



Recorder



Flow



Pressure



Temp



Analyzer



Level

Datasheet

Pressure Transmitter

SUP-P300/P300G

Supmea[®]

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Datasheet**Pressure Transmitter
SUP-P300/P300G**

SUP-P300/P300G 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/P300G

Principle

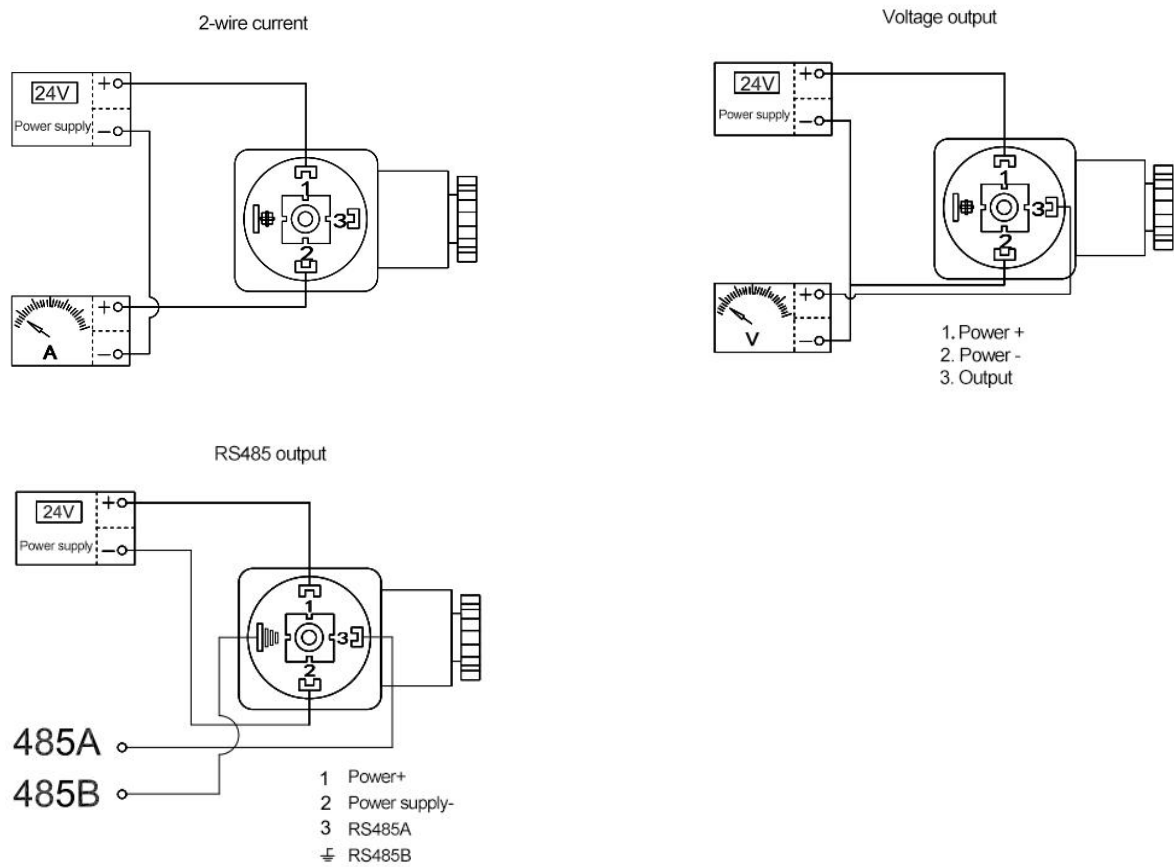
Pressure Transmitter are devices that convert the mechanical force of applied pressure into electrical energy. This electrical energy becomes a signal output that is linear and proportional to the applied pressure. And a transmitter sends signals in milliamps (mA). At present, various types of pressure 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

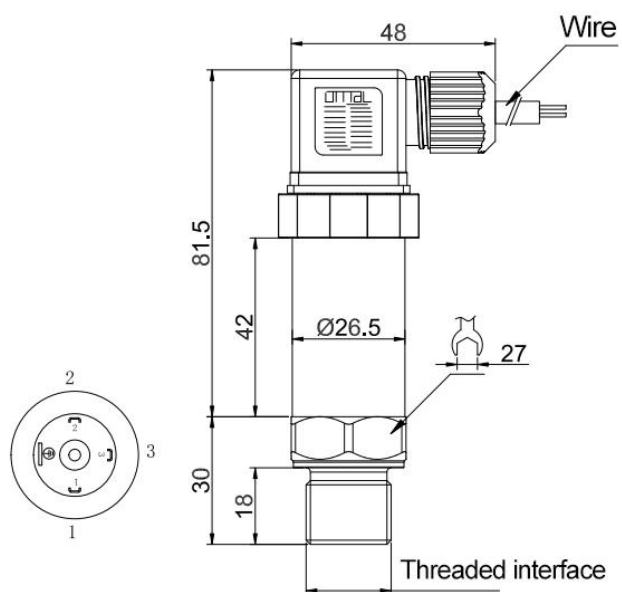
Electrical connection diagram of Herssman structure



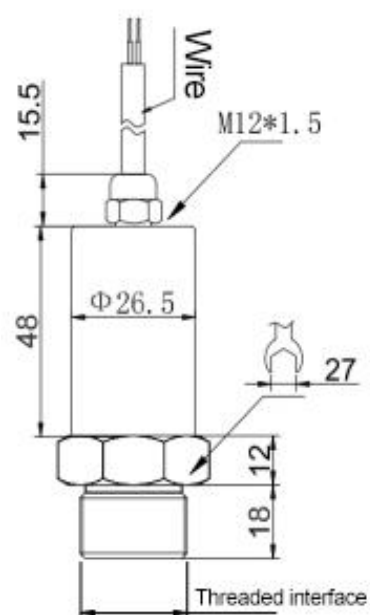
Direct lead structure electrical connection

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-

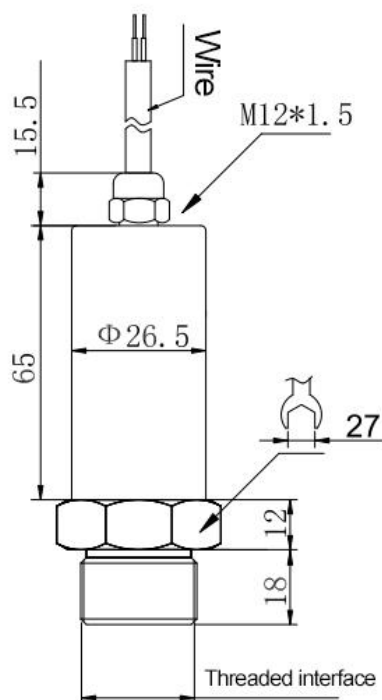
Dimensions



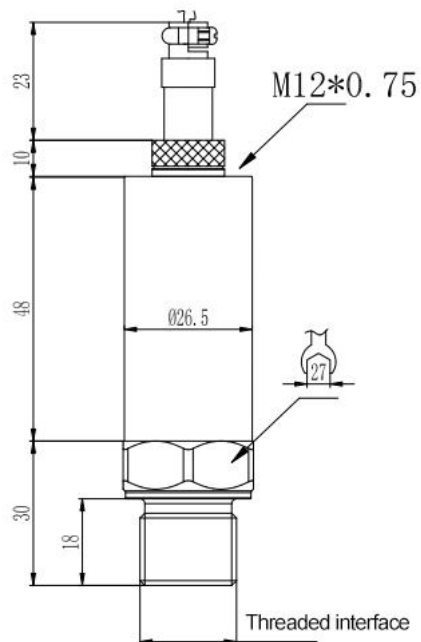
Hersman joint



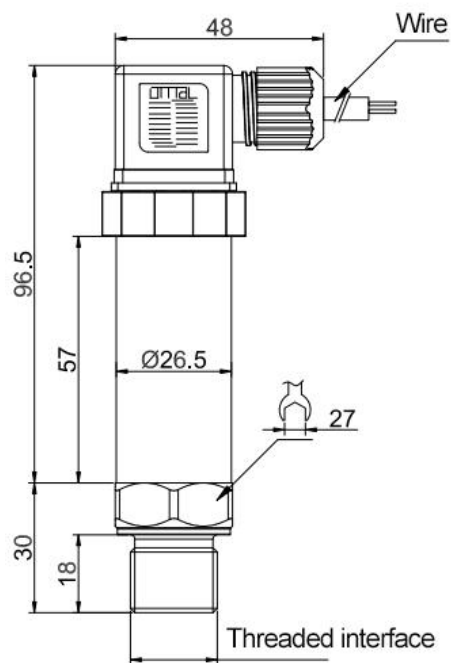
Direct lead



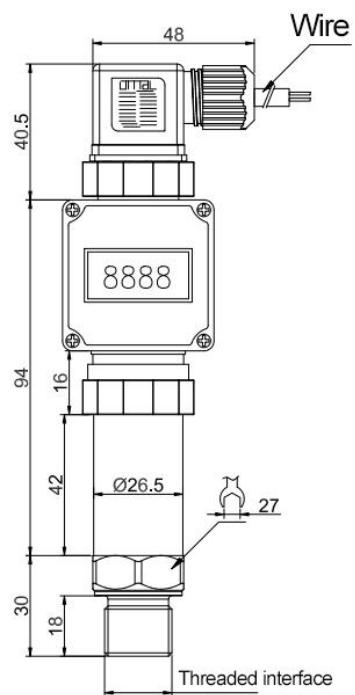
Direct lead with RS485 output



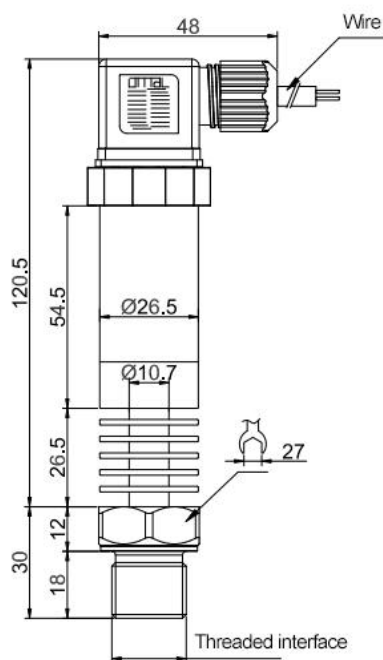
Aviation plug



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	-	-	-	-	-	-	-	-	-		
Pressure Type	G									Gauge pressure	
	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	
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 measurements ranges greater than or equal to 100kPa are available as options
	WU				Cable connector,SS316L,IP68	
Cable Length	XX				Other	
	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

Model Selection Code for High-Temperature Version P300G

SUP-P300G -G-1A-K-A1-3-L2-A-WA-02										Description
SUP-P300G	-	-	-	-	-	-	-	-	-	
Pressure Type	G									Gauge Pressure
	A									Absolute Pressure
Measurement Range	1A									-100 - 0 kPa
	1B									-100 - 100 kPa
	1C									-100 - 1,000 kPa
	1L									0 - 10 kPa
	1M									0 - 20 kPa
	1N									0 - 30 kPa
	1Q									0 - 50 kPa
	1S									0 - 100 kPa
	2A									0 - 0.6 MPa
	2B									0 - 1 MPa
	2C									0 - 1.6 MPa
	2D									0 - 2.5 MPa
	2E									0 - 4 MPa
	2H									0 - 10 MPa
	2K									0 - 20 MPa
	2L									0 - 25 MPa
	2M									0 - 30 MPa
	2N									0 - 40 MPa
	2P									0 - 60 MPa
	XX									Other
Accuracy	K									0.5 Class
	G									0.25 Class
	F									0.2 Class
Output and Power Supply	A1									Two-wire 4-20 mA
	A2									1-5 V, 24 VDC
	A3									0-10 V, 24 VDC
	A4									0-5 V, 24 VDC
	A5									RS485, 24 VDC
	A6									0.5-4.5 V, 5 VDC
	XX									Other
Heat sink	3									3
	5									5
	7									7
	X									Other
Thread Type	L2									M20×1.5 thread
	G2									G1/2

	G1				G1/4
	NA				NPT1/4
	NC				NPT1/2
	L1				M14×1.5
	XX				Other
Diaphragm and Thread Type Material	A				316L SS, 304 SS
	B				316L SS, 316L SS
	X				Other
Electrical interface, housing material and ingress protection		WA			Hirschmann connector, 304 SS, IP65
		WB			Hirschmann connector, 316L SS, IP65
		WG			Aviation plug, 304 SS, IP65
		WH			Aviation plug, 316L SS, IP65
		WN			Direct lead wire, 304 SS, IP65
		WP			Direct lead wire, 316L SS, IP65
		XX			Other
Cable length			02		2 m
			05		5 m
			10		10 m
			00		0 m
			XX		Other