

Wireless Activators

Train Approach Module

Using microwave sensors to detect approaching trains, this efficient Activator can be solar powered and needs no track circuits. When properly installed on a pole, the lights flash as long as the train is moving through the beam and continue to flash for 10 seconds after it passes or stops. Standard features include interference suppression and prediction software, drivers for four 30 cm high intensity LED lights, driver for electronic bell and manual override circuits.

Features

Approach sensing from both directions
Low power consumption
Small self contained unit
FCC Part 15 and CE approved

Specifications

Type	2 x 24 GHz Stereo Doppler
Range	500 m nominal for trains (line of sight)
Beamwidth	10° at far range, 30° at near range
Min-Max Speed	0.5 to 35 mph (1 to 60 km/h) or 2 to 70 mph (3 to 120 km/hr), higher and lower speeds available
Power Output	3.75 milliwatts
Power Required	10 to 18 Vdc, 0.5 Amps
Size / Weight	36 cm w x 41 cm h x 18 cm d / 8 kg
Output	Darlington drivers for LED flashing circuits, electronic bell and gate activation



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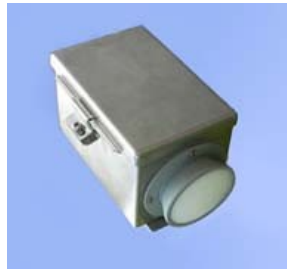


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Wireless Activators



Train Presence Detector



This all weather microwave remote sensor measures the distance to rail cars in its narrow 10° beam. Cars within a programmable window of 3 m to 25 m are detected. It is normally mounted on the signal pole with its beam perpendicular to the track.

Multiple outputs are available for indication the presence, distance, and time a rail car is within the range window.

The sensor may be powered by 12 V dc, 110-240 V ac, or solar.

Features

- All weather operation**
- Stainless steel case**
- Multiple outputs available**

Specifications

Type	24 GHz FMCW
Range Window	3 m to 25 m (internally programmable window)
Beamwidth	10°
Distance Accuracy	1 m
Power Output	1 milliwatt
Power Required	10 to 18 V dc, 110-240 V ac, or solar, 5 Watts
Size/Weight	10 x 11 x 29 cm / 1.5 kg
Temperature	-20°C to +60°C
Outputs	1) Contact closure when train is within range window, or 2) RS232 or RS422 Signal over cable with distance to train, sensor id, time target in widow, or 3) 802.11b/g wireless Internet protocol



Train Presence Detector

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O'CONNOR

Remote Sensor Module with Data Link

Mounted either next to the track or up to 30 meters away this module continually monitors the track with a Doppler radar sensor looking for trains approaching. The units are normally located around a bend or along straight track up to a mile from the crossing. Speed information is relayed via a wireless link, either VHF or 802.11xx, back to the crossing or other receivers. The units may be powered with small solar units. On tracks with higher speed trains, the Remote Sensor with Data Link Module allows for a more advanced warning.

Specification

Radar Type	24 GHz Stereo Doppler
Radar Range	100 m
Radar Beamwidth	10°
Speed Ranges	0.5 to 35 mph, 3 to 70 mph, or 10 to 350 mph
Data Link Type	2.4 GHz Spread Spectrum CDMA or other
Data Link Range	2 miles
Data Link Antenna	Patch or whip
Data Rate	19.2K bits/second minimum
Access	Point-to-point and point-to-multipoint
Power Required	12 V dc, 3 Watts
License	None required in USA
Interface	RS232, RS422
Temperature	-20° to 60° C
Enclosure	Fiberglass



Remote Sensor Module
with Data Link