

# WIRELESS IR-BEAM FRONT VIEW MOTION DETECTION SENSOR WITH INTERNAL ANTENNA



## INFORMATION

|           |           |
|-----------|-----------|
| Format    | Coin Cell |
| Frequency | 868 MHz   |

Xemote ultra low-power wireless IR sensors have an IR transmitter and receiver built in. This configuration is ideal for short range beam applications such as non-intrusive door open/close detection, human counting and asset monitoring.

## HIGHLIGHTS

- Up to 128 sensors connected to a single gateway
- Ultra-low power
- ISM band wireless
- Critical Data Recovery (CDR) feature, 21 days at 10 min posting intervals
- Non-intrusive installation

## APPLICATIONS

- Non-intrusive and easy to install door open/close sensor. Ideal for cold storage sliding doors.
- Asset monitoring
- Safe zone monitoring

## SENSOR SPECIFICATIONS

### Infrared

|                    |                                                                           |
|--------------------|---------------------------------------------------------------------------|
| Beam Range         | 5 mm to 30 cm depending on interference sources and reflective surfaces.  |
| Transmitter Angle  | $\pm 10^\circ$                                                            |
| Receiver Angle     | $45^\circ$                                                                |
| Hysteresis Time    | 1s to 11.9 hours (42840 seconds)                                          |
| Polling Time       | Adjustable from 1s to 12 hours                                            |
| Blocking Time      | 1s to 11.9 hours (42840 seconds)                                          |
| Filtering Features | 38 kHz, 940 nm, modulated IR-beam for improved ambient light performance. |

### Coin Cell

|                                       |                                                                                |
|---------------------------------------|--------------------------------------------------------------------------------|
| Battery Type                          | CR2450                                                                         |
| Classification                        | Lithium Coin                                                                   |
| Typical Capacity                      | 620mAh                                                                         |
| Dimensions                            | 24.5mm x 5.0mm                                                                 |
| Max Operating Temperature             | -20 °C to +60 °C                                                               |
| Optimal Battery Operating Temperature | +10 °C to +50 °C                                                               |
| Supply Voltage                        | 2.0 - 3.6 V                                                                    |
| Battery Life                          | ~3 years (depending on hysteresis, polling time, IR Tx power and posting time) |

### Wireless

|           |                             |
|-----------|-----------------------------|
| Frequency | 868 MHz Operating Frequency |
|-----------|-----------------------------|

For more information about our products, please contact our sales department.

Visit our website at [www.xemote.co.za](http://www.xemote.co.za) | [sales@xemote.co.za](mailto:sales@xemote.co.za)

Copyright © 2019 Xemote (Pty) Ltd. All Rights Reserved.

Rev 1.0.3

# WIRELESS IR-BEAM FRONT VIEW MOTION DETECTION SENSOR WITH INTERNAL ANTENNA



|                             |                                                                                                                                                                                                     |                                            |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Range                       | Up to 150 m non-line-of-sight device range (actual range may vary depending on environment). Longer ranges available with GSM Gateway 868Mhz outdoor Omni antenna 6dB gain. (Typically, 300 m plus) |                                            |
| Security                    | Encrypted                                                                                                                                                                                           |                                            |
| Certifications              | ETSI EN 300 220-2 V2.4.1 (2012-05)                                                                                                                                                                  |                                            |
| Antenna                     | Internal                                                                                                                                                                                            |                                            |
| <b>I/O</b>                  |                                                                                                                                                                                                     |                                            |
| Bidirectional IO Ports      | 2x Internal Input / Output                                                                                                                                                                          |                                            |
| Logic Level                 | 3.3V                                                                                                                                                                                                |                                            |
| Drive Current               | 20mA Max                                                                                                                                                                                            |                                            |
| <b>Mechanical</b>           |                                                                                                                                                                                                     |                                            |
| Dimensions                  | 80mm x 40mm x 20mm<br>96.3mm x 40mm x 20mm – Including flanges                                                                                                                                      |                                            |
| Weight                      | 0.035 kg                                                                                                                                                                                            |                                            |
| Material                    | ABS Plastic                                                                                                                                                                                         |                                            |
| Mounting Options            | Wall mount flanges, button magnet, Velcro strips, double sided tape                                                                                                                                 |                                            |
| <b>Environmental</b>        |                                                                                                                                                                                                     |                                            |
| Operating Temperature       | -20 °C to +60 °C                                                                                                                                                                                    |                                            |
| Storage Temperature         | -20 °C to +45 °C (Incl. Battery)                                                                                                                                                                    |                                            |
| <b>Warranty Terms</b>       |                                                                                                                                                                                                     |                                            |
| Period                      | 12 months                                                                                                                                                                                           |                                            |
| <b>ORDERING INFORMATION</b> |                                                                                                                                                                                                     |                                            |
| <b>Part Number</b>          | <b>Details</b>                                                                                                                                                                                      | <b>Configuration</b>                       |
| XEMT4-30010                 | Wireless coin cell IR sensor                                                                                                                                                                        | Supplied with 1x CR2450 coin cell battery. |

*Product images are for illustrative purposes only and may differ from the actual product.  
Specifications are subject to change without notice.*