EXPLOSIONPROOF MICROWAVE INTRUSION LINK

Model 310B-33456 offers reliable intrusion detection in the presence of flammable, combustible or easily ignitable materials. The sensor is specifically designed to operate at oil refineries, chemical and petrochemical plants, petroleum or chemical storage facilities and other sites where hazardous materials are handled, processed or stored.

Each 310B-33456 transmitter and receiver is packaged in a weatherproof, explosionproof enclosure with front access to controls and test points.

The 310B-33456 operates at K-Band (24.125Ghz) frequency, achieving performance not possible with X-Band microwave links (10.5Ghz). Because antenna beam width is approximately 7.5 degrees in both the horizontal and vertical planes, the sensor will operate within very narrow corridors.

Because K-Band frequency is 2.5 times higher than X-Band, the multipath signal generated by an intruder is also 2.5 times higher and detection of slow-moving intruders is correspondingly better. With its superb beam control and higher multipath frequency, Model 310B-33456 provides unmatched detection performance.

Phased Locked Loop (PLL) signal processing in the receiver increases detection probability by alarming on partial or complete beam interruption, increase or decrease in signal level or jamming by other transmitters. Its Automatic Gain Control (AGC) circuit permits the receiver to compensate for varying site conditions or changes in the weather.

Operating at K Band frequency, Model 310B-33456 is inherently less susceptible to interference from airport landing systems, aircraft radar or other microwave intrusion systems. Four field-selectable modulation channels with narrow band PLL filters allow several Model 310B-33456 links to be used together without mutual interference.
Equipment Supplied: Model 310B-33456T (Transmitter), Model 310B-33456R (Receiver), pole-mounting bracket.

Certifications: See “Key Features” on page 1

Frequency: 24.125Ghz (USA) conforms to F.C.C Part 15. FCC Identifier CA68H9310B.

Output Power: 10 mW peak, 5mW average, square wave modulated.

Range: 30.5 to 100m (100 to 328ft)

Target Size: 35kg (77 pound) human walking, running, hands and knees crawling or jumping, Prone crawling or rolling 35kg (77 pound) human or simulated with a 30cm diameter metal sphere detected at maximum range of 100m (328 ft).

Target Velocity: 30mm/sec to 15m/sec (0.1ft/sec to 50ft/sec).

Probability of Detection: 0.99 minimum.

Automatic Range Adjustment: Link automatically adjusts to slow changes in path loss.

Modulation Channels: Four, field selectable.

False Alarm Rate: 1/unit/year based on signal to noise ratio.

Operating Environment: -40°C to +66°C (-40°F to +150°F)

0-100% Relative Humidity.

DC Input: 11.5 VDC to 14 VDC at 150 mA (Tx), 40 mA (Rx).

Alarm Output: SPDT-Form C, 2 amps at 28 VDC.

Tamper Switch: SPDT-Form C, 2 amps at 28 VDC.

Self Supervision: Alarm on failure and remote test.

Mounting: Pole-mounting heavy-duty bracket with vertical and horizontal adjustment. Optional adjustable (+/- 20°) mounting hinges.

LED Indicators: Visible LED for alignment on receiver. Additional internal LED’s at receiver for power on, alarm, jamming signal and wrong channel.

Weight: 21.8 kg (48 lbs) each unit (Tx, Rx).

How to Order: Specify Model 310B-33456 Explosionproof Link. Transmitter: 310B-33456T Receiver: 310B-33456R Adjustable Mounting Hinges (Optional): 01B46384

*The unit housing and brackets are suitable for non-corrosive environments at oil refineries, chemical and petrochemical plants, petroleum or chemical storage facilities, and other sites where hazardous substances are handled. Consult Southwest Microwave for further details. Specifications subject to change without notice.