
High Accuracy Pressure Transmitter Model : P265

WISE®

Advantages

- High accuracy pressure transmitter for industrial applications
- Measuring ranges from
 - 0 ~ 0.1 bar to 0 ~ 350 bar relative pressure
 - 0 ~ 1 bar to 0 ~ 350 bar absolute pressure
- Advanced piezoresistive silicon sensor
- Excellent accuracy and long term stability
- Extremely high proofed pressure
- 2 Wire loop powered system
 - 4 ~ 20mA current output signal
- High EMI performance
- Wetted parts and case made of Stainless steel
- Enclosure rating IP54 up to IP68 depending on the electrical wiring



Applications

The P265 series pressure transmitter is ideal for measurements which require high accuracy and a need to communicate with remote data acquisition equipment in industrial applications.

The 2-wire 4 to 20mA signal can be transmitted over great distance with negligible loss of accuracy

- Standard hydraulic and pneumatic equipments
- Regulation system of transmission line of LPG and LNG
- Machine tools and automatic machinery
- Flow control and water treatment
- Equipments for chemical and petrochemical industry
- Gas density monitoring of SF6-tanks

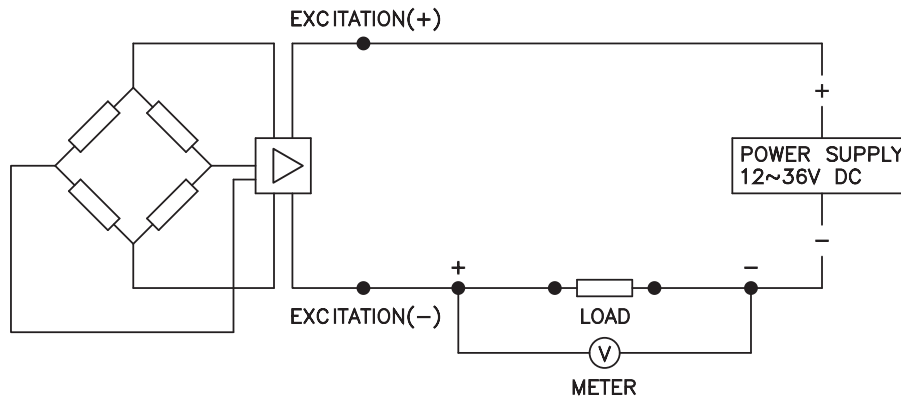
Descriptions

P265 series pressure transmitter is a signal conditioned media-isolated high precision pressure transmitter that can be used for a wide variety of applications. The transmitter has a water resistant, stainless steel housing for complete protection for harsh environments. The transmitter offers the convenience and easy installation with the full capabilities of a highly accurate 4~20mA 2-wire system design. The stainless steel surfaces make it compatible with a wide variety of gases and liquids and can be protected from harsh environment. It is extremely versatile and suitable for measuring dynamic or static pressure. The transmitters are available as absolute and relative pressure types. The pressure to be measured acts through thin corrosion resistant stainless steel 316L diaphragm on a silicon measuring element. The pressure transmitting medium is silicon oil. The measuring element contains diffused piezoresistive resistors which are connected into a Wheatstone bridge. P265 transmitter is electrically temperature compensated.

Specification

Input	
Technology	Piezoresistive silicon pressure sensor
Pressure ranges	0 ~ 0.1 to 350bar relative pressure
	0 ~ 1 to 350bar absolute pressure
Pressure reference	Gauge, absolute pressure
Overload	3x full scale without damage
Output	
Output signal	4~20mA DC 2-wire loop powered technique
Full scale output signal	20mA \pm 0.02%
Zero measured output	4mA \pm 0.01%
Electrical Specification	
Excitation voltage	12~36V DC
Load resistance max@24V	500 Ω at 24V
Influence of excitation	0.01% FSO/V
Power ripple	\leq 500mV P-P
Protection	Against reverse polarity and overvoltage
Shock resistance	No change in performance after 10Gs for 11ms
Vibration	0.1G (1m/s/s) maximum
Response time(10~90%)	\leq 2 milliseconds
High voltage strength	750 DC V (wiring versus case)
Electro-magnetic immunity (EMI)	IEC 61000-4-2 (ESD) : test level 4 (8 kV)
RFI per IEC 61000-4	IEC 61000-4-3 (Field) : test level 3 (10V/m)
	IEC 61000-4-4 (Burst) : test level X
	IEC 61000-4-5 (Surge) : test level 2
	IEC 61000-4-6 (Conducted RF) : test level 3 (10V)
Performance Specification	
Accuracy	\pm 0.1% FSO Compensated temperature range
Non-linearity	\pm 0.025% FSO typical
Repeatability	\pm 0.015% FSO typical
Pressure hysteresis	\pm 0.010% FSO typical
Long term stability	\leq \pm 0.3% FSO over 1 year
Reference temperature	25°C
Operating temperature	-40~85°C
Compensated temperature	-20~60°C
Thermal sensitivity shift	\leq \pm 0.1% FSO in reference to 25°C typical
Thermal zero shift	\leq \pm 0.05% FSO in reference to 25°C typical
Thermal hysteresis	\leq \pm 0.1% FSO in reference to 25°C typical
Physical Specification	
Process connection	G1/4", G3/8", G1/2" male thread
	Other connections available on request
Process media	Gases and liquid compatible with stainless steel 316
Materials wetted by process	Diaphragm : Stainless steel 316L
	Housing : Stainless steel 316
	Gasket O-ring : Viton (HNBR, CSM, etc.)
Enclosure rating	IP54 up to IP68, depending on the electrical wiring
Influence of mounting position	Not critical but 0.1 to 0.5bar should be mounted vertically
Options	

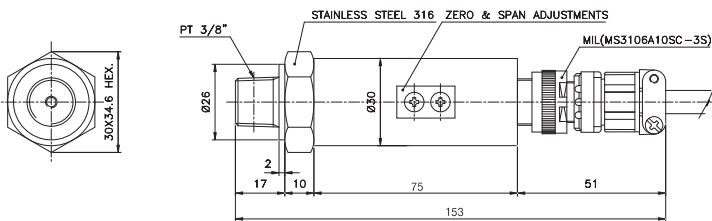
Electrical connection



Dimension(mm)

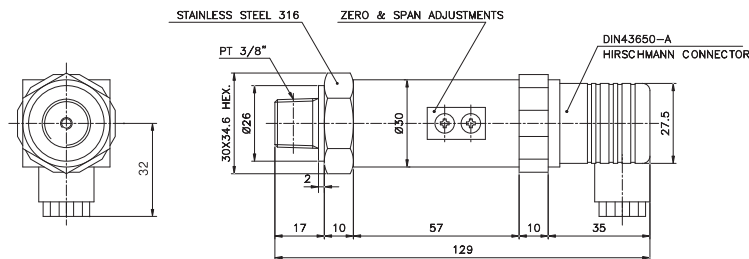
Electrical connection

E : Excitation
S : Signal
C : Common



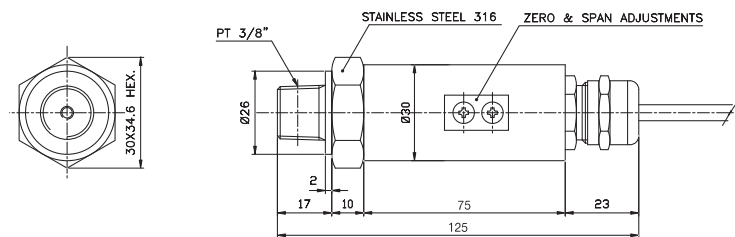
Circular connector

System Color	2-Wire	3-Wire	4-Wire
Red	E +	E +	E +
Black	E -	C -	E -
Green		S +	S +
White			S -
⌚	Shielded	Shielded	Shielded



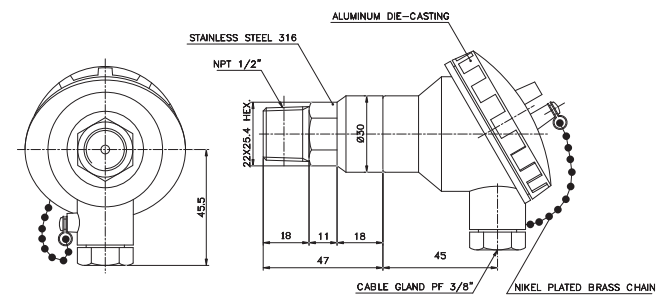
DIN connector

System Color	2-Wire	3-Wire	4-Wire
1	E +	E +	E +
2	E -	C -	E -
3		S +	S +
⌚	Shielded	Shielded	S -

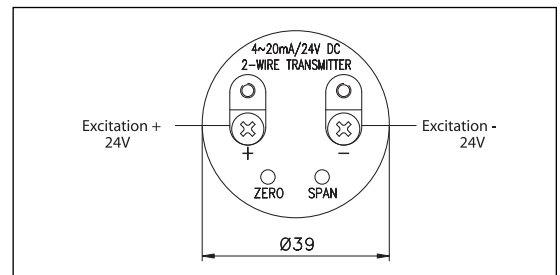


Flying lead

System Color	2-Wire	3-Wire	4-Wire
Red	E +	E +	E +
Black	E -	C -	E -
Green		S +	S +
White			S -
⌚	Shielded	Shielded	Shielded



General head



Ordering Information

High Accuracy Pressure Transmitter

P265										Piezoresistive silicon sensor
	M									Circular Connector
	D									DIN Connector
	I									Flying lead (1.5m cable)
	T									General Head
		R								Relative pressure
		A								Absolute pressure
			M							Male thread
			F							Female thread
				T						PT thread as standard
				N						NPT thread
				F						PF thread
				X						Other process connections available on request
					1					1/4"
					2					3/8"
					3					1/2"
					X					Other units available on request
				H						Accuracy $\pm 0.1\%$ FSO
					01					Measuring range 0~0.1 bar
					02					0~0.2
					03					0~0.5
					04					0~1
					05					0~2
					06					0~5
					07					0~10
					08					0~20
					09					0~35
					10					0~50
					11					0~100
					12					0~200
					13					0~350
					xx					Other calibration ranges available on request
						M				Calibration in mmH ₂ O
						K				Calibration in kgf/cm ²
						A				Calibration in MPa
						B				Calibration in bar
						P				Calibration in psi
						X				Other calibration units available on request
							C			4~20mA Current output signal
							V			1~5V Voltage output signal(Option)
							X			Other signals on request
								N		None options
								T		Sealed diaphragm with thread
								F		Sealed diaphragm with flang mounting
								C		Sealed diaphragm with capillary
								S		Siphon tube
								X		Other accessories available on request

P265	D	R	M	T	3	H	07	B	C	N	Sample ordering code
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Specifications subject to change without notice