



Recorder



Flow



Pressure



Temp



Analyzer



Level

Datasheet

Pressure transmitter

SUP-P300

Supmea[®]

Committed to process automation solutions

Tel: 86-15158063876

E-mail: info@supmea.com

www.supmea.com

Datasheet**Pressure transmitter
SUP-P300**

SUP-P300 Series pressure transmitter is kind of device based on pressure layer, which inside expert integrate circuit can transform sensor milli-volt signal to standard far distance transmission current signal, and it can be directly joined with computer joint clip, control instrument ,aptitude instrument or PLC etc. conveniently. The series' product is applied extensively in the professions, such as the industry process control, petroleum, chemical engineering and metallurgy etc. Carry the distance delivers and can adopt electric current exportation method.

Applications

- Dyeing industry
- Air tightness test
- HVAC
- Water supply
- Agricultural irrigation
- Food industry
- Mud measurement
- Vacuum equipment
- Medical equipment

Features

- Compact structure and easy installation
- Advanced Diaphragm/Oil Filled Isolation Technology
- High stability, high reliability
- Anti-vibration, anti-radio frequency interference.
- 316L stainless steel isolation diaphragm structure.
- High precision, all stainless steel structure.
- Micro amplifier, voltage, current, RS485 signal output.
- Wide range with multiple pressure measurement
- Vibration and shock resistance.



SUP-P300

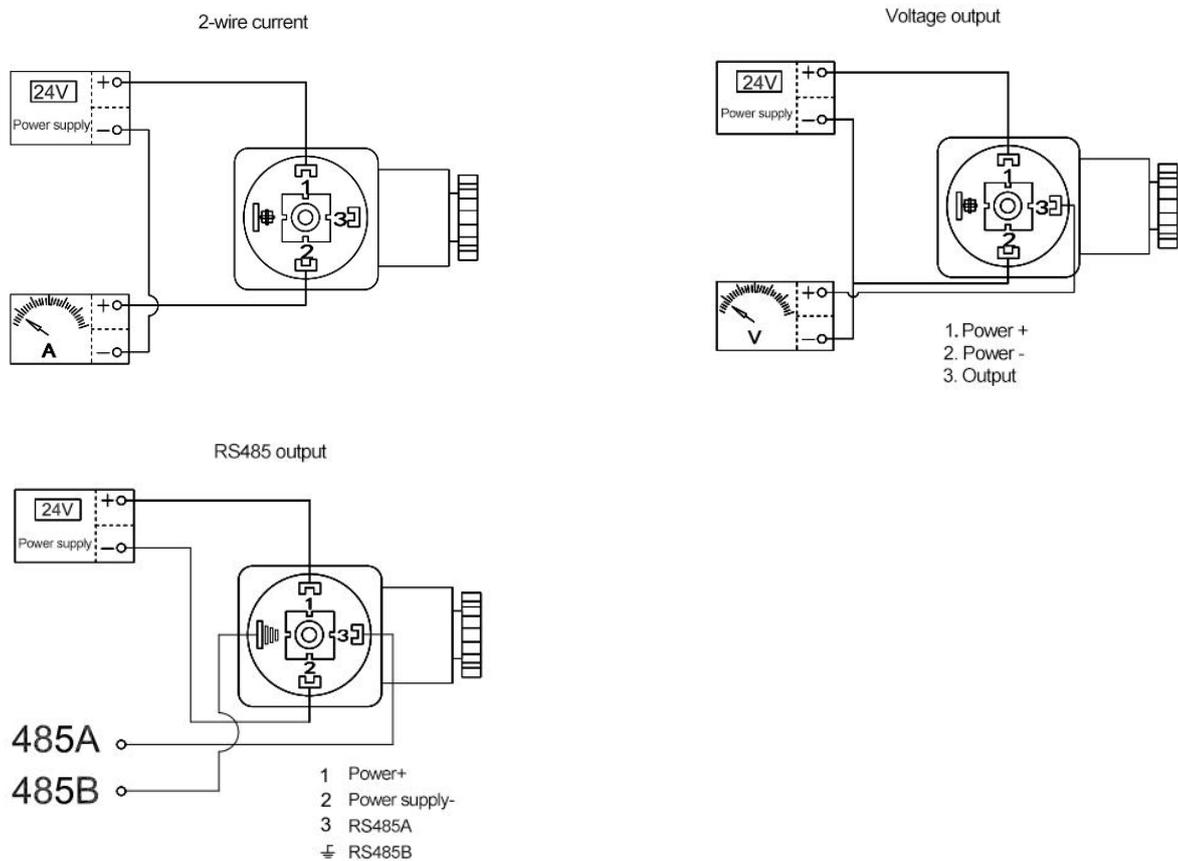
Principle

Pressure Transmitter are devices that convert the mechanical force of applied pressure into electrical energy. This electrical energy becomes a signal output that is linear and proportional to the applied pressure. And a transmitter sends signals in milliamps (mA). At present, various types of pressure sensors, such as diffused silicon, capacitive, silicon sapphire, ceramic thick film, metal strain electric type are widely used in various industries. SUP-P300 is diffused silicon type pressure transmitter.

Parameters	
Output and power supply	(4~20)mA output (10~32)V (0~10)V output (12~32)V (0~5)V,(1~5)V,RS485 output (8~32)V (4~20)mA output with LCD 4-digit display meter (17~32)V RS485 output with 8-segment digital tube 4-digit display meter (5~28)V
Accuracy	0.2%F.S, 0.25%F.S, 0.5%F.S(Optional)
Measuring Range	-0.1MPa...0~10kPa...60MPa
Pressure Type	Gauge pressure,Absolute pressure,Sealing pressure
Temperature compensation	-10~70℃
Operating temperature	-20~85℃
Medium temperature	-30~105℃
Storage temperature	-40~125℃
Ingress Protection	IP65,IP68(optional)
Overloading pressure	0.035~10MPa(150%FS),10~60MPa(125%FS)
Zero output 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 type pressure≤10ms (up to 90%FS); RS485 output type pressure≤100ms (up to 90%FS)
Insulation resistance	100MΩ/250VDC
Dielectric strength	50Hz, 500VAC
Load Resistance	4~20mA output: $\leq (U-10V)/0.02A$, U is the power supply voltage 4~20mA output with display: $\leq (U-14V)/0.02A$, U is the power supply voltage V output: $\geq 5k\Omega$

Wiring

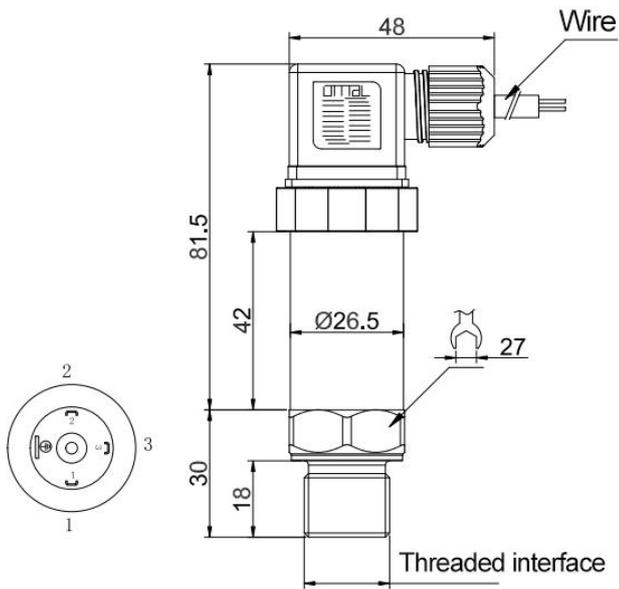
Electrical connection diagram of Herssman structure



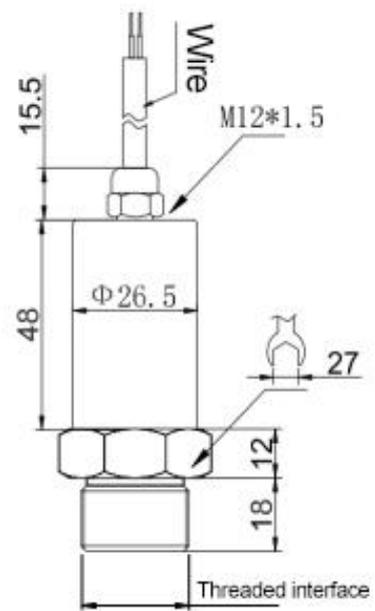
Direct lead structure electrical connection

Output	Color	Description
Current	Red	Power+
	Green	Current output
Voltage	Red	Power+
	Green	Power supply-
	Yellow	Voltage output
RS485	Red	Power+
	White	Power supply-
	Green	RS485+
	Yellow	RS485-

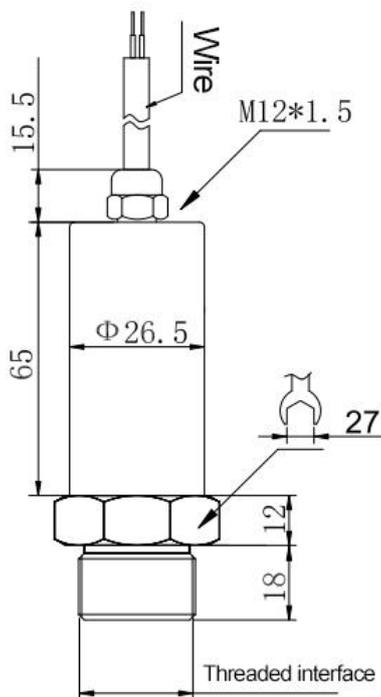
Dimensions



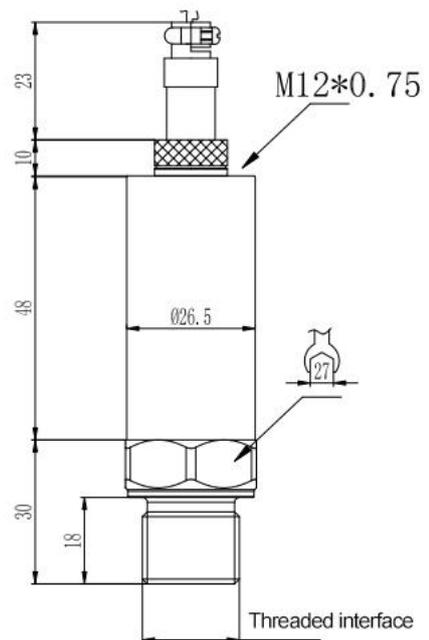
Hersman joint



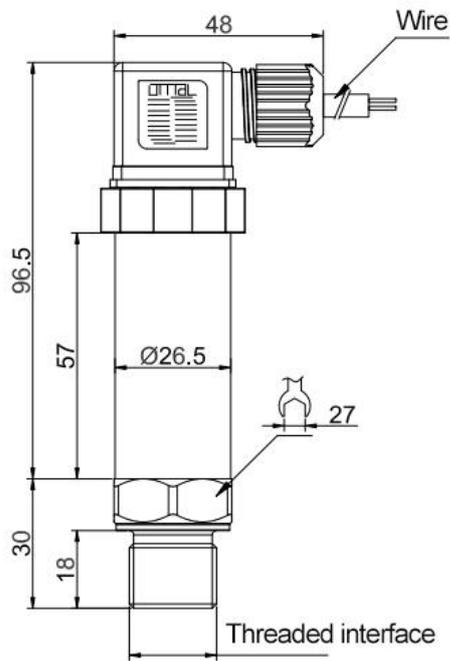
Direct lead



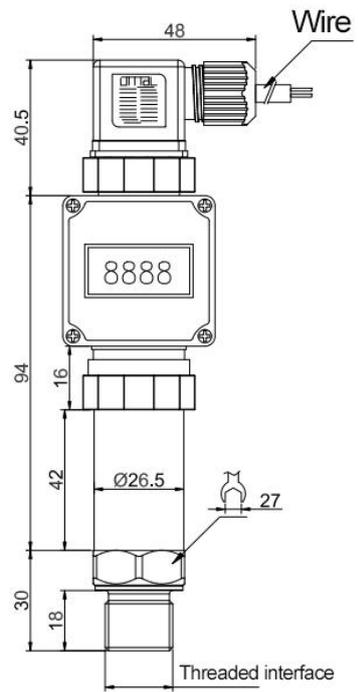
Direct lead with RS485 output



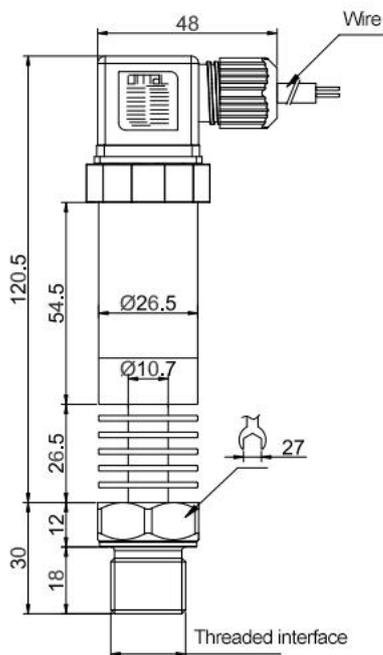
Aviation plug



Herssman joint with RS485 output



Herssman joint with display



Hessman high temperature type

Ordering code

SUP-P300-G-1A-F+A1-L2-A-WA-02-PA											Description	Remarks			
SUP-P300	-	-	-	-	-	-	-	-	-	-					
	G												Gauge pressure		
Pressure Type	A												Absolute pressure	Only 0 - 30kPa...1MPa available as options	
	X												Other		
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	
		2H												0-10MPa	
		2K												0-20MPa	
		2L												0-25MPa	
		2M												0-30MPa	
	2N												0-40MPa		
	2P												0-60MPa		
	X												Other		
Accuracy														0.5 Class	
														0.25 Class	Range below 100kPa is not available as an option
													0.2 Class		
Output and Power Supply														Two-Wire 4-20mA	Supports 12VDC
														1-5V,24VDC	
														0-10V,24VDC	
														0-5V,24VDC	
														RS485,24VDC	
														0.5-4.5V,5VDC	
														Other	

Thread Type	L2		M20×1.5	
	G2		G1/2	
	G1		G1/4	
	NA		NPT1/4	
	NC		NPT1/2	
	L3		M27×2	
	L1		M14×1.5	
	XX		Other	
Diaphragm and Thread Type Material	A		SS316L,304SS	
	B		SS316L,316LSS	
	X		Other	
Electrical Interface, Housing Material, and Ingress Protection	WA		DIN Connector,304SS,IP65	
	WB		DIN Connector,SS316L,IP65	
	WG		M12 connector,304SS,IP65	
	WH		M12 connector,SS316L,IP65	
	WN		Cable connector,304SS,IP65	
	WP		Cable connector,SS316L,IP65	
	WT		Cable connector,304SS,IP68	Only measurement ranges greater than or equal to 100kPa are available as options
	WU		Cable connector,SS316L,IP68	
	XX		Other	
Cable Length		02	2m	
		05	5m	
		10	10m	
		00	0m	
		XX	Other	
Additional Features (Optional)				
Accessories		PA	Carbon Steel Thread Base	
		PB	304SS Thread Base	
		PD	304SS Condensation Bend	

Note:Communication output and transmission output cannot be selected at the same time