



# Model 690%

## Surface Condition Sensor



The Model 6901 Passive runway surface sensor is flush-mounted in the runway surface. The two part housing design allows the combined sensor/electronics unit to be easily removed for maintenance or calibration at any time. The following variables are reported and recorded: - Runway surface temperature - Water film height up to 4 mm - Freezing temperature for maximum 10 ice melting materials – Runway surface condition (dry / damp / wet / ice / snow / freezing rain)

### Specifications:

#### Range

Surface Temperature.....	-40°C to 70°C
Depth of Solution Measurement.....	0 to 4mm
Operating Temperature.....	-40°C to 80°C

#### Physical

Diameter.....	120mm
Height.....	50mm
Weight (without cable).....	800g.
Power.....	9 – 14 VDC
Communications.....	RS485



## Technical data

Dimensions	Ø 120mm, height 50mm
Detectable road conditions	Dry/damp/wet/ice or snow/residual salt content/freezing wetness
Weight	Approx. 800g
Storage temperature	-40...70°C
Rated current	<200mA
Interface	RS485, baud rate: 2,400...38,400 bit/s (default: 19,200), cable length: 50m
Protection type	IP68
Power supply	9...14VDC, nominal 12V
Connector	CAGE CLAMP, WAGO (cross-section <0.5mm <sup>2</sup> )
Operating temperature	-40...70°C
Operating rel. humidity	0...100% RH

## Runway Surface dampness

Unit	Dry/damp/wet
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## Slippery runway conditions

Unit	No ice/snow, snow, freezing rain, ice
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## Runway surface temperature

Principle	NTC
Measuring range	-40 .. 70 °C
Unit	°C
Accuracy	±0.2°C (-10...10°C), or ±0.5°
Resolution	0.1

## Freezing point

Measuring range	-20 .. 0 °C
Unit	°C
Accuracy	±1°C (t>-10°C)
Resolution	0.1

## Water film height

Principle	Radar
Measuring range	0 .. 4 mm
Unit	mm
Accuracy	±(0.1mm + 20% of measurement)
Resolution	0.01 mm

