

## Instruction for Use

020897/03/05

# ***Weather and Thermal Radiation Shield***

***- compact***

**1.1025.55.xxx**

1.1025.55.00x



1.1025.55.100

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## 1 Models available

Order-No.	Model	Bracket for mast tube mounting	Mounting hole for meas. transm.
1.1025.55.000	w/o ventilator	for Ø 35 ... 50 mm	Ø 11-21 mm
1.1025.55.001	w/o ventilator	for Ø 55 ... 60 mm	Ø 11-21 mm
1.1025.55.011	w/o Ventilator	für Ø 55 ... 60 mm	Ø 18-25 mm
1.1025.55.100	with ventilator	for Ø 35 ... 50 mm	Ø 11-21 mm
1.1025.55.111	with ventilator	for Ø 55 ... 60 mm	Ø 18-25 mm
1.1025.55.200	with ventilator	for Ø 35 ... 50 mm	Ø 11-21 mm and Ø 7 mm

Measuring transmitters which can be protected by the weather- and thermal radiation shield, are given in the following table:

Weather- and Thermal Radiation Shield	Suited measuring transmitters	Order- No.
1.1025.55.000 1.1025.55.001 1.1025.55.100	Hygro-Thermo Transm.– compact	1.1005.54.000
	Hygro-Thermo Transm.– compact	1.1005.54.241
	Hygro-Thermo Transm.– compact	1.1005.54.161
	Hygro-Thermo Transm.– compact	1.1005.54.441
	Temperature Sensor- compact	2.1280.00.000
	Temperature Sensor- compact	2.1280.00.141
	Temperature Sensor- compact	2.1280.00.161
1.1025.55.200	Hygro-Thermo Transm.– compact and Measuring sensor (Pt100)	1.1005.54.000 2.1230.00.000
1.1025.55.111 1.1025.55.011	Meas. transmitter Ø 18-25 mm	

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**Remark:**

*For Hygro-Thermo Transmitter model ...241/441 (4-20 mA) we recommend the use of the weather and thermal radiation shield compact with ventilation order-no. 1.1025.55.55.1xx*

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## 2 Application

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Radiation and precipitation can falsify measurement data to an unacceptable extent if the temperature sensors and humidity sensors are inadequately protected or perhaps not protected at all. Moreover, the use of unprotected temperature and humidity sensors increases the risk of mechanical damage.

The use of the Weather and Thermal Radiation Shield - compact in an appropriate combination with suitable temperature and humidity sensors reduces to a minimum the possibility of radiation, precipitation or damage influencing the data in a negative manner.

More exactly measuring results are achieved by using the ventilated Weather and Thermal Radiation Shield (mod. 1.1025.55.10x with ventilation). The ventilation reduces those errors which might occur during the measurements in a weather hut caused by the so-called „proper climate“

Owing to its outstanding technical properties as well as the compact form of construction, the Weather and Thermal Radiation Shield - compact is predestined for use in professional measurement.

## 3 Mode of Operation

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The white UV-proof lamella prevent direct and reflected radiation from striking the sensor. Due to the appropriate geometric arrangement of the lamella, the flow of air around the sensors is hardly affected.

The lamella material exhibits very good reflective properties, low heat conductivity and excellent weather- resistance.

With the **ventilator model** the air is drawn in on the base of the radiation shield, is then run past the sensor with the necessary flow velocity and is emitted again beneath the cover.

## 4 Mounting

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**Attention:**

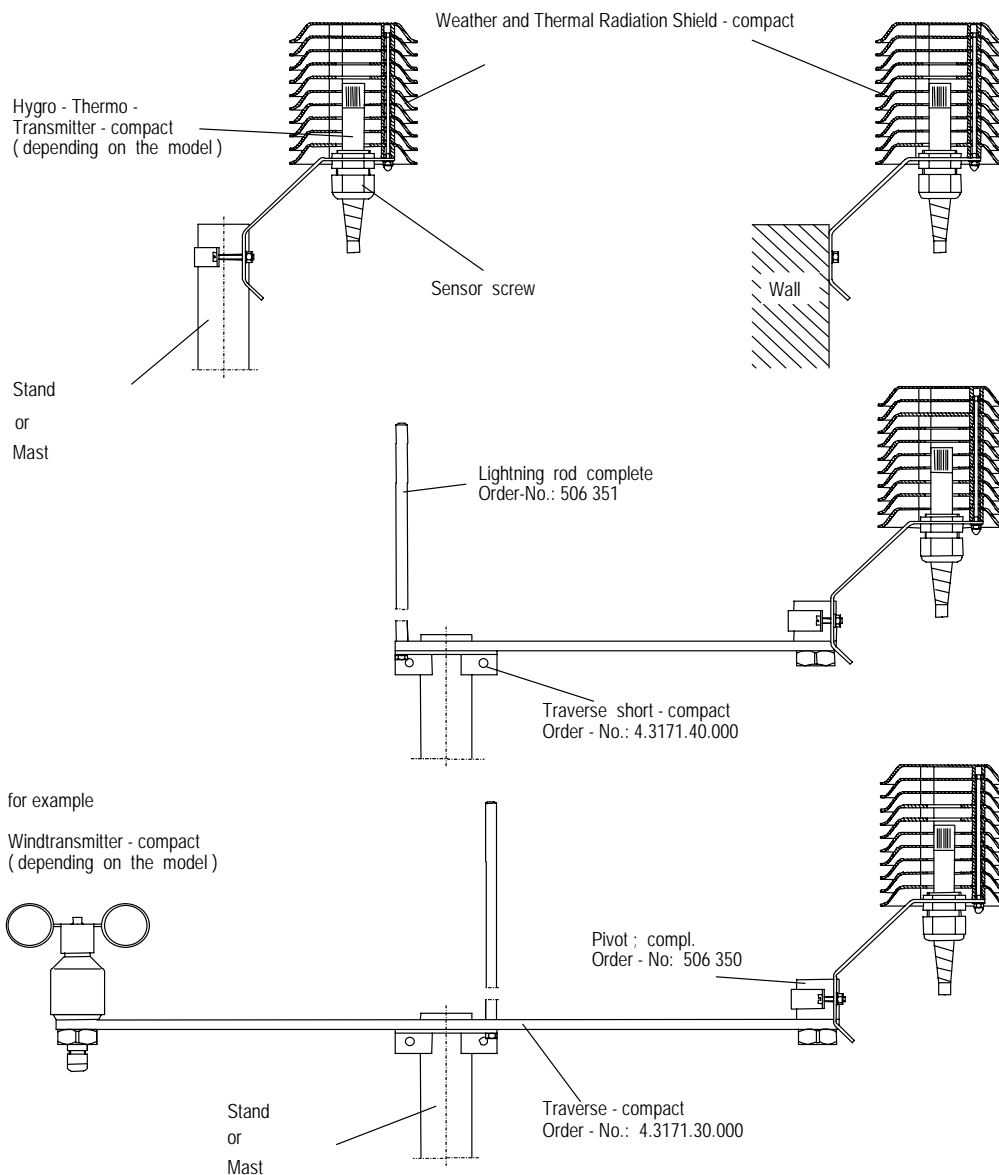
***Storing, mounting, and operation under weather conditions is permissible only in vertical position, as otherwise water can get into the instrument.***

## 4.1 Mechanical Mounting

The Weather- and Thermal Radiation Shield is to be mounted at a position that is presentable for the measurement. Operating position is vertical. The Weather- and Thermal Radiation Shield is delivered with a solid angular sheet-metal holder, which makes it possible to mount the Weather and Thermal Radiation Shield-compact to mast tubes, and, after the clamp is removed, also to plane surfaces.

- The appropriate sensor is mounted by means of clamping screws below the lamella.

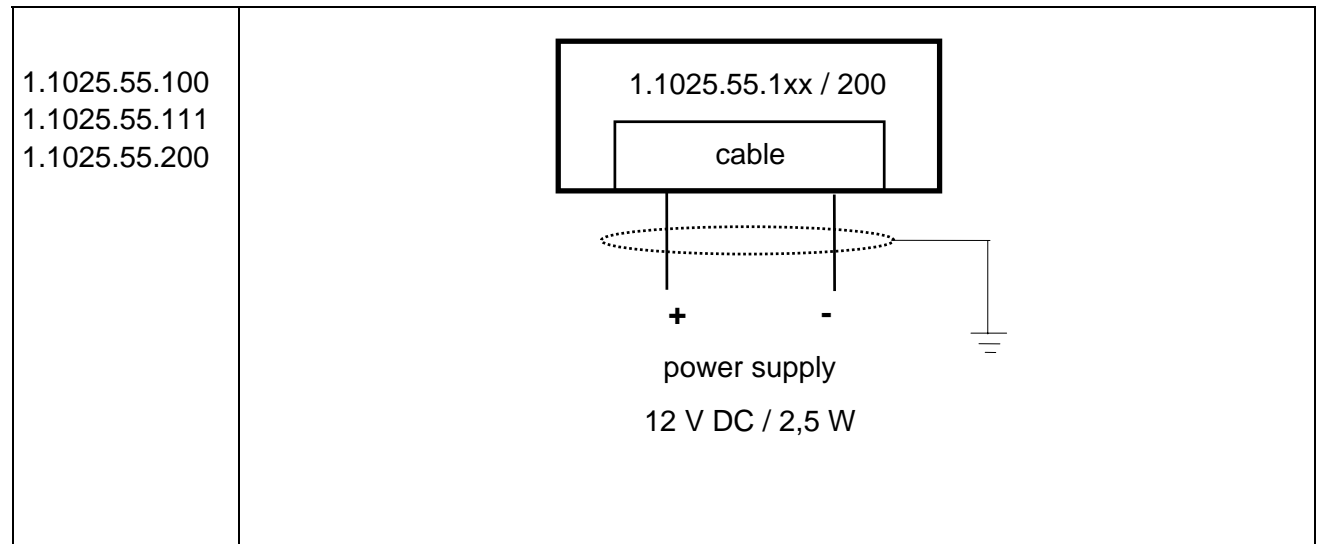
### Mounting alternatives:



## 4.2 Electrical Mounting of the Weather- and Thermal Radiation Shield with Ventilator

The electrical connection is carried out according to the connecting diagram.

## 5 Connecting Diagram



## 6 Maintenance

During operation the Weather- and Thermal Radiation Shield might be polluted, to a greater or lesser extent, for ex. by dust, insects or the like.

The protective grating of the Weather- and Thermal Radiation Shield might be clogged with dirty particle which affects the forced ventilation.

We therefore recommend to clean the Weather- and Thermal Radiation Shield regularly, depending on the location, and the expected degree of pollution.

Clean the instrument with a wet cloth, and a brush.

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**Remark:**

*Please pay attention also to the maintenance advices of the measuring sensors*

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## 7 Technical Data

### 1.1025.55.000 / 001 / 011

#### Dimension

Diameter	120 mm
Height	1.1025.55.000 / 001 270 mm
	1.1025.55.011 280 mm
	270 mm

#### Bracket for mast tube mounting

Clamping range	See models available
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#### Mounting hole for meas. transmitter

Type	Clamp screwing
Clamping range	See models available

#### Material

Lamella	Synthetic, white
Bracket	Stainless steel
Weight	approx. 0,65 kg

### 1.1025.55.100 / 111 / 200

#### Dimension

Diameter	120 mm
Height	290 mm

#### Bracket for mast tube mounting

Clamping range	See models available
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#### Mounting hole for meas. transmitter

Type	Clamp screwing/ adapter system
Clamping range	See models available

#### Material

Lamella	Synthetic, white
Bracket	Stainless steel
Weight	approx. 0,75 kg
Operating voltage of ventilator	12 VDC / 2,5 W
Cable length	approx. 5 m



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