



## RWIS Products

Measure Road Surface, Wind, Relative Humidity, and Visibility

*Rugged, Reliable, and Ready for any Application*



Campbell Scientific offers a variety of sensors that monitor road weather conditions. Our equipment is known for their flexibility,

dependability in hostile environments, and ability to make precision measurements.

### ROAD SURFACE

**IRS31Pro** | Intelligent Road Surface Sensor  
Monitors actual road conditions



| Parameters Measured                                              | Range                                    | Accuracy                                                                   | Road Condition Output                       |
|------------------------------------------------------------------|------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------|
| Road surface temperature<br>Water film level (up to 4 mm)        | <u>Road Temperature</u><br>-40° to +70°C | <u>Road Temperature</u><br>±0.2°C (-10° to 10°C);<br>±0.5°C (-40° to 70°C) | dry, damp, wet, snow, freezing wetness, ice |
| Freezing temperature for NaCl, MgCl and CaCl                     | <u>Freezing Point</u><br>-20° to 0°C     | <u>Freezing Point</u><br>±1°C                                              |                                             |
| Road condition (dry/damp/wet/ice or snow/residual salt/freezing) |                                          |                                                                            |                                             |

### WIND SPEED & DIRECTION

**05108-45-L** | Wind Monitor-HD  
Reliable, accurate measurements with low maintenance suitable for alpine applications



| Sensor                                                             | Wind Speed                     |                                              | Wind Direction                                                      |          |
|--------------------------------------------------------------------|--------------------------------|----------------------------------------------|---------------------------------------------------------------------|----------|
|                                                                    | Range                          | Accuracy                                     | Range                                                               | Accuracy |
| helicoid-shaped, 4-blade propeller and fuselage-shaped sensor body | 0 to 100 m/s<br>(0 to 224 mph) | ±0.3 m/s<br>(0.6 mph)<br>or<br>1% of reading | 0 to 360°<br>(mechanical)<br><br>0 to 355°,<br>5° open (electrical) | ±3°      |

### TEMPERATURE & RELATIVE HUMIDITY

**CS215** | SDI-12 Output  
Competitively priced, general purpose temperature and relative humidity sensor



| Relative Humidity |                   |                                                 | Temperature     |                   |                               |
|-------------------|-------------------|-------------------------------------------------|-----------------|-------------------|-------------------------------|
| Sensor            | Measurement Range | Accuracy (at 25°C)                              | Sensor          | Measurement Range | Accuracy                      |
| Sensirion SHT75   | 0 to 100% RH      | 10% to 90%:<br>±2% RH<br>90% to 100%:<br>±4% RH | Sensirion SHT75 | -40° to +70°C     | ±0.9°C over measurement range |

More info: 435.227.9120

[campbellsci.com/road-weather](http://campbellsci.com/road-weather)



## VISIBILITY/PRESENT WEATHER

**CS125** | Unrivaled  
Specification for Price  
Ideal for transport applications



| Precipitation Type                         | Reported Visibility                                                         | Accuracy                                                               | Power                                                                                                                                     |
|--------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Fog, drizzle, rain, snow, graupel and hail | <u>Maximum</u><br>32 km (~20 miles)<br><br><u>Minimum</u><br>10 m (32.8 ft) | <u>0 to 10,000 m</u><br>±10%)<br><br><u>10,000 to 20,000 m</u><br>±20% | <u>Total Unit Power</u><br>< 3 W while sampling continuously (including dew heaters)<br><br><u>Hood Heater</u><br>2 x 30 W, total of 60 W |

## RUGGED OUTDOOR FIELD CAMERA

**CCFC** | 18X Optical  
Zoom, Auto-Focus  
and Night-Time IR



| Programmable Still Image Resolutions (JPEG)                                              | Video                                                          | Current Drain                                                                        | Operating Temperature |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------|
| 2592 x 1944; 1280 x 960;<br>1280 x 720; 640 x 480;<br>640 x 352; 320 x 240;<br>320 x 176 | 1280 x 720 (MPEG4),<br>640 x 480 (MJPEG),<br>320 x 240 (MPEG4) | <u>Maximum at 12 Vdc</u><br>400 mA<br><br><u>Quiescent</u><br>≤1 mA (off power mode) | -40° to +60°C         |

## Software

### LoggerNet Datalogger (RPU) Support Software

LoggerNet is a full-featured software package based on a server application and several client applications. LoggerNet's open architecture allows a customer to directly modify RPU application programs or to develop new custom instruction sets entirely under customer control. LoggerNet collects NTCIP data and camera images on demand or by schedule (including diagnostic information about the ESS hardware and software) at the ESS or remotely via a number of telemetry options.

Telemetry options include Ethernet, Wi-Fi, land line, cell, LOS RF, and satellite. All collected data may be exported to second-party analysis packages. Retrieved data is owned by the customer and may be redistributed to other users with no obligation to Campbell Scientific.

### RTMCP Pro Real Time Monitor & Control Software

RTMC Pro is used to create and run graphical screens that provide real-time monitor and control capabilities. The displays are easily designed using its large library of components including alarms, switches, status bars, charts, and gauges. Simply select a component, place it on the workspace, and specify the data value to be displayed. Each component has properties that can be set by the user giving maximum design control.

