
High Pressure Transmitter with Thin Film

Model : P135 (Circular Connector)

P136 (DIN Connector)

P138 (General Head)

P139 (Explosion Proof Head)

WISE®

Advantages

- Thin film pressure measuring technology
- Extremely accurate over wide temperature range
 $\leq \pm 1\%$ up to 100°C
- Measuring ranges from 20 to $2,000\text{kgf/cm}^2$
- All stainless steel construction for wetted areas in harsh environments
- Zero and span adjustments
- Degree of protection IP65 or IP67(option)
- Optimal accuracy $\pm 0.3\%$ FSO
- Welding construction

Applications

The transmitters can be used for a wide range of applications in process control, automatic machinery and hydraulic or pneumatic system design.

- High pressure hydraulic equipments and process control
- Machine tools and automatic machinery
- Injection molding and water jet cutting machines
- Irrigation and sprinkler systems
- Trucks and earth moving equipments
- Air and gas compressors
- Loading monitoring of crane and brake systems for railway systems
- Fuel injection monitoring



P135



P136



P138



P139

Descriptions

P130 series high quality, highly advanced, robust pressure transmitters use the latest thin film strain gauge technology on stainless steel diaphragms to provide the user with high accuracy and stability over a wide pressure range for industrial and automotive applications. These pressure transducers and transmitters with the latest sensing technology perform in demanding environments such as power plants, water treatment facilities, aircraft and marine hydraulic systems, nuclear testing, flight-qualified systems, and a number of energy management and climate control systems. This transmitter can be easily modified to cover pressure ranges from 20 to $2,000\text{kgf/cm}^2$. It is extremely versatile and suitable for measuring dynamic and static pressure. The transmitters are available as absolute and relative pressure types with either 2-wire current or 3-wire voltage output.

Specification

Input				
Technology	Thin film pressure sensor			
Pressure ranges	0~20 to 0~2,000kgf/cm ² absolute or gauge pressure			
Pressure reference	Gauge			
Overload	5x full scale without damage			
Output				
Un-amplified	1.7, 2.0, 2.3m V/V (Maximum 10V)			
Electrical connection type	2-wire technique		3-wire technique	
Full scale output signal	20mA	±0.2%	5V	±0.2%
Zero measured output	4mA	±0.05%	1V	±0.05%
	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	≤20g			
Response time	1.5ms			
Adjustment	±10% FSO/zero and span			
Performance Specification				
Accuracy	≤ ±0.3% FSO			
Linearity, Hysteresis & Repeatability	±0.2% FSO typical			
Longterm Stability	±0.1%~0.25% FSO over 5years			
Cutoff frequency(-3 d B)	≤2kHz			
Service life	Approx. 100,000,000cycles			
Reference temperature	25°C			
Operating temperature range	-54~149°C			
Compensated temperature range	-18~82°C			
Thermal sensitivity shift	≤ ±0.02%/°C typical			
Thermal zero shift	≤ ±0.02% FSO/°C typical			
Physical Specification				
Process connection	PT1/4", PT3/8", PT1/2" male thread			
	PF1/4", PF3/8", PF1/2" male thread			
	Female thread & other connections available on request			
Process media	Gases and liquids compatible with stainless steel			
Materials wetted by process	Diaphragm : stainless steel			
	Housing : Stainless steel 316			
Enclosure rating	IP65			
Explosion protection	Ex d IIC T6(P139)			
Influence of mounting position	Not critical			
Weight	Approx.(270g)			
Options	Cooling Fin			
	Siphon tube			

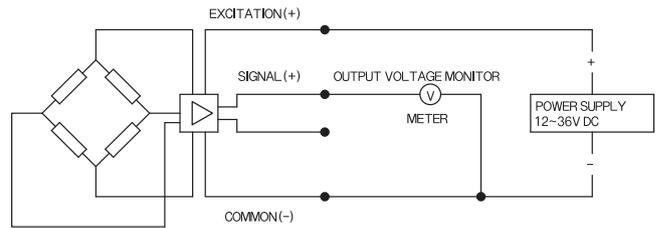
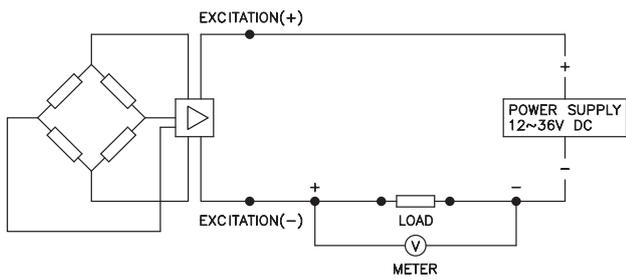
Note : ① P130 Series is only available with gauge pressure

② Cable version : 1.5m standard length, 4-wire, shielded with integral vent tube

③ Vented gauge units must breathe dry, non - corrosive gases.

④ 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
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 -

General head

