PTE2-N Spec-sheet





Industrial NB IoT – Cat-M1 Operated Low Power Earth and Sludge Pressure Transmitter

- Compatible with most standard communication Protocols (UDP, LwM2M, MQTT, NIDD, etc.)
- Wide range of industrial applications
- High accuracy
- Long-term durable performance in harsh environment
- Ultra-low power

TECHNICAL SPECIFICATION



Sensor		
Range:	Selectable between 0~0.5 to 0~20	Kg/cm ²
Accuracy:	±0.5 (typ.)	%Span
Non-linearity:	±1	%Span
 Long term stability (1 year): 	≤ 0.2	%Span
 Pressure overload: 	120	%FS
 Compensated temperature: 	-10 ~ +70	°C
Power		
Power Supply:	Built-in Replaceable Lithium Battery, external powe	er (option)
Rated Voltage	3.6	V
Battery Lifetime:	100,000+ readings and 20,000+ transmission (More than 10 years for most applications)	
Physical Specification		
Materials:	Special Stainless Steel, high grade epoxy potting Enclosure: ASA/ POM	
Weight:	2 ~4.5 (depends on the range)	kg
Protection rate:	Sensor head: waterproof for 300m H2O Enclosure: IP66/ IP68 and UV protected	-
• Size:	Φ230mm (OD), Thickness: 10.5mm (for the range of 2kg/cm ²)	
Cable:	Φ 10 mm, 0.5mm2 × 5C shielded PVC sheath cable	
Communication		
Communication Standards	Cat-NB1 (NB-IoT) Cat-M1 (option of back support by GPRS)	
 Communication Bands 	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B26/B2	28 and B39
Data Rates:	Cat-M1: 375Kbps (DL)/375Kbps (UL) NB-IoT: 32Kbps (DL)/70Kbps (UL)	
TX Power:	23dBm	
Min Receiver Sensitivity:	Cat-M1: -107dBm NB-IoT: -113dBm	

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- Antenna:
- Optional Features:

Internal (Default)/ External (customised options available)

- Attach without PDN (Packet Data Network)
- Support for IPV6
- SMS communication
- Mobility support (Cat-M1 only)

NETWORK CONNECTION AND VISUALISATION

Network Integration

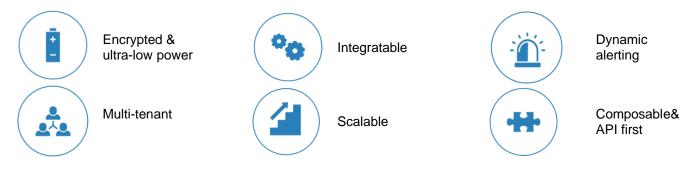
Pre-configured or configurable to all main narrow band networks (3, A1, AT&T, China Mobile, DU, Etisalat, KPN, M1 Singapore, Optus, Orange, Proximus, Spark, Sprint, Swisscom, Telefonica, Telstra, T-Mobile, Verizon, Vodafone, 1NCE, Emnify and any other network)

Visualisation and Data Management

Ellenex white label microservice platform and Integratable to all main IIoT platforms directly or through the API (AWS, Azure, PTC ThingWorx, Bosch IoT, Cisco Jasper & Kinetic, Sierra Numerex, MathWorks ThingSpeak, GE Digital Predix, LandisGyr, Siemens MindSphere, Cumulocity, myDevices, Ubidots, TagoIO, AllThingsTalk, HPE IoT and any other major IoT platform).

Ellenex Platform Main Features

- Encrypted ultra-low power communication protocol
- Advanced device inventory
- Integration APIs for enterprise systems
- Multi-tenant role-based access control
- Data export and import
- White-label platform for enterprise runs on private account
- Variable alarm setting for high and low thresholds and multi-channel alerting
- Sampling and transmission interval configuration
- Transmission condition configuration
- Other configurations and customisation available on request



APPLICATIONS

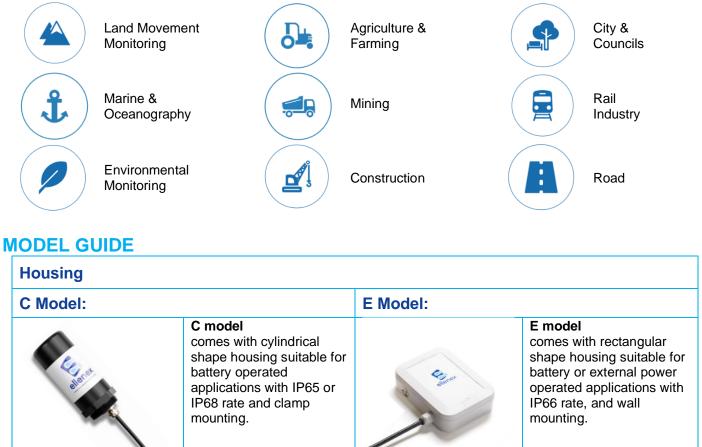
- Land movement monitoring
- Road overload monitoring
- Pavement foundation movement
- Soil level monitoring

- Sludge level monitoring in water channels
- Rail foundation movement monitoring
- Under-ground water in soil level monitoring
- Overload monitoring

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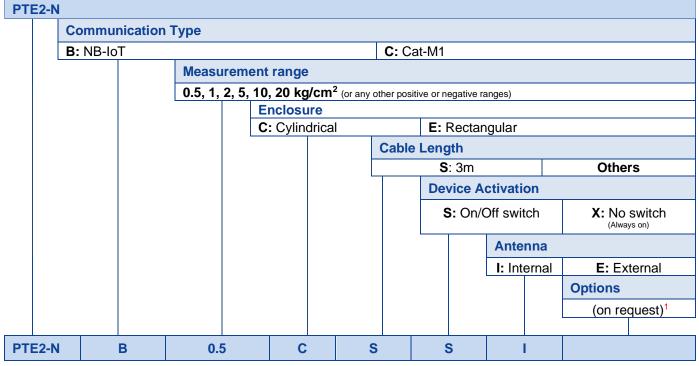
INDUSTRIES







ORDERING CODE



Sample Product Code:

• PTE2-N-B-0.5-C-S-S-I

NB IoT Earth pressure sensor with range of 0.5kg/cm², with cylindrical housing, 3m cable, and activated by onoff switch comes with internal antenna.

¹⁾ Product Options:

- EP: sensor with external power supply connector for 12V supply (only for E type enclosure, adaptor is not included)
- EPB: connector for 12V supply with internal battery backup (only for E type enclosure)
- HG: high-gain external antenna
- **WF**: Active WiFi module on device for communication/ firmware update through Mobile phone NFC module (only for E type enclosure)
- HCB: high-capacity battery (only for E type enclosure)

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Integrated IoT Solutions

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