



**WUXI QIUXIN**  
The flowmeters from China

## CATALOG



**QXP Pressure Transmitter**

# CONTENTS

Safety guidance-----	2
Application range, main character-----	2
Selection form for QXP pressure transmitter-----	3
Main technical specification-----	4
Working principle and structure-----	5
Installation-----	6
Wiring-----	6



## **SAFETY GUIDANCE**

The transmitter is not allowed to measure frozen medium, otherwise it will be damaged.

Only qualified or authorized persons can install, connect or use and maintain the transmitter.

Qualified person are the person who have rich experiences in installation, electric connection, usage and operation of transmitter or other kindred equipment, and possess qualification certificate of this kind job.

Should abide by relevant safety regulations of electric installation and running. For explosion proof transmitter, should abide by rules and recommended standards of explosion proof. This transmitter can run under situation of high pressure and corrosive medium. If handle unreasonably, it will cause badly staff harm or material damaged. If transmitter is used out of China, must abide by relevant foreign rules.

Please read the manual carefully to ensure transmitter run normally before use the transmitter.

## **APPLICATION RANGE, MAIN CHARACTER AND USAGE**

QXP pressure transmitter applies advanced technology of domestic transmitter, equipped with high accuracy electronic component and is assembled through strict process procedure. It uses pressure measuring technology without medium, puts advantages of transmitter into full play to ensure its high performance. It has strong ability of overload and impact resistance, little temperature drift, high stability and measuring accuracy.

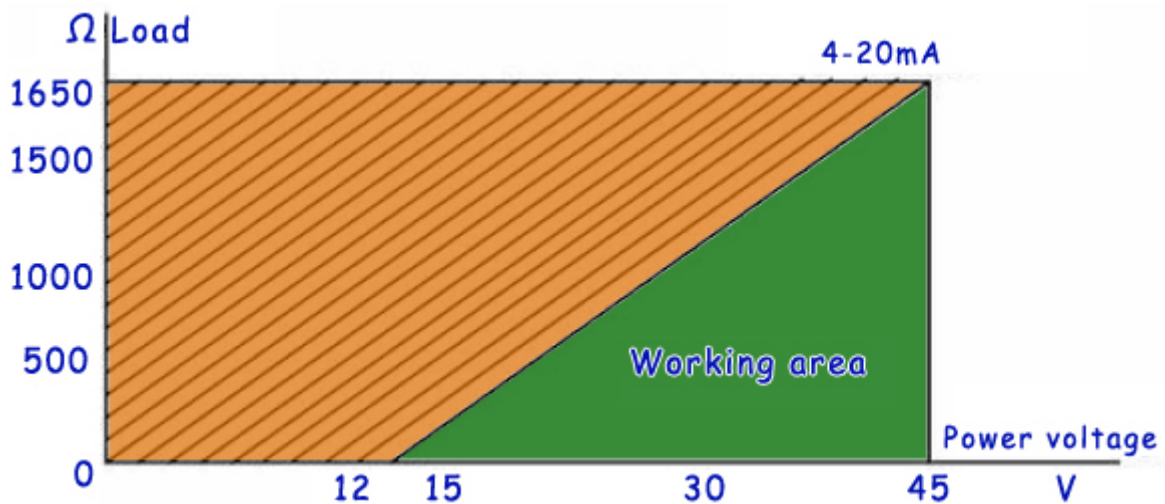
QXP pressure transmitter has many models, spans, connection types and materials, and can be widely used in kind of industrial situation and medium. It is the ideal upgraded and updated products of traditional pressure meter and transmitter, also the ideal pressure measuring meter in industrial automation field.

## SELECTION FORM

<b>QXP</b>	<b>WuXi QiuXin Pressure Transmitter</b>	
-A	0-1.0MPa	
-B	0-1.6MPa	
-C	0-2.5MPa	
	<b>Accuracy grade</b>	
A	0.25	
P	0.5	
	<b>Output signal</b>	
8	4-20mA DC	
S	Special demand	
	<b>Connection type</b>	
0	M20*1.5 outside thread( standard)	
S	According to user's order	
	<b>Explosion proof</b>	
0	Common	
1	Exia II CT6	
2	Exd II CT6	
	<b>Additional function</b>	
0	No indicator	
1	3 1/2 LCD digital indicator	

## MAIN TECHNICAL SPECIFICATION

Working voltage	12~30VDC (Associated equipment matching with intrinsically safe transmitter must get explosion proof certificate)	
Output signal	4 ~20mA(analog, two wired )	
Measuring range	Gauge pressure:	0-1.0MPa
		0-1.6MPa
		0-2.5MPa
Accuracy	Accuracy: 0.25%F.S / 0.5%F.S	
	Temperature drift: $\pm 0.15\%F.S/10^{\circ}C$	
	Stability: $\leq \pm 0.2\%F.S/year$	
	Position influence: Installation position does not affect zero point	
Operating condition	Normal ambient temperature: $-20 \sim +60^{\circ}C$	
	Temperature of measured medium: $-20 \sim +80^{\circ}C$ (130 $^{\circ}C$ for short time)	
	Storage temperature: $-20 \sim +80^{\circ}C$	
	Relative humidity: 0 ~ 90%RH	
	Atmospheric pressure: 86 kPa ~106kPa	
Vibration influence	When the vibration frequency is (10~60) Hz and amplitude 0.14mm in any direction, the variation value is less than $\pm 0.02\%F.S$	
Impact influence	Variation value is less than $\pm 0.02\%F.S$ after impact 100G for 11ms in any direction	
Protection class	Better than IP65	
Load character	Two wired load $R \leq 50$ (V-12 ), shown as Fig. 1	

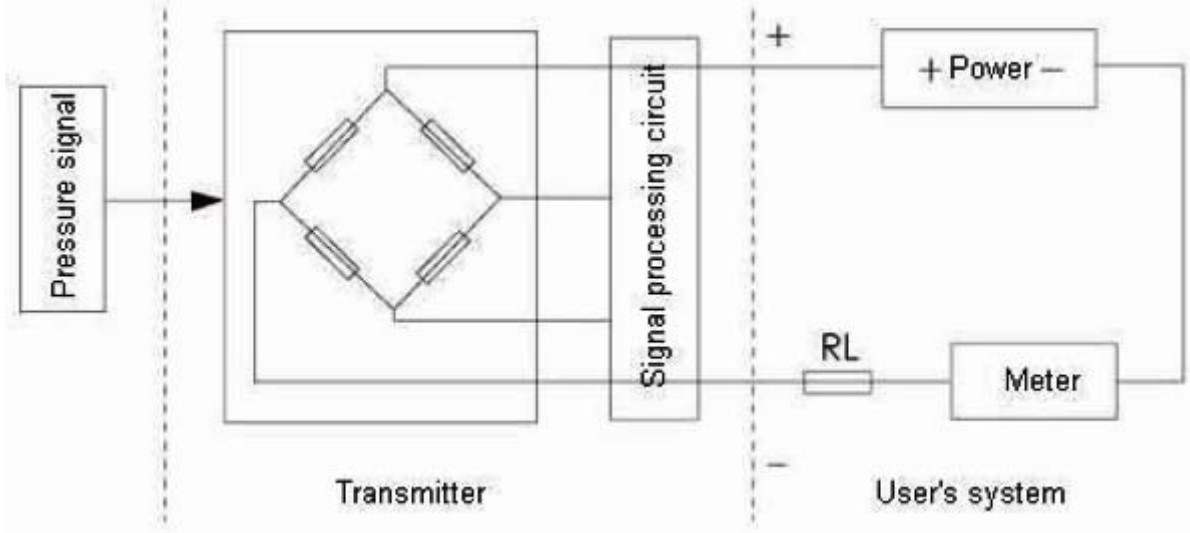


**FIG.1 LOAD CHARACTER**

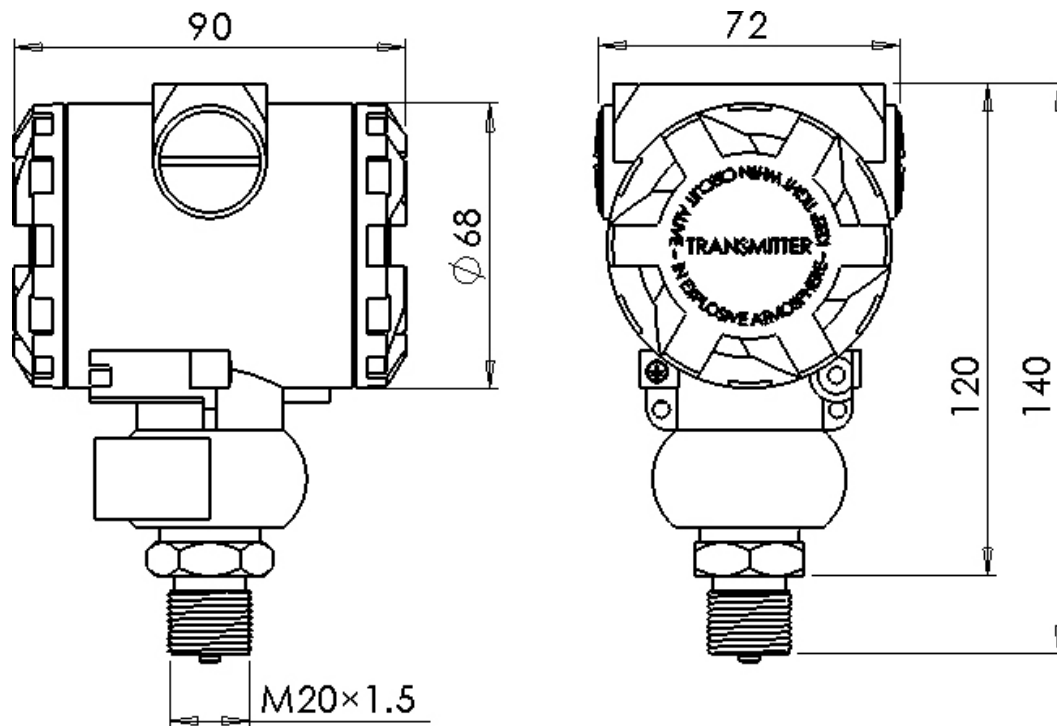
## WORKING PRINCIPLE AND STRUCTURE

### Operation principle

QXP pressure transmitter consists of sensor and signal processing circuit. Thereinto, pressure face of sensor has Wheatstone bridge, when the pressure increases, every bridge arm resistor value of electric bridge changes. Through the signal processing circuit, it changes into voltage variation, and finally, it changes into standard 4~20mA signal output. Shown as Fig. 2



**FIG.2 QXP PRESSURE TRANSMITTER PRINCIPLE DIAGRAM**



**FIG.3 QXP PRESSURE TRANSMITTER**

### INSTALLATION

Install it on measuring point directly ( in any direction), if transmitter interface does not fit installing site port, can use self-made connector.

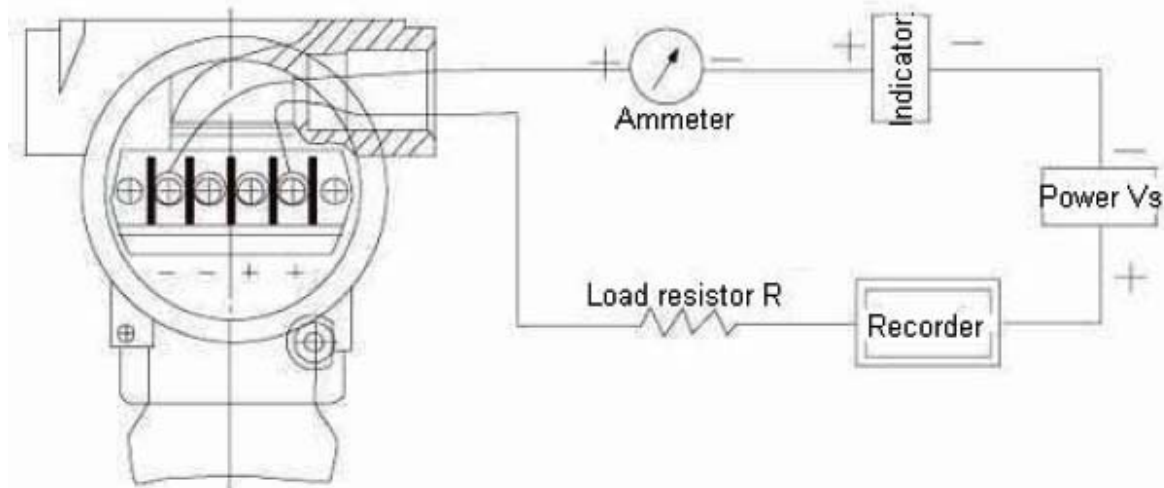
Install in place with little temperature grads and vibration, also avoid strong vibration and impact. When install outdoors, put it in protective box possibly, avoid sunshine and drenching to keep stability and service life of transmitter.

When measure steam or other high temperature medium, pay attention not to exceed temperature limit and add cooling device of isolator and pressure conducting tube to connect.

Add shutoff valve between transmitter and conducting tube to maintain conveniently and avoid tapping port blocked to affect measuring accuracy. Also should add pressure damping device on big pressure vibration site.

## WIRING

Signal terminal of transmitter is placed in a separate chamber. When wire, unscrew back cover, there are two test indicator connecting terminals (shown as Fig. 4). Current of test terminal (TEST) is the same as that on signal terminal, 4~20mADC. These may be connected to the indicator for testing.



**FIG.4**

The power is linked to the transmitter via signal lines. Must not link the power to the testing terminals or the diode connected to the testing terminal will be damaged. If the diode is damaged, must replace with a new diode or short-circuit two testing terminals to ensure transmitter work normally.

Connecting holes on two top sides of transmitter is used to signal cable connection, which is tightened with tight nut and seal. The port not used must be sealed.