Wireless Pressure & Temperature Transmitter

This temperature and pressure integrated pressure transmitter belongs to the PGW series oil and water well wireless monitoring system, which is suitable for pressure and temperature 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. There is also a matching wireless switching device, which can convert many wireless pressure signals into MODBUS standard signals through Ethernet or serial transmission, which is convenient. Access to the measurement and control system has a wide range of applications.

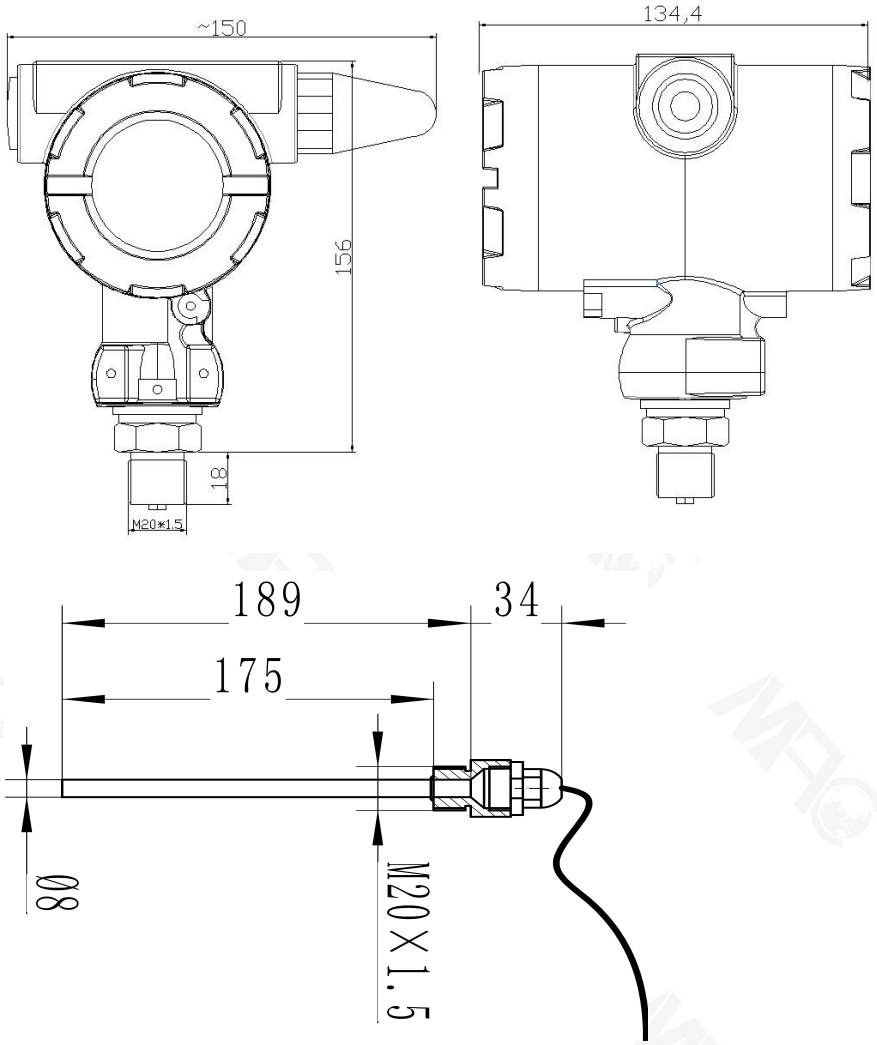
I.Product Features

- Pipeline pressure, temperature wireless test, typically applied to oil wellhead pressure monitoring;
- Explosion-proof design: explosion-proof aluminum shell, the circuit board system is intrinsically safe;
- Protection level: IP66, fully sealed waterproof design;
- ZigBee communication, which can be configured and tested with a hand-held device;
- LCD display: -40 ~ 75 °C wide temperature working range, can display pressure data, battery voltage, wireless channel and other information;
- The installation direction is adjustable: the field pipe valve can be connected through the joint or the adapter to adjust the direction;
- 38Ah high-energy lithium-ion battery, long working life;
- High-gain antenna, wireless transmission distance of more than 200m;
- Temperature sensor custom wire sleeve to prevent cable joint breakage;

II. Technical Specification

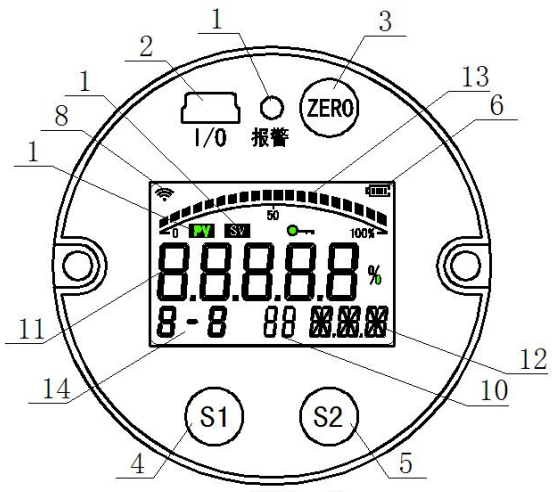
1. Measured medium: liquid, gas
2.Pressure range: 0~60MPa, -50-250 °C can be customized
3.Accuracy: 0.5
4.Overload pressure: 150% FS
5.Reporting period: 1 minute ~ 12 hours can be set
6.Decimal places: 0~3 digits can be set
7.Signal transmission: ZigBee wireless
8.Transmitting power: ≤40mW
9.Communication distance: ≥200m
10.Working power: 3.6V lithium battery
11.Explosion-proof grade: Exib IIB T4 Gb
12.Shell protection: IP66/1
13.Process interface: customer customization
14.Working environment temperature: -40 ~ 75 ° C
15. Working environment humidity: ≤97% RH
16.Product weight: 2000g

III.Dimension



IV. Display Instructions

The wireless integrated temperature pressure transmitter display panel is shown in Figure 2:



The various parts of the display panel are described as follows:

Code	Description	Code	Description
1	Over-limit alarm indicator, flashing when pressure or temperature is exceeded	8	Zig Bee signal indication
2	Debug interface	9	
3	Clear button, press 2 seconds to clear drift when pressure zero drift	10	ZigBee channel indication
4	Calibration button 1	11	Pressure or temperature value
5	Calibration button 2	12	Pressure or temperature value unit
6	Battery indicator	13	Pressure fullness indication
7		14	Group number and number

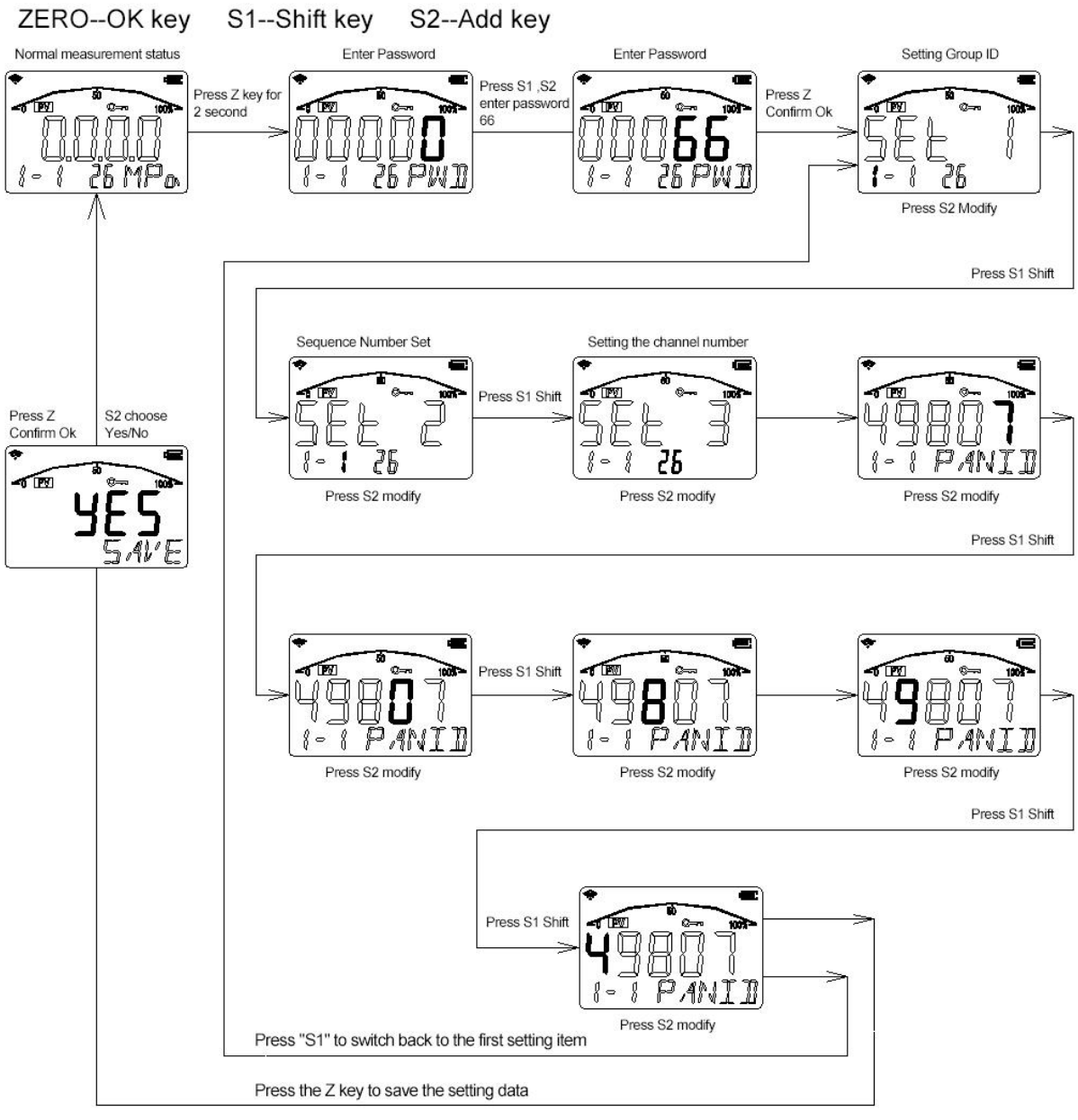
V. Installation

1. Determine the measurement range required by the process to be consistent with the transmitter range to be installed.
2. The joint thread size of the process installation must be matched with the transmitter.
3. Install the pressure transmitter on the pipeline. Firstly close the valve (needle valve or gate valve) on the pipeline to be installed with the pressure transmitter. Then there are 2 installation methods: (1) Screw the transmitter directly into the valve. (2) Screw the union or adapter into the upper port of the valve, and then screw the transmitter into the upper port of the union or adapter. This installation method adjusts the direction by adding a joint or adapter. . After installation, open the needle valve to confirm that there is no leakage, that is, the installation is qualified.

VI. Parameter Setting

(1) Place the magnet in the magnetic sensing area of the transmitter for 6 seconds, reset the transmitter and obtain the parameters from the hand-held device.
(2) Enter the wireless channel, network, group number and number to be set in the dialog box popped up on the hand-held device, and press the “Settings” button to save.
(3) Set up by computer software, please contact us for software and operation instructions.
(4) Through the panel buttons, you can set the channel number, network number, group number, serial number. The setup process is as follows: Set the password to 00066.
(5) In the normal working mode, press and hold the Z button for two seconds, you can call out the setup password menu, enter the password 00066, and set the communication information of the transmitter according to the following procedure.

(6) The software is compiled into a loopback menu. So if you miss this setting item, you can continue to press S1 to continue switching back to the current setting item. The Z key is the confirmation parameter button. After confirming, you need to confirm it again. There are YES and NO options. Selecting the YES transmitter will restart and enable the current setup parameters. Selecting NO will discard the current setting data and continue to use the data stored in the original transmitter.



VII. Model Selection Guide

P/N / Selection	PGW	T1	150	P	G	G	2	0	S5	003
Model	PZW wireless level transmitter PZW wireless pressure sensor PGW wireless pressure &Temperature sensor PGW wireless Temperature sensor									
Temp range	T1= -50～250℃ T0=Just measuring pressure									
Pressure Range	0～60MPa									
Pressure unit	M=Mpa B=Bar K=Kpa P=PSI H=mH2O									
Pressure type	G=Gauge A=Absolut									
Output	G=GPRS B=NB-IOT L=Lora F=Wifi Z=Zigbee X=customized									
Accuracy	1=0.15%F.S 2=0.25%F.S 3=0.5%F.S									
Pressure interface	0=M20*1.5 1=G1/2 2=G1/4 3=Submersible type x=customized									
Power supply	S3=12-30V S5=3.6V S7=12-30V and 3.6V									
Cable lenght	001=1m 002=2m 003=3m XXX=XXXm									

VIII.Common troubleshooting

When the meter is not working properly, the user can refer to the following table for simple maintenance. If the fault cannot be eliminated, please contact the manufacturer.

phenomenon	Cause Analysis	Approach
Meter no display	Battery is dead	Replace the battery
The host computer does not receive data.	Inconsistent wireless parameters	Set the wireless channel and ID of the meter to be consistent with the host computer.
Small pressure value	The pressure guiding hole is blocked	Remove the meter from the cleaning pilot hole

IX. After-sales service

This product is warranted for one year under the conditions that the user fully complies with the requirements of the instructions, the method of use is correct, and no one is damaged.

After-sales service mail:info@macsensor.com

X.Packing List

Serial number	name	Quantity
1	Wireless temperature and pressure integrated transmitter	1
2	user's manual	1
3	Factory verification certificate	1
4	Certificate	1

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