PCM9880 Wireless Pressure Transmitter

Key features

- ■ Supporting NB-IoT/4G/LoRaWAN wireless communication system, suitable for various scenarios
- ■ Support button, local and remote parameter setting, support magnetic bar wake up function, more convenient daily use and maintenance
- ■ Hardware structure anti-vibration, anti-impact, anti-interference ability is strong, software built-in watchdog, not crash, equipment reliability is high, good repeatability
- ■ Real-time active report on alarm information such as abnormal fluctuation and exceeded Threshold value of monitoring point liquid level
- ■ Optimized ultra-low power consumption design; reducing battery replacement frequency and significantly lowering user maintenance costs
- ■ Accessible to the third-party monitoring platform; supporting Telecom AEP platform, Alibaba Cloud platform and customer private platforms

Typical application industries

- ■ Fire protection, municipal administration, water affairs, environmental protection and other industries

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Notes:

1. Do not misuse documentation. This document is product selection guide. Do not use this document as a product installation guide.
2. Complete installation, operation, and maintenance instructions are provided additionally in the product manual.
3. Do not touch the diaphragm in the pressure hole with hard objects, which may cause damage to the diaphragm.
4. Misuse of the product may cause danger or personal injury.

Product overview

The PCM9880 wireless pressure transmitter is a low-power Internet of Things product launched by Wotian Technology, which supports a variety of standard Internet of Things, including NB-IoT, LoraWAN, 4G, etc. Products are widely used in indoor, outdoor or supporting power supply environment inconvenient occasions, such as fire protection, municipal, water, heating, oil transmission, pipeline and other occasions for pressure monitoring.
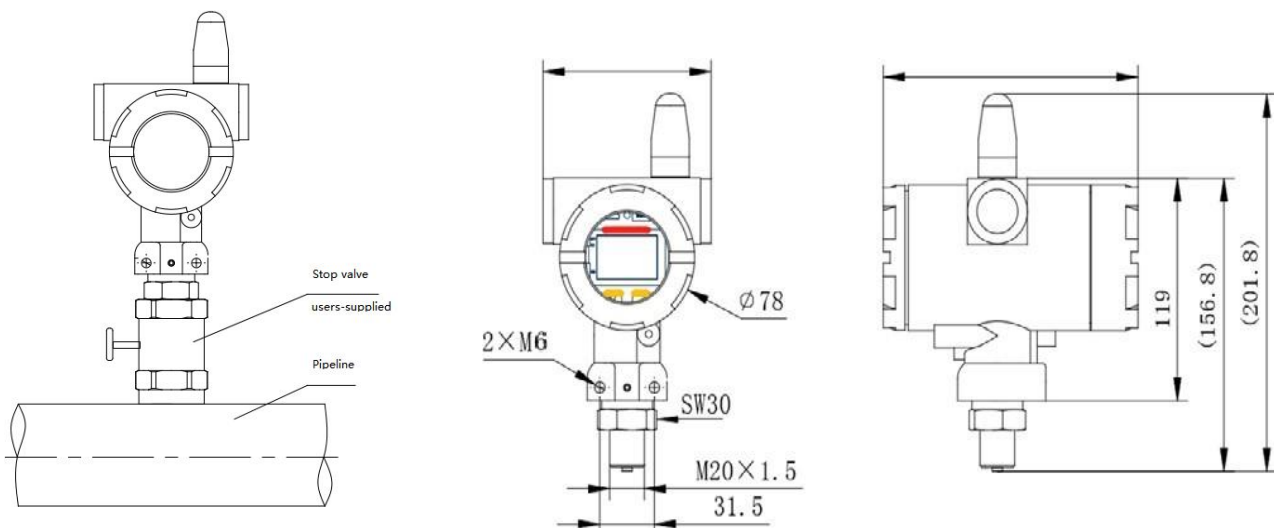
The product sends the pressure condition of the monitored points to the monitoring center through the Internet of Things cycle or in real time, and the monitoring center will store, analyze, query the data and report alarm information, finally realize wireless signal transmission and information interaction without on-site wiring, saving a lot of manpower maintenance cost, and help the users to decrease the construction cost and later maintenance cost and to monitor and manage the monitored point high efficiently and timely.

This product uses 38Ah large capacity lithium sub battery power supply, small size, light weight, easy to install, easy to use, easy to maintain, suitable for all kinds of harsh environment
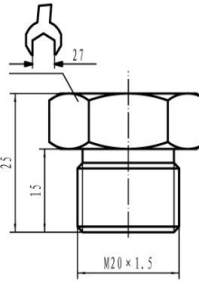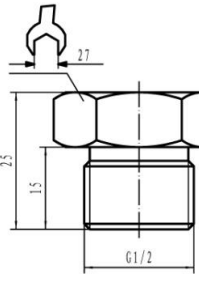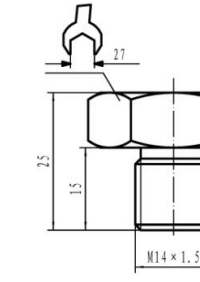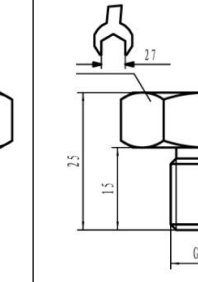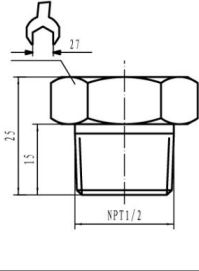
Performance parameters
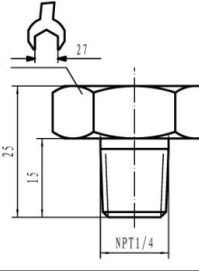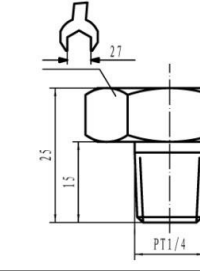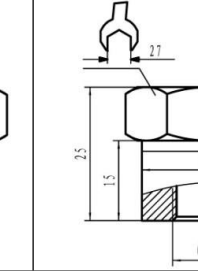
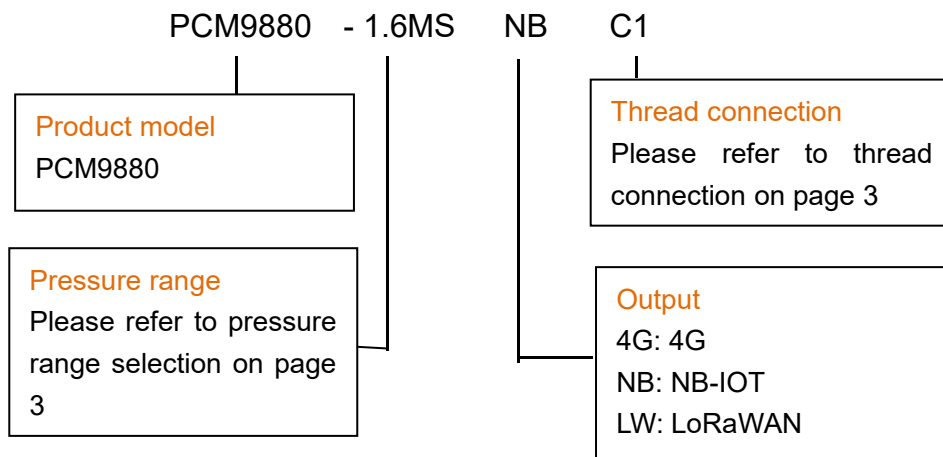|	
Pressure range	10kPa～20kPa…60MPa
Pressure type	Gauge pressure |Absolute pressure |Sealed gauge pressure
Supply & output	Power supply: lithium sub-battery (38Ah) or solar energy Output: NB-IoT/4G/LoRaWAN
Operating temp.	-20℃～70℃ (The low temperature below zero has great influence on the performance of lithium sub - battery.)
Medium temp.	-20ºC~85ºC
Storage temp.	-40℃～125℃
Zero temp. coefficient	±1.5%FS (-20℃～85℃)
Sensitivity temp. coefficient	±1.5%FS (-20℃～85℃)
Overload pressure	150%FS
Mechanical vibration	20g (20~5000Hz)
Shock	100g/11ms
Comprehensive accuracy	±0.5%FS
Operation mode	Regular active report; the reporting cycle can be set at will
Automatic detection	Built-in monitoring module to monitor the operation of equipment
Parameter setting	Remote setting, which allows to set reporting cycle and threshold alert
Sampling accuracy	24bit
Long-term stability	±0.2%FS/year
Protection grade	Gauge head part: IP66/67
Material	Housing: stainless steel; internal sensor: 316L
Medium compatibility	All kinds of media compatible with SS316L
ESD	Meeting GB/T 17626.2 Chapter 5 Severity Level: Level 4
RFEMS	Meeting GB/T17626.3 Chapter 5 Severity Level: Level 3
PFMF	Meeting GB/T17626.4 Chapter 5 Severity Level: Level 5

Structural dimension (Unit: mm) and installation instruction

Thread connection

Thread	C1: M20×1.5	C2: G1/2	C3: M14×1.5	C4: G1/4
Dimension Unit: mm				

Thread	C5:NPT1/2	C8: NPT1/4	C10: PT1/4	C20:G1/4inside
Dimension Unit: mm				

Pressure range selection

Range code	Pressure type	Pressure range	Overload pressure	Burst pressure	Other
10kG	G	0~10kPa	150％FS	600％FS	
20kG	G	0~20kPa	150％FS	600％FS	
35kG	G	0~35kPa	150％FS	600％FS	
70kG	G	0~70kPa	150％FS	600％FS	
100kG	G	0~100kPa	150％FS	500％FS	
160kG	G	0~160kPa	150％FS	500％FS	
250kG	G	0~250kPa	150％FS	500％FS	
400kG	G	0~400kPa	150％FS	500％FS	
600kG	G	0~600kPa	150％FS	500％FS	
1MG	G	0~1MPa	150％FS	500％FS	
35kA	A	0~35kPa	150％FS	500％FS	
100kA	A	0~100kPa	150％FS	500％FS	
160kA	A	0~160kPa	150％FS	500％FS	
250kA	A	0~250kPa	150％FS	500％FS	
400kA	A	0~400kPa	150％FS	500％FS	
600kA	A	0~600kPa	150％FS	500％FS	
1.6MS	S	0~1.6MPa	150％FS	500％FS	
2.5MS	S	0~2.5MPa	150％FS	500％FS	
6MS	S	0~6MPa	150％FS	400％FS	
10MS	S	0~10MPa	150％FS	400％FS	
16MS	S	0~16MPa	150％FS	400％FS	
25MS	S	0~25MPa	150％FS	400％FS	
40MS	S	0~40MPa	150％FS	150％FS	
60MS	S	0~60MPa	150％FS	150％FS	

Note: G: Gauge pressure, A: Absolute pressure, S: Sealed gauge pressure

PCM9880   - 1.6MS   NB   C1

| Product model |
| PCM9880 |

| Thread connection |
| Please refer to thread connection on page 3 |

| Pressure range |
| Please refer to pressure range selection on page 3 |

| Output |
| 4G: 4G |
| NB: NB-IOT |
| LW: LoRaWAN |

Example: PCM9880-1.6MS-NB-C1

The product model is PCM9880. 1.6MS is pressure range 1.6MPa sealed gauge pressure, NB: output NB-IOT, C1: thread connection C1: M20×1.5.

Ordering tips

1. It takes three steps to select the product: wireless system, pressure range and thread connection.

Wotian reserves the right to make any change in this publication without notice. The information provided is believed to be accurate and reliable as of this product sheet.

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