

# 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
- 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

| Wireless Transmission    |   |
|--------------------------|---|
| Technology               | LoRaWAN®  |
| Frequency                | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923     |
| Tx Power                 | 16dBm(868)/20dBm(915)/19dBm(470)                    |
| Sensitivity              | -137dBm @300bps                                     |
| Mode                     | OTAA/ABP Class A                                    |
| Measurement              |   |
| Pressure Type            | Gauge Pressure                                      |
| 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) |
| Physical Characteristics |   |
| Cable Length             | 1.5 m   |
| Power Supply             | 19000 mAh Li-SOCL <sub>2</sub> battery (ER34615)    |
| Battery Life*            | 10 years (10 min interval)                          |
| Operating Temperature    | -30°C to +70°C                                      |
| Relative Humidity        | 0% to 100% (non-condensing)                         |
| Ingress Protection       | IP67(Transceiver)/IP65(Pipe Pressure Sensor)        |
| Dimension                | 105.4 × 71 × 69.5 mm (4.1 × 2.8 × 2.7 in)           |
| Installation             | Pole, wall or DIN Rail Mounting                     |
| Approvals                |   |
| Regulatory               | CE, FCC, RoHS                                       |

\* Tested under laboratory conditions and for guideline purposes only.

