



Recorder



Flow



Pressure



Temp



Analyzer



Level

Datasheet

Flat membrane pressure transmitter

SUP-P450

Supmea[®]

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Datasheet

Flat membrane pressure transmitter SUP-P450

The flat membrane pressure transmitter uses a corrugated membrane to directly sense the pressure. The sensor's flat diaphragm prevents fouling, unsanitary and clogging of viscous liquids. It has the characteristics of small size, light weight and good long-term stability, and is widely used in food, medicine, health and brewing industries.

Applications

- Food
- Medicine
- Oil industry
- Paper industry
- Chemical industry

Features

- Compact structure and easy installation.
- Advanced diaphragm/oil-filled isolation technology.
- High stability and high reliability.
- Anti-vibration, anti-radio frequency interference.
- 316L stainless steel isolation diaphragm structure.
- Micro amplifier, voltage, current, RS485 signal output.
- Strong anti-interference, good long-term stability.
- Wide range and multiple mode pressure



Flat membrane pressure transmitter

Parameters

Details	
Power supply	4-20mA output (10-32V); 0-10V output (12-32V); RS485 output (5-28V)
Output	4~20mA; 1~5V; 0~10V; 0~5V; RS485
Accuracy	0.5%FS
Threaded connection flat film range	-0.1...0...10MPa (the measuring range cannot be lower than 10KPa)
Clamp connection flat film range:	-100kPa...0~10kPa...7MPa
Pressure type	Gauge pressure, Sealing pressure
Compensation temperature	-10℃ ~ 70℃
Working temperature:	-20℃ ~ 85℃
Medium temperature	-20℃ ~ 85℃
Zero temperature drift	±0.3%FS/10℃
Full-scale output temperature drift:	±0.3%FS/10℃
Long-term stability	±0.2%FS/year
Response time	Current and voltage output pressure ≤ 10ms (up to 90%FS); RS485 output pressure ≤ 100ms (up to 90%FS)
Insulation resistance	20MΩ, 250VDC
Dielectric strength	50Hz, 500VAC
Protection class	IP65
Load resistance	(U-9V)/0.02A, U: supply voltage

Dimensions

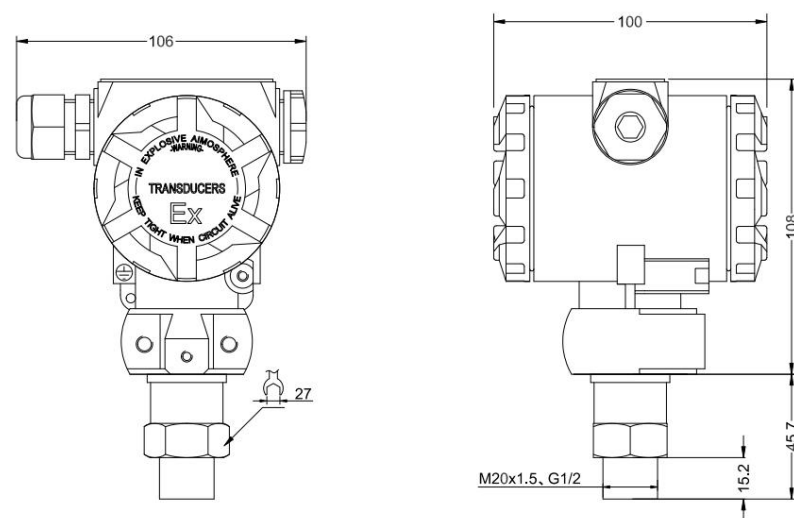


Figure 1 2088 Housing with Threaded Flat Diaphragm

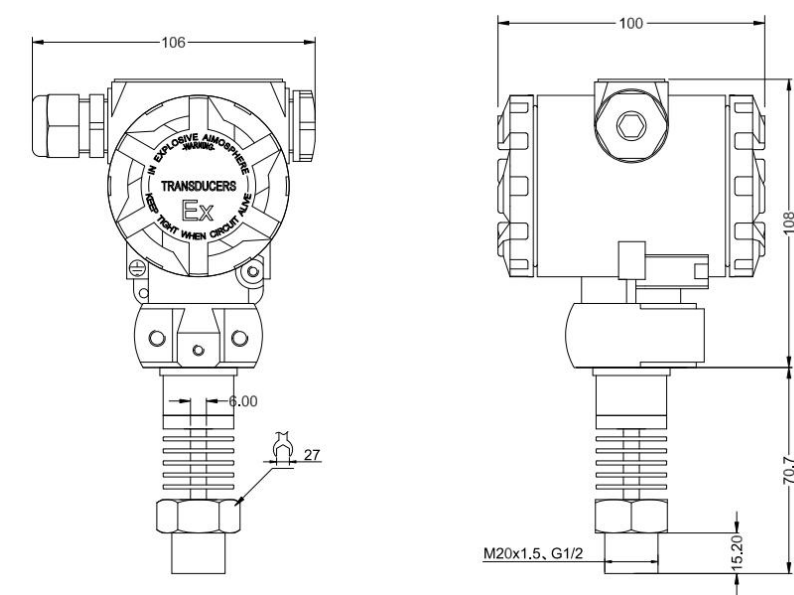


Figure 2 2088 Housing with Threaded Flat Diaphragm and 5 Cooling Fins

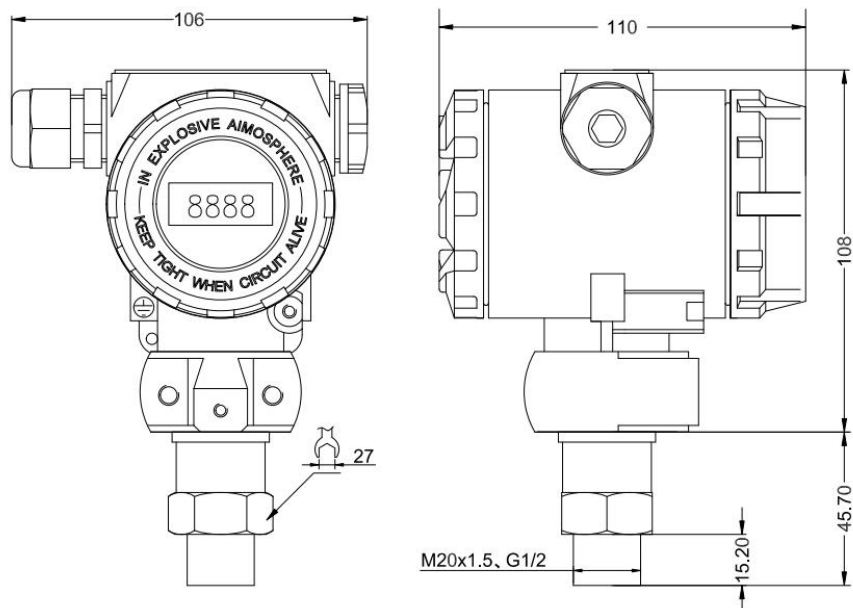


Figure 3 2088 Housing with LCD Display, Threaded Flat Diaphragm

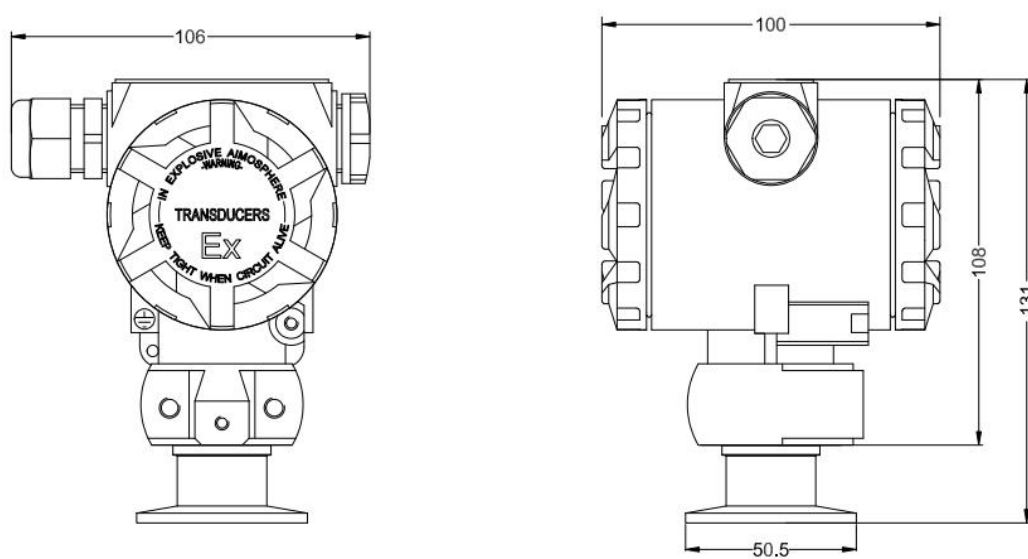


Figure 4 2088 Housing with Clamp-Type Flat Diaphragm

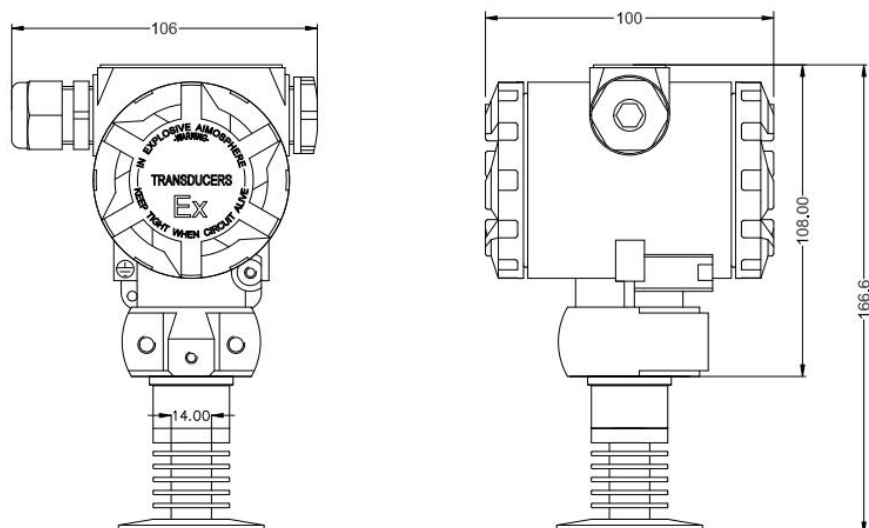


Figure 5 2088 Housing with Clamp-Type Flat Diaphragm and 5 Cooling Fins

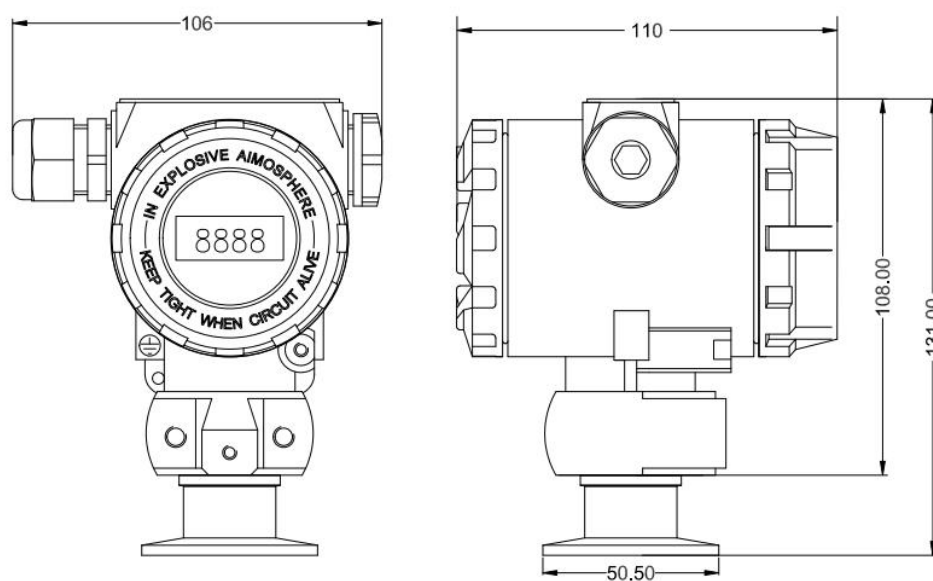
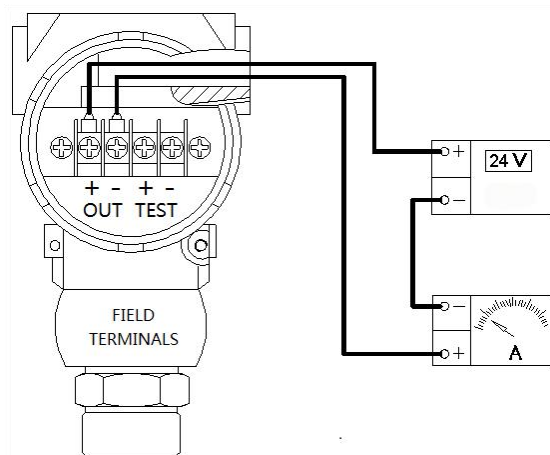


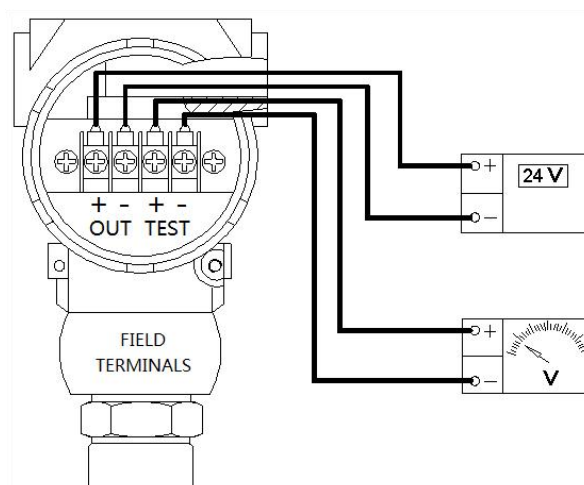
Figure 6 2088 Housing with LCD Display, Clamp-Type Flat Diaphragm

Wirings

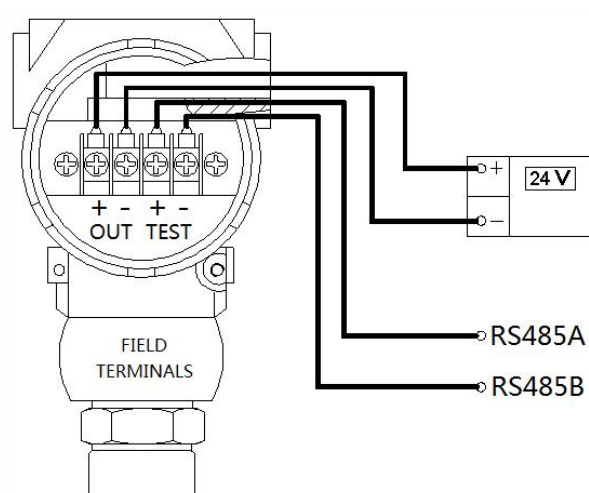
Current output



Voltage output



RS485 output



Ordering code

SUP-P450 -G-1A-K-0-A1-L2-B-W1									Description
SUP-P450	-	-	-	-	-	-	-	-	Gauge Pressure
Sensor Type	G								Absolute Pressure
	A								
Measuring 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
		2G							0-7MPa
		XX							Other
Accuracy			K						0.5 Class
			G						0.25 Class
			F						0.2 Class
Display Type				0					None
				1					Present
Output and Power Supply					A1				2-Wire 4 - 20 mA
					A2				1-5V, 24VDC
					A3				0-10V, 24VDC
					A4				0-5V, 24VDC
					A5				RS485, 24VDC
					A9				4-20mA+RS485, 24VDC
					X				Other
Process Connection						L2			M20×1.5 External Thread
						G2			G1/2 External Thread
						AK			2"Clamp Connection
						XX			Other
Diaphragm and Process Connection Material							B		316LSS, 316LSS
							X		Other
Electrical Interface, Housing Material, and Protection Rating									W1 M20×1.5Cable Gland, Aluminum Alloy, IP65