

WIDEPLUS-8J Economic type pressure transmitter

Operating manual

- **Main characteristics**
 - High accuracy
 - A wide range of working temperature
 - Low cost
 - Anti-electromagnetic/RF interference
- **Technical parameters**
 - Measuring range: 0.6Mpa~3.5Mpa
 - Accuracy: $\pm 0.5\%$ FS
 - Pressure cycling: $>10^8$ times full pressure cycling
 - Overload pressure: 1.5 times rated pressure
 - Long-term stability: $\pm 0.35\%$ FS/year
 - Supply power: (12.5~36) VDC
 - Output signal: (4~20)mA DC
 - Noise: $<2\text{mV}$ RMS
 - Bandwidth: straight flow to 1KHz (-3dB)
 - IP grade: IP65 (Suggested use $\phi 4.5\sim 7\text{mm}$ cable)
- **Ambient requirement**
 - Working temperature: -20 ~70
 - Compensation temperature: 0 ~70
 - Zero temperature influence: $<\pm 1.5\%$ FS
 - Span temperature influence: $<\pm 1.5\%$ FS
 - Storage temperature: -40 ~100

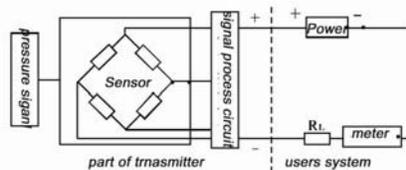


WIDEPLUS-8J economic type pressure transmitter established a model of new price-performance ratio for civil and industrial product of mass low cost. These products are widely adapted for the detection in gas pressure, liquid pressure and even bad medium environment such as pollution water, lightly corrosive liquid and gas.

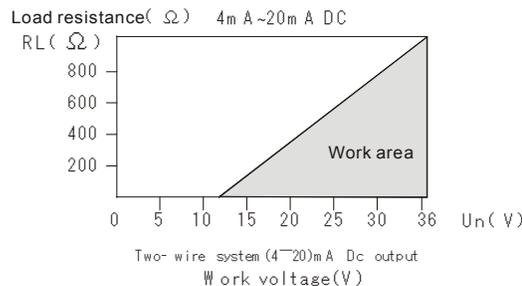
It mainly applies to pump and compressor, liquid pressure and pneumatic system, go-anywhere vehicle, energy and water processing system, pressure instrument, refrigerating equipment, agricultural machinery device, locomotive braking system.

➤ Working principle

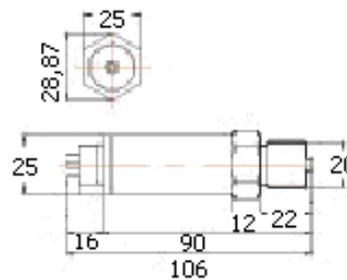
The transmitter consists of sensor and signal processing circuit. Among, Wheatstone bridge is set on sensing interface of sensor. When increasing its pressure, Resistance of bridge arm has changed, then transfer to voltage change via signal processing circuit, and finally change it into standard (4~20)mA DC:



➤ Load characteristics

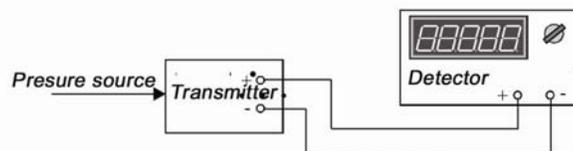


Outline dimension (unit: mm)

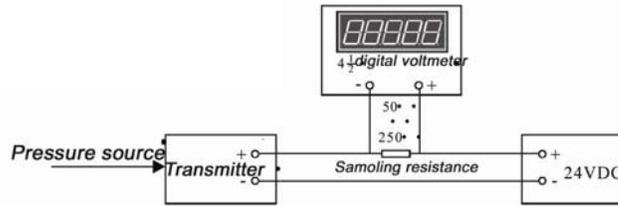


➤ Wiring diagram

A. Debugging system is shown as the figure:



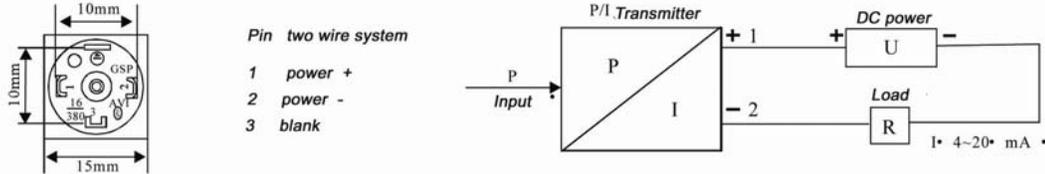
- B. If no detector of transmitter, it is replaced by 24VDC regulated power supply, standard resistance (250Ω or 50Ω), 4 1/2 digit digital voltmeter, its wiring is as follows:



➤ Installation

Connection

Plastic connector sees pin of figure 1, pull out connector in plastic connector to connect, electrical connection method sees the figure 2:



Basic requirement of installation and operation

- To directly mount on measuring point (any angle), if interface size is against to on-site interface size, can self-control changeover coupling to connect.
- To install in the occasion of temperature gradient where is a small change, and avoid strong vibration and rush
- When external installation, please put into protection box, avoid sunshine and rain to keep its performance stability and life.
- As metering stream or other high-temperature medium, medium temperature cannot exceed working temperature limit. If necessary, add conductor or other cooling device
- When installing, control valve is mounted between transmitter and medium so as to check and prevent fill up to affect measuring accuracy. In a wide range of pressure wave on which should be mounted pressure buffering device.

➤ Type spectrum table for WIDE PLUS -8J series pressure transmitter

Model										Explanation
WIDEPLUS-8J	<input type="checkbox"/>									
Explosion-proof rank	S									Standard (no explosion-proof)
Material of process connection		1								304 stainless steel
Mode of process connection		G								Outer thread M20×1.5 (inner hole Φ3 mm)
		Y								Special requirement
Materials of seal elements			1F							Fluorine rubber
Signal output mode					2					(4 ~ 20)mA DC two-wire system
Display mode						A				No field indication
Accuracy grade							5			0.5 grade
							10			1.0 grade
Measuring range								<input type="checkbox"/>		See the standard range table
Others									G	Gauge pressure
Example	WIDEPLUS-8JS1G1F2A5G17G									

➤ Standard range table for WIDEPLUS -8J series pressure transmitter

Gauge pressure code	Measuring range	Range	Overload
G17	0 ~ 1.0 MPa, 10BAR	0.6 MPa ~ 1.0 MPa	2 MPa
G18	0 ~ 1.6 MPa, 16BAR	0.64 MPa ~ 2.0 MPa	3.0 MPa
G19	0 ~ 2.0 MPa, 20BAR	0.8 MPa ~ 2.0 MPa	3.0 MPa
G20	0 ~ 2.5 MPa, 25BAR	1.0 MPa ~ 3.5 MPa	5.25 MPa
G21	0 ~ 3.5 MPa, 35BAR	1.6 MPa ~ 3.5 MPa	5.25 MPa