



**Product model:** HPM240L low power consumption pressure transmitter

**Manufacturer:** Nanjing Hangjia Electronic Technology Co., LTD.

**Product Category:** IoT pressure Transmitter

**Application:** IoT, Industrial Process Control

## Product Overview

HPM240L low power consumption pressure sensor uses a high-quality and highly stable pressure core as the sensing element, and through the signal conditioning circuit to convert the pressure into a standard RS485 signal output, to achieve the measurement of fluid pressure. The product is powered by a built-in lithium battery, which has very low power consumption and a long service life. In addition, the product with on-site display, can also be realized through the RS485 network or connected to the wireless module to achieve wireless transmission.

The product after long-term aging and stability screening, reliable and stable performance, can be applied to the harsh environment of the open-air places, on the IoT industry pressure measurement and various types of industrial process control and other occasions have a wide range of applications.

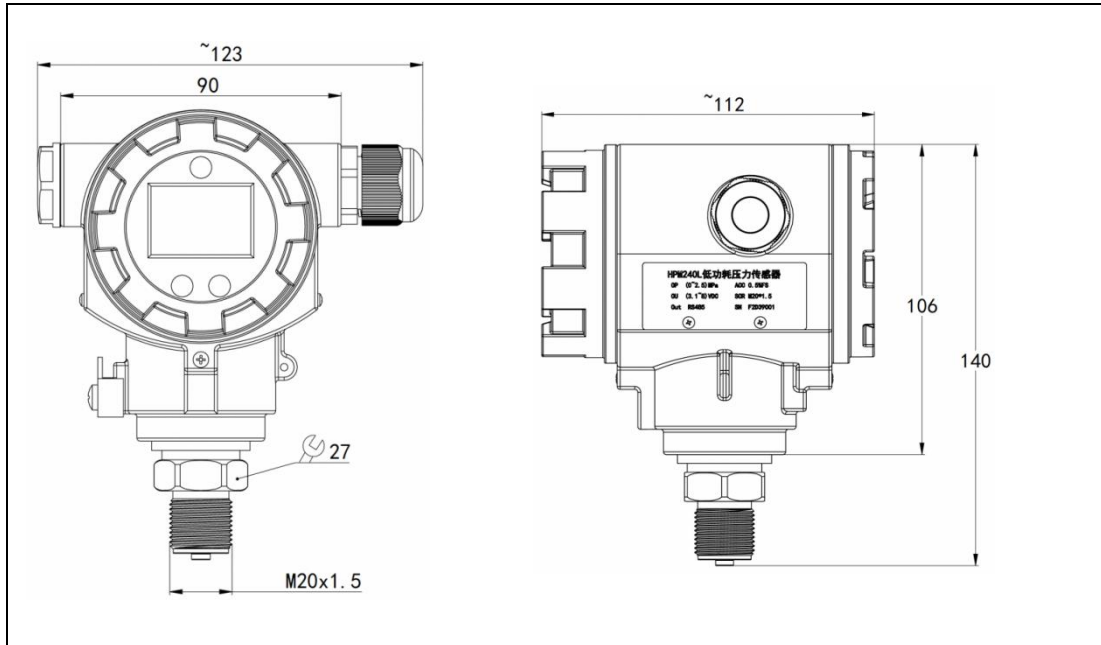
## Features

- Low power consumption
- Built-in lithium battery power supply
- On-site display
- Support RS485 communication, can be adapted to wireless module
- High protection level

## Technical Parameters

<b>Measuring range (Gauge pressure)</b>	-100kPa...0 ~ 10kPa...100MPa
<b>Measuring range (Absolute pressure)</b>	0 ~ 20kPa...10MPa
<b>Overload</b>	1.5 times of full scale
<b>Medium type</b>	Various liquids compatible with contact materials
<b>Output signal</b>	RS485
<b>Power supply</b>	V <sub>S</sub> =3.1~8 V <sub>DC</sub> (lithium-ion battery inside ER14250,3.6V 1200mAh) V <sub>S</sub> =5V <sub>DC</sub> (External power supply supported) V <sub>S</sub> =24V <sub>DC</sub> (External power supply)
<b>Standby current</b>	<20uA
<b>Date collection cycle</b>	0 ~ 65535s
<b>Power Consumption</b>	About 200uA with data collection cycle as 1s About 70uA with data collection cycle as 3s About 50uA with data collection cycle as 5s. Note: Longer data collection cycle, lower consumption,
<b>Accuracy</b>	±0.5%FS (typical); ±0.25%FS (optional)
<b>Long-term stability</b>	±0.25%FS/year
<b>Temperature range</b>	Medium temperature:-40~125℃ LCD display:-30~70℃ Storage temperature:-30~70℃
<b>Protection grade</b>	IP65
<b>Compensation temperature range</b>	-10 ~ 70℃ ; 0 ~ 60℃ (10kPa)
<b>Zero-point temperature drift</b>	±1.5%FS (reference 30℃, within compensated temperature range); ±2.0%FS (10kPa)
<b>Full scale point temperature drift</b>	±1.5%FS (reference 30℃, within compensated temperature range); ±2.0%FS (10kPa)
<b>Reverse polarity protection</b>	No damage. Product will not work.
<b>EMC</b>	Compliance EN 61326
<b>Vibration</b>	20g(20~5000Hz)
<b>Shock</b>	20g(11ms)
<b>Insulation resistance</b>	>100MΩ,500VDC
<b>Insulation voltage</b>	500VAC 50Hz voltage, no breakdown or arc within 1min

### Structural Drawing (unit: mm)



### Materials

Ordering code	Part	Material
M1	Pressure sensor	Silicon piezoresistive, 316L
FK	O-ring	Fluorine rubber FKM (applicable temperature range -20 ~ 200 °C)
NB		Nitrile rubber NBR (applicable temperature range -40~120°C)
Y1	Transmitter head case	Cast aluminum alloy

### Electrical Connection

Output signal	4-wire Modbus-RTU/RS485			
Definition	Power supply+(+V)	Power supply-(-V)	RS485A	RS485B
Battery compartment/terminal	Battery+	Battery+	485A	485B

## Ordering Guide

Model No.	Type						
HPM240L	Low consumption pressure transmitter						
	<b>Pressure range</b>	<b>Measuring range</b>					
	(0 ~ X)MPa	X is the upper range limit					
		<b>Code</b>	<b>Pressure connection</b>				
		P1	M20x1.5 male				
		P4	G1/2 male				
		<b>Code</b>	<b>Electrical connection</b>				
		C9	Cable gland, with terminals in housing				
			<b>Code</b>	<b>Housing material</b>			
			Y1	cast aluminium alloy			
				<b>Code</b>	<b>Sensor</b>		
				M1	Silicon piezoresistive isolation diaphragm		
					<b>Code</b>	<b>Additional functions</b>	
					G	Gauge pressure(default)	
					A	Absolute pressure	
					QF	Factory report	
e.g.:HPM240L	(0 ~ 2.5)MPa	P1	C9	Y1	M1	G	

## Certification Information

Factory certification	
Certification organization	CQM
Quality management system	ISO 9001:2015
Certification scope	Research, development and manufacture of pressure transmitter and temperature transmitter
Certificate No.	00223Q21711R1S