



Making Airport Runways and Roads Safer



## PRECIPITATION SENSOR – OPTIC EYE™

This extremely compact device doesn't only measure precipitation intensity in general; it also classifies rain, snow, sleet and drifting snow.

With the OpticEye™ it is furthermore possible to form the basis for a low cost aqua planning warning system.

The OpticEye™ registers and analyses the precipitation situation continuously and can be connected to any host system via a serial port.

OpticEye™ is a precipitation sensor. It measures precipitation intensity and amount, differentiates between rain, snow and sleet, and detects snow drifts. The detector consists of two light rays which form a horizontal cross. The light rays are produced by Led's of IR type and the intensity of each respective light ray is registered by photo detectors.

Precipitation causes brief reductions in the intensity of the light rays. In addition to the quantity of precipitation per time unit, the different types of precipitation are registered.

To decide the precipitation type the sensor needs information about the wind speed, air temperature and humidity. With this input data the sensor continually registers and analyses the falling precipitation. The OpticEye™ uses wind compensation algorithms to get the best accuracy. The communication with the host system is performed serially via RS232.



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#### GENERAL

Height:	530 mm
Width:	330 mm
Voltage:	24V AC/DC
Power consumption:	10–25 W, depending on the outside temperature
Weight approx:	3 kg

#### INPUT DATA

Air temperature:	Stated with 0.3°C accuracy, resolution 0.1°C
Wind:	Stated with 0.5 m/s accuracy
Air humidity:	Stated with 0,3% RH accuracy, resolution 1/10%

#### OUTPUT DATA

Classification:	Rain, snow, sleet, snow drifts (coded)
Intensity:	<ul style="list-style-type: none"><li>Rain is stated in mm/h</li><li>Snow is stated in mm/h snow depth</li><li>Sleet and snowdrifts are stated with an intensity level in mm/h</li></ul>
Accuracy:	From +15% to +30%, depending on duration
Resolution:	0.1 mm

#### ELECTROMAGNETIC COMPATIBILITY

The Optic Eye fulfills the EU EMC directives: EN 50081, EN 50082.

Specifications subject to change without notice

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