

Tarts Wireless Water Detection Sensor

General Description

Tarts wireless water Water Rope Sensor detects the presence of water anywhere along the surface of the rope. Sensor comes with 10 feet of water rope. Additional 10 ft. sections are available and can be connected up to 100 feet.


Features

- 10 ft. lead and 10 ft. water detection rope.
- Immediately detects water anywhere along rope.
- Expandable up to 100 ft. of detection rope.

Principle of Operation

The Tarts wireless water rope sensor detects conductive liquids anywhere along the length of the detection rope by using two wires covered with conducting polymer. When water or conductive liquid contacts the rope, the sensor will immediately turn on the RF radio and transmit the data to the wireless gateway (Arduino shield, Raspberry Pi plate or BeagleBone Black cape). The sensor rope dries quickly allowing the sensor to reset for next use.

Technical Specifications

Datum Definition	Type: 78 Name: DETECT RawValue: 0 (Not Present), 1 (Present) FormattedValue: Not Present (0), Present (1)
Supply Voltage	2.0 - 3.6 VDC * (ships with CR2032 - 3.0 V coin cell battery and battery clip)
Current Consumption	0.7 μ A (sleep mode) 2 mA (radio idle/off mode) 2 mA (measurement mode) 25 mA (radio RX mode) 35 mA (radio TX mode)
Electronics Operating Temperature Range	-40°C to +85°C (-40°F to +185°F) **
Available Operating Frequencies	900 MHz (25 Channels), 868 MHz (5 Channels) and 433 MHz (15 Channels)
Rope Material / Weight	PE + alloy lead / 30g/meter
Rope Pull Force Limit	60kg
Fire Resistance (Rope)	Second pressure plenum cable
Cable Diameter / Length	5.5mm / 10 ft. (120 in.) included (expandable to 100 ft.)
Core Resistance	3ohm/100 meters
Maximum Exposed Temperature	75°C (167°F)
Antenna	4" wire antenna
Device Range	250 - 300 ft. non-line-of-sight (actual range may vary depending on environment.)
Dimensions	1 inch (W) x 1 inch (L)
Certifications	 900 MHz product; FCC ID: ZTL- RFSC1 and IC: 9794A-RFSC1. 868 and 433 MHz product tested and found to comply with: CISPR 22:2008-09 / EN 55022:2010 - Class B and ETSI EN 300 220-2 V2.4.1 (2012-05).

* Hardware cannot withstand negative voltage. Please take care when connecting a power device.

** At temperatures above 100°C, it is possible to lose programmed memory.

For more product information or to place an order visit us on the web at www.tartssensors.com.
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