



Recorder

Flow

Pressure

Temp

Analyzer

Level

Datasheet

Digital display pressure Transmitter

AI-XPT30



Datasheet

Digital display pressure transmitter AI-XPT30

AI-XPT30 Series pressure transmitter is kind of device based on pressure layer, which inside expert integrate circuit can transform sensor milli-volt signal to standard far distance transmission current signal, and it can be directly joined with computer joint clip, control instrument ,aptitude instrument or PLC etc. conveniently. The series' product is applied extensively in the professions, such as the industry process control, petroleum, chemical engineering and metallurgy etc. Carry the distance delivers and can adopt electric current exportation method

Applications

- Dyeing industry
- Air tightness test
- HVAC
- Water supply
- Agricultural irrigation
- Food industry
- Mud measurement
- Vacuum equipment
- Medical equipment

Features

- Compact structure and easy installation
- Advanced Diaphragm/Oil Filled Isolation Technology
- High stability, high reliability
- Anti-vibration, anti-radio frequency interference.
- 316L stainless steel isolation diaphragm structure.
- High precision, all stainless steel structure.
- Micro amplifier, voltage, current, RS485 signal output.
- Wide range with multiple pressure measurement
- Vibration and shock resistance.



Digital display transmitter

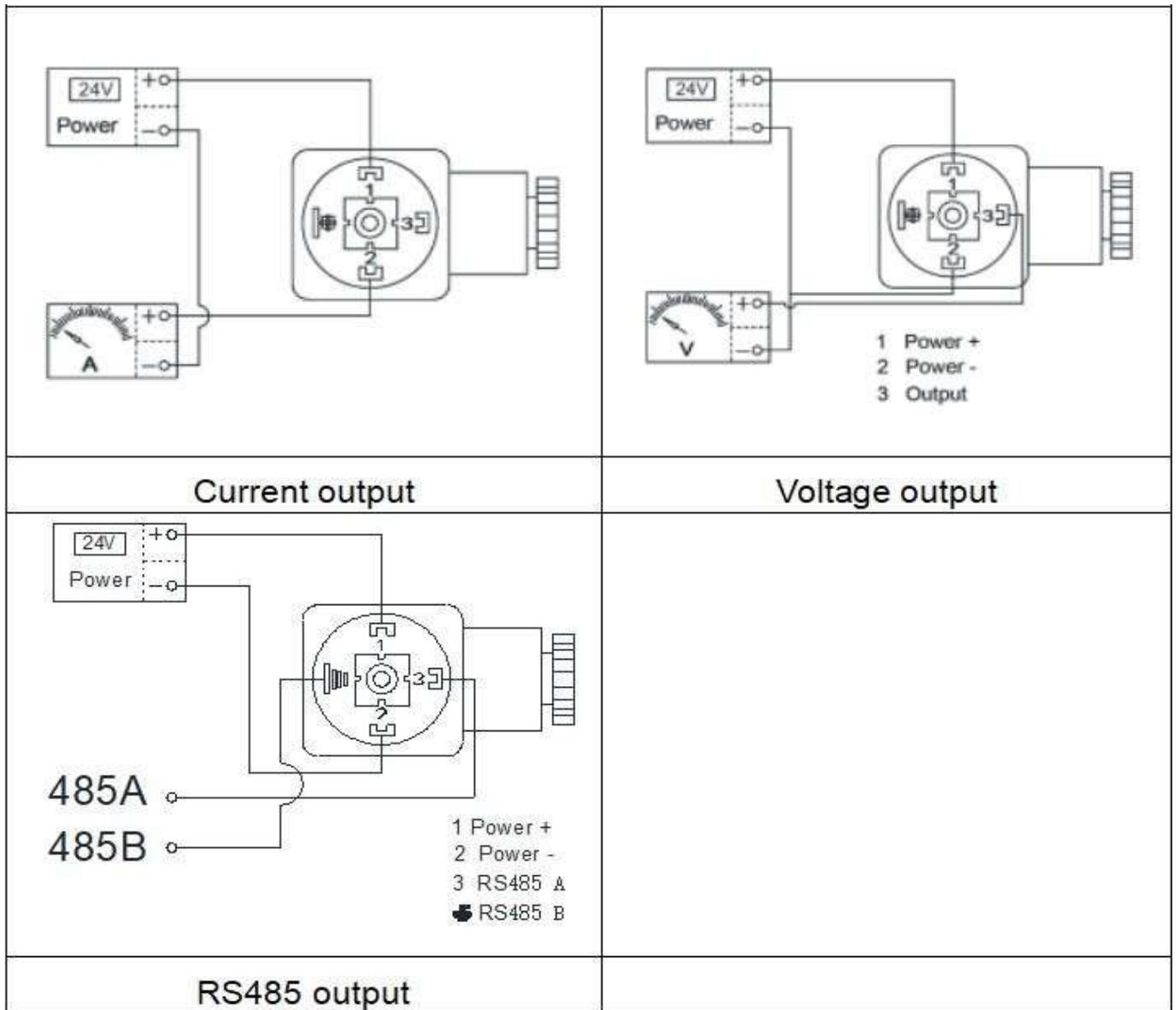
Principle

Pressure Transmitter are devices that convert the mechanical force of applied pressure into electrical energy. This electrical energy becomes a signal output that is linear and proportional to the applied pressure. And a transmitter sends signals in milliamps (mA). At present, various types of pressure sensors, such as diffused silicon, capacitive, silicon sapphire, ceramic thick film, metal strain electric type are widely used in various industries. AI-XPT30 is diffused silicon type pressure transmitter.

Parameters	
Power Supply	XPT30: (4~20)mA output:(10~32)V; (0~10)V output:(12~32)V; RS485 output:(8~32)V;
Output	(4~20)mA;(1~5)V; (0~10)V;(0~5)V;RS485
Accuracy	0.2%、0.25%、0.5%
Measurement range	-0.1...0...60Mpa
Pressure type	gauge pressure, adiabatic pressure and sealed pressure
Compensation temperature	-10°C ~ 70°C
Working temperature	-20°C ~ 85°C
Medium temperature	-20°C ~ 85°C
Storage temperature	-40°C ~ 85°C
Zero-point temperature drift	±0.3%FS/10°C
Sensitivity temperature drift	±0.3%FS/10°C
Overload pressure	(0.035~10)MPa (150%FS) (10~60)MPa (125%FS)
Long-term stability	±0.2%FS/year
Response time	RS485 output≤100ms (up to 90%FS) Current and Voltage output≤10ms (up to 90%FS)
Insulation	20MΩ/250VDC
Ingress protection	IP65
Load Resistance	(U-9V)/0.02A

Wiring

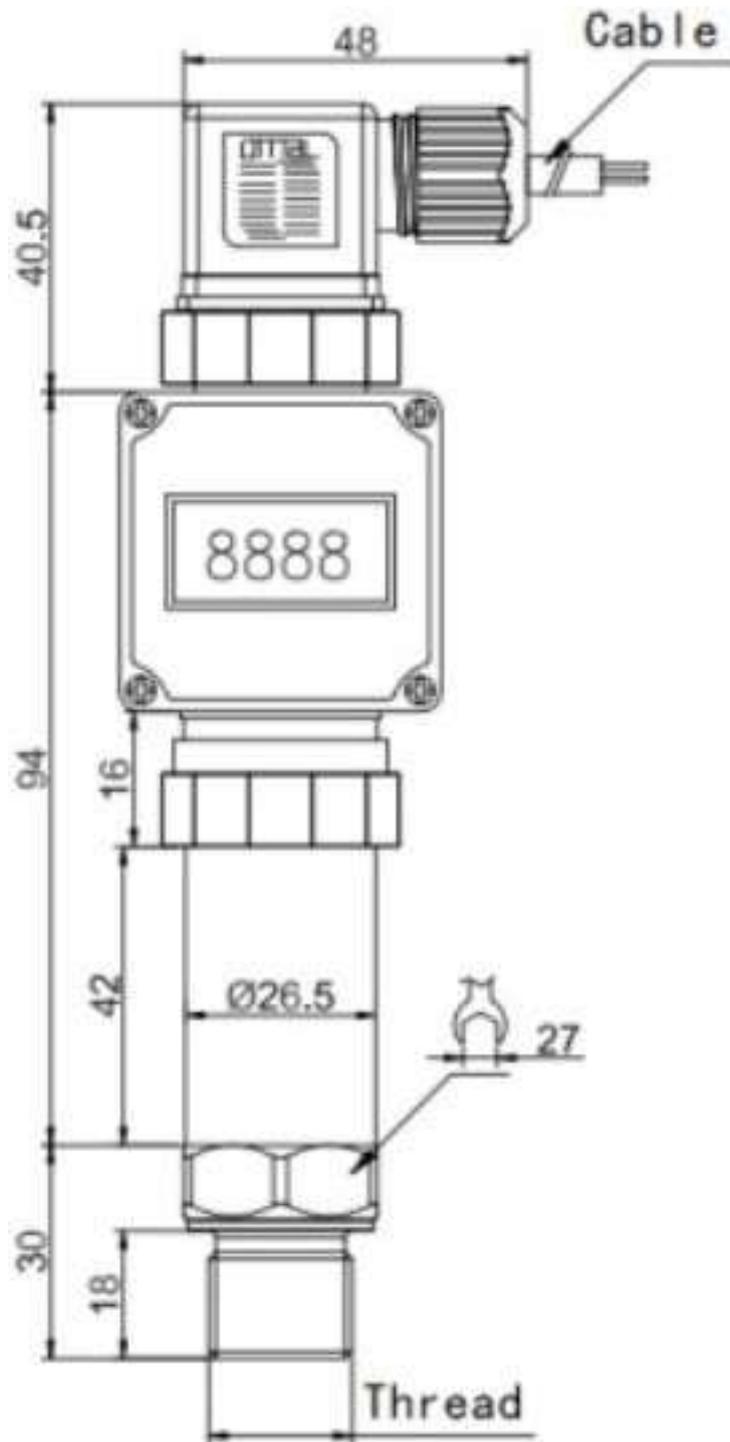
Wiring of DIN connector type as follows:



Wiring of cable connector type as follows:

Current:	Red Wire: 24V +
	Green Wire: Current Output
Voltage:	Red Wire: 24V +
	Green Wire: 24V -
	Yellow Wire: Voltage Output
RS485:	Red Wire: 24V +
	White Wire: 24V -
	Green Wire: RS485+
	Yellow Wire: RS485-

Dimensions



Installation

- (1) Pressure transmitter should be installed as far as possible in the place where temperature fluctuation is small, while avoiding vibration and shock.
- (2) The pressure transmitter can be directly installed at the measuring point. Connection threads: M20*1.5 or 1/2-NPT. Flange Interfaces of various specifications for special purposes.
- (3) Transmitter is suitable for measuring the pressure of various general corrosive liquids and gas. Transmitters manufactured according to explosion-proof requirements can be used in different explosive environments according to the explosion-proof grade of products, and their related equipment should also have explosion-proof function. For strong corrosive medium (such as acid, alkali) and corrosion resistant structure, the orders should be placed according to special requirements.
- (4) Do not route the signal line through the conduit or the open cable with the power line, or near high-power equipment.
- (5) If the pressure pipes are used in the transmitter, attention should be paid to that the strong corrosive or superheated media should not contact the transmitter, so as to prevent the sediment from precipitating in the pressure pipes, and the pressure pipes should be as short as possible. When measuring steam or other high temperature medium, the working temperature of the transmitter should not exceed the limit. When used for steam measurement, the pressure pipes should be filled with water to prevent the transmitter from contacting directly with the steam.

Ordering Code

AI-XPT30 -G-1A-K-A1-L2-A-WA-02-PA										Description	
AI-XPT30	-	-	-	-	-	-	-	-	-	-	
Pressure Type	G										Gauge pressure
	A										Absolute pressure
Measurement Range		1A									-100 - 0 kPa
		1B									-100 - 100 kPa
		1C									-100 - 1000 kPa
		1L									0 - 10 kPa
		1M									0 - 20 kPa
		1N									0 - 30 kPa
		1Q									0 - 50 kPa
		1S									0 - 100 kPa
		2A									0 - 0.6 MPa
		2B									0 - 1 MPa
		2C									0 - 1.6 MPa
		2D									0 - 2.5 MPa
		2E									0 - 4 MPa
		2H									0 - 10 MPa
		2K									0 - 20 MPa
		2L									0 - 25 MPa
		2M									0 - 30 MPa
		2N									0 - 40 MPa
		2P									0 - 60 MPa
		XX									Other
Accuracy										K	0.5 Class
										G	0.25 Class
										F	0.2 Class
Output and Power Supply										A1	Two-wire 4-20mA
										A2	1-5V, 24VDC
										A3	0-10V, 24VDC
										A4	0-5V, 24VDC
										A5	RS485, 24VDC
										A6	0.5-4.5V, 5VDC
										XX	Other
										L2	M20×1.5
										G2	G1/2
										G1	G1/4
										NA	NPT1/4
										NC	NPT1/2
										L1	M14×1.5
										XX	Other
Diaphragm and Wetted Materials										A	316LSS, 304SS

	B		316LSS, 316LSS
	X		Other
Electrical Interface, Housing Material, and Protection Rating	WA		Hirschmann connector, 304SS, IP65
	WB		Hirschmann connector, 316LSS, IP65
	XX		Other
Cable Length		02	2m
		05	5m
		10	10m
		00	0m
		XX	Other
Accessories		PA	Threaded Base Carbon Steel CS
		PB	304SS Thread Base
		PD	304SS Condensation Bend



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