

CS-PT500 Differential Pressure Transmitter



Product Features

- Diffusion silicon-filled oil core with stainless steel 316L isolation diaphragm
- Stainless steel structure, and Max. static pressure up to 20MPa
- Temperature compensation and aging screening
- Full solid insulation, high stability, reliability and accuracy
- Compact size
- Liquid, gas and other media differential pressure measurement
- Explosion-proof products in line with GB3836.4 standard ExiaII.CT6 requirements

Applications

CS-PT500 differential pressure transducer is produced by putting OEM differential pressure sensor into full-sealed housing with pressure port for both positive and negative cavities. The differential pressure transducer could be mounted into measuring tube through pressure port or leading tube.

It is cable connection. CS-PT500 differential pressure transducer could be widely used in industrial process control, flow measure, medical device, air dynamical measure and liquid pressure instrument or pneumatic plant, etc.

Performance Parameters

Temperature: 25℃, power: 5VDC or 12VDC, RH: 45%~75%, Atmospheric pressure: 86KPa~106KPa

Pressure Range	0~10kPa...3.5MPa differential pressure (Note 1)			
Static pressure	Max. Static pressure 20MPa (Note 2)			
Output Signal	0.5~4.5V Ratio	0~10V Voltage	0~5V Voltage	4mA~20mA
Power supply (U+)	5VDC	12~30VDC	10VDC~30VDC	
Output Load	≥10KΩ			$\leq(U+ - 10) / 0.023\Omega$
Over Voltage	16VDC	30VDC		
Reverse Voltage	-16VDC	-30VDC		
Accuracy at Room Temperature	Default: ±0.5% F.S., Option:±0.25% F.S. (Note 1)			
Sensor's Temperature	-40℃~85℃(Note 3)			
Compensated Temperature	0℃~50℃			
Storage Temperature	-40℃~105℃			
Long-term Stability	±0.25%FS/year			
Settling Time	(10%~90%)≤10ms			
Overload Pressure	≥150%F.S			
Burst Pressure	≥200%F.S			
Pressure Connection	G1/4(female), G1/4, G1/2(female), G1/2, NPT1/4(female), NPT1/4			
Electrical Connection	DIN43650A,Cable outlet, GX12 connector, Packard, M12x1			
Seal Materials for Wetted Part	Default: NBR, Option: FKM			

Housing Material	wetted part: 316L, the rest part: 304
Insulation Resistance	$\geq 100\text{M}\Omega @ 100\text{VDC}$
Vibration Resistance	10g, 5~2000Hz
Shock Resistance	20g, 11ms half sine
Ingress Protection	IP65

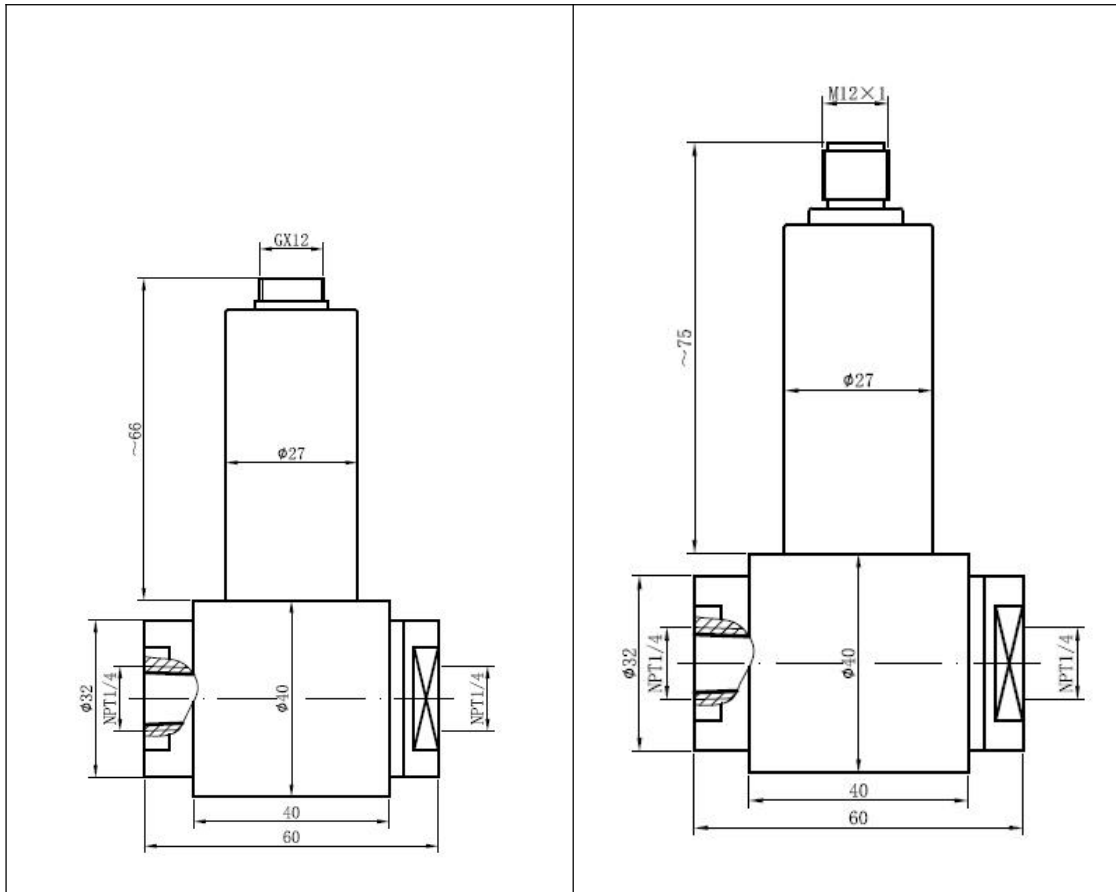
Note 1: For products with pressure range 0 ~ 35kPa, only $\pm 0.5\%$ F.S or $\pm 1\%$ F.S accuracy is available.

Note 2: For products with a static/difference pressure ratio greater than 10 times, please consult the manufacturer.

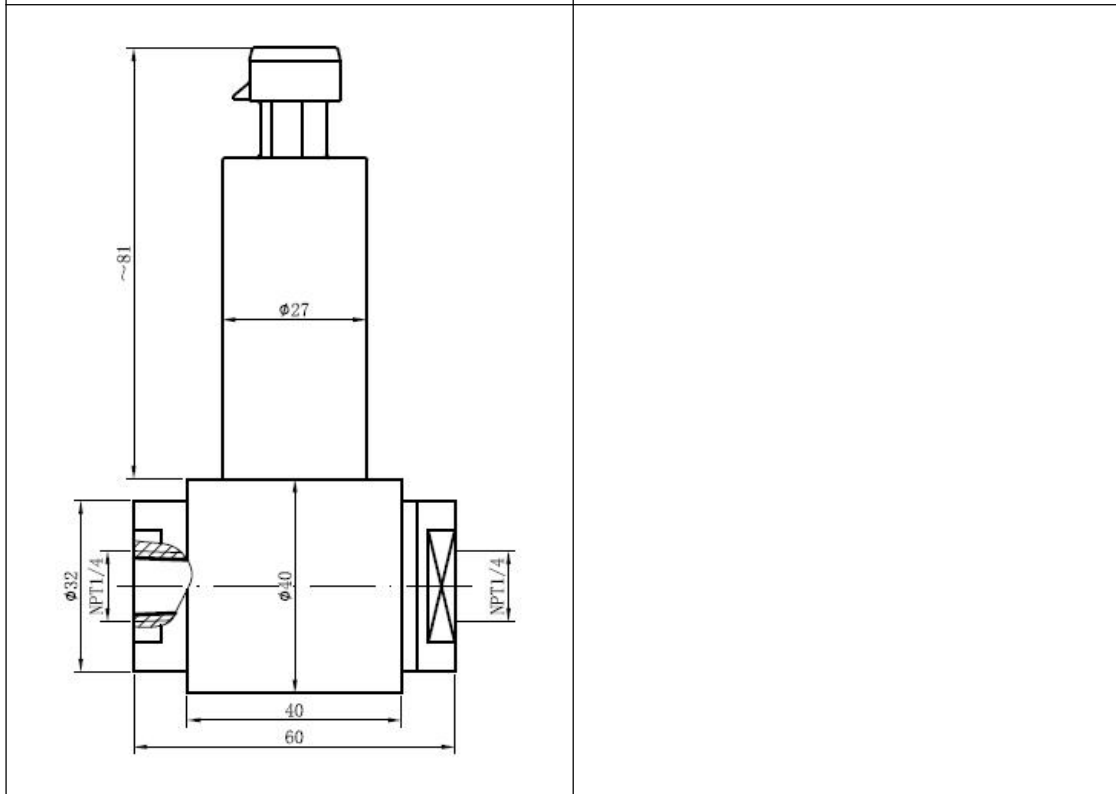
Note 3: The operating temperature shall not exceed the temperature range of the seal materials, and it is the minimum range between the seal materials and the sensor. The default material is NBR, which is suitable for medium temperature of $-30 \sim 120^{\circ}\text{C}$. If one chooses FKM seal ring, the medium temperature should be somewhere between $-20 \sim 125^{\circ}\text{C}$. Please specify if the medium temperature exceeds 85°C for long.

Structures and Dimensions

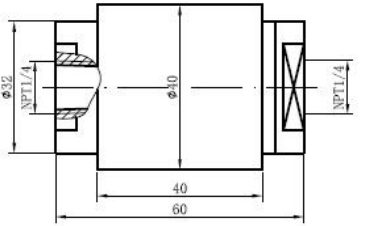
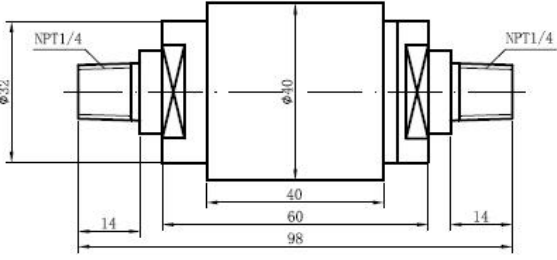
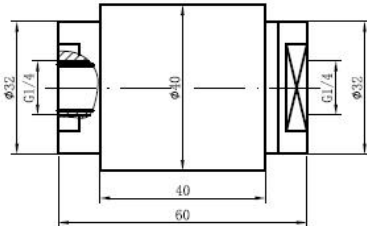
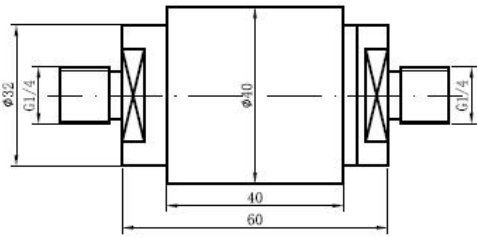
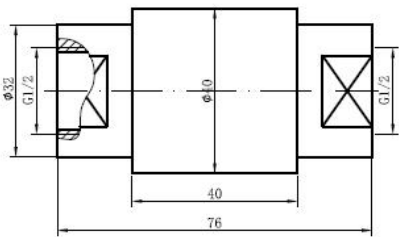
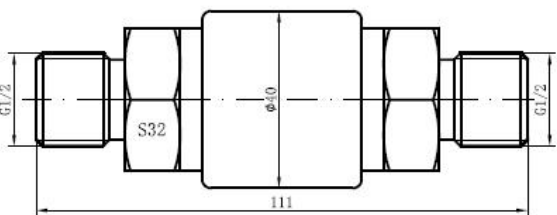
DIN 43650 A	Cable outlet
GX12 connector	M12x1 (4-pin) connector



Packard connector





Pressure Connections

NPT1/4 female	NPT1/4
	
G1/4 female	G1/4
	
G1/2 female	G1/2
	

Wiring Definition

DIN43650A connector

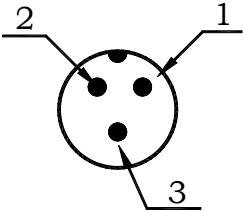
	Pin	2-wire		3-wire	
		Definition	Wire Color	Definition	Wire Color
	1	Power	Red	Power	Red
2	Output	Green/Blu	GND	Black	

	3			Output	Green/Blue
		Shield	Black	Shield	Yellow

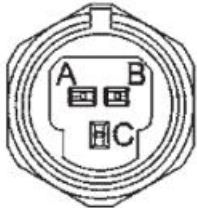
Cable outlet

	Wire Color	Pin Definition	
		2-wire	3-wire
	Red	Power	Power
	Green / Blue	Output	Output
	Black	Shield	GND
Yellow		Shield	


GX12 Connector

	Pin	2-wire		3-wire	
		Definition	Wire Color	Definition	Wire Color
	1	Power	Red	Power	Red
	2	Output	Green/Blue	Output	Green / Blue
	3			GND	Black
4	Shield	Black	Shield	Yellow	

Packard connector

	Pin	2-wire		3-wire	
		Definition	Wire Color	Definition	Wire Color
	A	Shield	Black	GND	Black
	B	Power	Red	Power	Red
	C	Output	Green/Blue	Output	Green / Blue
				Yellow/shield	

M12x1 (4-pin) connector

	Pin	2-wire		3-wire	
		Definition	Wire Color	Definition	Wire Color
	1	Power	Red	Power	Red
2	Output	Green/Blue	Output	Green/Blue	

	3			GND	Black
	4	Shield	Shield	Shield	Yellow

Ordering Guide

PT500		Pressure Transmitter			
		Code	Measuring Range		
		X	X stands for actual pressure measuring range		
			Code	Pressure Connection	
			G1/4	G1/4	
			G1/4 (F)	G1/4 Female	
			G1/2	G1/2	
			G1/2 (F)	G1/2 Female	
			NPT1/4	NPT1/4	
			NPT1/4 (F)	NPT1/4 Female	
			Code	Electrical Connector	
			HSM1	DIN43650A	
			CW	Cable Outlet	
			GX12	GX12 connector	
			P	Packard	
			M12	M12 x 1 connector	
			Code	Output	
			420	4~20mA	
			0545R	0.5~4.5V Ratio Voltage	
			0050	0~5V Voltage	
			010	0~10V Voltage	
			Code	Power Supply	
			09	10~30VDC	
			03	(5±0.25) VDC	
			13	12~30VDC	

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											Code		Seal Material				
											B		NBR				
											F		FKM				
													Code		Accuracy		
													05		±0.5%		
													03		±0.25%		
PT500		- X		- G1/4		-HSM1		- 420		- 09		-B		05			

