

# M175 Rugged Location Sensor

**With highly durable dual-wall construction, internal gasket and sonically welded case, the M175 rugged location sensor is perfectly suited for use in harsh outdoor or environmentally exposed locations.**

## Features & Benefits

- ◆ Encoded Radio Transmissions at 433 MHz
- ◆ Dual-walled construction with internal gasket
- ◆ Metal Clip Mounting Option for Permanent Installation
- ◆ Water-resistant Sonic-Welded Enclosure
- ◆ Customizable Beacon Rates
- ◆ Low Power Consumption for Long Battery Life
- ◆ Superior Anti-Collision Technology for High Sensor Densities

The 433 MHz M175 Rugged Location Sensor is a battery-powered RF transmitter designed with a sealed, water-resistant, crush-proof enclosure for general-purpose asset tracking. Every sensor broadcasts its unique ID and a status message at a periodic rate (that is programmed at the factory). These sensors provide an economical solution for a variety of asset tracking environments. RF Code's patented communication protocols support high sensor densities that allow large populations of sensors to be deployed in confined spaces.

M175 Sensors can be programmed to operate at a two-second beacon rate for security applications. This provides a method for rapidly locating and identifying tagged assets as they move through controlled areas. With typical read ranges of 300 feet, a single reader can provide coverage for a large area, such as an

industrial laydown yard or commercial warehouse.

The M175 Rugged Location Sensors are impact-resistant, splash-resistant, and temperature stable. The enclosure is sealed for ingress protection against dust and low-pressure jets of water. The durable teslin labels withstand years of wear and tear. This provides excellent resistance to harsh environments; it can withstand salt water splashes, cleaning solutions, germicides, disinfectants, etc.

Powered by a coin cell battery, the M175 sensor will perform reliably in extreme temperature environments (from -20 to +70 degrees Celsius). In addition, the sensor performs well after exposure to humidity and hot/ cold cycles. The sensor operates with a very low duty cycle that translates to long battery life (typically > 4 years).

*M175 Rugged Location Sensors feature a wear-and-tear resistant, sonically welded enclosure that is especially suitable for use in rugged, environmentally exposed deployments.*



# RF Code M175 Rugged Location Sensor Specifications

## OPERATION

Operating Frequency	433.92 MHz
Group Code & Sensor ID Codes	>540,000 unique IDs per Group Code
Typical Transmission Range	up to 300 ft
Radiated Emissions	71.8 dBuV/m at 3 meters (maximum)
Stability	Saw stabilized
Sensor Options	Motion

## ENCLOSURE

Case Length	2.51 in (63.75 mm)
Case Width	1.485 in (37.719 mm)
Case Height	1.0 in (25.40 mm)
Case Weight (with sensor)	1.8 oz (51 g)
Material	Injection-molded ABS
Durability	Tough, impact resistant and temperature stable
Ingress Protection	Rated IP65
Mounting Options	Metal clip

## ENVIRONMENTAL

Operating Temperature	-20° C to +70° C
Storage Temperature	-40° C to +80° C
Sealing	Sonically welded: Resistant to moisture, fluids and rigorous cleaning procedures. Protected against dust and low-pressure jets of water.

## POWER

Battery Type	Lithium CR2032 coin cell
Smart Sensor Feature	Low battery indication
Battery Life	> 4 years (nominal)*

\* Battery life estimate for two-second simple beacon-only sensor deployed in climate-controlled setting, 25° Celsius nominal operating temperature.



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