



Special characteristics

- Compact structure and easy installation.
- Advanced diaphragm/oil-filled isolation technology.
- High stability and reliability.
- Shock-resistant and resistant to RF interference.

Features

- 316L stainless steel diaphragm structure.
- High precision, all-stainless steel construction.
- Miniature amplifier, with voltage, current, and RS485 signal outputs.

Measuring principle

The working principle of the diffused silicon pressure sensor is based on the piezoresistive effect.



The pressure transmitter uses imported high-precision, high-stability diffused silicon cores. The sensor uses an electronic amplifier to convert the measured electrical signals into standard signals (current, voltage, RS485) for output. It is widely used in industrial fields such as petroleum, chemical engineering, steel, power, light industry, and environmental protection.

Preferred areas of use are



Petroleum, chemicals, steel, electricity, industry, environmental protection

Material and test



Parameters

Pressure Type	Gauge pressure, absolute pressure, or sealed pressure
Measurement Variable	Liquid level
Measurement Range	-100 kPa to 0...10 kPa...60 MPa
Transmitter Output	(4–20) mA (without display or with display)
	Voltage output: (0–5) V, (1–5) V, or (0–10) V
	Communication output: RS485 interface, Modbus protocol
Supply Voltage Ranges	(4–20) mA output: 10–32 VDC
	Voltage output (0–5 V, 1–5 V): 8–32 VDC
	(0–10) V output: 12–32 VDC
	RS485 output (no display): 5–30 VDC
	RS485 with 4-digit LCD: 17–32 VDC
	RS485 with 4-digit 8-segment display: 5–28 VDC
Accuracy	Class 0.5
Long-term Stability	$\leq \pm 0.2\%$ FS/year
Response Time	Current/voltage output type: ≤ 10 ms
	RS485 output type: ≤ 100 ms
Temperature Drift:	10 kPa $\leq$ Range $\leq$ 60 kPa: 2% FS (within the temperature compensation range) 60 kPa < Range $\leq$ 60 MPa: 1.5% FS (within the temperature compensation range)
Compensated Temperature Range	10 kPa $\leq$ range < 25 kPa: 0–60 °C 25 kPa $\leq$ range $\leq$ 60 kPa: 0–70 °C 60 kPa < range $\leq$ 60 MPa: -10–70 °C
Environmental and Process Conditions	Medium Temperature: -20 °C to 85 °C
	Operating Temperature: -20 °C to 85 °C
	Storage Temperature: -40 °C to 85 °C

Ingress Protection	Sensor: IP68
	2088 Housing (wiring part): IP67 (display housing IP50)
Electrical Connection	M20×1.5 cable gland
Housing Material	304SS or 316LSS
Diaphragm Material	316LSS
Process Connection	Standard threads include M20×1.5, G $\frac{1}{4}$, G $\frac{1}{2}$, NPT $\frac{1}{4}$, NPT $\frac{1}{2}$, M14×1.5, etc.

■ Dimension

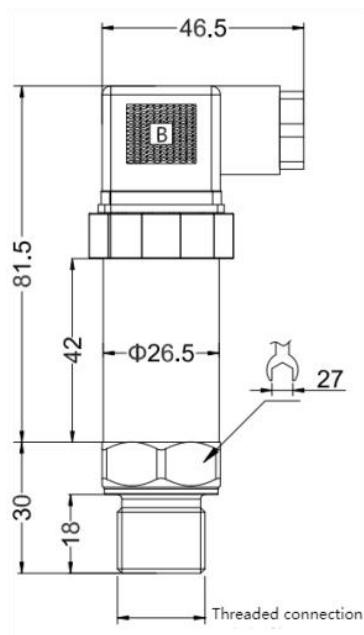


Figure 1 Dimensions of the non-display type pressure transmitter (unit: mm)

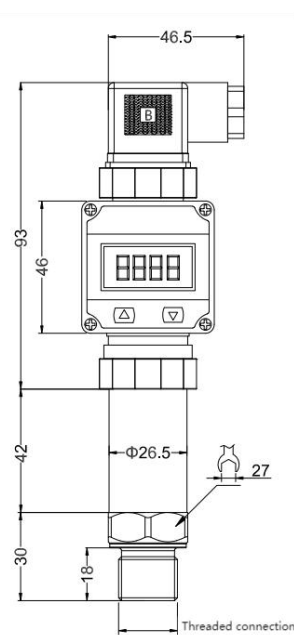


Figure 2 Dimensions of the display-type pressure transmitter (unit: mm)

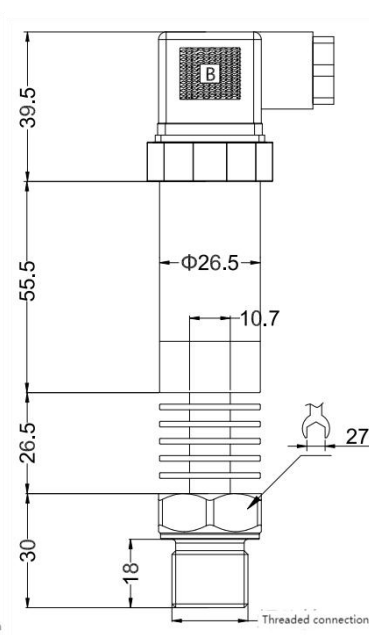


Figure 3 Dimensions of the high-temperature pressure transmitter with 5 heat sinks (unit: mm)

■ Ordering Code

FL-LDGR-15-J-A-MC-N-AA-M3-N6-WA-00														Description
P300-E	-	-	-	-	-	-	-	-	-	-	-	-	-	BTU Meter
Sensor Type	G													Gauge pressure
	A													Absolute Pressure
	X													Other
Measurement range		1A												-100-0kPa
		1B												-100-100kPa
		1C												-100-1000kPa
		1L												0-10kPa
		1M												0-20kPa
		1N												0-30kPa
		1Q												0-50kPa
		1S												0-100kPa
		2A												0-0.6MPa
		2B												0-1MPa
		2C												0-1.6MPa
		2D												0-2.5MPa
		2E												0-4MPa
		2H												0-10MPa
		2K												0-20MPa
		2L												0-25MPa
		2M												0-30MPa
		2N												0-40MPa
		2P												0-60MPa
		XX												Other
Accuracy			K											0.5 Class
Output and Power Supply				A1										Two-wire system 4-20mA
				A2										1-5V, 24VDC
				A3										0-10V, 24VDC
				A4										0-5V, 24VDC
				A5										RS485, 24VDC
				A6										0.5-4.5V, 5VDC
				XX										Other
Process connection				L2										M20×1.5 External thread
				G2										G1/2 External thread
				G1										G1/4 External thread
				NA										NPT1/4 External thread

	NC									NPT1/2 External thread
	ND									NPT1/2 Internal thread
	L1									M14×1.5 External thread
	XX									Other
Diaphragm and process connection materials		A								316LSS,304SS
		B								316LSS,316LSS
		X								Other
Electrical Interface, Housing Material, and Ingress Protection			WA							Hessman joint, 304SS,IP65
			WB							Hessman joint,316LSS,IP65
			XX							Other
Split cable length				00						0m
				XX						Other
Addition				PA						Threaded Carbon Steel Base CS
				PB						Threaded base 304SS
				PD						Condensation elbow 304SS