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**Sanitary Pressure Transmitter**  
**Model : P425 (Circular Connector)**  
**P426 (DIN Connector)**  
**P428 (General head)**  
**P424 (Stainless steel head)**

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**Advantages**

- Pressure transmitter for corrosive environments
- High corrosion resistant stainless steel diaphragm (316LSS)
- Measuring ranges from 2500mmH<sub>2</sub>O to 50kgf/cm<sup>2</sup>
- Shock and vibration resistant
- 3A certificated suitable SIP and CIP

**Applications**

- Process control and monitoring in corrosive environments
- Bio-chemical and pharmaceutical industry
- Dairy and food industry



P425



P426



P428



P424

**Descriptions**

P420 series pressure transmitter has been designed as an advanced device for measuring pressure of corrosive and viscous liquids in industrial applications.

They incorporate a fully temperature compensated piezoresistive silicon sensor with great accuracy, excellent long term stability, very low temperature drift, and a strong, durable flush mounted diaphragm. The diaphragm specifically designed to meet 3A standard.

The transmitter are available as absolute and relative types with either 2-wire current or 3-wire voltage output. The pressure to be measured acts through thin corrosion resistant stainless steel 316L diaphragm. The pressure transmitter medium is silicon oil. The measuring element contains diffused piezoresistive resistors which are connected into a Wheatstone bridge. The output signal of this bridge is temperature compensated and converted into a standardized current or voltage output signal.

# Specification

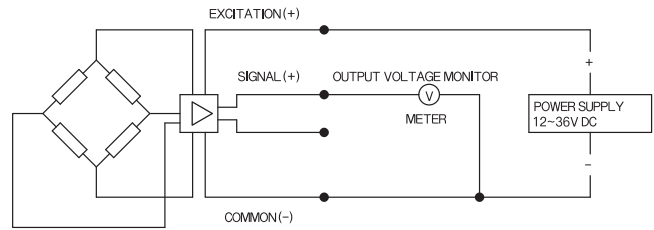
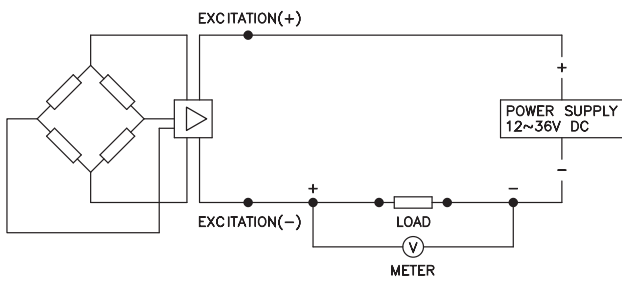
Input				
Technology	Piezoresistive silicon pressure sensor			
Pressure ranges	0~0.2 to 50kgf/cm <sup>2</sup> relative pressure			
	0~1 to 50kgf/cm <sup>2</sup> absolute pressure			
Pressure reference	Gauge, absolute, vacuum and compound			
Overload	3x full scale without damage			
Output				
	Current output		Voltage output	
Electrical connection type	2-wire technique		3 or 4-wire technique	
Full scale output signal	20mA	±0.2%	5V	±0.2%
Zero measured output	4mA	±0.03%	1V	±0.03%
	Other signals available on request			
Electrical Specification				
Excitation voltage	12~36V DC			
Load resistance max@24V	500 Ω at 24V			
Influence of excitation	0.01% FSO/V			
Power ripple	≤500mV P-P			
Reverse polarity	Protected			
Shock resistance	No change in performance after 10Gs for 11ms			
Vibration	0.1G (1m/s/s) maximum			
Response time(10~90%)	≤2 milliseconds			
Adjustment	±10% FSO/zero and span			
Performance Specification				
Accuracy	≤ ±0.25% FSO			
Non-linearity	±0.100% FSO typical			
Repeatability	±0.015% FSO typical			
Pressure hysteresis	±0.010% FSO typical			
Long term stability	±0.3% FSO over 6 month			
Cutoff frequency(-3 d B)	≤2KHz			
Reference temperature	35°C			
Operating temperature range	-40~125°C			
Compensated temperature range	0~82°C			
Thermal sensitivity shift	≤ ±0.5% FSO in reference to 35°C typical			
Thermal zero shift	≤ ±0.5% FSO in reference to 35°C typical			
Thermal hysteresis	≤ ±0.1% FSO in reference to 35°C typical			
Physical Specification				
Process connection	1", 1.5", 2" Tri-clamp connection			
	Other connections available on request			
Process media	Gases and liquids compatible with stainless steel 316			
Materials wetted by process	Diaphragm : Stainless steel 316L			
	Housing : Stainless steel 316			
	Gasket O-ring : Viton (HNBR, CSM, etc.) or No O-ring			
Enclosure rating	IP65			
Weight	Approx.(350g)			

Note : ① Cable version : 1.5m standard length, 4-wire, shielded with integral vent tube

② Vented gauge units must breathe dry, non - corrosive gases.

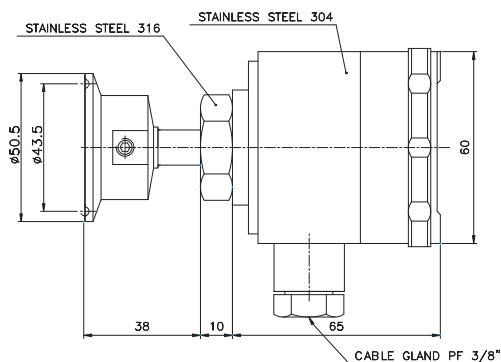
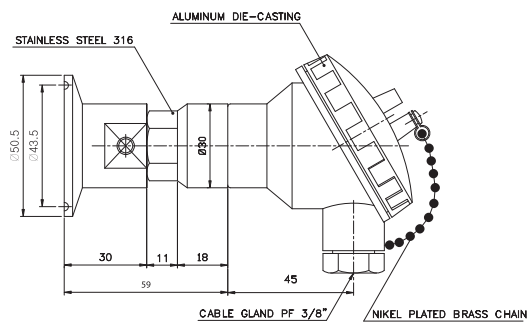
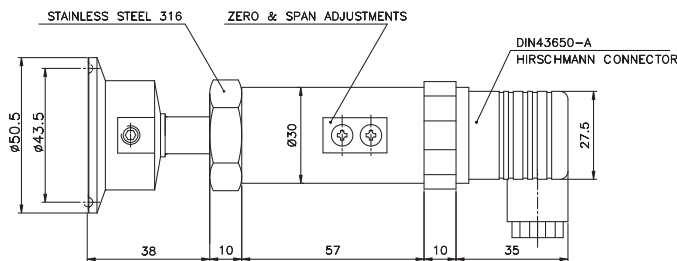
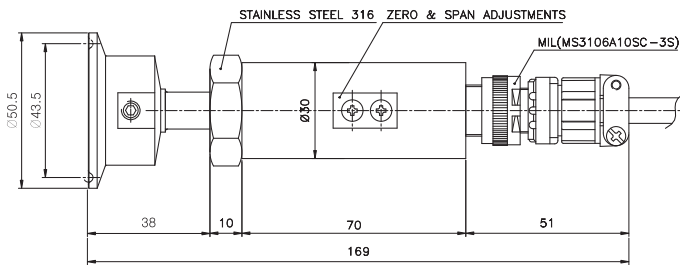
③ Connector version is vented through the removed pin, cable versions are vented through a vent tube inside the cable sleeve

# System connection for 2-wire transmitter    System connection for 3-wire transmitter



## Dimension(mm)

## Electrical connection



E : Excitation  
S : Signal  
C : Common

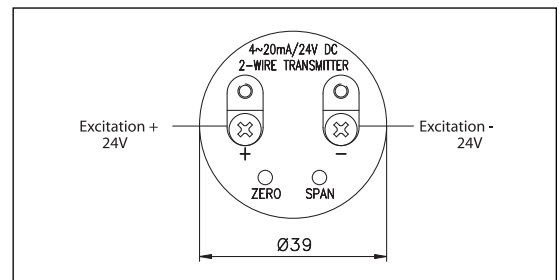
### Circular connector

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

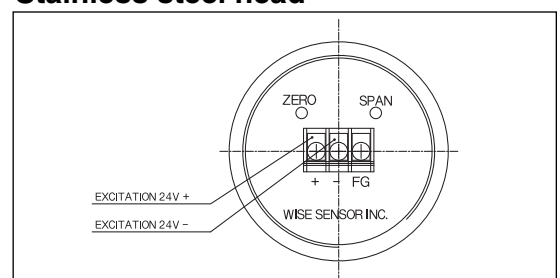
### DIN connector

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

### General head



### Stainless steel head



## Ordering Information

### Sanitary Pressure Transmitter

P424																						Stainless Steel Head
P425																						Circular Connector
P426																						DIN Connector
P428																						General head
	R																					Relative pressure
	A																					Absolute pressure
		M																				Male thread
		F																				Female thread
		N																				Not required
			T																			PT thread
			N																			NPT thread
			S																			PF thread as standard
			C																			Clamp mounted
			F																			Flange mounted
			X																			Other process connections available on request
				1																		1"
				2																		1.5"
				3																		2"
				X																		Other units available on request
					H																	Accuracy $\pm 0.3\%$ FSO
						01																Measuring range 0~0.25 kgf/cm <sup>2</sup>
						02																0~0.5
						03																0~1
						04																0~2
						05																0~5
						06																0~10
						07																0~20
						08																0~35
						09																0~50
						xx																Other calibration ranges available on request
							M															Calibration in mmH <sub>2</sub> O
							K															Calibration in kgf/cm <sup>2</sup>
							A															Calibration in MPa
							B															Calibration in bar
							P															Calibration in psi
							X															Other units available on request
								A1														4~20mA, DC, 2-wire output
								A2														4~20mA, DC, 4-wire output
								B1														1~5V, DC, 3-wire output
								B2														0~5V, DC, 3-wire output
								B3														0~10V, DC, 3-wire output
								N														None options
								X														Other accessories available on request

P424	R	M	F	1	H	01	K	A1	N	Sample ordering code
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Specifications subject to change without notice