## PM450 Wireless Pressure Transmitter

MAIN FEATURES

- Wireless transmission without single point wiring
- One-key switch function + timer switch function
- Pressure interface and material can be customized
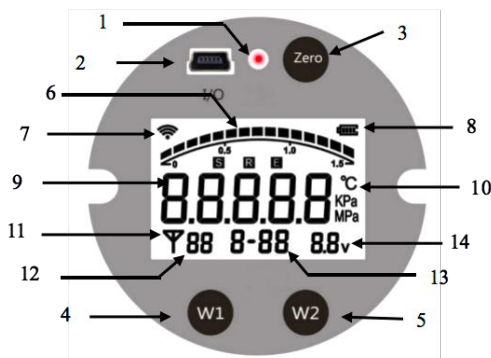- Lithium battery powered, can work in the wild environment

OVERVIEW

PM450 wireless pressure transmitter is suitable for pressure monitoring of petroleum oil and water well production, storage and transportation process. It adopts micro-power wireless communication mode, no wiring is required, installation is faster, safer and more convenient. It has built-in high- precision pressure sensor, which can accurately display the pressure in real time, and has the characteristics of high stability and long-term stability.This type of digital pressure gauge is equipped with large-scale HD LCD display and built-in MCU. With mature Lora/4G/IOT network, the on-site pipeline pressure is uploaded to the data center.
Or, it is can be matching with wireless switching device, which can convert many wireless pressure signals into MODBUS standard signals and transmit them through Ethernet or serial port.

SPECIFICATION

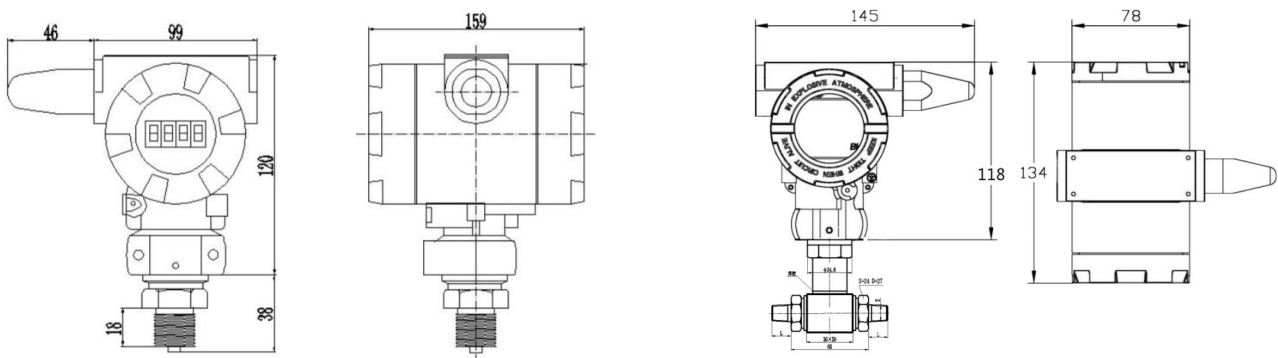|			
Pressure type	Gauge pressure, absolute pressure, differential pressure, sealed gauge pressure		
Range	-0.1MPa...0kPa~10kPa...100MPa		
Overload capability	≤ 2 times (<10MPa); ≤ 1.5 times (≥ 10MPa)		
Accuracy	0.1% (custom), 0.25% (typical), 0.5% (maximum)		
Long-term stability	±0.1%FS/year (typical), ±0.2%FS/year (maximum)		
Working environment	temperature: -20 ° C ~ 75 ° C , humidity: ≤ 95% RH		
Display	5-digit LCD		
Power supply	3.6 VDC Lithium-ion battery (38Ah) or solar rechargeable battery (8000mAh)		
Process interface	Customized according to customer requirements (refer order guide)		
Protection level	IP67		
Explosion-proof grade	(Ex) II 1G Ex ia da op is IIC T4 Ga		
Reporting period	1 minute to 24 hours can be set		
Upload information	pressure, temperature, signal strength, battery power, etc.		
Wake-up mode	key-press wake-up, timing wake-up		
Battery life	1~3 years (related to data upload interval)		
Communication signal	Lora (Semtech)	NB-IOT	4G
Transmission distance	Sight distance 1000m	Unlimited (depends on base station signal coverage)	
Configuration method	serial port, button, gateway configuration (One gateway can connect 64 sensors)	serial port configuration, button configuration	
Communication protocol	PetroChina A11 (other protocols customized)	LwM2M, TCP, MQTT	
Power	Transmitting power: ≤150mW	Meter power consumption: <20uA in sleep mode	
Signal frequency band	433Mhz (other frequency can be customized)	Band 3/5/8	
SIM card	-	Mobile, Telecom, China Unicom	
Data platform	-	Mobile OneNET (other platform protocols can be customized)	

PANEL INTRODUCTION

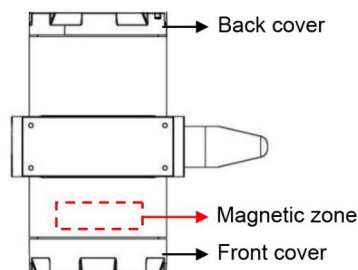| Code	Description	Code	Description
1	Over-range alarm indicator, flashes when the real-time engineering value is over-range	8	Battery level indicator
2	Debug interface	9	Real-time engineering values
3	Clear button	10	Engineering value unit
4	Function button 1	11	Wireless signal indication
5	Function button 2	12	Wireless channel indication
6	Engineering value full scale percentage indication	13	Group number and number
7	Wireless signal strength indicator	14	Battery voltage

TYPICAL DIMENSION

Unit: mm

INSTALLATION NOTES

1. Make sure that the pressure measurement range required by the process is consistent with the pressure transmitter to be installed.

2. The thread specifications of the connector for process installation must be matched with the wireless pressure transmitter.

3. When installing the pressure transmitter on the pipeline, first close the pipeline valve (needle valve or gate valve) where the pressure transmitter is to be installed, and then screw the transmitter directly into the upper port of the valve. After installation, open the valve to confirm that there is no leakage, that is, the installation is qualified.

4. After the product is installed, place the magnet in the magnetic induction area of the transmitter as shown in the figure below and stay for 6 seconds. After the screen flashes once (indicating that the power has been reset), the product will reconnect with the gateway and synchronize related parameters.

Note: After the gateway parameters are modified and saved, a magnet must be used to reset the product once to ensure that the relevant parameters are synchronized in time.

Back cover

Magnetic zone

Front cover

ORDER CODE

Code:	A	–	B	–	C	–	D	–	E	–	F	–	G
Model:	PM450	–	G	–	0-50bar	–	S	–	L	–	G 1/2	–	4G

Model	Code A
Wireless pressure transmitter	450
Pressure type	**Code B**
Pressure	-
Differential pressure	D
Pressure & temperature	C
Pressure Range(X=specific range)	**Code C**
-0.1MPa ~100MPa	X MPa
-1Bar ~1000Bar	X Bar
-15psi ~15000psi	X psi
Accuracy	**Code D**
0.1% (custom)	C
0.25%(typical)	T
0.5%(standard)	S
Interface material	**Code E**
316L	L
304	S3
Other customized	C

Process connection	Code F
G1/2	G1/2
M20*1.5	M20
G1/4	G1/4
G1/8	G1/8
1/2NPT	1/2NPT
1/2PT	1/2PT
3/8PT	3/8PT
3/8NPT	3/8NPT
1/4NPT	1/4NPT
1/4PT	1/4PT
1/8NPT	1/8NPT
More customized	C
Output signal	**Code G**
NB-IOT	NB
Lora	LR
4G	4G
More customized	C

Remarks:

1. In order to improve the reliability of data transmission, it is recommended to use the antenna when installing on site.
In an open position.
2. When the product is installed in the field, please do the secondary protection of the product. The front and rear covers and sealing screws must be tightened and sealed.
3. Special requirements, use site conditions, please specify when ordering.