

Precipitation Sensor

with analogue Intensity Output



New developed unit for the economical regulation of precipitation intensities basing on the proven maintenance-free optical technology.

Range of application

- Facility protection
- Artificial irrigation / Irrigation control
- Control of intensity and quantity of precipitation events
- Flood control measuring / Flood protection
- Aquaplaning protection

The precipitation sensor serves as measuring instrument for the determination of the instantaneous precipitation intensities (mm precipitation / min.). By integration of the precipitation intensities, the precipitation quantity can be calculated, as well. Control- and warning signals can be derived from the precipitation intensity. The measuring signal output is an intensity-dependent analogue current value. The whole measurement range is divided into 4 linear characteristic segments, which shows a tenth of the slope of the more sensitive segment. Thus, it is possible to represent an intensity range from approx. 0,001mm/min. (light drizzle) up to 10 mm/min. (extremely heavy rain) with reasonable resolution (quasi-logarithmic output).

Mode of Operation

Precipitation in the form of drizzle, rain, snow, or hail falls through a light band, induced by light diodes, and lead to shadowing effects on the receiving side. The sent light is pulse-modulated so that outside light effects cannot falsify the measurement results. The instrument is equipped with a heating system for extreme weather condition. This avoids ice and snow forming on the housing surface. In addition, the surface retains a temperature of $>0^{\circ}$ by means of a regulated heating.

Order Code: 5.4103.20.041

Technical Data

Measuring Value	Precipitation intensity
	0 - 0,01 mm / min >> 4,0 - 8,0mA
Measuring range	0,01 - 0,1 mm / min >> 8,0 - 12,0 mA
	0,1 - 1,0 mm / min >> 12,0 - 16,0 mA
	1,0 - 10 mm / min >> 16,0 - 20,0 mA
Output	constant current, depending on measuring value, between 4,0mA and 20,0mA
Active sensor surface	25 cm ²
Minimum drop size	0,2 mm
Operating voltage	24 V AC/DC \pm 15 %
Operating current	approx. 90 mA
Heating current	max. 1 A
Ambient temperature	-25 ... +55°C
Protection	IP 65 acc. to DIN 40050
EMV	EN 61321-1 with EN 61000-4-3
Weight	0,4 kg