# Pipe Pressure Sensor

## Featuring LoRaWAN®

# EM500-PP



EM500-PP is designed for measuring pipe pressure in harsh environments and transmitting data using LoRaWAN® technology. With this low power consumption technology, EM500-PP can work up to 10 years with 19000 mAh battery. Combining with Milesight LoRaWAN® gateway and Milesight IoT Cloud solution, users can manage all sensor data remotely and visually.

EM500-PP is widely used for applications like smart buildings, pipeline and tank systems monitoring, etc.

## ◆ Features

- High precision and corrosion resistance
- Ultra-wide-distance transmission up to line of sight of 10km
- IP67 waterproof enclosure for harsh environment applications
- Built-in 19000 mAh replaceable battery and work for 10 years without replacement
- Store historical records locally and support retransmission
- Equipped with NFC for easy configuration
- Compliant with standard LoRaWAN® gateways and network servers
- Quick and easy management with Milesight IoT Cloud solution

## ◆ Applications

- Pipes and tanks pressure monitoring
- Oil & Gas monitoring
- Water leak detection
- Pump monitoring

# ◆ Specifications

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|---|---|
| **Wireless Transmission** | |
| Technology | LoRaWAN® |
| Frequency | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4 |
| Tx Power | 16dBm(868MHz)/20dBm(915MHz)/19dBm(470MHz) |
| Sensitivity | -137dBm @300bps |
| Mode | OTAA/ABP Class A |
| **Measurement** | |
| Pressure Type | Vented Gauge |
| Range | 0 - 1600 kPa (16 Bar) |
| Accuracy | ± 0.5% FS |
| Resolution | 1 kPa (0.01 Bar) |
| Overload | 150% FS |
| Long-term Stability | ± 0.3% FS/year |
| Process Connection | G 1/2” Male |
| **Operation** | |
| Power On & Off | NFC, Power Button (Internal) |
| Configuration | Mobile App (via NFC) or PC software(via USB Type-C) |
| Advanced Feature | Data Storage, Data Retransmission, Data Retrievability, Threshold Alarm, Milesight D2D Controller |
| **Physical Characteristics** | |
| Cable Length | 1.5 m |
| Power Supply | 1 × 19000 mAh ER34615 Li-SOCL$_2$ Battery |
| Battery Life* | 10 years (10 min interval, 25 °C) |
| Operating Temperature | Transceiver: -30°C~70°C<br>Pipe Pressure Sensor: -10°C~70°C |
| Relative Humidity | 0% to 100% (non-condensing) |
| Ingress Protection | Transceiver: IP67<br>Pipe Pressure Sensor: IP65 |
| Dimension | Transceiver: 105.4 × 71 × 69.5 mm (4.1 × 2.8 × 2.7 in)<br>Pipe Pressure Sensor: 67.5 × ϕ27 mm (2.7 × ϕ1.1 in) |
| Installation | Pole, wall or DIN Rail Mounting |
| **Approvals** | |
| Regulatory | CE, FCC, ISED, ICASA, Telec |

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|---|---|
| Environmental | RoHS |

* Tested under laboratory conditions and for guideline purposes only.