

Applications

Road Weather
Railways/Transitions
Smart City Applications



Compact Stationary Road Weather Sensor

Expand your coverage – not your budget.

Fast, simple installation for dense network coverage

Low-maintenance design to reduce operating costs

Installations in windy locations such as bridges

Trusted data for decisive action in critical weather events

Densify Monitoring Network

Lufft RoadSmart makes it easy to expand road-weather coverage where other stations are too large or costly. Its compact, lightweight design installs quickly – even on bridges – and integrates seamlessly with existing systems. This enables operators to close monitoring gaps and build a denser, more resilient sensor network that provides comprehensive information at low cost.

Reliable road condition data for transportation safety

RoadSmart provides real-time road condition data – including friction, surface state, temperature, and moisture – to enable early hazard detection, smarter interventions, adaptive traffic-sign control, and faster public warnings, improving safety for drivers and road operators.

Reduce costs, improve information flow and sustainability targets

RoadSmart's robust, low-maintenance architecture reduces lifecycle costs by minimizing on-site visits and simplifying the protection of devices in the field. Its reliable data output enables more precise, data-driven winter treatment strategies, lowering chemical usage and overall operational expenditure while supporting both budget efficiency and sustainability targets.

Technical Data



RoadSmart		Order no. 8811.U55
Measured parameters, range and accuracy		
Road condition	Dry, damp, wet, ice-covered, chemically wet, water + ice, snow-covered, undefined	
Road surface temperature	Measuring range	-40 ... +70 °C
	Resolution	0.1 °C
	Accuracy	±0.8 K at 0 °C
Water film height	Measuring range	0 ... 500 µm
	Resolution	0.1 µm
Ice percentage (indicator of ice)	Measuring range	0 ... 100%
	Resolution	1%
Friction (based on internal model, values are indicators)	Measuring range	0 ... 1 µ
	Resolution	0.01 µ
Additional measuring parameter	Rel. humidity, dew point, air temperature with rel. humidity at road surface, snow height	

General technical data	
Power supply	10 ... 28 V DC
Power input w/ o heater	Approx. 3 VA
Power input with heater	Max. 50 VA
Data	
Interface	RS485, Bluetooth
Data formats	UMB
Internal sampling rate	10 ... 100 Hz
Output intervals	100 ms ... 5 s adjustable
Measuring distance	3 ... 5.5 m
Tilt angle	20 °
Ambient temperature range	-40 ... + 60 °C
Protection type	IP68
Dimensions (h x w x d)	11 x 20 x 10 cm
Weight	≈ 1.7 kg

Accessories	
Mounting unit for pole	8811.MHA
TFF Sensor	8900.UTFF
TFF Sensor kit	On request
Connection cable w plug, 5m	8371.UK005
Connection cable w plug, 15m	8371.UK015
UpCom Logger	8160.UpCom-L*
ViewMondo data hosting single sensor	8040.SVP
ViewMondo data hosting	8040.LVMA*
Cabinet	On request
Pole, 4.5 m	8357.450 *
* Different models available, please contact us	

Installation

