

# PRECIPITATION MEASURING TECHNOLOGY

## Precipitation Transmitter

### Part number: 5.4041.x1.00x

The device combines cutting-edge weighing technology in a very small space with a self-emptying collection vessel. The system provides excellent resolution and high precision. Even minute drops will be measured.

The weighing precipitation transmitter is suited for use in meteorological and hydrological monitoring networks as well as applications in the area of environmental monitoring.

Modbus RTU-interface facilitates installation of the sensor and its integration into networks. The device is WMO-compliant and is equipped with interfaces which are compatible with sensors with tipping bucket balances and other weighing systems. Other features are the compact, robust design, a very low weight, stainless steel housing, weather resistance and longevity. High connectivity is ensured by multiple interfaces as well as easy installation and maintenance.



### Scope of application:

- Meteorology
- Climatology
- Hydrology
- Industry
- Environmental monitoring

## Specification

### Part number: 5.4041.x1.00x

#### Precipitation

Collecting area	200 cm <sup>2</sup>
Resolution	0.001mm (pulse output: 0.01mm)
Meas. principle	Weighing with automatic self-emptying function
Intensity	0 ... 20mm/min or 0 ... 1200mm/h
Accuracy with quantity meas.	0.1mm or 1% (quantity 6 mm/min) 2% (quantity > 6 mm/min)
Precipitation types	Liquid (item without heating: solid, mixed)

#### Data output digital

Output type	Pulses
-------------	--------

#### Operating voltage

Electronic	9 ... 32 V DC
Heating	24V DC, 140 W (item with heating)

#### General

Ambient temp.	0 ... +70°C (item without heating) -40 ... +70°C (item with heating)
Mounting	At mast tube Ø 60mm
Protection	IP 67
Dimension	292mm x 190mm (H x D)
Weight	Approx. 2.7 kg
Material housing	Stainless steel

## Versions

As per 5.4041.x1.00x, but:

### Product number 5.4041.01.000

#### Data output digital

Interface	RS485 - ASCII
-----------	---------------

#### General

Heating	With heating at funnel, outlet and collection vessel
Ambient temp.	-40 ... +70 °C

### Product number 5.4041.01.001

#### Data output digital

Interface	RS485 - MODBUS RTU
-----------	--------------------

#### General

Heating	With heating at funnel, outlet and collection vessel
Ambient temp.	-40 ... +70 °C

### Product number 5.4041.11.000

#### Data output digital

Interface	RS485 - ASCII
-----------	---------------

#### General

Heating	Without
Ambient temp.	0 ... +70 °C

### Product number 5.4041.11.001

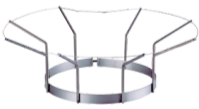
#### Data output digital

Interface	RS485 - MODBUS RTU
-----------	--------------------

### General

Heating	Without
Ambient temp.	0 ... +70 °C

### Accessories

Product	Product name	Brief description										
	Signalling cable 214165	CABLE, assembled M12 1.5 Meters POL: 8										
	Signalling cable 214166	CABLE, assembled M12 10 Meters POL: 8										
	Heating cable 214167	CABLE, assembled M12 1 Meters POL: 4										
	Heating cable 214168	CABLE, assembled M12 10 Meters POL: 4										
	Device to Refuse Birds 5.4010.00.010	<p>Protection against bird drop-pings for the collecting funnels of the Ombrometer (5.4032.35.007 / 008; 5.4033.35 / 36 ...). Refuses birds on the edge of the collecting funnel.</p> <table border="1"> <thead> <tr> <th colspan="2">General</th> </tr> </thead> <tbody> <tr> <td>Mounting</td> <td>Clamping diameter Ø 186 mm</td> </tr> <tr> <td>Material</td> <td>stainless steel</td> </tr> <tr> <td>Dimension</td> <td>Ø 360 x 100 mm</td> </tr> <tr> <td>Weight</td> <td>0.32 kg</td> </tr> </tbody> </table>	General		Mounting	Clamping diameter Ø 186 mm	Material	stainless steel	Dimension	Ø 360 x 100 mm	Weight	0.32 kg
General												
Mounting	Clamping diameter Ø 186 mm											
Material	stainless steel											
Dimension	Ø 360 x 100 mm											
Weight	0.32 kg											

<p>Tube extension and adaption 510217</p>	<p>The pipe extension / adaptation is required to achieve the collection height of 1m with the stand and to adapt the different diameters.</p>						
<p>Stand, height 0.65 m 9.4031.35.065</p>	<p>Model with</p> <ul style="list-style-type: none"> <li>• Stand height 0.65 m (Collecting height 1.0 m)</li> </ul> <hr/> <p><b>General</b></p> <table border="1"> <tr> <td data-bbox="699 884 1066 943">Height</td> <td data-bbox="1066 884 1980 943">0,65 m</td> </tr> <tr> <td data-bbox="699 943 1066 1003">Collection height</td> <td data-bbox="1066 943 1980 1003">1 m</td> </tr> <tr> <td data-bbox="699 1003 1066 1062">Weight</td> <td data-bbox="1066 1003 1980 1062">6.5 kg</td> </tr> </table>	Height	0,65 m	Collection height	1 m	Weight	6.5 kg
Height	0,65 m						
Collection height	1 m						
Weight	6.5 kg						