



Recorder



Flow



Pressure



Temp



Analyzer



Level

Datasheet

Pressure transmitter

SUP-P300

Supmea[®]

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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

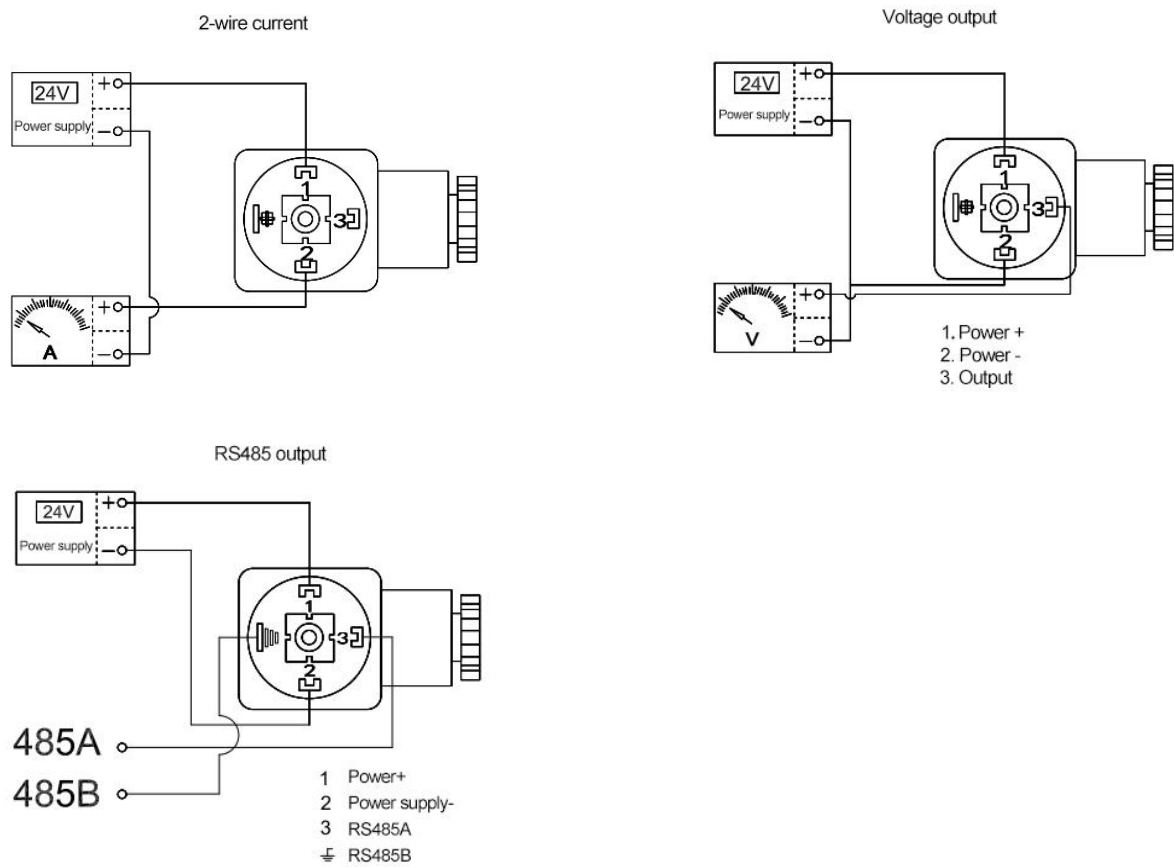
Principle

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

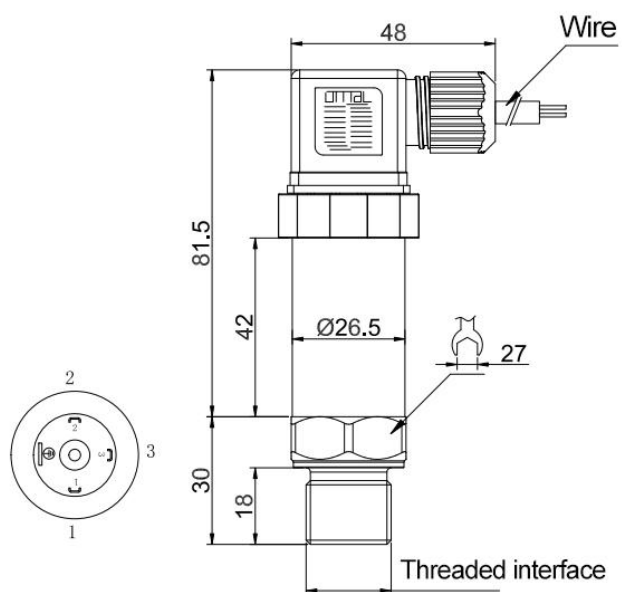
Electrical connection diagram of Herssman structure



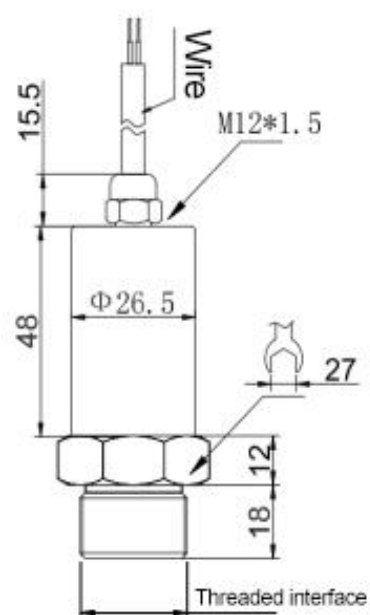
Direct lead structure electrical connection

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-

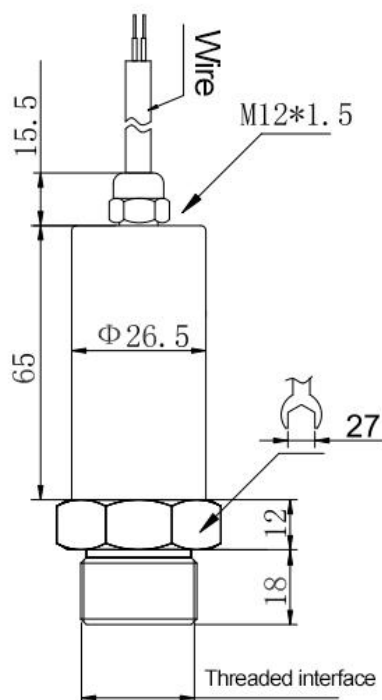
Dimensions



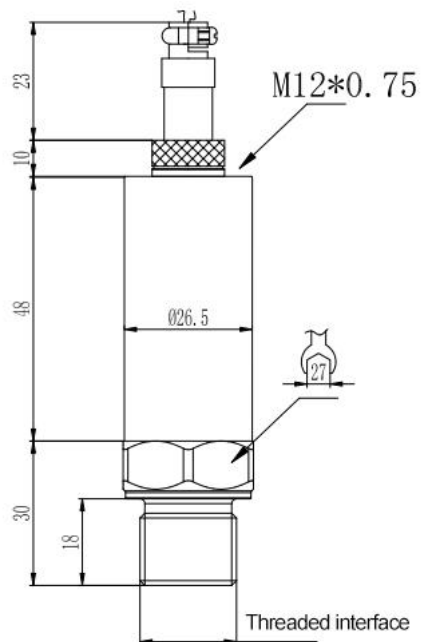
Hersman joint



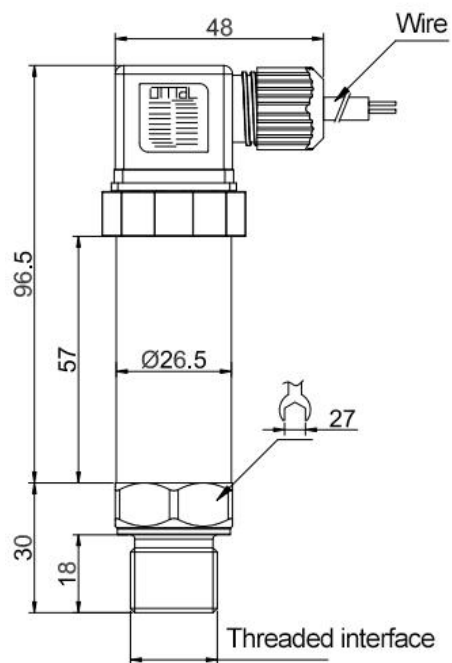
Direct lead



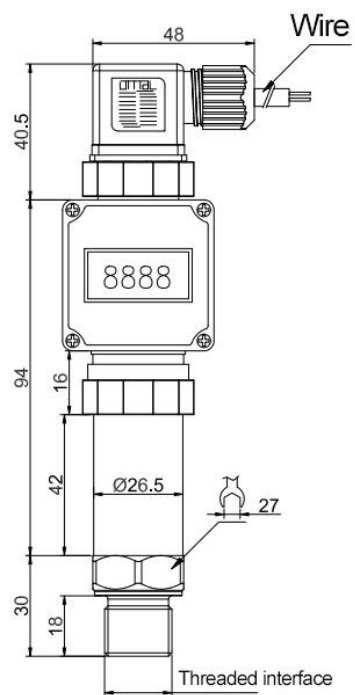
Direct lead with RS485 output



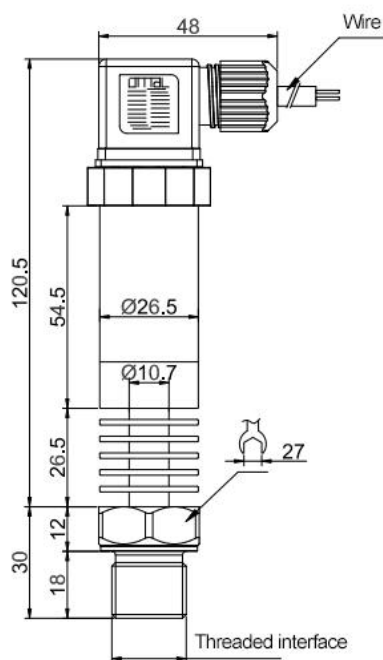
Aviation plug



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		K								0.5 Class	
		G								0.25 Class	Range below 100kPa is not available as an option
		F								0.2 Class	
Output and Power Supply			A1							Two-Wire 4-20mA	Supports 12VDC
			A2							1-5V,24VDC	
			A3							0-10V,24VDC	
			A4							0-5V,24VDC	
			A5							RS485,24VDC	
			A6							0.5-4.5V,5VDC	
			XX							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	
				DIN Connector,304SS,IP65	
Electrical Interface, Housing Material, and Ingress Protection		WA		DIN Connector,SS316L,IP65	
		WB		M12 connector,304SS,IP65	
		WG		M12 connector,SS316L,IP65	
		WH		Cable connector,304SS,IP65	
		WN		Cable connector,SS316L,IP65	
		WP			
		WT		Cable connector,304SS,IP68	Only measuremen t 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