. The box offers IP65 protection for the transmitter. It is airtight and connected to the static pressure head with the pressure hose. The radiation shield protects the RH/T probe and the static pressure head reduces the effect of wind on the pressure measurement.

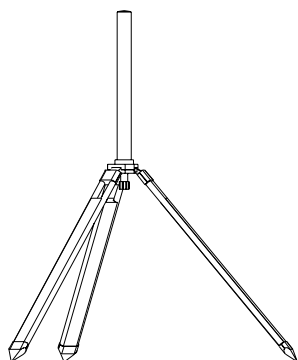


Static pressure head on the right side.



Static pressure head on the left side.

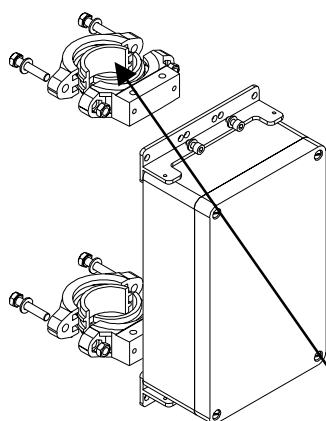
**Figure 1. Two different installations.**



A tripod stand PTU200TRIPOD is for use with the outdoor mounting kit PTU200MIK1. Due to its collapsible structure, it is easy to transfer, which ensures quick system set up even for temporary installations. PTU200TRIPOD includes an adjustable tripod stand with a carrying strap and 650 mm pole (Ø 60 mm).

## CHAPTER 3

# PTU200MIK1 INSTALLATION



Plastic bag (2 pcs.) include:  
 Clamp for pole mounting  
 Plastic fitting ring  
 Hex bolt (2 pcs.) M8x40 DIN 931  
 Washer (2 pcs.) A 8.4 DIN 125  
 Hex nut (2 pcs.) M8 DIN 934  
 Allen screw (2 pcs.)  
 M6x12 DIN 912

Attach the clamp with the machined side up to the T-profile with the two Allen screws.

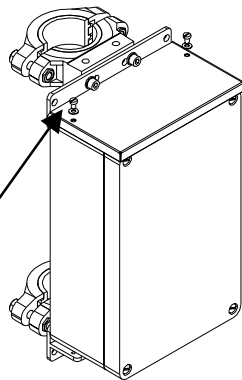
There are three possible positions: left, centered, right.

Pole diameter:

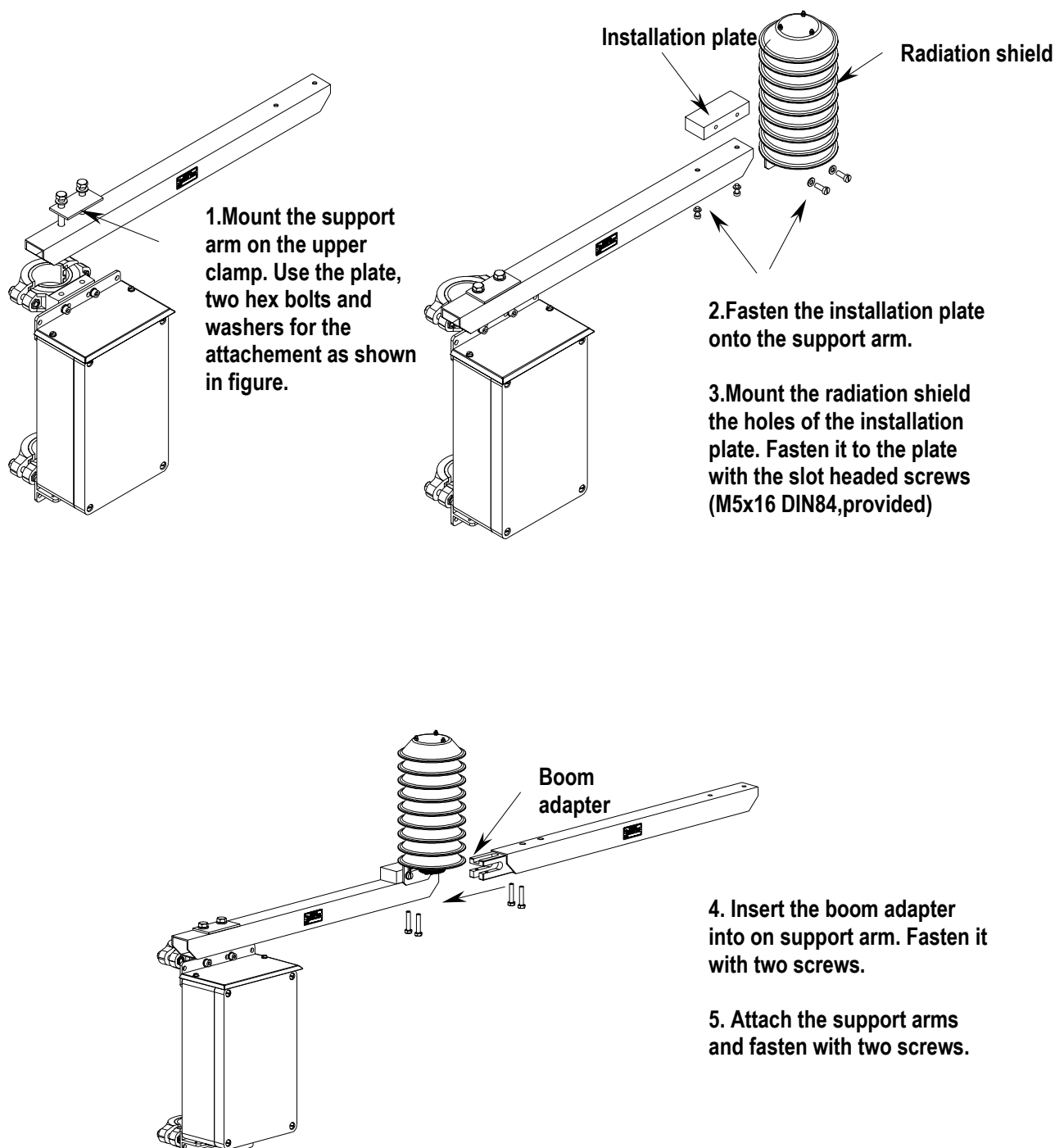
- Clamps with the fitting ring  
2"(-1/8")
- Clamps without the fitting ring  
60 (-5 mm).

Plastic bag includes:  
 Cover plate  
 Slot headed screw (2  
 pcs.) M4x6 DIN 84  
 Washer (2 pcs.)  
 A 4.3 DIN 125

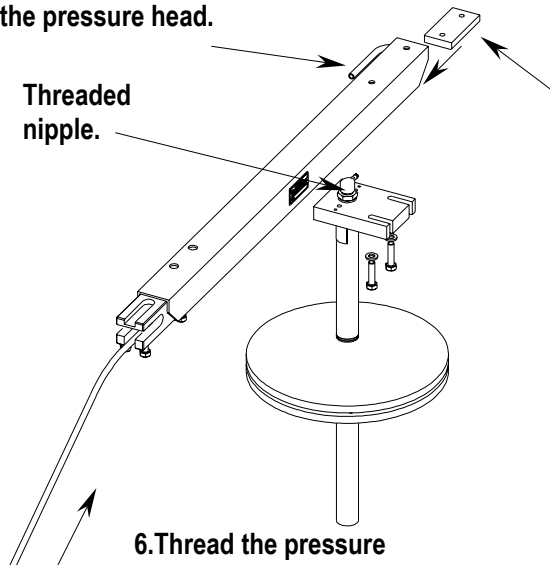
Place the cover plate on  
 the transmitter box and  
 fasten it with the two slot  
 headed screws.



## Installation when static pressure head is on the right side



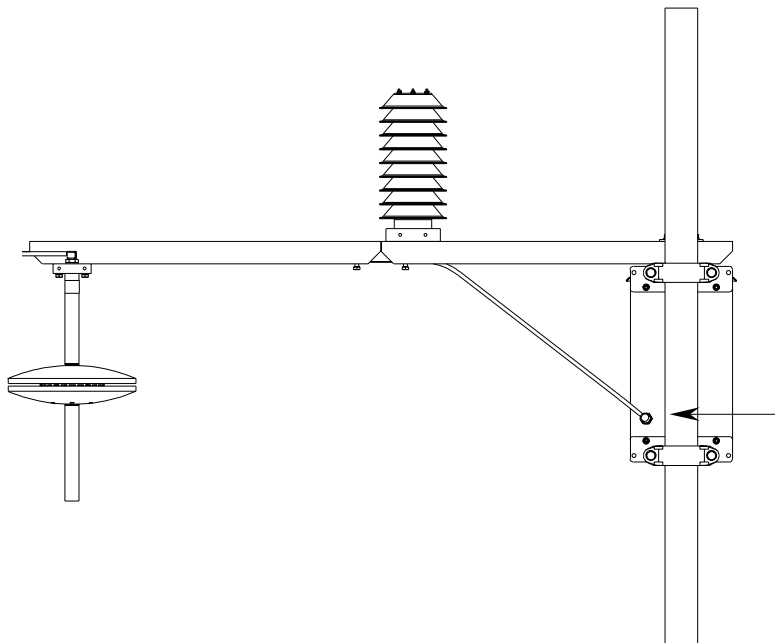
**7. Attach the pressure hose end to the threaded nipple of the pressure head.**



**8. Push the installation plate into the support arm.**

**9. Fasten the static pressure head to the end of the support arm (and installation plate) by using the two screws.**

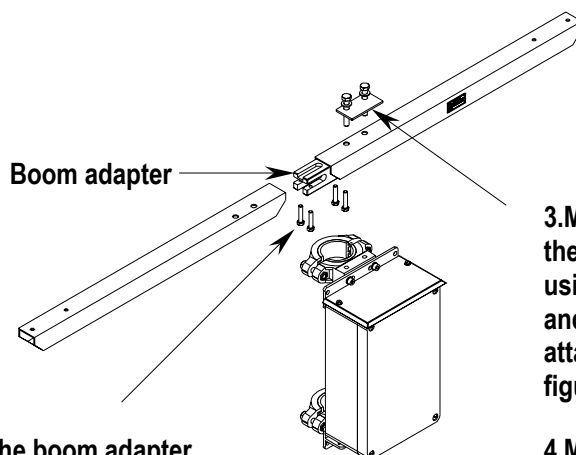
**6. Thread the pressure hose through the support arm.**



**10. Connect the free end of the pressure hose to the hose coupling on backside of the transmitter box.**

**Note! the tube shall not hang loose. This is to prevent the condense water block the tube as it freezes.**

## Installation when static pressure head is on the left side



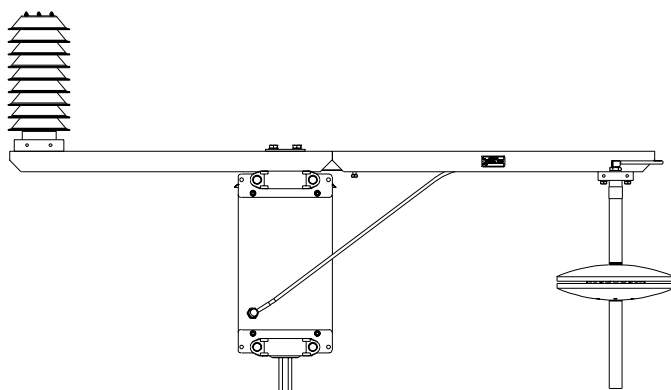
1. Insert the boom adapter into on support arm. Fasten it with two screws.

2 Join the two support arms by using two screws.

3. Mount the support arm on the upper clamp. Fasten it by using the plate, two hex bolts and washers for the attachment as shown in the figure.

4. Mount the radiation shield as instructed on page 5.

5. Mount the static pressure head and thread the pressure hose as instructed on page 6.



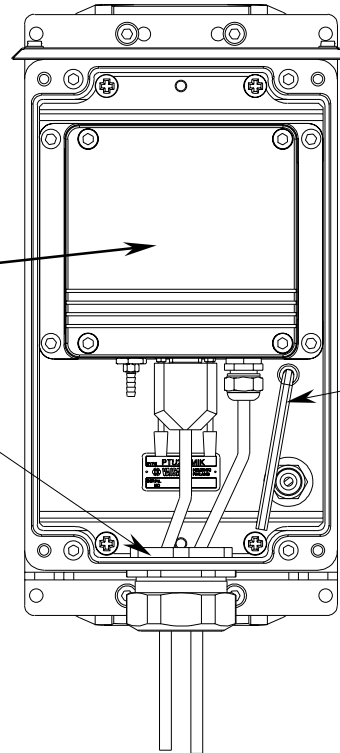
6. Connect the free end of the pressure hose to the hose coupling on backside of the transmitter box.

**Note!** the tube shall not hang loose. This is to prevent the condense water block the tube as it freezes.

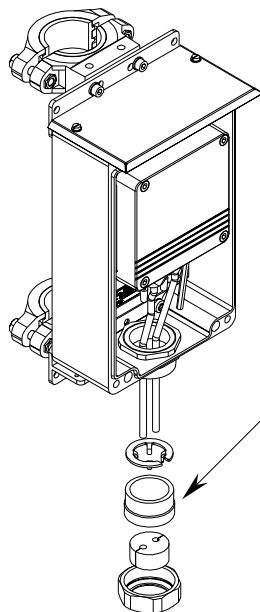
## Connections in the transmitter box

1. Mount the PTU200 transmitter on the back plate of the transmitter box and attach it with the four Allen screws.

2. Thread the cables through the holes of the box and the gasket body.



Allen key for opening the transmitter



3. Thread the cables through the hole in the bottom of the box. (The diameter of the bottom hole is 35 mm)

4. Thread the cables through the different parts of the gasket fitting in the order shown in the figure. Take care that the positions of the parts are correct.

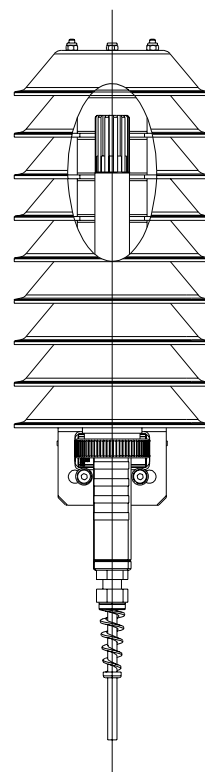
There are two alternative rubber sealings, one for the cables of 4 and 6 mm and one for the cables of 6 and 6 mm. Press the cable through the vertical cutting of the rubber sealing.

5. After threading the cables, press the gasket to the fitting body in the bottom of the box and tighten the nut.

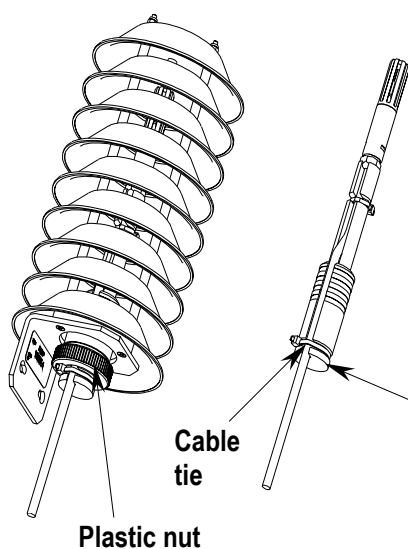
## Probe installations

### HMP45 series

1. Push the HMP45 probe through the plastic nut to the radiation shield as deep as it goes. 2. Pull back about 10 mm. 3. Finally, tighten the plastic nut.

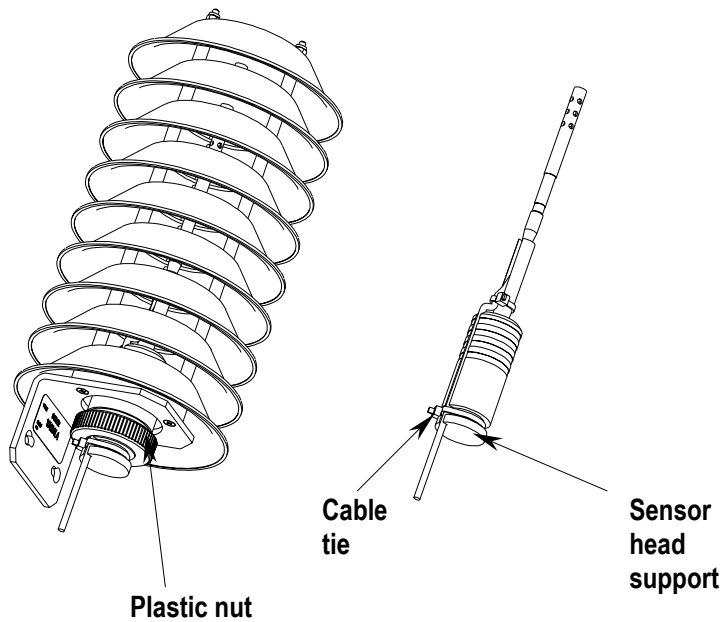


### HMP233 series



1. Attach the HMP233 probe to the support with an upper cable tie.
2. Press the probe cable into the groove of the support.
3. Fasten the lower cable tie.
4. Push the probe through the plastic nut into the radiation shield as deep as it goes.
5. Finally, tighten the plastic nut.

## HMP243 series



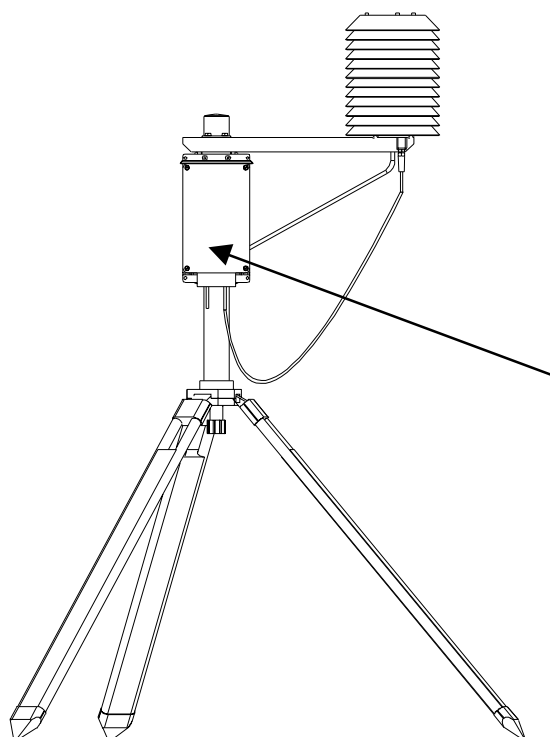
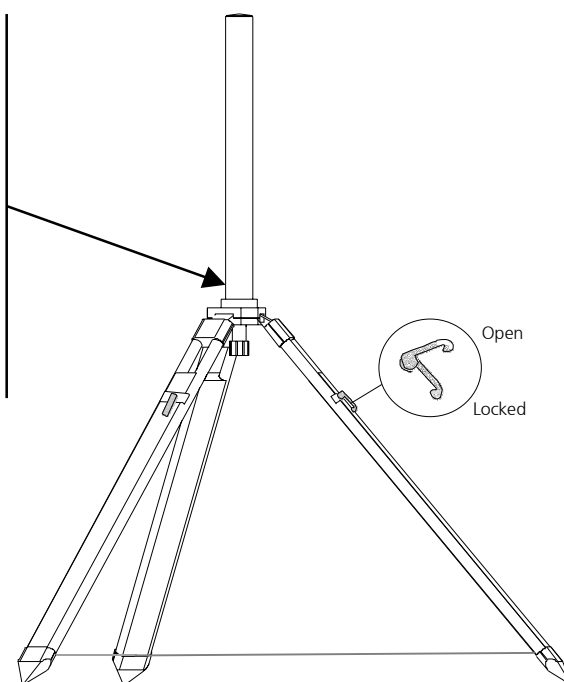
1. Attach the HMP243 probe to the support with an upper cable tie.
2. Press the probe cable into the groove of the support.
3. Fasten the lower cable tie.
4. Push the probe through the plastic nut into the radiation shield as deep as it goes.
5. Finally, tighten the plastic nut.

## CHAPTER 4

## PTU200TRIPOD INSTALLATION

Place the pole onto the tripod stand and fasten it with the attachment screw. The handle of the screw is under the center of the stand.

The legs of the stand are adjustable. To release the leg, lift the grip upwards. Adjust the leg to desired length and lock it by pressing the grip downwards.



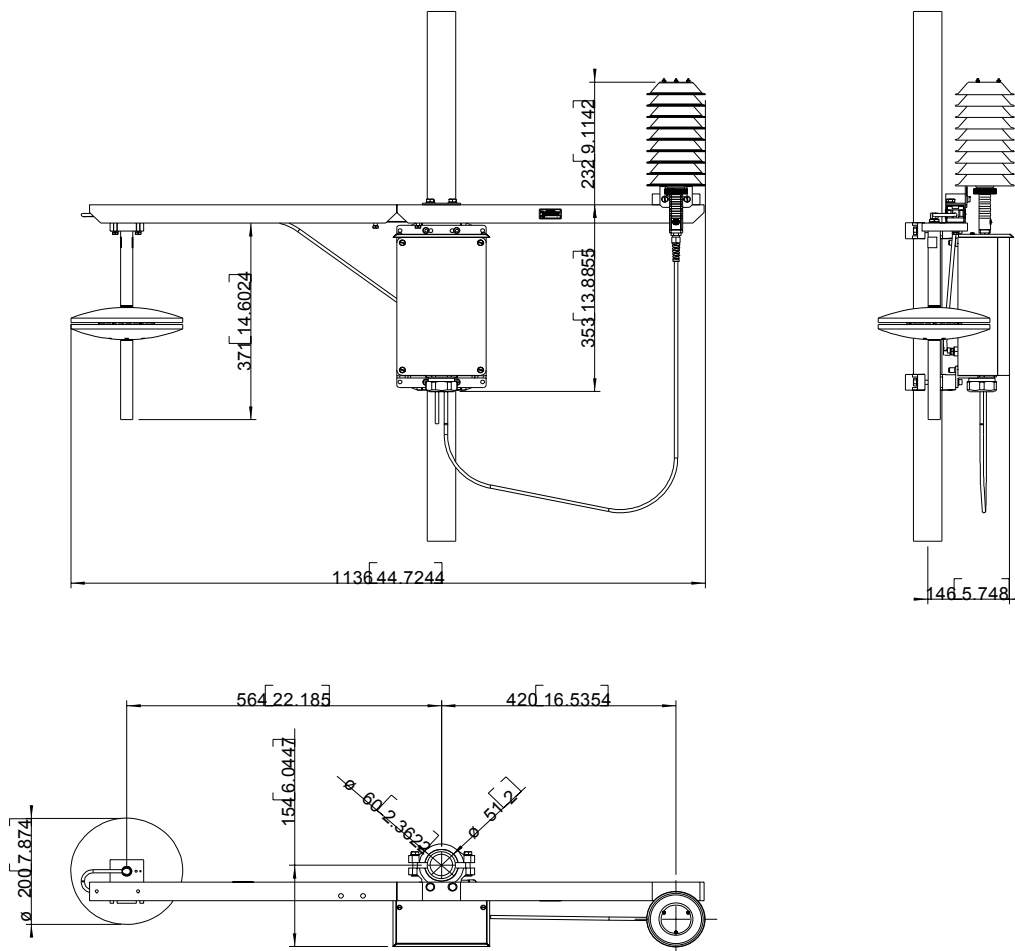
Use the clamps without the fitting rings to attach the PTU200MIK to the pole.

Certain meteorological standards define the altitude for the pressure measurement. As the transmitter is installed into the protective box, the distance of the pressure transducer from the bottom of the transmitter box is  $192 \pm 5$  mm.

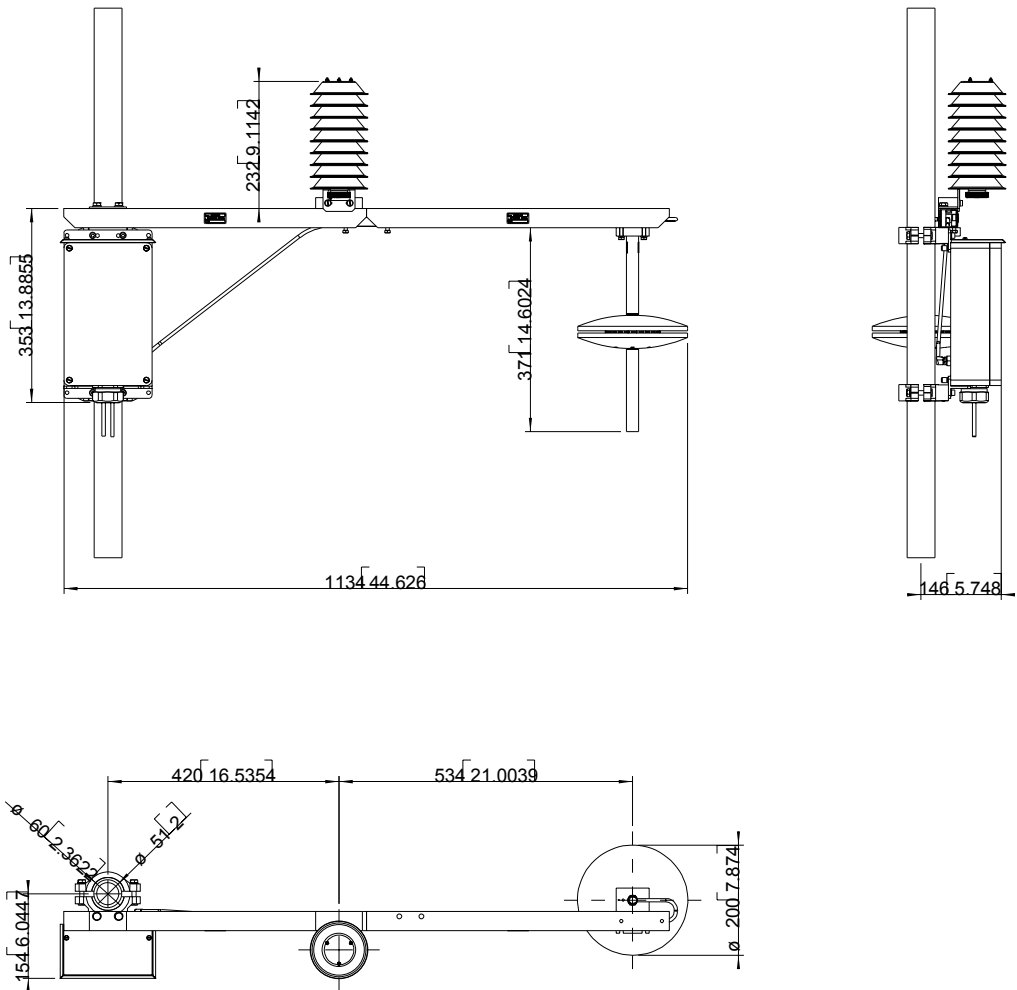
## CHAPTER 5

# DIMENSIONS in mm (in inches)

## Static pressure head on the left side



Static pressure head on the right side









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