IRS31-UMB - INTELLIGENT ROAD SENSOR

Passive road sensor IRS31 is flush-mounted in the road. The two part housing design allows the combined sensor/electronics unit to be removed for maintenance or calibration at any time.

The following variables are recorded:

- Road surface temperature
- Water film height up to 4 mm
- Freezing temperature for different de-icing materials
- Road condition (dry/damp/wet/ice or snow/residual salt/freezing rain)

Optional:
- 2 additional depth temperatures, e.g. at 5 cm and 30 cm

The sensors are addressable and can therefore be networked.

The measurement data are available for further processing in the form of a standard protocol (Lufft UMB protocol).

Technical Data	Order No.
IRS31-UMB Intelligent road sensor	8510.U050
Measuring range temperatures	-30°C...+70°C
Accuracy temperatures	+/- 0,2°C (-10°C...+10°C), otherwise +/-0,5°C
Measuring range water film height	0...4mm
Accuracy water film height	+/- 0,1mm +20% of measurement value
Freezing temperature graphs	1...10 (Standard: NaCl, CaCl, MgCl)
Measuring range freezing temperature	-20°C...0°C
Accuracy freezing temperature	+/-1°C für t>-10°C
Road conditions	Dry/damp/wet/ice or
	snow/residual salt/freezing rain
Dimensions	Ø 120mm, installation height 50mm
Weight	approx. 800g
Cable length	50m
Protection type	IP 68
IRS31-UMB with other cable lengths or additional depth temperature sensors:	
2 depth temperature sensors, 50 m cable	8510.U052
100 m cable	8510.U100
2 depth temperature sensors, 100 m cable	8510.U102
Housing road sensor without ext. temperature	8510.G050
Housing road sensor 1 ext. temperature, 50m	8510.G051
Housing road sensor 2 ext. temperature, 50m	8510.G052
Housing road sensor without ext. temperature	8510.G100
Housing road sensor 1 ext. temperature, 100m	8510.G101
Housing road sensor 2 ext. temperature, 100m	8510.G102

Accessories	Order No.
UMB interface converter ISOCON	8160.UISO
Road sensor cover (electronics)	8510.DEC
Surge protection	8379.USP

Order NO. 8510.DEC

Replaceable sensor electronics
Polling via RS485 interface
Low energy consumption (solar operation)
Radar procedure to measure water film

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