



VS20 & R2S

The intelligent combined sensor technology for “present weather”.

visibility + precipitation = Present WeatherFea

Features:

- compact design
- maintenance-free construction
- protection against contamination
- simple integration into sensor stations (ESS)
- RS485 interface with UMB protocol

R2S:

differentiates drizzle / rain / snow / hail
precipitation intensity and accumulation

VS20:

precise visibility measurement up to 2000 m





Visibility sensor VS20

Configuration of VS20 via UMB-CFG software

Software functions are

- Readout / Change of configuration parameters
- calibration
- readout of current measurement
- upload and storage of VS20 configurations

- precise visibility measurement up to 2000 m.
- ideal component for traffic applications
- via 4..20 mA interface, the sensor signal is transmitted in analog mode
- via RS485-interface, the sensor signal is accessed by UMB-protocol.
- calibration device available (optional).





R2S Precipitation sensor

The drop speed is captured with a 24 GHz-Doppler radar. The precipitation quantity and intensity is calculated from the correlation between drop size and speed. The type of precipitation (rain/snow) is detected from the difference in drop speed.

**Configuration of R2S
by software UMB-CFG**

Software functions are

- Readout / Change of current configuration
- calibration
- readout of current measurement
- upload and storage of R2S configurations

- direct rain/snow-differentiation and detection of drizzle and hail
- selectable resolution for quantity measurements: 1mm, 0,1 mm or 0,01 mm
- via RS485-interface, the sensor can be accessed by UMB-protocol.
- The two digital outputs can be connected with any logger type
- design:
maintenance-free and easy to install
10m connecting cable with connector
plastic dome with heating option
sensor housing, aluminium black



Technical data



Visibility sensor

Output signal
Interface

Protection type
Dimensions
Operating temperature
Power supply

Weight

Visibility

Principle
Measuring range
Resolution
Accuracy

Ref. No. 8366.U50

4...20 mA
RS485 semi-duplex 2-wires,
UMB protocol
IP66
360x180x80mm³
-40...60°C
typ. 24VDC (22...28VDC) 3W
4kg

Forward scattered light
20...2000 m
< 1m
±10% RMSE

Accessory

calibration device

8366.UKAL1



R2S

Interface

protection type
dimensions approx.
Operating temperature
Power supply
Weight

precipitation

Principle
Measuring range drop size
Resolution
Reproducibility

Ref. No. 8367.U01

(Europe without F,GB)

Ref. No. 8367.U02 (USA + F)

Ref. No. 8367.U03 (GB)

RS485 semi-duplex 2-wires,
UMB protocol, 2 x digital
IP67
d=90mm, L=210mm
-30...70°C
typ. 24VDC (22...28VDC) 30VA
4kg

24GHz Doppler radar
0,3...5mm
0,01...0,1...1,0mm/m²
typ.>90%

Accessory

Shield R2S

8367.SCHIRM

Accessory for both sensors

Power supply 24V/4A

connecting cable

Interface converter ISOCON

(RS232<->RS485, for Software UMB-CFG)

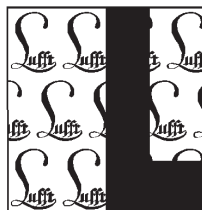
8366.USV1

8366.UKAB10

8160.UISO



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