

Road Surface Temperature Detector

Without warning cold roads can turn into an invisible sheet of black ice. To-date, the advanced detection of dangerous icy conditions has proven extremely difficult



SA Ice Detection provides advanced warning to drivers based on real-time road conditions. Reliable activations results from highly accurate, non-contact infrared temperature sensors

- System alerts vehicle operators or pedestrians of hazardous icy road conditions by locally or wirelessly flashing SignAlert Warning Signs
- Measures a wide cross section of actual road surface temperature to activate live notification
- Non-Invasive Road Surface Condition Sensor means faster time-to-operating without lane closures!
- Can be used to trigger satellite signs within a configured network



The USDOT Federal Highway Administration data lists an average of 1,836 deaths and 136,309 injuries per year due to snowy and icy roads. These figures represent a 10 year average between 2005 and 2014

Snow / Sleet	210,341 crashes	4% of vehicle crashes
	55,942 persons injured	3% of crash injuries
	739 persons killed	2% of crash fatalities
Icy Pavement	151,944 crashes	3% of vehicle crashes
	38,770 persons injured	2% of crash injuries
	559 persons killed	2% of crash fatalities
Snow / Slushy Pavement	174,446 crashes	4% of vehicle crashes
	41,597 persons injured	2% of crash injuries
	538 persons killed	2% of crash fatalities

Specifications

Surface Temperature Sensor	
Weight with Battery	2 lbs.
Dimensions	8" x 3" x 3" (20 x 8 x 8 cm)
Voltage	9.6 - 16 VDC
Current Draw	170 μ A (average at 2 minute measurement without fan)
Operating Temperature	-40° to +185° F (40° to 85° C)
Surface Temperature Range	-40° to +185° F (40° to 85° C)
Surface Temperature Accuracy	$\pm 1^\circ$ F at 32° F otherwise $\pm 2^\circ$ F ($\pm 0.5^\circ$ C at 0° C other wise $\pm 1^\circ$ C)
Surface Temperature Reaction Time	63% of step change in 1 second
Air Temperature Range	-40° to + 149° F (-40° to 65° C)
Air Temperature Accuracy	$\pm 0.4^\circ$ F at 32° F otherwise $\pm 1^\circ$ F ($\pm 0.2^\circ$ C at 0° C otherwise $\pm 0.5^\circ$ C)
Air Temperature Reaction Time	63% of step change in 15 minutes
Elevation Angle	35 - 90° from vertical
Field of View	12°
Measuring Area	2 ft (0.6 m) diameter at 10 ft (3 m)
Mounting	2x2 in spaced 1/4" - 20 threaded PEM nuts
Flush Mounted LED Flasher Rings	
Size	Various X .625" available
Mounting	Outdoor rated Mounting Tape and provisions for easy match drilling and riveting.
LEDs	Amber (590nm): 15 degree cone of view; Rated 100,000 hours; 2.4K CDA/ M ² , Auto Dimming Employed
Power	10V to 18V
	0W standby or OFF (No power required)
Flash Patterns	50 - 60 flashes per minute; 50% Duty Cycle. Additional alternative flash patterns available and are user programmable
Dimming	255 levels as determined by solar panel illumination or light sensor (AC)
System Operating Temperature Range	

TraffiCalm product descriptions and specifications are subject to change without notice.

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