

WaveContact Series

WC30i-AXIS Wireless Angle Sensor



Rugged, Simple, Flexible

FreeWave's WC30i-AXIS Wireless Angle Sensor is a wireless, solid-state inclinometer that measures an angle from horizontal with two modes: Hatch Detection and Pump Jack Detection.

- The Hatch Detection mode enables monitoring of the opening condition (closed, unlatched, opened) of a hatch for environmental and safety concerns.
- The Pump Jack Detection mode detects and reports if it is operating or moving.

The WC30i-AXIS can also be applied to a variety of other applications where there's a need to detect an angle from horizontal.

The WaveContact System has been designed for deployment in Class I, Division 1 locations.

Key Features

- 3-axis accelerometer constantly monitors angle with its internal sensor and reports status when changes occur
- Built-in 900 MHz radio and antenna
- Operates as a standard wireless Endpoint in the WaveContact network
- Rugged design for demanding outdoor environments
- Magnetic mounting for fast installation and setup or with built-in installation holes
- Push-button zeroing
- Modbus or digital output alarming at the Gateway is available
- Long battery life (greater than 5 years)
- Simple installation
- Up to 0.8 km (0.5 miles) range
- Class I, Division 1, intrinsically safe

Transmitter

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|--------------------------|--|
| Frequency Range | 902 to 928 MHz, FHSS, License-free ISM, Compliant with FCC Part 15 |
| Range | Up to 0.8 km (0.5 miles) with clear line of sight |
| Over-the-Air Rate | 10 kbps |

Receiver

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| Sensitivity | -109 dB |
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Interfaces

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| Data Interface | Wireless, available as Modbus registers at the Gateway or Digital Output |
| Reporting | Reports every 10 minutes or immediately after a state change |
| Internal Diagnostics | Battery voltage, signal strength, error conditions |

Power Requirements

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| Battery Pack | 3xAAA Internal lithium battery pack, field replaceable; C1D1 certified when used with FreeWave system; in situ replacement allowed |
| Battery Life | Greater than 5 years |
| Radio Power | 40 mW |

General Information

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|------------------------------|---|
| Operating Temperature | -40°C to +80°C (-40°F to +176°F) C1D1: -40°C to +60°C (-40°F to +140°F) |
| Humidity | 0 to 100%, non-condensing |
| Enclosure | NEMA 4X Enclosure |
| Dimensions | 89 L x 89 W x 58.4 H (mm) 3.5 L x 3.5 W x 2.3 H (in) |
| Safety | Hazardous Location Certified Class I, Division 1, Temp Code T3, Groups C&D. Conforms to UL Std. 913, Certified to Can/CSA Std C22.2 No. 157 |
| Security | AES 128-bit encryption |

Information to Order

| Model Number | Description |
|---------------|---|
| WC30i-AXIS | Wireless Angle Sensor |
| WC-BAT-3AA-IS | Replacement battery, intrinsically safe |

