# M171 Durable Location Sensor

RFCODE Location Sensors

## With its highly durable, sonically welded case, the M171 durable location sensor is perfectly suited for use in tough conditions.

### Features & Benefits

- Encoded Radio Transmissions at 433 MHz
- Dust Protected Sealed Enclosure
- Customizable Beacon Rates
- Low Power Consumption for Long Battery Life
- Superior Anti- Collision Technology for High Sensor Densities

The 433 MHz M171 Durable Location Sensor is a battery-powered RF transmitter designed with a sealed, dust-resistant, crush-proof enclosure for general- purpose asset tracking. Every sensor broadcasts its unique ID and a status message at a periodic rate. 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.

M171 Sensors are programmed to operate at a 2-second beacon interval for security applications. This provides a method for rapidly locating and identifying tagged assets as they move through controlled areas. With read range up to 300 feet, a single reader can provide coverage for a large area, such as an industrial laboratory or commercial warehouse.

The Durable M171-series sensors are impact-resistant, dust-resistant and temperature stable. Labels are sealed on the inside of the clear polycarbonate enclosure via sonic-welding at the point of manufacture. This protects both the label and the electronics from dust and can be wiped with a damp cloth.

Powered by a coin cell battery, the M171 sensor will perform reliably in 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.

*M171 Durable Location Sensors feature a wear-and-tear resistant, sealed enclosure to protect from dust; especially suitable for use in tough conditions.*

# RF Code M171 Durable Location Sensor Specifications

| OPERATION | |
|---|---|
| Operating Frequency | 433.92 Mhz |
| Group Code & Sensor ID Codes | > 540,00 unique IDs per Group Code |
| Typical Transmission Range | Up to 300 ft. |
| Emitted Radiated Power | 71.8 dBµV/m at 3 meters (maximum) |
| Modulation | ASK |
| Stability | SAW stabilized |
| Sensor Options | Motion |

| ENCLOSURE | |
|---|---|
| Case Length | 1.770 in (44.95 mm) |
| Case Width | 1.330 in (33.78 mm) |
| Case Height | 0.441 in (11.20 mm) |
| Case Weight (with sensor) | 0.52 oz (14.7 g) |
| Construction | Polycarbonate |
| Durability | Tough, impact resistant and temperature stable |
| Mounting Options | Adhesive pad (included) |

| ENVIRONMENTAL | |
|---|---|
| Operating Temperature | -20° C to +70° C |
| Storage Temperature | -40° C to +80°C |
| Operating Humidity | < 95% RH non-condensing; not recommended for outdoor applications |
| Sealing | Sonically welded: Resistant to dust and moderate cleaning procedures |

| POWER | |
|---|---|
| Battery Type | Lithium CR2032 replaceable coin cell |
| Smart Sensor Feature | Low battery indication |
| Battery Life | > 4 years (nominal) |

| REGULATORY | |
|---|---|
| FCC Compliance | FCC Title 47 CFR Part 15; FCC ID: P6FX |
| CE Compliance | RED 2014/53/EU Article 3.1(a): Health and Safety<br>RED 2014/53/EU Article 3.1(b): Electromagnetic Compatibility<br>RED 2014/53/EU Article 3.2: Radio Spectrum<br>CE Marked |

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