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 Development Platform, 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 and Milesight Development Platform

◆ Applications

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

◆ Specifications

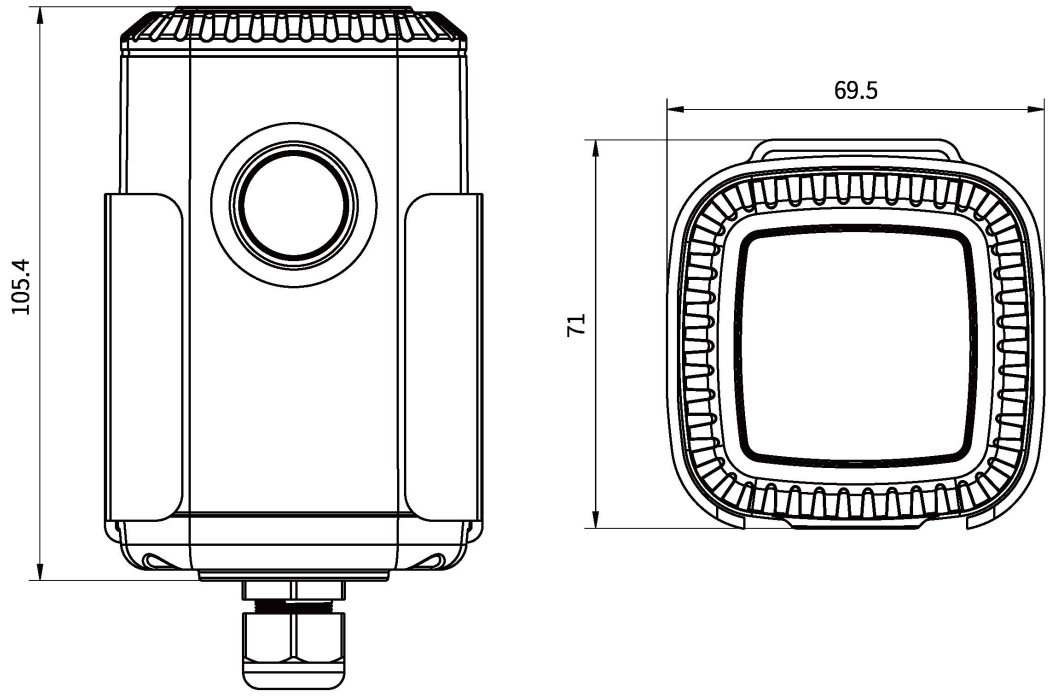
Wireless Transmission	
Technology	LoRaWAN®
Antenna	Internal Antenna
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4
Tx Power	16dBm(868MHz)/20dBm(915MHz)/19dBm(470MHz)
Sensitivity	-137dBm @300bps
Mode	OTAA/ABP Class A
Measurement	
Pressure Type	Vented Gauge
Range	0 - 1600 kPa (16 Bar)
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
Others	
LED	1 × LED Indicator (Internal)
Button	1 × Power/Reset Button (Internal)
USB	1 × USB Type-C(Internal) for Configuration and Console
Operation	
Power On & Off	NFC, Power Button (Internal)
Configuration	Mobile App (via NFC), PC software(via USB Type-C), Downlink
Advanced Feature	Data Storage (1,000 entries), 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 Pipe Pressure Sensor: -10°C~70°C
Relative Humidity	0% to 100% (non-condensing)
Ingress Protection	Transceiver: IP67 Pipe Pressure Sensor: IP65

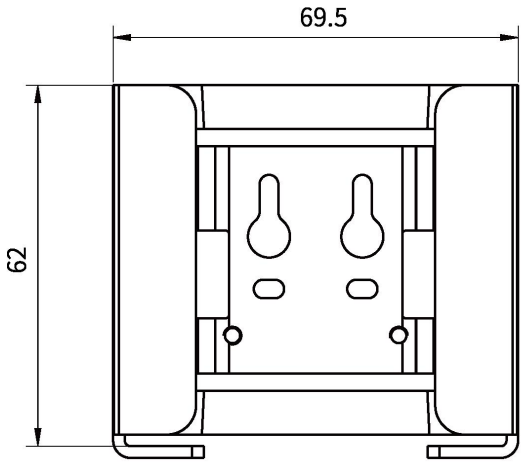
Housing&Color	Transceiver: ABS + PC, Grey Pipe Pressure Sensor: Stainless Steel 316L, Silver
Weight	Transceiver: 328g (With Battery and Mounting Bracket) Pipe Pressure Sensor: 187g (With Cable)
Dimension	Transceiver: 105.4 × 71 × 69.5 mm (4.1 × 2.8 × 2.7 in) Pipe Pressure Sensor: 60.5 × ϕ27 mm (2.38 × ϕ1.1 in)
Installation	Pole, Wall or DIN Rail Mounting
Approvals	
Regulatory	CE, FCC, ISED, ICASA, Telec
Environmental	RoHS

* Tested under laboratory conditions and for guideline purposes only.

◆ Dimensions(mm)

Transceiver:





Pipe Pressure Sensor:

