

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

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.



Differential Pressure Transmitter PWP300



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	DIN43650 Hirschmann Connector IP65					
&	M12*4pins connector IP67					
IP Rating	Directly outlet cable IP67					
Accuracy	±0.5%FS(Typical), ±0.25	5%FS, ±0.1%FS, c	optional			
	4-20mA(2 wires) 0.5 12-30VDC 5V	-4.5V(3 wires) ′DC	(3 wires) 0-5V(3 wires) 8-24VDC		0-10V(3 wires) 12-30VDC	
Signal Output &						
Power Supply	I ² C RS	RS485 Modbus				
	3.3 or 5VDC 5-3	OVDC				
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_BD: Internal resistance in the cable)					
	Current signal(2wires): Max about 23mA					
	Voltage signal(3wires): <5mA					
Total current consumption	$I^2C(4wires)$: <1.3mA (Available to customize low consumption <5 $\mu A)$					
	RS485(4wires): <5mA (Available to customize low consumption <1.1mA)				tion <1.1mA)	
Accuracy&Performance	0.1% Accuracy Class	0.25% Accuracy Class 0.5% Accuracy C		Accuracy Class		
Non-linear (%FS)	≤0.1	≤0.2			≤0.4	
Hysteresis (%FS)	≤0.05	≤0.05	≤C		≤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/ $^{\circ}$ C)	≤0.01	≤0.03		≤0.05		
Compensation Temp.	0°C~+50°C (≤200kPa), -10°C~+70°C (>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	lout	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	lout	GND	GND	GND	
	3	PE	Vout	SCL	RS485A	
	4	/	PE	SDA	RS485B	
Industrial Terminals						
$ \begin{pmatrix} 1 & 2 & 3 & 4 \\ \hline 0 & 0 & 0 & 0 \\ \hline \end{pmatrix} $	Terminal	Current(2wires)	Voltage(3wires)	IIC(4wires)	RS485(4wires)	
	1	PE	PE	SDA	RS485B	
	2	/	Vout	SCL	RS485A	
	3	lout	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	lout	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				
Electronic Connection	H=DIN43650 Hirschmann terminal box				
	C=Direct outlet cable				
	M=M12 4pins connector	н			
	CD=LCD digital display(for 4-20mA only)				
	0=Customized				
Pressure Range	-0.1MPa 0kPa~10kPa 3.5MPa	[10]			
	Directly write in []				
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)	T1			
	T7=RS485(4 wires) T0=Customized				
Power Supply	S1=8-24VDC S2=12-30VDC S3=5VDC	60			
	S4=3.3VDC S5=5-30VDC S0=Customized	52			
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	C4			
	C7=1/2" NPT male C8=1/8"NPT male C0=Customized				
Accuracy	A1=0.5%F.S.				
	A2=0.25%F.S.	A2			
	A3=0.1%F.S.				
Housing Material	M1=SUS304(Typical)				
	M2=316L	M1			
	M0=Customized				
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	
- 2 5 0	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.