



# PRECIPITATION SENSOR

acc. to Joss-Tognini

## With success...

the sensor 15188 stands up to any comparison with others in its class. Modern tipping- and heating technologies guarantee high reliability, precision and minimal evaporation influences. The system empties itself and registers - overflowing is impossible. The 4cm<sup>3</sup> bucket with large volume has been constructed especially for extreme precipitation incidents, e. g. tropical rainstorms or longer recording intervals.

- smooth running tipping bucket bearings
- high resolution
- easy installation
- maintenance-free electronics
- fine materials

automatic weather stations • classical meteorology and hydrology • with lysimeter systems • sewage plants • building systems • water management/agriculture • forestry



## Precision Inside!

- no plastics at measuring parts
- 2- and 4 cm<sup>3</sup>-volume of bucket
- controlled dual-circuit heating

Professional Line	(15188)	Precipitation Sensors
Measuring element:		tipping bucket · precision stainless steel bucket acc. to Joss-Tognini
Meas. range/ Resolution:		2 cm <sup>3</sup> - (~2 g) volume of bucket - 0.1 mm · 0...10 mm/min 4 cm <sup>3</sup> - (~4 g) volume of bucket - 0.2 mm · 0...20 mm/min
Accuracy:		± 2 % with intensity compensation · controlled temperature 4 °C ± 2 °C within a range of -20...+4 °C*
Collecting surface:		200 cm <sup>2</sup> / WMO standard
Range of application:		operating temperatures 0...+70 °C metering (down to -20 °C frost resistant) · -30...+70 °C* controlled
Data of heating*:		electr. controlled dual-circuit heating · 170 VA total heating energy · 100 VA collecting funnel · 70 VA downpipe/ bucket · supply voltage 42 V <sub>AC</sub>
Pulse output:		reed contact · polarity protected · bounce-free signal · current consumption max. 100 µA · typical 50 µA · load max. 30 V <sub>DC</sub> / 0.5 A · supply voltage 4...30 V <sub>DC</sub>
Housing/ Funnel + ring:		stainless steel · aluminium, anodized
Dimensions/ Weight:		H 395 mm · Ø 190 mm · for mounting pipe with Ø 60 mm · approx. 4 kg
Standards:		WMO-No. 8 · VDI 3786 page 7 · EN 50081/82 · VDE 0100
<u>Versions:</u>		
00.15188.002 000	(15188)	Precipitation Sensor with 2 cm <sup>3</sup> -volume of bucket · unheated
00.15188.202 000	(15188 H)*	Precipitation Sensor with 2 cm <sup>3</sup> -volume of bucket · heating
00.15188.004 000	(15188 W4)	Precipitation Sensor with 4 cm <sup>3</sup> -volume of bucket · unheated
00.15188.204 000	(15188 HW4)*	Precipitation Sensor with 4 cm <sup>3</sup> -Volume of bucket · heating
<u>Accessories: (optional)</u>		LAMBRECHT's data loggers: met[LOG], Ser[LOG], PreLOG, TROPOS and SYNMET



# PRECIPITATION SENSOR

acc. to Joss-Tognini

## High reliability...

and precision as well as minimal evaporation influences guaranteed by modern tipping- and heating technologies.

The system empties itself and registers - overflowing is impossible.

The 4 cm<sup>3</sup> bucket with large volume has been constructed especially for extreme precipitation incidents, e. g. tropical rainstorms.

- with linearised impulse output and/ or analog output signal
- smooth running tipping bucket bearings
- high resolution
- easy installation
- maintenance-free electronics
- fine materials

automatic weather stations • classical meteorology and hydrology • with lysimeters • sewage plants • building systems • water management/agriculture • forestry



## Precision Inside!

- no plastics at measuring parts
- 2- and 4 cm<sup>3</sup>-volume of bucket
- controlled dual-circuit heating

Professional Line	(15188++)	Precipitation Sensors
Measuring element:		tipping bucket · precision stainless steel bucket acc. to Joss-Tognini
Meas. range/ Resolution:		2 cm <sup>3</sup> - (~2 g) volume of bucket - 0.1 mm · 0...10 mm/min 4 cm <sup>3</sup> - (~4 g) volume of bucket - 0.2 mm · 0...20 mm/min
Accuracy:		± 2 % · controlled temperature 4 °C ± 2 °C within a range of -20...+4 °C*
Collecting surface:		200 cm <sup>2</sup> / WMO standard
Ranges of application:		unheated versions: 0...+70 °C metering (frost resistant down to -20 °C) heated versions: -30...+70 °C · no icing · no snowdrift
Analog outputs:		0...20 mA = basic setting · 4...20 mA · 0...5/10 V - selectable current consump. ≤ 40 mA · supply voltage 18...30 VDC · max. load 600 Ω
Pulse output:		for linearised, bounce-free output signal · At deactivated analog output: current consump. max. 100 µA · typical 50 µA · supply voltage 5...30 VDC · switch load max. 30 VDC/ max. 0.5 A - at pure ohm load
Housing/ Funnel + ring:		stainless steel · aluminium, anodized
Dimensions/ Weight:		H 395 mm · Ø 190 mm · for mounting pipe with Ø 60 mm · approx. 4 kg
Standards:		WMO-No. 8 · VDI 3786 page 7 · EN 50081/82 · VDE 0100
<u>Versions:</u>		
<b>00.15188.002 050</b>	<b>(15188++)</b>	<b>Precipitation Sensor</b> with 2 cm <sup>3</sup> -volume of bucket · unheated
<b>00.15188.004 050</b>	<b>(15188 W4++)</b>	<b>Precipitation Sensor</b> with 4 cm <sup>3</sup> -volume of bucket · unheated
<b>00.15188.202 050</b>	<b>(15188 H++)*</b>	<b>Precipitation Sensor</b> with 2 cm <sup>3</sup> -volume of bucket · heated
<b>00.15188.204 050</b>	<b>(15188 HW4++)*</b>	<b>Precipitation Sensor</b> with 4 cm <sup>3</sup> -Volume of bucket · heated
Data of heating*:		electr. controlled dual-circuit heating · 170 VA total heating energy · 100 VA collecting funnel · 70 VA downpipe/ bucket · supply voltage 42 VAC
<u>Accessories: (optional)</u>		<b>LAMBRECHT's data loggers:</b> met[LOG], Ser[LOG], PreLOG, TROPOS and SYNMET