

# REL-iON™ Monitoring System



## Infrared Spot Temperature Sensors

P/N: 31-ENV-IRSPOT(-05, -12, or -35) and  
31-DAISY-THIMG-IRSPOT(-05, -12, or -35)

Effective: October 2025  
K-31-507 Rev. AA

### Description

Infrared Spot Temperature (IRSPOT) Sensors are designed for contactless temperature monitoring inside enclosures. These single zone sensors report the average temperature from objects within their field of view. The measured temperature range is from -94°F to +716°F (-70°C to +380°C) with a ±0.5% accuracy from 32°F to 122°F (0°C-50°). 3 different field of view options are available: 5°, 12° 35°

- Compact Plug & Play Sensor.
- Designed for Indoor Use.
- 0u rack, DIN rail, Magnetic, or Wall Mountable
- Can plug into and be powered by the base unit. (PoE, 12v DC, optionally 24v or -48v)
- Alerts via base unit
- Out of the Box Integration via Modbus TCP, SNMP.
- Readings in Fahrenheit or Celsius
- Optional Integration via MQTT for Industrial IoT Applications<sup>1</sup>
- Optional Integration via RS-485 Enabling Direct Integration with your own Gateway & Controllers.<sup>2</sup>

<sup>1</sup>Requires BASE-XXX-6

<sup>2</sup>Some sensors are not available in RS-485 native versions. In that case RS-485 is available using the optional Modbus RTU module.

### Sensor Metrics

<b>Temperature accuracy</b>	±0.9°F (±0.5°C) accuracy from 32°F to 122°F (0°C to 50°C)
<b>Field of View (FoV)</b>	5°, 12°, 35°
<b>Resolution</b>	0.036°F / 0.02 °C
<b>Temperature reading</b>	-94°F to +716°F (-70°C to +380°C) in PoE mode



Figure 1. 31-DAISY-THIMG-IRSPOT Sensor

### Specifications

Environmental	
<b>Operating Temperature Range</b>	32 to 167°F (0 to 75°C)
<b>Humidity (Operating and Storage)</b>	< 90% rH (non-condensating)
Physical	
<b>Sensor Enclosure</b>	Steel Enclosure, Industrial Grade
<b>Mounting Options</b>	0U rack, DIN rail, magnetic, or wall mountable sensor
<b>Dimensions</b>	2.8 in. (72mm) x 2.7 in. (68mm) x 0.9 in. (24 mm)
<b>Weight</b>	0.253 lbs (115 g)
Technical	
<b>Powered by and communicates with</b>	Base Unit (BASE-XX) (required) Requires the optional BASE-FW-SSLS firmware add on for Base Unit
<b>Connectivity</b>	RJ45 cable transmitting data & power from Base Unit to Sensor
<b>Cable Specifications</b>	RJ45 CAT 6/7 recommended Up to 100m (330ft) subject to cable quality & interference
<b>Sensor Power Usage</b>	60 mW

## Field of View

The sensors report the average temperature within their field of view, which is a cone extending out from the sensor. There are 3 fields of view available: 5°, 12°, and 35°.

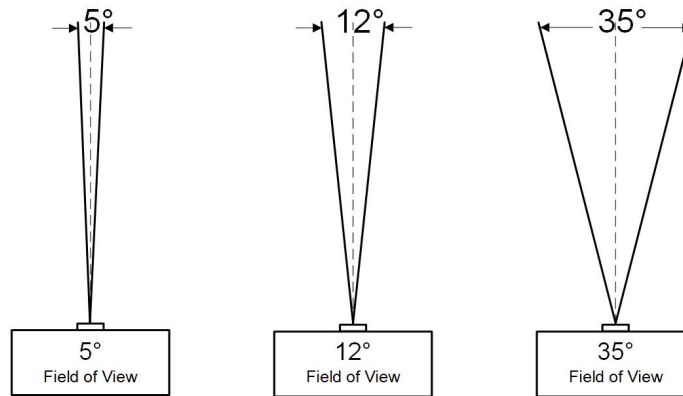


Figure 2. Field of View

**Note:** Unlike the Thermography Sensor, the Field of View cannot be divided into separate zones.

## Daisy Chain

Using the Daisy Chain versions of the IRSpot sensor allows up to 20 THIMG-DAISY-IRSPOT sensors per daisy chain with only 1 IP address required for every daisy chain. Daisy chains require the 31-BASE-WIRED and 31-DAISY-STARTER in addition to the sensors. For more information, see the relevant chapter in manual 06-238003-001.



Figure 3. Daisy Chain Example

## ORDERING INFORMATION

The part numbers for ordering IRSpot Sensors are:

Part Number	Description
31-DAISY-THIMG-IRSPOT-05	Daisy Chained - Infrared Spot Temperature - FOV 5°
31-DAISY-THIMG-IRSPOT-12	Daisy Chained - Infrared Spot Temperature - FOV 12°
31-DAISY-THIMG-IRSPOT-35	Daisy Chained - Infrared Spot Temperature - FOV 35°
31-ENV-IRSPOT-05	Infrared Spot Temperature - FOV 5°
31-ENV-IRSPOT-12	Infrared Spot Temperature - FOV 12°
31-ENV-IRSPOT-35	Infrared Spot Temperature - FOV 35°

### EXPORT INFORMATION (USA)

Jurisdiction: EAR

Classification: EAR99

This document contains technical data subject to the EAR.

This literature is provided for informational purposes only. Kidde-Fenwal, LLC believes this data to be accurate, but it is published and presented without any guarantee or warranty whatsoever. Kidde-Fenwal, LLC assumes no responsibility for the product's suitability for a particular application. The product must be properly applied to work correctly. If you need more information on this product, or if you have a particular problem or question, contact KIDDE-FENWAL, LLC, Ashland, MA 01721.

**kiddefiresystems.com**  
**508.881.2000**

Kidde Fire Systems, Kidde Fire Protection and Fenwal Controls branded products are created exclusively by Kidde-Fenwal, LLC.

All trademarks are the property of their respective owners. All products are the property of their respective owners.

 **KiddeFenwal**

400 Main Street, Ashland, MA 01721  
P/N: K-31-507 Rev. AA | kiddefenwal.com | 508-881-2000  
2025© Kidde-Fenwal, LLC | All Rights Reserved