



Overview

Distech Controls' Open-to-Wireless Wireless Receiver enables controllers to receive input signals from wireless sensors and switches. It is fully compatible with Distech Controls' LONWORKS® and BACnet® controllers, and uses the EnOcean protocol for communication on either 868MHz or 315MHz.

The Wireless Receiver can be installed in multiple ways. For example, using two-faced tape, the Wireless Receiver can be mounted on almost any type of surface and be within close proximity of the controller. If the controller is in a metal enclosure, the Wireless Receiver can be mounted on the enclosure's exterior using a ½-inch NPT hub. A 2-meter long telephone cord, provided with the Wireless Receiver, is used to connect it to the controller.

In building retrofits, the Wireless Receiver allows system integrators to use wireless sensors and switches, thereby minimizing impact on building structure and preserving original architecture and materials. Wiring complexities are avoided and any initial design errors can be easily fixed. Because the Wireless Receiver can be directly connected to Open-to-Wireless ready controllers, their input counts can be easily expanded, making field upgrades simple and straightforward.

Applications

- Enables controllers to receive input signals from wireless sensors and switches
- Facilitates building retrofits, minimizing impact on building structure, saving on time and costs with re-wiring, fixing initial design errors, and expanding controller input count

Features & Benefits

- Wireless communication, permitting you to:
 - Optimize sensor placement to get the most accurate reading and achieve improved temperature control and occupant comfort
 - Easily relocate sensors and switches when room configurations or floor plans change
 - Preserve architecture and materials, avoiding drilling and wall openings
 - Avoid disturbances to tenants caused by noise and dust associated with extensive installation work
- Multiple mounting options, giving you flexibility during installation
- Available in two models for communication on either 868MHz or 315MHz to suit your country or local area's transmission norms
- Included telephone cord with modular connectors, making connection to the controller fast and straightforward
- Powered directly by the controller, simplifying installation

Product Warranty & Total Quality Commitment

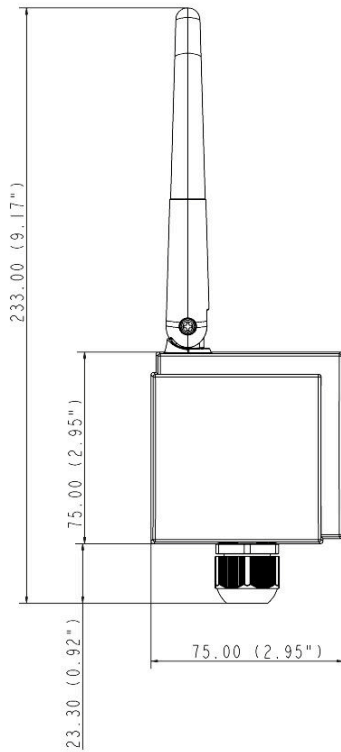
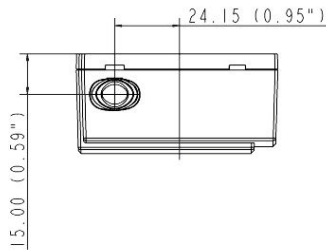
All Distech Controls product lines are built to meet rigorous quality standards and carry a two-year warranty. Distech Controls is an ISO 9001 registered company.

Wireless Receiver Models

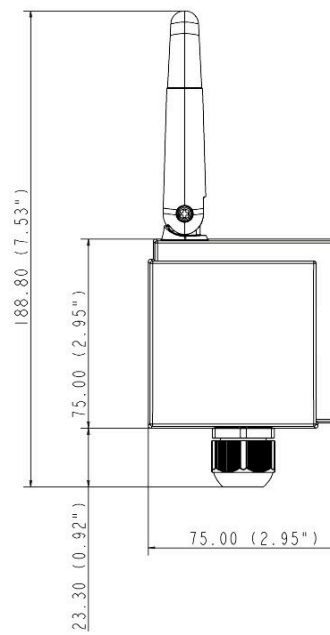


Model	Wireless Receiver (315)	Wireless Receiver (868)
Frequency	315MHz	868.3MHz
Product Number	PDITE-WIRE315XO	PDITE-WIRE868XO

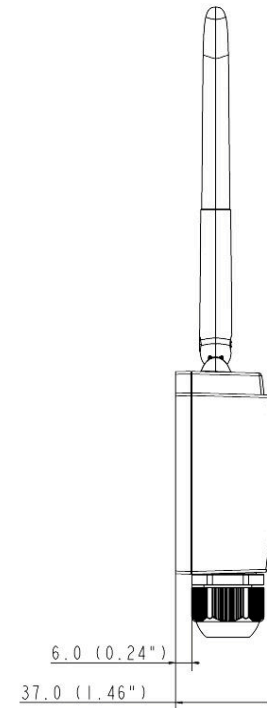
Top View



Wireless Receiver (315)



Wireless Receiver (868)



Side View

Transmission Ranges

The main factors that influence the system transmission range are type and location of the antennas of the receiver and the transmitter, type of terrain and degree of obstruction of the link path, sources of interference affecting the receiver, and "Dead" spots caused by signal reflections from nearby conductive objects. Since the expected transmission range strongly depends on this system conditions, range tests should categorically be performed before notification of a particular range that will be attainable by a certain application.

The following figures for expected transmission range are considered by using an Open-to-Wireless controller with a Wireless Receiver and a Wireless Sensor or Switches and may be used as a rough guide only:

- Line-of-sight connections: Typically 30m (98ft) range in corridors, up to 100m (328ft) in halls
- Plasterboard walls / dry wood: Typically 30m (98ft) range, through max. 5 walls
- Ferroconcrete walls / ceilings: Typically 10m (33ft) range, through max. 1 ceiling
- Fire-safety walls, elevator shafts, staircases and supply areas should be considered as screening.


The angle at which the transmitted signal hits the wall is very important. The effective wall thickness – and with it the signal attenuation – varies according to this angle. Signals should be transmitted as directly as possible through the wall. Wall niches should be avoided. Other factors restricting transmission range:

- Switch / sensor mounted on metal surfaces (up to 30% loss of transmission range)
- Hollow lightweight walls filled with insulating wool on metal foil
- False ceilings with panels of metal or carbon fiber
- Lead glass or glass with metal coating, steel furniture

The distance between EnOcean receivers and other transmitting devices such as computers, audio and video equipment that also emit high-frequency signals should be at least 0.5m (1.6ft)


For more information about the EnOcean technology and Open-to-Wireless, refer to the Open-to-Wireless Solution Guide. For more information about the Wireless Receiver module, refer to the [Wireless Receiver Datasheet](#). These documents can be found on our web site at www.distech-controls.com.

Specifications

General		Enclosure	
Power Supply	From controller	Material	ABS type PA-765A
Communication Protocol	EnOcean	Color	White enclosure with black antenna
Communication Frequency		Shipping Weight	0.40lbs (0.18kg)
- Wireless Receiver (315) ¹	315MHz	Mounting Options	- Wall mounting using two-faced tape (included) - Wall mounting using screws and wall anchor - Mounting on a metal enclosure using a ½-inch NPT hub (included)
- Wireless Receiver (868)	868.3MHz		
Hardware		Environmental	
Receiver		Operating Temperature	0°C to 50°C; 32°F to 122°F
- Wireless Receiver (315)	EnOcean TCM 200C	Storage Temperature	-20°C to 70°C; -4°F to 158°F
- Wireless Receiver (868)	EnOcean RCM 120	Relative Humidity	0 to 90% Non-condensing
Cable	Telephone cord (included)	Agency Approvals	
- Connector	4P4C modular jack	UL Listed (CDN & US)	UL916 Energy management equipment
- Length (maximum)	6.5ft; 2m	Material ²	UL94V-1
Electromagnetic Compatibility			
Wireless Receiver (315)			
FCC	This device complies with FCC rules part 15, subpart B, class B		
IC	RSS-GEN RSS-210		
Wireless Receiver (868)			
CE -Emission	ETSI EN 301 489-1: 2001 – 09 ETSI EN 301 489-3: 2001 – 11 (Class 2) ETSI EN 300 220-3: 2000 – 09		
-Immunity	ETSI EN 61000-6-2: 2002 – 08		



The Wireless Receiver (315) attained FCC and IC approvals, so in North America, 315MHz is the recommended transmission frequency. For information on the transmission frequencies used in various countries around the world, refer to the Open-to-Wireless Solution Guide.

All materials and manufacturing processes comply with the RoHS directive .

Specifications subject to change without notice.

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Wireless Receiver

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