

## Quick Start Guide

Radar-Based Sensors for Detection and Measurement of Moving and Stationary Targets. Patent pending.

This guide is designed to help you set up and install the R-GAGE K50R sensor. For complete information on programming, performance, troubleshooting, dimensions, and accessories, please refer to the Instruction Manual at [www.bannerengineering.com](http://www.bannerengineering.com). Search for part number 226219 to view the Instruction Manual. Use of this document assumes familiarity with pertinent industry standards and practices.



**WARNING:**

- Do not use this device for personnel protection
- Using this device for personnel protection could result in serious injury or death.
- This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A device failure or malfunction can cause either an energized (on) or de-energized (off) output condition.



**WARNING:**

- N'utilisez pas ce dispositif pour la protection du personnel.
- L'utilisation de ce dispositif pour la protection du personnel pourrait entraîner des blessures graves ou mortelles.
- Ce dispositif n'est pas équipé du circuit redondant d'autodiagnostic nécessaire pour être utilisé dans des applications de protection du personnel. Une panne ou un dysfonctionnement du dispositif peut entraîner l'activation ou la désactivation de la sortie.

**IMPORTANT:** To satisfy RF exposure requirements, this device and its antenna must operate with a separation distance of at least 20 cm from all persons.

## Features and Indicators

K50R Standard—Features

	LED	Color	Description	
	1	Output 1	Amber	Discrete output status
	2	Power/Signal Strength	Green or Blue	Power ON and signal strength indication
	3	Output 2	Amber	Discrete output status

## Wiring

Quick disconnect wiring diagrams are functionally identical.

**Push-pull Output and Analog Current Output**

\* Push-Pull output. User-configurable PNP/NPN setting.

**Push-pull Output and Analog Voltage Output**

\* Push-Pull output. User-configurable PNP/NPN setting.

**Dual Discrete Output**

\* Push-Pull output. User-configurable PNP/NPN setting.  
 \*\* Pulse Frequency Modulation

**Key:**

- 1 = Brown
- 2 = White
- 3 = Blue
- 4 = Black
- 5 = Gray (Connect for use with remote input or Banner Measurement Sensor Configuration software)

## Banner Measurement Sensor Software



Use the Banner Measurement Sensor software to:

- Quickly configure the sensor
- Easily monitor device status via the software
- Visualize the application in real-time
- Make adjustments to sensor settings on the fly

For more information, visit [www.bannerengineering.com/us/en/products/sensors/software/banner-measurement-sensor-software.html](http://www.bannerengineering.com/us/en/products/sensors/software/banner-measurement-sensor-software.html).

## Specifications

For additional specifications, see the Instruction Manual, p/n 226219.

### Range

The sensor can detect an object at the following ranges, depending on the material of the target.

K50Rxx-8060 Models:

Standard Mode: 0.1 m to 2.5 m (3.9 in to 8.2 ft)

Faster Response: 0.15 m to 1.0 m (6.0 in to 3.3 ft)

High Power Mode: 0.5 m to 3.0 m (19.7 in to 9.8 ft)

K50Rxx-4030 Models

0.05 m to 5.0 m (2 in to 16.4 ft)

### Supply Voltage (Vcc)

Analog Voltage models: 12 V DC to 30 V DC

Analog Current and Dual Discrete models: 10 V DC to 30 V DC

Use only with a suitable Class 2 power supply (UL) or Limited Power Supply (CE)

### Power and Current Consumption, exclusive of load

Standard models:

**Power consumption:** <1.0 W

**Current consumption:** <35 mA at 24 V

Pro models:

**Power consumption:** <1.5 W

**Current consumption:** <55 mA at 24 V

### Operating Temperature

Standard models: -40 °C to +60 °C (-40 °F to +140 °F)

Pro models: -40 °C to +50 °C (-40 °F to +122 °F)

### Telecom Approved

K50Rxx-8060 models: US, Canada, Europe, UK, Australia/New Zealand, and Taiwan

K50Rxx-4030 models: US, Europe, UK

### Certifications



Meets IEC 61010-1 Impact Code IK07



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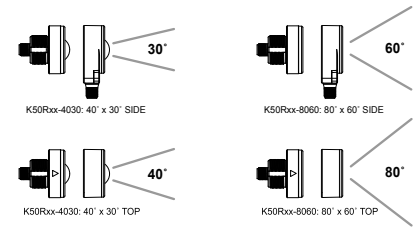


K50Rxx-8060 models: Contains FCC ID: 2AQ6KA1001

K50Rxx-4030 models: Contains FCC ID: 2AQ6KA1201

K50Rxx-8060 models: Contains IC: 24388-A111

### Representative Beam Pattern



Refer to beam pattern charts in product manual for typical beam patterns on representative targets

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For patent information, see [www.bannerengineering.com/patents](http://www.bannerengineering.com/patents).

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Original Instructions

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