



Surface Condition Sensor Model 6901

allweatherinc



Overview

The passive Model 6901 Surface Condition 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 parameters are reported and recorded.

- Runway surface temperature
- Water film depth up to 4 mm
- Freezing temperature for maximum 10 ice melting materials
- Runway surface condition (dry, damp, wet, ice, snow, and freezing rain)

SENSORS

SPECIFICATIONS

Parameter	Specification
<i>Range</i>	
Surface Temperature	-40°C to 70°C
Depth of Solution Measurement	0 to 4mm
Operating Temperature	-40°C to 80°C
Relative Humidity	0–100%
<i>Physical</i>	
Power	9–14 V DC, <200 mA
Communications	RS-485
Baud Rate	2,400...38,400 bps
Dimensions	50 mm high x 120 mm diameter
Weight (without cable)	800 g
Cable Length	50 m
Connector	CAGE CLAMP, WAGO (cross section <0.5mm ²)
Protection Type	IP68
<i>Technical Data</i>	
Detectable Surface Conditions	Dry, Damp, Wet, Ice or Snow, Freezing Wetness
Runway Surface Dampness	Dry, Damp, Wet
Slippery Runway Conditions	No Ice/Snow, Snow, freezing rain, ice
<i>Runway Surface Temperature</i>	
Measurement Principle	NTC
Units / Measuring Range	°C / -40°C to 70°C
Accuracy	±0.2°C (-10 to 10°C), or ±0.5°
Resolution	0.1
<i>Freezing Point</i>	
Units / Measuring Range	°C / -20°C to 0°C
Accuracy	±1°C (T > -10°C)
Resolution	0.1
<i>Water Film Height</i>	
Measurement Principle	Radar
Units / Measuring Range	mm / 0 to 4 mm
Accuracy	±(0.1mm + 20% of measurement)
Resolution	0.01 mm

ORDERING INFORMATION

Part Number	Description
6901	Surface Condition Sensor



All Weather Inc.

www.allweatherinc.com

Phone: 916-928-1000
USA Toll Free: 800-824-5873
Fax: 916-928-1165

201905