

DATASHEET**Differential
Pressure**

Differential Pressure Transmitter For General Industrial Applications

Model **PWP300**

Applications

- Water treatment
- Coal & mine
- Petrochemical, chemical industry
- Petroleum, oilfield
- Environmental protection
- Medicine
- Shipbuilding

Features

- Pressure ranges from -0.1MPa to 3.5MPa
- Explosion proof available with Exd and Exia
- Fully 316L welded robust construction
- High stability, low drift
- EMC protection, over voltage protection
- Strongly compatible with air, oil, hydraulic and water pressure

**Differential Pressure Transmitter PWP300**

Description

PWP300 series is a differential pressure transmitter can be used for a variety of applications. At the core of these pressure sensors is a silicon sensing element mounted within a high integrity seal assembly that is fully isolated from the pressure media by a welded 316L stainless steel diaphragm. The pressure to be measured acts on the sensor's diaphragm and is transferred through incompressible silicone oil to a micro machined silicon strain gauge configured as a Wheatstone bridge.

The advantages of silicon compared with metal-based strain gauge pressure sensors are higher sensitivity, better repeatability, higher signal to noise ratio, higher overload and a significantly higher long-term stability.

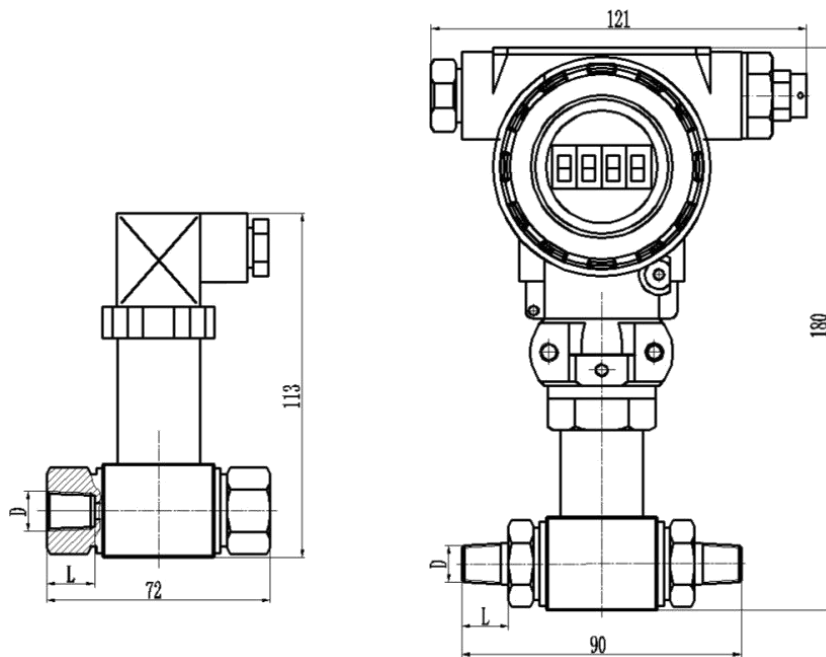
Welcome your inquiry.

Specifications

Model	PWP300			
Pressure Type	Differential pressure			
Pressure Range	-0.1MPa ... 0kPa~10kPa ...3.5MPa			
Safe Overload	≤200%FS			
Burst Pressure	300%FS			
Electrical Connection & IP Rating	DIN43650 Hirschmann Connector... IP65 M12*4pins connector... IP67 Directly outlet cable... IP67			
Accuracy	±0.5%FS(Typical), ±0.25%FS, ±0.1%FS, optional			
Signal Output & Power Supply	4-20mA(2 wires)	0.5-4.5V(3 wires)	0-5V(3 wires)	0-10V(3 wires)
	12-30VDC	5VDC	8-24VDC	12-30VDC

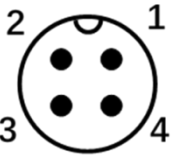
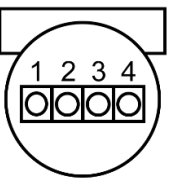
	I²C	RS485 Modbus		
	3.3 or 5VDC	5-30VDC		
Response Time	≤3ms (10%~90%)			
Medium Compatible	Liquid compatible with SUS304, SS316L			
Load Resistance(2 wires)	R≤(U-10)/0.02-RD (U: Power supply, RD: Internal resistance in the cable)			
Total current consumption	Current signal(2wires): Max about 23mA Voltage signal(3wires): <5mA I²C(4wires): <1.3mA (Available to customize low consumption <5 μA) RS485(4wires): <5mA (Available to customize low consumption <1.1mA)			
Accuracy&Performance	0.1% Accuracy Class	0.25% Accuracy Class	0.5% Accuracy Class	
Non-linear (%FS)	≤0.1	≤0.2	≤0.4	
Hysteresis (%FS)	≤0.05	≤0.05	≤0.1	
Repeatability (%FS)	≤0.05	≤0.05	≤0.1	
Long-term Stability (%FS/year)	≤0.1	≤0.2	≤0.5	
Zero Temp Drift (%FS/°C)	≤0.01	≤0.03	≤0.05	
Compensation Temp.	0℃~+50℃ (≤200kPa), -10℃~+70℃ (>200kPa)			
Working Temp.	-30℃~+80℃(Typical); -10℃~+70℃(Directly outlet cable)			
Storage Temp.	-40℃~+125℃(Typical); -20℃~+80℃(Directly outlet cable)			
Vibration Environment	10g (@10Hz~2000Hz)			
Impact Resistance	100g/11ms			
Service Life	>10 million load cycles (within measurement range)			
Max Static Pressure	≤20MPa			
EMC Standard	EN IEC 61326-1:2021; EN IEC 61326-2:2021			

Dimensions and Drawings



*Unit is mm. There is female and male pressure port, please ask our engineer for other customization.

Electrical Connection

DIN43650 Hirschmann connector					
	Terminal	Current(2wires)	Voltage(3wires)	IIC(4wires)	RS485(4wires)
	1	Vcc	Vcc	Vcc	Vcc
	2	Iout	GND	GND	GND
	3	/	Vout	SCL	RS485A
	⊕	PE	PE	SDA	RS485B
M12 4 pins connector					
	Terminal	Current(2wires)	Voltage(3wires)	IIC(4wires)	RS485(4wires)
	1	Vcc	Vcc	Vcc	Vcc
	2	Iout	GND	GND	GND
	3	PE	Vout	SCL	RS485A
	4	/	PE	SDA	RS485B
Industrial Terminals					
	Terminal	Current(2wires)	Voltage(3wires)	IIC(4wires)	RS485(4wires)
	1	PE	PE	SDA	RS485B
	2	/	Vout	SCL	RS485A
	3	Iout	GND	GND	GND
	4	Vcc	Vcc	Vcc	Vcc

Directly outlet cable					
	Wire Color	Current(2wires)	Voltage(3wires)	IIC(4wires)	RS485(4wires)
	Red	Vcc	Vcc	Vcc	Vcc
	Green	Iout	GND	GND	GND
	Yellow	/	Vout	SCL	RS485A
	Blue	/	/	SDA	RS485B
	Black	PE	PE	PE	PE

How to Order

Example Part Number: 300H[10]KDT1S2C4A2M1000

Model No.	PWP300	300
Electronic Connection	H=DIN43650 Hirschmann terminal box C=Direct outlet cable M=M12 4pins connector CD=LCD digital display(for 4-20mA only) 0=Customized	H
Pressure Range	-0.1MPa ... 0kPa~10kPa ... 3.5MPa Directly write in []	[10]
Pressure Units	B=bar P=Psi K=kPa M=MPa H=mH2O	K
Pressure Type	D=Differential	D
Signal Output	T1=4-20mA(2wires) T2=0-5V(3wires) T3=1-5V(3wires) T4=0-10V(3wires) T5=0.5-4.5V(3wires) T6=I ² C(4wires) T7=RS485(4 wires) T0=Customized	T1
Power Supply	S1=8-24VDC S2=12-30VDC S3=5VDC S4=3.3VDC S5=5-30VDC S0=Customized	S2
Pressure Connection	C1=G1/4" male C2=1/4"NPT male C3=M20x1.5 male C4=G1/4" female C5=1/4"NPT female C6=G1/2"male C7=1/2" NPT male C8=1/8"NPT male C0=Customized	C4
Accuracy	A1=0.5%F.S. A2=0.25%F.S. A3=0.1%F.S.	A2
Housing Material	M1=SUS304(Typical) M2=316L M0=Customized	M1
Cable Length	000=Non-cable 001= 1m cable 002= 2m cable ...	000

*Means to order: Differential pressure transmitter PWP300 with Hirschmann connector, 0~10kPa, 4-20mA, 12-30VDC, G1/4" female, 0.25%FS accuracy, SUS304 material, cable length is 0.

You may also Need

Reference Picture	Description	Product
	To connect with pressure transmitter and to have a site indicator of the measured value, have high&low value alarms, record and control.	Display/indicator/controller
	Cast aluminum material with IP67 protection level for submersible pressure transmitter. Moisture-proof sealing design, insulation protection against electric shock. To be placed in dry environment or in a cabinet.	Terminal box 0010

***Tell us medium / which application / measuring range / working temperature / signal output / what you wanna to realize, our sales engineer will recommend suitable model for you.*