



Smart Community Solutions

Freezing Temperature Sensing

Enhancing road safety by alerting traffic to freezing / icy road conditions

Landis+Gyr's Smart Community Solutions Freezing Temperature Sensing enables utilities to provide a visual signal to alert traffic to potentially hazardous freezing or icy road conditions. The warning light on the sensor flashes blue when such conditions may be present due to a sufficient drop in the outside ambient temperature. Freezing and black ice conditions may not be visible on the roadway, but the warning light signals to drivers to slow down, especially during on/off ramp approaches to controlled highways, and on bridges and overpasses, which are more susceptible to icing.

Enhanced Safety Features

- Sensors installed at on-ramps and off-ramps warn drivers to slow down as they approach, allowing them to prepare for hazardous conditions
- Warning drivers ahead of time to invisible icing can help prepare them, and prevent loss-of-control accidents

Improved Operational and Energy Efficiencies

- Solution can be networked or non-networked, installed standalone at on/off-ramps, or as part of a larger data collection program
- Sensor thermocouple detects a drop in air temperature to 0° C / 32° F, when icy conditions may be present

Components

- Landis+Gyr street light controller with integrated Network Node
- Command Center 7.1 MR3 or later
- Smart Community Center Software

Street Light Management

Product Specifications

FCC Class B Device

Controller Specs	
Dimensions of Controller	Diameter 3.5" (88mm), Height 3.6" (92mm)
Voltage	120-277V (50-60 Hz)
Material	Lexan™ SLX Polycarbonate
Ingress Protection	IP67, IP66
Temperature Rating	<ul style="list-style-type: none">Operational -40°C to 60°CStorage -40°C to 85°C
Compatibility (General)	LED, HPS, and induction to a max load of 6A
Compatibility (Luminaire with ANSI C136.41 standard receptacle)	<ul style="list-style-type: none">All Features supported by LED luminaires with 5 and 7 pinAll features except dimming is supported on 3 pin HPS luminaires
Dimming Method	Complies with 0-10V DC (IEC60929) and DALI (IEC62386)
Dimming Ramping Process	Dimming in gradual steps every 6 seconds (e.g. 100% to 20% = 102 seconds)
Dimming Schedule	Daily or weekly recurring schedule with ability to schedule a special event, in 1 minute increments with 1% resolutions
On / Off Trigger	Photo sensor for local light detection (selectable) with GPS based astronomical dawn/dusk back up
Dawn / Dusk Levels	On: 2.5 foot candles (fc) Off: 3.9 foot candles (fc) Configurable over the air

Radio Specs	
Frequency Range	902 to 928 MHz
Supported Data Rates	RF Mesh (N500): 9.6, 19.2, 38.4, 115.2 kbps RF Mesh IP (N550): 50, 150, 200 kbps
Output Power	High Min: 25, Typical: 26, Max: 27 dBm
Receiver Sensitivity	<ul style="list-style-type: none">9.6 kbps Min: -114, Typical: -112, Max: -110 dBm19.2 kbps Min: -112, Typical: -110, Max: -108 dBm38.4 kbps Min: -110, Typical: -108, Max: -106 dBm115.2 kbps Min: -102, Typical: -100, Max: -98 dBm50 kbps Min: -107, Typical: -105, Max: -103 dBm150 kbps Min: -99, Typical: -97, Max: -95 dBm200 kbps Min: -98, Typical: -96, Max: -94 dBm

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Let's build a brighter future together.

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