



**JcSensor**

Nanjing Jiucheng Technology Co., Limited.

# PRESSURE TRANSMITTER



**Pressure Sensor**

**Liquid Level Sensor & Transmitter**

**Differential Pressure Transmitter**

**Vacuum Pressure Sensor & Transmitter**

**Temperature Sensor & Transmitter**

**Digital Pressure Guage/Switch**

# JC10 Diffused Silicon Pressure Transmitter

## Application

- Machine made
- Equipment matching
- Measurement and control technology
- Pump and compressor
- Hydraulic and pneumatic fields



## Product Features

- Measuring range: 0~20KPa...60MPa
- Diffused silicon sensitive components, strong anti-interference, long-term stability
- 316L stainless steel isolation corrugated diaphragm for measuring gases, liquids, gas-liquid mixtures, etc
- Multiple industrial signal output: 4~20mA、DC 0~5V、DC 1~5V、DC 0.5~4.5V、I2C。
- Accuracy 0.5% FS(typical) for industry standards
- Compact structure, standardized process production, stable and reliable quality, cost-effective
- With standard anti-damping design, can resist 300% instantaneous impact

## Product description

JC10 is an industrial measuring instrument that is modular in design and meets global OEM standards. The series is stable and reliable, and has excellent cost performance. It is rugged and durable to meet the requirements of more stringent industrial standards. It is widely used in industrial support, industry support and equipment support. The series includes a variety of options, which are applied to different industries and different working conditions. It solves the needs for economic pressure monitoring in different occasions and serves a wide range of industries.

JC10 series diffused silicon pressure transmitter adopts silicon piezoresistive oil-filled core. The internal dedicated digital integrated circuit converts the sensor millivolt signal into standard voltage and current signals (such as 4~20Ma, 0~5VDC, 0.5~4.5VDC) etc. It can be connected to the computer through the acquisition card or directly connected to the control instrument, smart meter, PLC, etc. I2C digital signal, only need battery DC 3.3~5V power supply, power consumption can be as low as 10uA, can meet the lower power consumption pressure measurement of various wireless instruments. The series has the characteristics of small size, light weight, convenient and simple installation, all stainless steel sealing structure, can work in corrosive environment, and has very good anti-vibration and impact resistance.

## Performance Parameter

Measuring Range	0~20KPa...60MPa	
Overload Capability	1.5~2 times full-scale pressure (with damping can resist 300% instantaneous impact)	
Burst Pressure	4xFS (≤100MPa)	
Durability	> 1x10 <sup>7</sup> cycle(P:10~90%FS)	
Pressure Type	Gauge / Absolute	
Measuring medium	Gas or liquid compatible with 316 stainless steel	
Response time	≤4ms	
Resolution	0.01%FS	
Accuracy (linear,hysteresis, repeatability)	Typical: ±0.5%FS	Maximum: ±1%FS
Long-term stability	Typical: ±0.2%FS/year	Maximum: ±0.3%FS/year
Zero temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.04%FS/ C
Sensitivity temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.04%FS/ C

## Environmental Conditions

Medium Temperature	-20 ~ 85 C	
Ambient Temperature	-20 ~ 85 C	
Compensation Temperature	-10 ~ 60 C	
Vibration resistance	20g	IEC 60068-2-6
Impact resistance	500g/1ms	IEC 60068-2-27
EMC-launch	EN61000-6-3	
EMC-anti-interference	EN61000-6-2	
Insulation resistance	> 100MΩ 500V AC-1min	
Shell Protection	Plug type(IP65); Cable type(IP67) Compliance IEC 60529 standard	
Certification	CE	

# JC 10 Diffused Silicon Pressure Transmitter

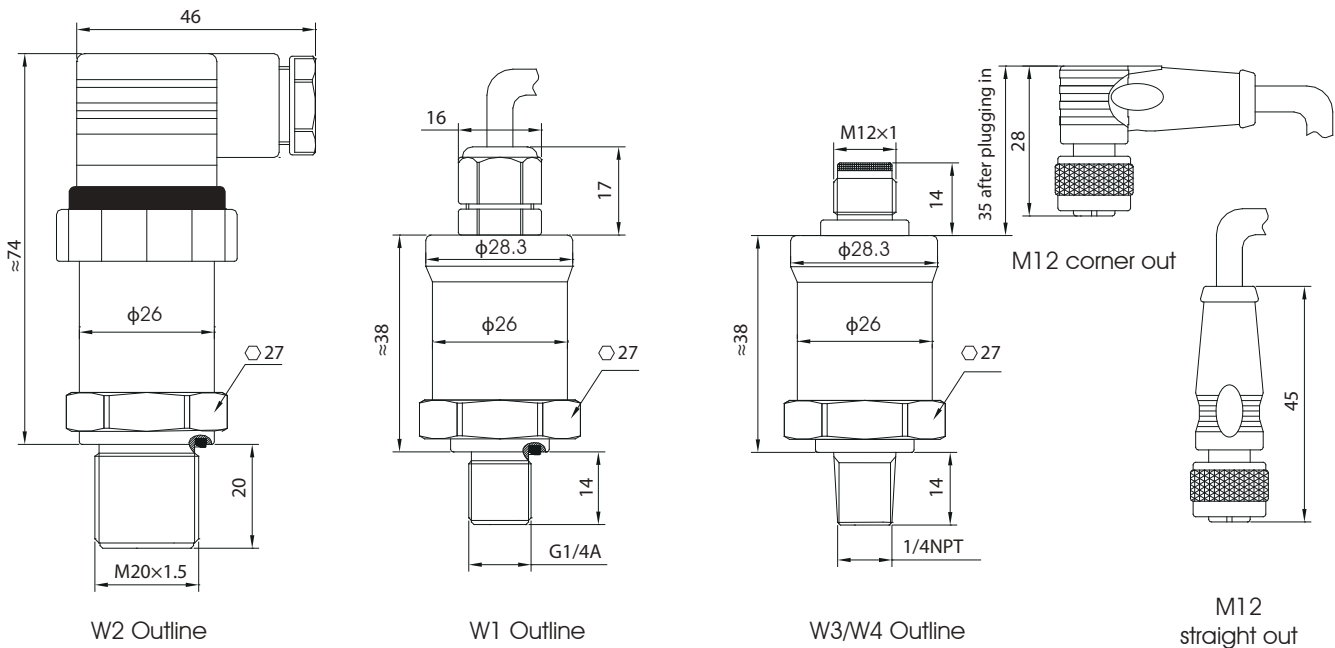
## Electrical Specifications

Code	Standard signal (with short circuit protection)	Supply voltage with polarity protection	Power supply-Current	Load(R)	Output Impedence
A1	4~20mA	DC 9~30V	Max.25mA	$R \leq (U-9)/0.02\Omega$	
V1	1~5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2k $\Omega$
V2	0~5 V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2k $\Omega$
V3	0.5~4.5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2k $\Omega$
V4	0.5~4.5V DC	DC 5±0.25V	8mA	$R \geq 50k\Omega$	<2k $\Omega$
S3	1°C	DC 3.3~5V	10μA		

## Material

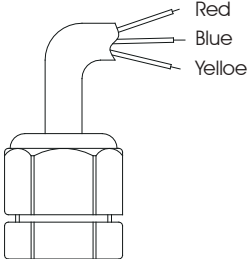
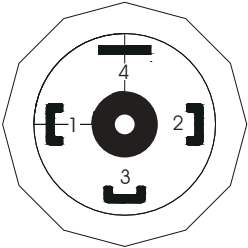
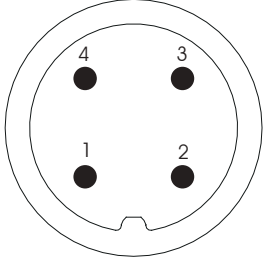
Interface and housing	Stainless Steel 304L
O-ring	Fluororubber
Sensor Diaphragm	Stainless Steel 316L
Weight	Approx.150g

## Size and Outline

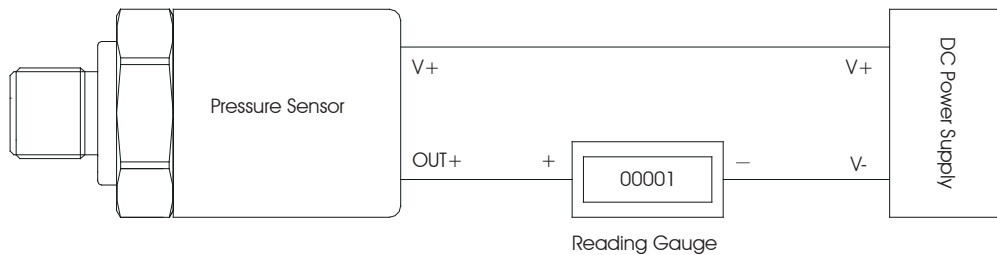


# JC 10 Diffused Silicon Pressure Transmitter

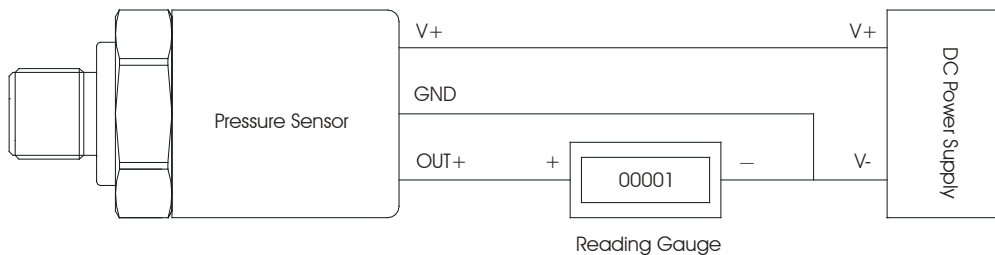
## Electrical Connections

Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable
Code	W1	W2	W3/W4
Diagram			
Protection Grade	IP67	IP65	IP67
Ambient Temperature	-40 ~ 85 C	-40 ~ 85 C	-40 ~ 85 C
Current output wiring definition	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND

Current output wiring diagram

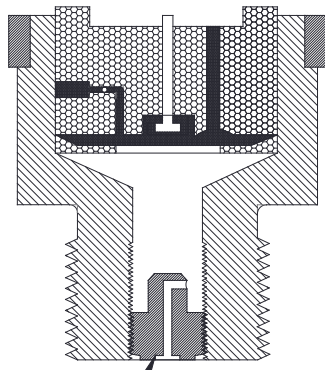


Voltage output wiring diagram



# JC 10 Diffused Silicon Pressure Transmitter

## Selection Code S-pulse Buffer Media Status and Application



Pulse buffer

### Application

Cavitation, liquid hammer, and peak pressure may occur in the hydraulic system, such as when the valve is quickly closed or the pump is turned on and off. Such problems may occur at the inlet and outlet ends, even if the operating pressure is extremely low.

### Media Status

The inclusion of particulate matter in the liquid may cause nozzle clogging. Mounting the sensor in a vertical position minimizes the risk of nozzle clogging, as the nozzle can only contact the liquid after the inactive volume of the nozzle orifice is filled with liquid at start-up. The influence of the viscosity of the medium on the response time is very small. Even if the viscosity is as high as 100cSt, the response time will not exceed 5ms.

## Ordering Information

JC10	G	010B	A1	F2	W2	S
Model	Pressure type	Pressure Range	Output	Mounting thread	Electrical connections	Buffer
JC10	G=Gauge A=Absolute	020K =20KPa G 035K =35KPa G 070K=70KPa G 001B=1bar G/A 002B=2bar G/A 004B=4bar G/A 006B=6bar G/A 010B=10bar G/A 016B=16bar G/A 025B=25bar G/A 040B=40bar G/A 060B=60bar G 100B=100bar G 160B=160bar G 250B=250bar G 400B=400bar G 600B=600bar G	A1=4~20mA V1=1~5V V2=0~5V V3=0.5~4.5V V4=0.5~4.5V/5V S3=I <sup>2</sup> C	F1=M20x1.5 male F2=G1/4 male F3=1/4NPT F0=Customize	W1=Straight Out 1m W2=A type HSM plug W3=M12 corner out 1m W4=M12 Straight Out 1m	S=With buffer Default is without buffer T=Special

Model example: **JC10G010BA1F2W2S**

(JC10 Diffused Silicon Pressure Transmitter; Range 0~1MPa Gauge; Output 4~20mA; Accuracy 0.5% typical; Power Supply 9~30VDC; Pressure Connection G1/4 male thread; Electrical Connection Hessman plug; with instantaneous buffer, Special instruction: 010B=10bar G/A, G/A stands for gauge and absolute pressure, G gauge, A absolute)

**Remarks: It can be customized if the order quantity exceeds a certain amount. Please contact the sales engineers for details.**

# JC101 Diffusion Silicon Temperature and Pressure Integrated Sensor/Transmitter

## Application

- Hydraulic and pneumatic fields
- Measurement and control technology
- Machinery manufacturing, equipment matching, pumps and compressors
- Temperature and pressure measurement of gas and liquid in various fields
- Liquid level, volume or mass measurement and temperature measurement
- Can be integrated into various user-defined temperature and pressure integrated solutions
- Smart water, smart gas, smart fire, air-conditioning and refrigeration, automotive electronics



## Product Features

- Built-in PT100 temperature sensor
- Measuring range: 0 ~ 40kPa ..... 70bar
- 0.5% FS (typical) accuracy of industry standard
- Diffuse silicon sensitive element, strong anti-interference, good long-term stability
- Adopt international standard anti-damping design, can resist 300% instant impact
- Compact structure, integrated temperature and pressure, stable and reliable quality, high cost performance
- 316L stainless steel isolation corrugated diaphragm can measure gas, liquid, gas-liquid mixture and other fluid
- Various industrial signal output 4 ~ 20mA, DC 0 ~ 5V, DC 1 ~ 5V , DC 0.5 ~ 4.5V, I<sup>2</sup>C and PT100

## Product description

JC series is an industrial measuring instrument product that is designed as a modular design that complies with OEM standards. Stable and reliable quality, high cost performance, and it is rugged enough to meet more stringent industrial standard requirements. Widely used in industry supporting ,equipment supporting, different industries and different working conditions. It solves the needs of economic pressure monitoring in different occasions and serves a wide range of industries.

JC101 diffused silicon temperature and pressure integrated sensor / transmitter uses a silicon piezoresistive oil-filled core and a high-precision PT100 platinum resistor is embedded in the core base. The thermally conductive adhesive is potted in the gap between the platinum resistor and the stainless steel shell, which greatly reduces the hysteresis of temperature conduction without the platinum resistor in direct contact with the medium. Temperature and pressure are the most widely measured parameters. The integrated temperature and pressure sensor saves installation time, space and cost for many industrial occasions and equipment. The special digital integrated circuit inside the transmitter converts the millivolt signal of the sensor into standard voltage and current signals (such as 4-20mA, 0-5VDC, 0.5-4.5VDC), etc., which can be collected by the acquisition card and computer or directly with the control instrument, Smart meters, PLCs, etc. are connected; I<sup>2</sup>C digital signals, only need battery DC 3.3 ~ 5V power supply, low power consumption can meet the low power pressure measurement of various wireless meters. This series has the characteristics of small size, light weight, easy and simple installation, etc., all stainless steel sealed structure, can work in corrosive environments, and has very good vibration and shock resistance.

## Performance Parameter

Measuring Range	0~40kPa...7MPa Pressure	
	-40~125 C Temperature	
Overload Capability	1.5~2 times full-scale pressure (with damping can resist 300% instantaneous impact)	
Burst Pressure	4xFS (≤20MPa)	
Durability	> 1x10 <sup>7</sup> 7cycle(P:10~90%FS)	
Pressure Type	Gauge / Absolute	
Measuring medium	Gas or liquid compatible with 316 stainless steel	
Response time	≤4ms pressure	
Resolution	0.01%FS	
Accuracy (linear,hysteresis, repeatability)	Typical: ±0.5%FS	Maximum: ±1%FS
Long-term stability	Typical: ±0.2%FS/year	Maximum: ±0.3%FS/year
Zero temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.04%FS/ C
Sensitivity temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.04%FS/ C

# JC101 Diffusion Silicon Temperature and Pressure Integrated Sensor/Transmitter

## Environmental Conditions

Medium Temperature	-20 ~ 85 °C
Ambient Temperature	-20 ~ 85 °C
Compensation Temperature	-10 ~ 60 °C
Vibration resistance	20g IEC 60068-2-6
Impact resistance	500g/1ms IEC 60068-2-27
EMC- launch	EN61000-6-3
EMC-anti-interference	EN61000-6-2
Insulation resistance	> 100MΩ 500V AC-1min
Shell Protection	Plug type(IP65); Cable type(IP67) Compliance IEC 60529 standard
Certification	CE

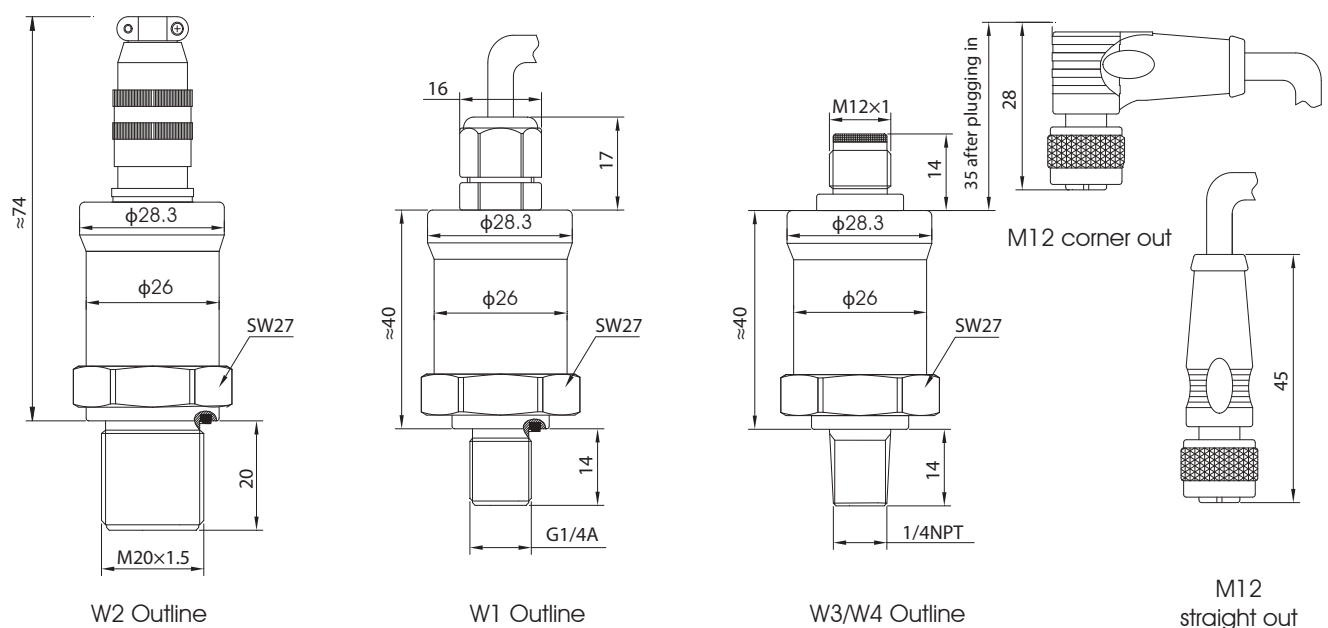
## Electrical Specifications

Code	Standard signal (with short circuit protection)	Supply voltage with polarity protection	Power supply-Current	Load(R)	Output Impedence
A1	4~20mA +PT100	DC 9~30V	≤25mA	$R \leq (U-9)/0.02\Omega$	
V1	1~5V DC+PT100	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V2	0~5 V DC+PT100	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V3	0.5~4.5V DC+PT100	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V0	mV+PT100	DC 1.5mA	1.5mA		
S3	°C	DC 3.3~5V	<1mA		

## Material

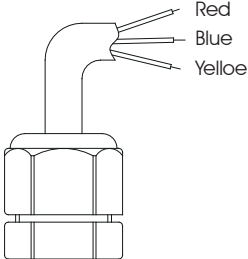
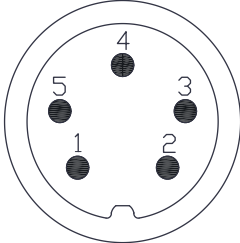
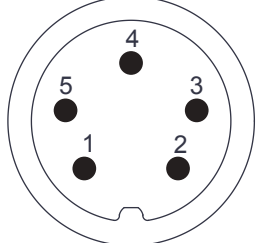
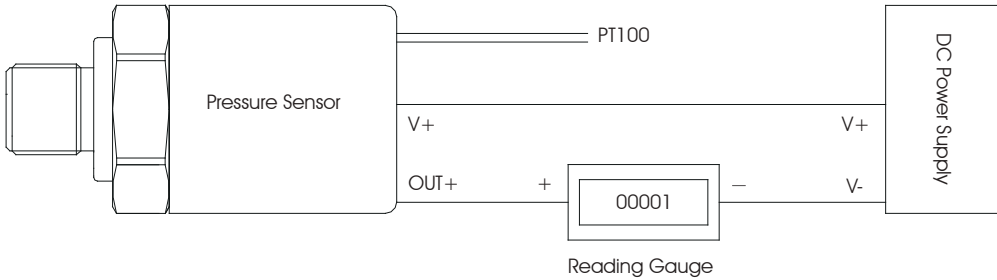
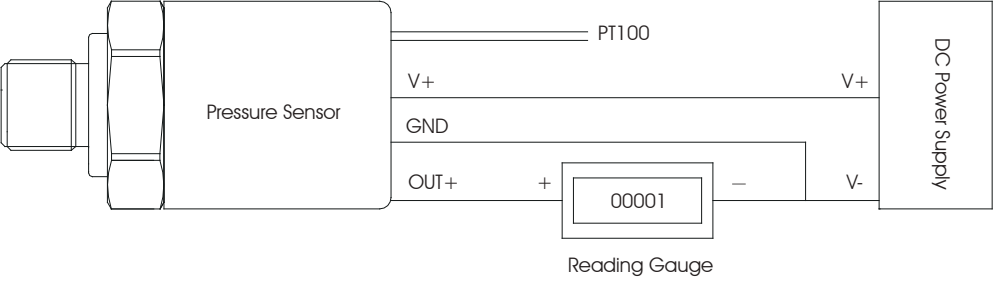
Interface and housing	Stainless Steel 304L
O-ring	Fluororubber
Sensor Diaphragm	Stainless Steel 316L
Weight	Approx.150g

## Size and Outline



# JC101 Diffusion Silicon Temperature and Pressure Integrated Sensor/Transmitter

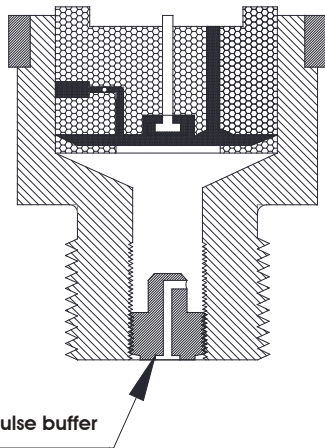
## Electrical Connections

Description	PG7 Grand lock head outlet 1m Shielded cable	Aviation Plug 1m unshielded cable	M12 Aviation Plug Straight out or Corner out 1m unshielded cable
Code	W1	W2	W3/W4
Diagram			
Protection Grade	IP67	IP65	IP67
Ambient Temperature	-40~85 C	-40~85 C	-40~85 C
Current output wiring definition	RED:V+ GREEN:OUT+ BLACK: PT100 WHITH: PT100	1#:V+ 2#:OUT+ 4#: PT100 5#:PT100	1#:V+ 2#:OUT+ 4#:PT100 5#:PT100
Voltage output wiring definition	RED:V+ GREEN:OUT+ YELLOW:GND BLACK: PT100 WHITH: PT100	1#:V+ 2#:OUT+ 3#:GND 4#:PT100 5#:PT100	1#:V+ 2#:OUT+ 3#:GND 4#:PT100 5#:PT100
Current output wiring diagram			
Voltage output wiring diagram			



# JC101 Diffusion Silicon Temperature and Pressure Integrated Sensor/Transmitter

## Selection Code S-pulse Buffer Media Status and Application



### Application

Cavitation, liquid hammer, and peak pressure may occur in the hydraulic system, such as when the valve is quickly closed or the pump is turned on and off. Such problems may occur at the inlet and outlet ends, even if the operating pressure is extremely low.

### Media Status

The inclusion of particulate matter in the liquid may cause nozzle clogging. Mounting the sensor in a vertical position minimizes the risk of nozzle clogging, as the nozzle can only contact the liquid after the inactive volume of the nozzle orifice is filled with liquid at start-up. The influence of the viscosity of the medium on the response time is very small. Even if the viscosity is as high as 100cSt, the response time will not exceed 5ms.

## Ordering Information

JC101	G	10B	A1	F2	W2	S
Model	Pressure type	Pressure Range	Output	Mounting thread	Electrical connections	Buffer
JC101	G=Gauge A=Absolute	040K=40KPa G 100K=100KPa G/A 160K=160KPa G/A 04B=4bar G/A 06B=6bar G/A 10B=10bar G/A 16B=16bar G/A 25B=25bar G/A 40B=40bar G/A 70B=70bar G/A	A1=4~20mA+PT100 V1=1~5V +PT100 V2=0~5V +PT100 V3=0.5~4.5V +PT100 V0=mV+PT100 S3=I <sup>2</sup> C+PT100	F1=M20x1.5male F2=G1/4 male F3=1/4NPT F0= Customize	W1= Straight Out 1m W2= Aviation plug 1 m W3= M12 corner out 1m W4=M12 Straight Out 1m	S= With buffer Default is without buffer T= =Special

Model example: **JC101G10BA1F2W1S**

(JC101 Diffusion Silicon Temperature and Pressure Integrated Sensor/Transmitter; Range: 0-1MPa Gauge; Output: 4-20mA+PT100; Accuracy: 0.5%FS typical; Power Supply: 9~30V DC, ;Pressure Connection: G1/4 male; Electrical Connection: straight out; with buffer, ,Special instruction: 010B=10bar G/A, G/A stands for gauge and absolute pressure, G gauge, A absolute)

**Remarks: It can be customized if the order quantity exceeds a certain amount. Please contact the sales engineers for details.**

# JC14 Micro Fused Pressure Transmitter

## Application

- Pumps and Construction Machinery
- Hydraulic and Pneumatic Systems
- Energy and Water Treatment Systems
- Agricultural Machinery equipment, Agricultural Spraying equipment, Spraying equipment
- Aircraft test bench/Oil well, Car brake and gearbox system
- HVAC, Diesel test station, Power Station



## Product Features

- Anti-leakage
- Low cost OEM
- No "O" ring, silicone oil, weld
- Stainless Steel single piece integrated structure for harsh environment
- Pressure range up to 1000bar
- High overload, impact resistance
- Widely operating temperature range

## Product Description

JC14 is an industrial measuring instrument that is modular in design and meets global OEM standards. The series is stable, reliable and with excellent cost performance, rugged and durable to meet more stringent industrial standards, widely used in industrial support, industry support and equipment support. The series includes a variety of options, which are applied to different industries and different working conditions. It solves the needs for economic pressure monitoring in different occasions and serves a wide range of industries.

JC14 Micro Fused Pressure Sensor is modular design to meet the diverse needs of users, and set a new performance-price ration model for demanding commercial and industrial applications. JC614 is machined from a single piece of 17-4PH stainless steel. It has excellent overload performance and impact resistance, and the pressure interface is free of welds, silicone oil or other organic materials with good sealing performance. The sensor sensitive device is firmly sintered on the pressure base by the glass spring technology, which gently improves the high temperature resistance and vibration resistance of the sensor, ensuring the long-term stability and reliability of the transmitter in the harsh industrial environment and is durable. The series complies with CE standards, including surge protection, reverse polarity protection at the input of the circuit and short-circuit protection at the output, suitable for a wide range of OEM applications from small to large quantities.

## Performance Parameter

Measuring Range	0~3.5bar...1000bar	
Overload Capability	2 times full-scale pressure (resistant to 500% instantaneous impact while not exceeding 1600bar)	
Burst Pressure	6xFS(≤2000bar)	
Durability	> 1x10 <sup>7</sup> cycle(P:0~FS)	
Pressure Type	Gauge	
Measuring medium	Gas or liquid compatible with 17-4PH and 304 stainless steel	
Response time	≤2ms	
Resolution	0.03%FS	
Accuracy (linear,hysteresis, repeatability)	Typical: ±0.5%FS	Maximum: ±1%FS
Long-term stability	Typical: ±0.2%FS/year	Maximum: ±0.3%FS/year
Zero temperature drift	Typical: ±2%FS (compensation temperature zone)	Maximum: ±3%FS/ C (compensation temperature zone)

# JC14 Micro Fused Pressure Transmitter

## Environmental Conditions

Medium Temperature	-40 ~ 125 °C
Storage Temperature	-40 ~ 125 °C
Compensation Temperature	-20 ~ 85 °C
Vibration resistance	20g IEC 60068-2-6
Impact resistance	50g/11ms IEC 60068-2-27
EMC—launch	IEC61000-6-3
EMC—anti-interference	IEC61000-6-2
Insulation resistance	> 100MΩ 500V AC-1min
Shell Protection	Plug type(IP65); Cable type(IP67) Compliance IEC 60529 Standard
Certification	CE

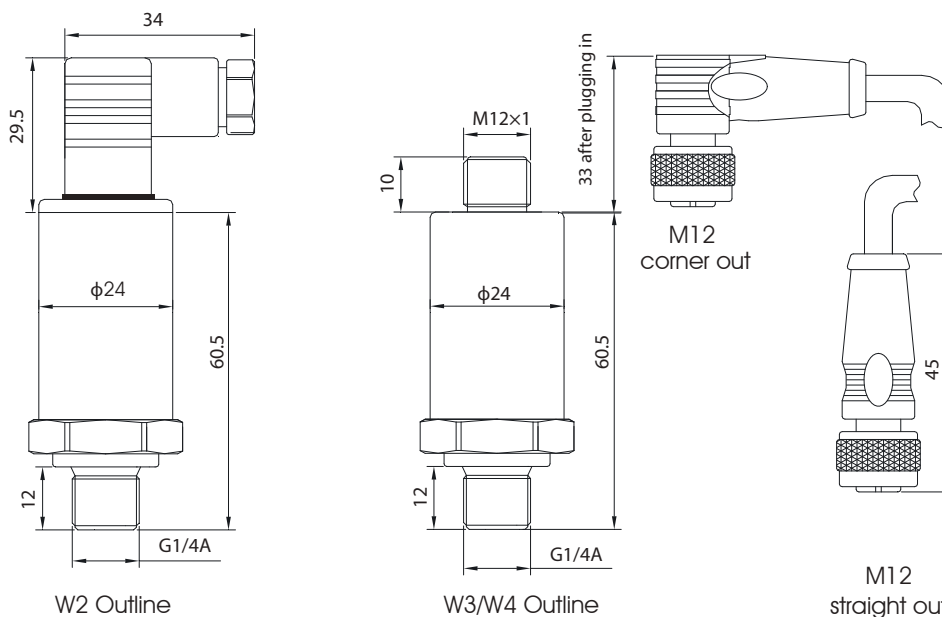
## Electrical Specifications

Code	Standard signal(with short circuit protection)	Supply voltage with polarity protection	Power supply-Current	Load(R)	Output Impedence
A1	4~20mA	DC 9~30V	Max.25mA	$R \leq (U-9)/0.02\Omega$	
V1	1~5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V2	0~5 V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V3	0.5~4.5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V4	0.5~4.5V DC	DC 5±0.25V	8mA	$R \geq 50k\Omega$	<2kΩ

## Material

Interface and housing	17-4PH
Sensor Diaphragm	17-4PH
O-ring	without
Weight	Approx.130g

## Size and Outline



# JC14 Micro Fused Pressure Transmitter

## Electrical Connections

Description	Hessmann C-type plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable
Code	W2	W3/W4
Diagram		
Protection Grade	IP65	IP67
Ambient Temperature	-40~85 C	-40~85 C
Current output wiring definition	1#:V+ 2#:OUT+/V-	BROWN(1#):V+ BLUE(3#):OUT+
Voltage output wiring definition	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND
Current output wiring diagram		Voltage output wiring diagram

## Ordering Information

JC14	G	020B	A1	F2	W3
Model	Pressure type	Pressure Range	Output	Mounting thread	Electrical connections
JC14	G=Gauge	007B=7bar 010B=10bar 020B=20bar 035B=35bar 070B=70bar 100B=100bar 200B=200bar 350B=350bar 500B=350bar 700B=700bar 01KB=1000bar	A1=4~20mA V1=1~5V V2=0~5V V3=0.5~4.5V V4=0.5~4.5V/5V	F2=G1/4 male F3=1/4NPT F0= Customize	W1= Straight Out 1m W2= C type HSM plug W3= M12 corner out 1m W4= M12 Straight Out 1m

Model example: **JC14G020BA1F2W3**

(JC14 Micro Fused Pressure Sensor Transmitter; Range 0~2MPa Gauge; Output 4~20mA; Accuracy 0.5% typical; Power Supply 24VDC; Pressure Connection G1/4 male thread; Electrical Connection M12X1 Straight Out 1m)

**Remarks: It can be customized if the order quantity exceeds a certain amount. Please contact the sales engineers for details.**

# JC23 Ceramic Piezoresistive Pressure Sensor/Transmitter

## Application

- Refrigeration compressor
- Pneumatic system
- Agricultural machinery equipment
- Industrial Automation
- Automotive industry



## Product Features

- Measuring range: 0~2bar.....400bar
- 2.5% error in the full temperature range from -20 to 80 °C.
- Temperature compensation range can be special -40~125°C
- High reliability, low drift
- Small size, low cost, integrated
- Anti-vibration, high temperature resistance, anti-corrosion
- Current and voltage multi-proportional output form
- Electromagnetic compatibility (EMC) protection, comply with IEC standards

## Product description

JC23 is an industrial measuring instrument that is modular in design and meets global OEM standards. The series is stable and reliable, and has excellent cost performance. It is rugged and durable to meet the requirements of more stringent industrial standards. It is widely used in industrial support, industry support and equipment support. The series includes a variety of options, which are applied to different industries and different working conditions. It solves the needs for economic pressure monitoring in different occasions and serves a wide range of industries.

JC23 Ceramic Piezoresistive Pressure Transmitter adopts ceramic diaphragm as the base pressure sensor. Ceramic is a recognized material with high elasticity, corrosion resistance, wear resistance, shock resistance and vibration. The thermal stability of ceramics and its thick film resistance allow it to operate over a temperature range of -40 to 135 ° C, with high precision and high stability. Electrical insulation >2kV, strong output signal, and long-term stability. High-performance, low-cost ceramic sensors will be the development direction of pressure sensors, and have a broad application prospect in the world.

Widely used in engineering control, environmental control, hydraulic and pneumatic equipment, servo valves and transmissions, chemical and chemical industries, and medical instruments.

## Performance Parameter

Measuring Range	0~2bar...400bar	
Overload Capability	1.5~2times full-scale pressure(with damping can resist 300% instantaneous impact)	
Burst Pressure	4xFS(≤60MPa)	
Durability	> 1x10 <sup>6</sup> Cycle (P:10~90%FS)	
Pressure Type	Gauge	
Measuring medium	Gas or liquid compatible with 304 stainless steel	
Response time	≤5ms	
Resolution	0.02%FS	
Accuracy (linear,hysteresis, repeatability)	Typical: ±0.5%FS	Maximum: ±1%FS
Long-term stability	Typical: ±0.2%FS/year	Maximum: ±0.4%FS/year
Zero temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.04%FS/ C
Sensitivity temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.04%FS/ C

# JC23 Ceramic Piezoresistive Pressure Sensor/Transmitter

## Environmental Conditions

Medium Temperature	-40 ~ 125 C	
Ambient Temperature	-40 ~ 85 C	
Compensation Temperature	-20 ~ 80 C (Default)    -40 ~ 125 C (Special)	
Vibration resistance	10g	IEC 60068-2-6
Impact resistance	50g/11ms	IEC 60068-2-27
EMC-launch	EN50081-1	
Electrostatic discharge immunity	Air: 8KV; contact: 4KV	(IEC61000-4-2:1995)
Radio frequency electromagnetic field radiation immunity	10V/M 80-1000MHz	(IEC61000-4-3:1995)
Radio frequency electromagnetic field conduction immunity	3emf/V 150K-80MHz	(IEC61000-4-6:1996)
Electrical fast transient burst immunity	2KV 5KHz	(IEC61000-4-4:1995)
Surge immunity	2KV	(IEC61000-4-6:1996)
Main frequency test	500V 50Hz SEN361503	
Insulation resistance	> 100 MΩ, 100V DC	
Shell Protection	Plug type(IP65); Cable type(IP67) Compliance IEC 60529 standard	
Certification	CE	

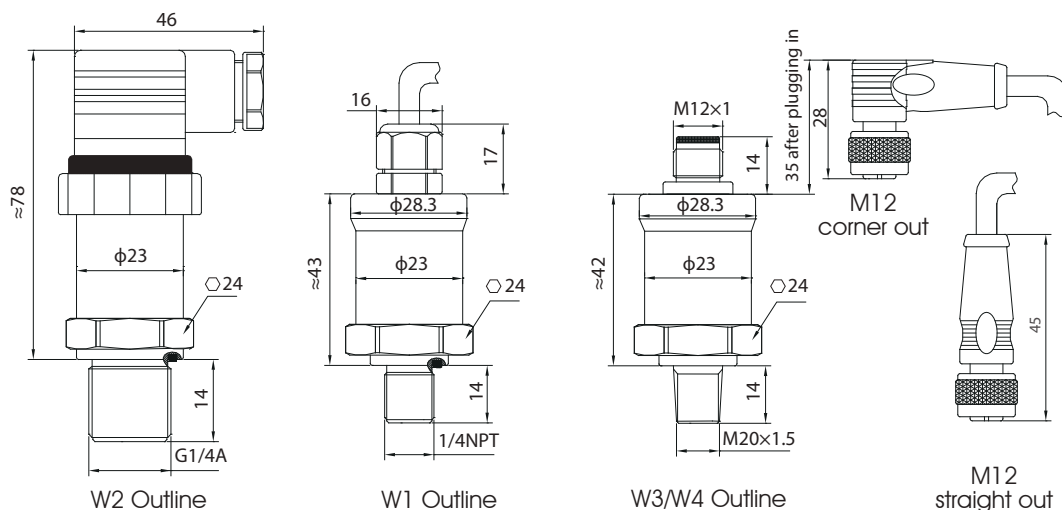
## Electrical Specifications

Code	Standard signal(with short circuit protection)	Supply voltage with polarity protection	Power supply-Current	Load(R)	Output Impedence
A1	4~20mA	DC 9~30V	Max.25mA	$R \leq (U-9)/0.02\Omega$	
V1	1~5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V2	0~5 V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V3	0.5~4.5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V4	0.5~4.5V DC	DC 5±0.25V	8mA	$R \geq 50k\Omega$	<2kΩ

## Material

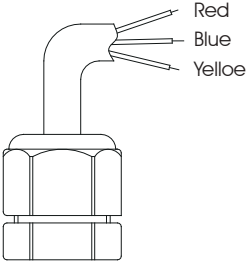
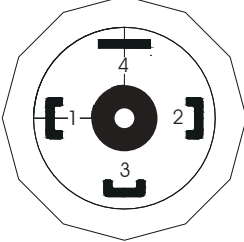
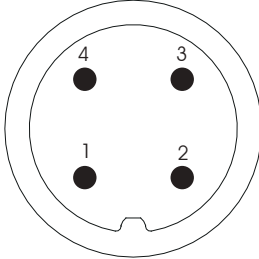
Interface and housing	Stainless Steel 304L
O-ring	Fluororubber
Sensor Diaphragm	Ceramic
Weight	Approx.130g

## Size and Outline

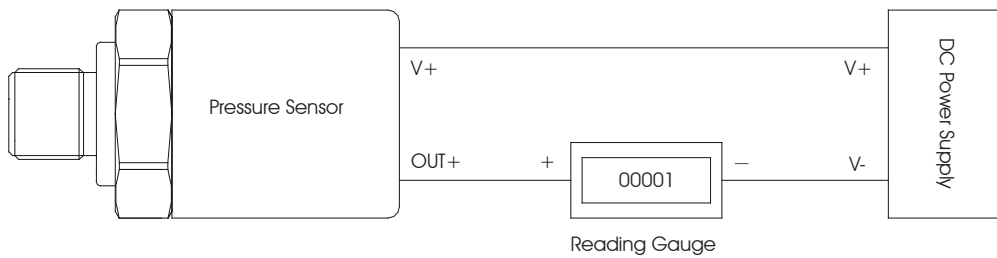


# JC23 Ceramic Piezoresistive Pressure Sensor/Transmitter

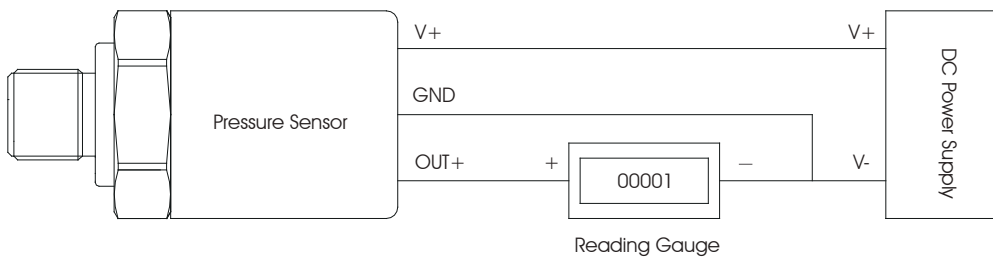
## Electrical Connections

Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable
Code	W1	W2	W3/W4
Diagram			
Protection Grade	IP67	IP65	IP67
Ambient Temperature	-40 ~ 85 C	-40 ~ 85 C	-40 ~ 85 C
Current output wiring definition	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND

Current output wiring diagram

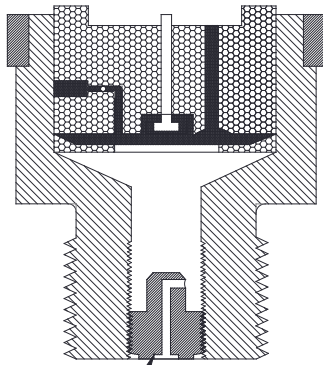


Voltage output wiring diagram



# JC23 Ceramic Piezoresistive Pressure Sensor/Transmitter

## Selection Code S-pulse Buffer Media Status and Application



### Application

Cavitation, liquid hammer, and peak pressure may occur in the hydraulic system, such as when the valve is quickly closed or the pump is turned on and off. Such problems may occur at the inlet and outlet ends, even if the operating pressure is extremely low.

### Media Status

The inclusion of particulate matter in the liquid may cause nozzle clogging. Mounting the sensor in a vertical position minimizes the risk of nozzle clogging, as the nozzle can only contact the liquid after the inactive volume of the nozzle orifice is filled with liquid at startup. The influence of the viscosity of the medium on the response time is very small. Even if the viscosity is as high as 100cSt, the response time will not exceed 10ms.

## Ordering Information

JC23	G	016B	A1	F2	W2	S
Model	Pressure type	Pressure Range	Output	Mounting thread	Electrical connections	Buffer
JC23	G=Gauge	002B=2bar 004B=4bar 006B=6bar 010B=10bar 016B=16bar 025B=25bar 040B=40bar 060B=60bar 100B=100bar 160B=160bar 250B=250bar 400B=400bar	A1=4~20mA V1=1~5V V2=0~5V V3=0.5~4.5V V4=0.5~4.5V/5V	F2=G1/4 male F3=1/4NPT F4=M12x1 F0=Customize	W1=Straight Out 1m W2=A type HSM plug W3=M12 corner out 1m W4=M12 Straight Out 1m	S=With buffer Default is without buffer T=Special

Model example: **JC23G016BV3F2W1S**

(JC23 Ceramic Piezoresistive Pressure Transmitter; Range 0~16bar Gauge; Output 0.5~4.5VDC; Accuracy 0.5% typical; Power Supply 5VDC; Pressure Connection G1/4 male thread; Electrical Connection 1m shielded wire; with instantaneous buffer)

**Remarks: It can be customized if the order quantity exceeds a certain amount. Please contact the sales engineers for details.**



# JC26 Ceramic Capacitor Pressure Transmitter

## Application

- Automotive inspection field
- Pharmaceutical industry
- Food industry
- Industrial pressure process control
- Hydraulic and pneumatic fields

## Product Features

- Corrosion resistance, impact resistance, high elasticity, no hysteresis
- Working temperature:  $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$
- Small range high overload design, up to 20 times full scale
- Working pressure range:  $0 \sim 10\text{KPa} \dots 4\text{MPa}$
- Various industrial signal outputs  $4 \sim 20\text{mA}$ ,  $0 \sim 5\text{V}$  and  $0.5 \sim 4.5\text{V}$
- Wide pressure, good compatibility with small range media, stable performance
- Compact structure, standard process production, stable and reliable quality, cost-effective



## Product Description

JC26 is an industrial measuring instrument that is modular in design and meets global OEM standards. The series is stable and reliable, and has excellent cost performance. It is rugged and durable to meet the requirements of more stringent industrial standards. It is widely used in industrial support, industry support and equipment support. The series includes a variety of options, which are applied to different industries and different working conditions. It solves the needs for economic pressure monitoring in different occasions and serves a wide range of industries.

JC26 ceramic capacitor pressure transmitter adopts variable capacitance technology and is based on high-purity ceramic with excellent corrosion resistance, impact resistance and high elasticity. It can directly contact most media. The extremely high thermal stability of ceramics allows it to operate over a temperature range of  $-40^{\circ}\text{C} \sim 135^{\circ}\text{C}$ . There is no liquid transfer during the operation of the ceramic capacitor pressure sensor. The process pressure acts directly on the ceramic diaphragm. The change in capacitance between the pedestal electrode and the diaphragm electrode is proportional to the pressure. When overloaded, the diaphragm touches the base without damage. When the pressure returns to normal, its performance will not be affected. It completely solves the shortcomings of poor low-range overload capability and is an upgraded product of medium and small-range diffusion silicon and ceramic piezoresistive pressure sensors.

## Performance Parameter

Measuring Range	0~10KPa...4MPa	
Overload Capability	3 ~20 times of the maximum rated pressure(the smaller the range, the larger the overpressure multiple)	
Pressure Type	Gauge / Absolute	
Measuring medium	Corrosive liquids, gases and vapors(media compatible with $\text{Al}_2\text{O}_3$ and 1Cr18Ni9Ti)	
Durability	$> 1 \times 10^8$ cycle(P:10~90%FS)	
Response time	$\leq 5\text{ms}$	
Resolution	0.01%FS	
Accuracy (linear,hysteresis, repeatability)	Typical: $\pm 0.4\%FS$	Maximum: $\pm 0.6\%FS$
Nonlinear	Typical: $\pm 0.2\%FS$	Maximum: $\pm 0.3\%FS$
Hysteresis, Repeatability	Typical: $\pm 0.15\%FS$	Maximum: $\pm 0.2\%FS$
Long-term stability	Typical: $\pm 0.15\%FS/\text{year}$	Maximum: $\pm 0.2\%FS/$
Zero temperature drift	Typical: $\pm 0.015\%FS/ ^{\circ}\text{C}$	Maximum: $\pm 0.02\%FS/ ^{\circ}\text{C}$
Sensitivity temperature drift	Typical: $\pm 0.015\%FS/ ^{\circ}\text{C}$	Maximum: $\pm 0.02\%FS/ ^{\circ}\text{C}$

# JC26 Ceramic Capacitor Pressure Transmitter

## Environmental Conditions

Medium Temperature	-40 ~ 125 °C
Ambient Temperature	-40 ~ 85 °C
Compensation Temperature	-40 ~ 100 °C
Vibration resistance	10g IEC 60068-2-6
Impact resistance	100g/10ms IEC 60068-2-27
Insulation resistance	> 100MΩ
Shell Protection	Plug type(IP65); Cable type(IP67) Compliance IEC 60529 standard
Certification	CE

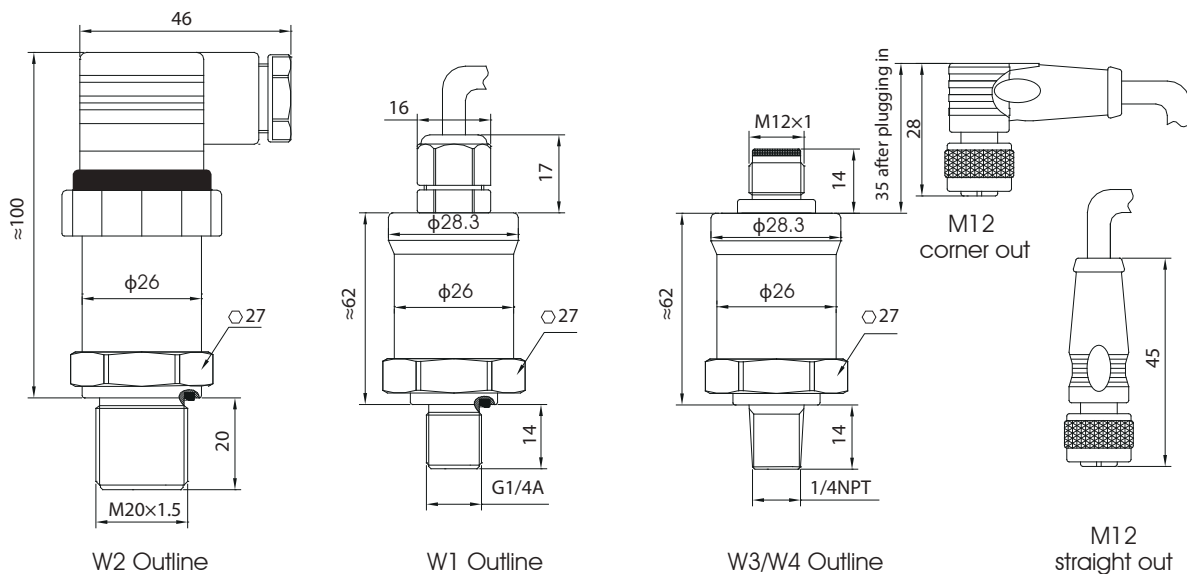
## Electrical Specifications

Code	Standard signal(with short circuit protection)	Supply voltage with polarity protection	Power supply-Current	Load(R)	Output Impedence
A1	4~20mA	DC 9~30V	Max.25mA	$R \leq (U-9)/0.02\Omega$	
V1	1~5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V2	0~5 V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V3	0.5~4.5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ

## Material

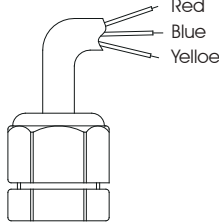
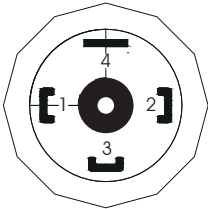
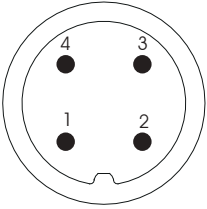
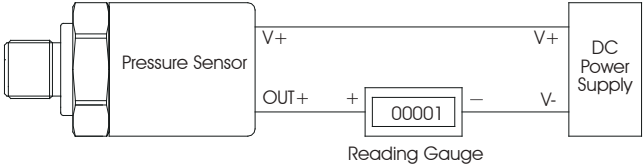
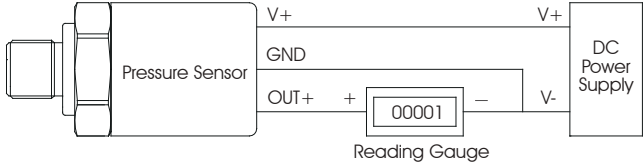
Interface and housing	Stainless Steel 304L
O-ring	Fluororubber
Sensor Diaphragm	Ceramic
Weight	Approx.180g

## Size and Outline



# JC26 Ceramic Capacitor Pressure Transmitter

## Electrical Connections

Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable
Code	W1	W2	W3/W4
Diagram			
Protection Grade	IP67	IP65	IP67
Ambient Temperature	-40 ~ 85 C	-40 ~ 85 C	-40 ~ 85 C
Current output wiring definition	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND
Current output wiring diagram		Voltage output wiring diagram	
			

## Ordering Information

JC26	G	001B	A1	F2	W2
Model	Pressure type	Pressure Range	Output	Mounting thread	Electrical connections
JC26	G=Gauge A=Absolute	010K =10KPa G 020K =20KPa G 040K =40KPa G 001B=1bar G/A 002B=2bar G/A 004B=4bar G/A 010B=10bar G/A 020B=20bar G 040B=40bar G	A1 =4~20mA V1 =1~5V V2 =0~5V V3 =0.5~4.5V	F1 =M20x1.5 male F2 =G1/4 male F3 =1/4NPT F0 = Customize	W1 =Straight Out 1m W2 =A type HSM plug W3 =M12 corner out 1m W4 =M12 Straight Out 1m

Model example: **JC26G001BA1F2W2**

(JC26 ceramic capacitor pressure transmitter; Range 0~1bar Gauge; Output 4~20mA; Accuracy 0.4% typical; Power Supply 9~30VDC; Pressure Connection G1/4 male thread; Electrical Connection Hessman plug; Special instruction: 010B=10bar G/A, G/A stands for gauge and absolute pressure, G gauge, A absolute) .

**Remarks: It can be customized if the order quantity exceeds a certain amount. Please contact the sales engineers for details.**

# JC27 Vacuum Absolute Pressure Transmitter

## Application

- Vacuum packaging, coating equipment
- Medical equipment and pharmaceuticals
- System connected to the vacuum pump
- Industrial pressure process control
- Petrochemical industry, semiconductor industry,
- Plasma welding, sterilization equipment
- Crystal furnace equipment

## Product Features

- Chemical resistant design, stainless steel anti-corrosion film
- $\pm 0.5\%$ FS accuracy
- High cost performance
- High quality, high yield
- Small and compact structure, suitable for a wide range
- Compliance with CE standards



## Product Description

JC27 is an industrial measuring instrument that is modular in design and meets global OEM standards. The series is stable and reliable, and has excellent cost performance. It is rugged and durable to meet the requirements of more stringent industrial standards. It is widely used in industrial support, industry support and equipment support. The series includes a variety of options, which are applied to different industries and different working conditions. It solves the needs for economic pressure monitoring in different occasions and serves a wide range of industries.

JC27 vacuum pressure transmitter adopts silicon film variable capacitor technology to solve the vacuum industry's problems of measuring vacuum instability, sudden performance changes, signal drift, etc. The series is compact and can be used in harsh industrial environments with high cost performance.

## Performance Parameter

Measuring Range	-100KPa~100KPa...3.5MPa	
Overload Capability	1.5~2times full-scale pressure(with damping can resist 300% instantaneous impact)	
Burst Pressure	4xFS	
Durability	$> 1 \times 10^7$ cycle(P:10~90%FS)	
Pressure Type	Gauge / Absolute	
Measuring medium	Gas or liquid compatible with 316 stainless steel	
Response time	$\leq 4$ ms	
Resolution	0.01%FS	
Accuracy (linear,hysteresis, repeatability)	Typical: $\pm 0.5\%$ FS	Maximum: $\pm 1\%$ FS
Long-term stability	Typical: $\pm 0.2\%$ FS	Maximum: $\pm 0.3\%$ FS
Zero temperature drift	Typical: $\pm 0.02\%$ FS/ C	Maximum: $\pm 0.05\%$ FS/ C
Sensitivity temperature drift	Typical: $\pm 0.02\%$ FS/ C	Maximum: $\pm 0.05\%$ FS/ C

# JC27 Vacuum Absolute Pressure Transmitter

## Environmental Conditions

Medium Temperature	-20~85 C
Ambient Temperature	-20~80 C
Compensation Temperature	-10~60 C
Vibration resistance	10g IEC 60068-2-6
Impact resistance	100g/1ms IEC 60068-2-27
EMC- launch	EN61000-6-3
EMC-anti-interference	EN61000-6-2
Insulation resistance	> 100MΩ
Shell Protection	Plug type(IP65); Cable type(IP67) Compliance IEC 60529 standard
Certification	CE

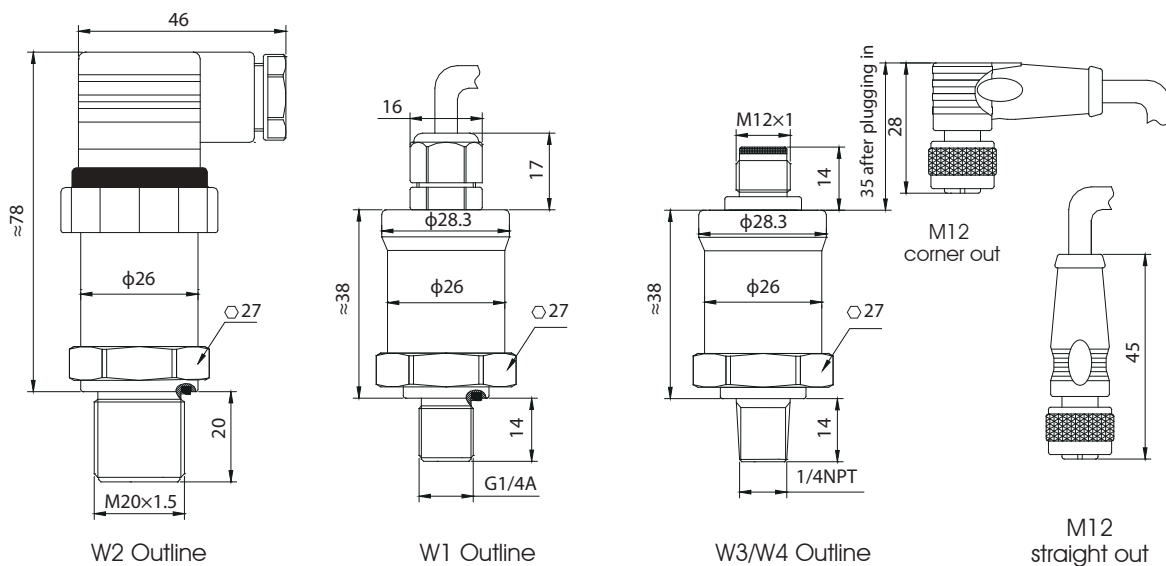
## Electrical Specifications

Code	Standard signal (with shortcircuit protection)	Supply voltage with polarity protection	Power supply-Current	Load(R)	Output Impedence
A1	4~20mA	DC 9~30V	Max.25mA	$R \leq (U-9)/0.02\Omega$	
V1	1~5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V2	0~5 V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V3	0.5~4.5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V4	0.5~4.5V DC	DC 5±0.25V	8mA	$R \geq 50k\Omega$	<2kΩ

## Material

Interface and housing	Stainless Steel 304L
O-ring	Fluororubber
Sensor Diaphragm	Stainless Steel 316L
Weight	Approx. 150g

## Size and Outline



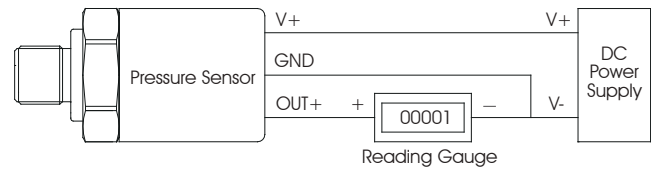
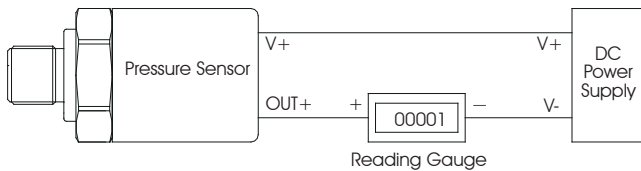
# JC27 Vacuum Absolute Pressure Transmitter

## Electrical Connections

Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable
Code	W1	W2	W3/W4
Diagram			
Protection Grade	IP67	IP65	IP67
Ambient Temperature	-40 ~ 85 C	-40 ~ 85 C	-40 ~ 85 C
Current output wiring definition	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND

Current output wiring diagram

Voltage output wiring diagram



## Ordering Information

JC27	G	1R1B	A1	F2	W2
Model	Pressure type	Pressure Range	Output	Mounting thread	Electrical connections
JC27	G=Gauge A=Absolute	0F1B=-1bar~0 G F10B=0~-1bar G ZF1B=-1bar~1bar G 001B=1bar A 1R1B=1.1bar A 002B=2bar A 004B=4bar A 010B=10bar A 016B=16bar A 025B=25bar A 035B=35bar A	A1=4~20mA V1=1~5V V2=0~5V V3=0.5~4.5V V4=0.5~4.5V/5V	F1=M20x1.5male F2=G1/4 male F3=1/4NPT F0= Customize	W1= Straight Out 1m W2=A type HSM plug W3=M12 corner out 1m W4=M12 Straight Out 1m

Model example: **JC27A1R1BA1F2W3**

(JC27 Vacuum Absolute; Range 0~110KPa Absolute; Output 4~20mA; Accuracy 0.5% typical; Power Supply 9~30VDC; Pressure Connection G1/4 male thread; Electrical Connection M12 Straight Out 1m).

Remarks: It can be customized if the order quantity exceeds a certain amount. Please contact the sales engineers for details.

# JC28 Sapphire Pressure Sensor/Transmitter

## Application

- Industrial site process pressure control
- Nautical and shipbuilding industry
- Petroleum and chemical industry
- Oilfield, deep well, shale gas, pressure measurement
- Construction machinery and equipment
- High-voltage equipment,
- Hydraulic, waterjet equipment



## Product Features

- Wide temperature range (medium-65°C~150°C, environment-45°C~100°C)
- Wide pressure range (100KPa~160MPa)
- Anti-shock
- Stable and reliable quality
- Small temperature error
- Small and compact structure, wide application range
- Compliance with CE standards

## Product Description

JC28 is an industrial measuring instrument that is modular in design and meets global OEM standards. The series is stable and reliable, and has excellent cost performance. It is rugged and durable to meet the requirements of more stringent industrial standards. It is widely used in industrial support, industry support and equipment support. The series includes a variety of options, which are applied to different industries and different working conditions. It solves the needs for economic pressure monitoring in different occasions and serves a wide range of industries.

JC28 sapphire pressure transmitter adopts the principle of titanium/silicon-sapphire, reasonable structure, small size, light weight and titanium/silicon alloy material. It has wide pressure range, good stability, wear resistance, impact resistance and wider temperature range, all stainless steel, strong corrosion resistance. All welded structure, without any media filling, is safer and more reliable to use.

## Performance Parameter

Measuring Range	0~100KPa...160MPa	
Overload Capability	4 times full scale pressure (up to 200MPa)	
Burst Pressure	6xFS(≤200MPa)	
Durability	> 1x10 <sup>8</sup> cycle(P:10~90%FS)	
Pressure Type	Gauge / Absolute	
Measuring medium	Gas or liquid compatible with titanium/silicon	
Response time	≤5ms	
Resolution	0.01%FS	
Accuracy (linear,hysteresis, repeatability)	Typical: ±0.4%FS	Maximum: ±0.6%FS
Nonlinear	Typical: ±0.2%FS	Maximum: ±0.3%FS
Hysteresis, repeatability	Typical: ±0.15%FS	Maximum: ±0.2%FS
Long-term stability	Typical: ±0.15%FS/year	Maximum: ±0.2%FS/year
Zero temperature drift	Typical: ±0.02%FS/°C	Maximum: ±0.03%FS/°C
Sensitivity temperature drift	Typical: ±0.02%FS/°C	Maximum: ±0.03%FS/°C

# JC28 Sapphire Pressure Sensor/Transmitter

## Environmental Conditions

Medium Temperature	-65 ~ 150 C
Ambient Temperature	-45 ~ 100 C
Compensation Temperature	-20 ~ 100 C
Vibration resistance	±20g ,IEC 60068-2-6
Impact resistance	1000g/1ms , IEC 60068-2-27
EMC	EN61000-6(Level 3-2)
Shell Protection	Plug type(IP65); Cable type(IP67); Compliance IEC 60529 standard
Certification	CE

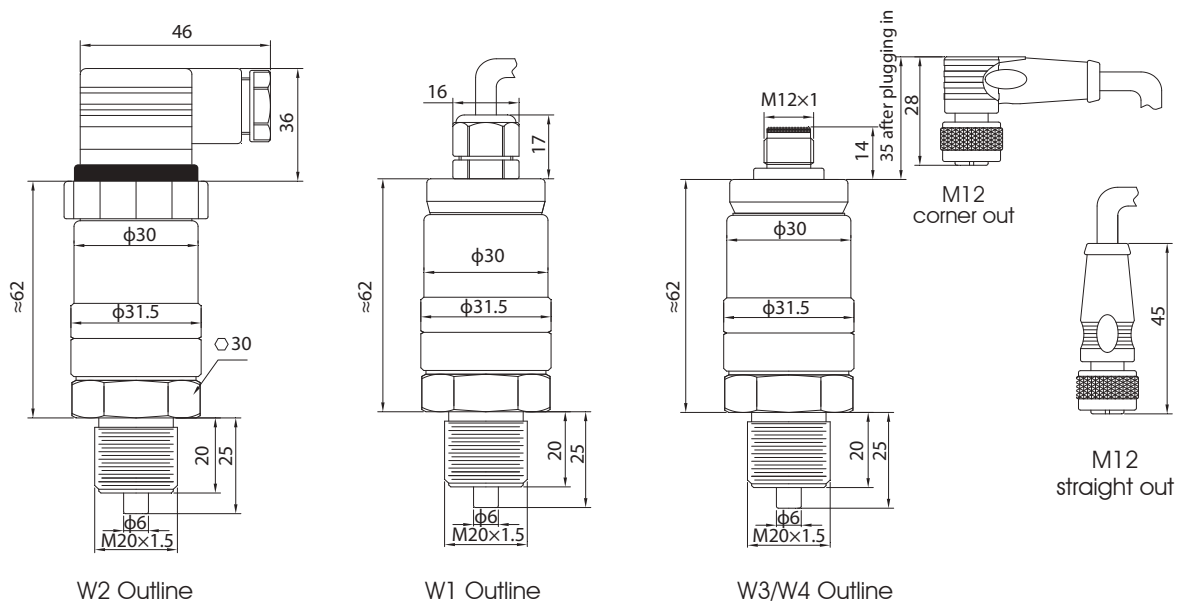
## Electrical Specifications

Code	Standard signal(with short circuit protection)	Supply voltage with polarity protection	Power supply-Current	Load(R)	Output Impedence
A1	4~20mA	DC 9~30V	Max.25mA	$R \leq (U-9)/0.02\Omega$	
V1	1~5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V2	0~5 V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V3	0.5~4.5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V4	0.5~4.5V DC	DC 5±0.25V	8mA	$R \geq 50k\Omega$	<2kΩ

## Material

Interface and housing	Stainless Steel 304L
Sensor Diaphragm	Titanium/silicon
Weight	Approx. 200g

## Size and Outline





# JC28 Sapphire Pressure Sensor/Transmitter

## Electrical Connections

Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable
Code	W1	W2	W3/W4
Diagram			
Protection Grade	IP67	IP65	IP67
Ambient Temperature	-40 ~ 85 C	-40 ~ 85 C	-40 ~ 85 C
Current output wiring definition	RED:V+ BLUE:OUT+	1 #:V+ 2 #:OUT+	BROWN(1 #):V+ BLUE(3 #):OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1 #:V+ 2 #:OUT+ 3 #:GND	BROWN(1 #):V+ BLUE(3 #):OUT+ BLACK(4 #):GND
Current output wiring diagram		Voltage output wiring diagram	

## Ordering Information

JC28	G	025B	A1	F2	W2
Model	Pressure type	Pressure Range	Output	Mounting thread	Electrical connections
JC28	G=Gauge A=Absolute	001B=1bar G/A 002B=2bar G/A 004B=4bar G/A 010B=10bar G/A 016B=16bar G/A 025B=25bar G/A 035B=35bar G/A 040B=40bar G/A 060B=60bar G/A 100B=100bar G/A 250B=250bar G/A 400B=400bar G/A 600B=600bar G 01k=1000bar G 1k6B=1600bar G	A1=4~20mA V1=1~5V V2=0~5V V3=0.5~4.5V V4=0.5~4.5V/5V	F1=M20x1.5 male	W1= Straight Out 1m W2=A type HSM plug W3=M12 corner out 1m W4=M12 Straight Out 1m

Model example: **JC28G025BA1F1W3**

(JC28 sapphire pressure transmitter, Range 0~15bar Gauge; Output 4~20mA; Accuracy 0.4% typical; Power Supply 9~30VDC; Pressure Connection M20X1.5 male thread; Electrical Connection M12 corner out 1m, Special instruction: 010B=10bar G/A, G/A stands for gauge and absolute pressure, G gauge, A absolute)

**Remarks: It can be customized if the order quantity exceeds a certain amount. Please contact the sales engineers for details.**

# JC29 RS485/CAN Digital Pressure Transmitter

## Application

- Building automation, constant pressure water supply system
- Hydraulic and pneumatic control systems
- Power station operation inspection, locomotive brake system
- Petrochemical, environmental protection, power industry pressure network configuration acquisition
- Collection of pressure network configuration for smart city pipe network, oil field pipeline and large and small hydropower stations
- Pressure network configuration collection of heating, fire hose network and fire equipment, medical equipment
- Pressure network configuration acquisition of special equipment, special vehicles and equipment, such as industrial robots, test benches, remote control test equipment, etc.



## Product Features

- Measuring range: 0~10KPa.....100MPa
- Stainless steel isolation diaphragm integrated structure, can adapt to harsh environment
- Good compatibility and interchangeability
- Standard MODBUS RTU communication protocol / CAN Open or custom protocol, J1939 protocol
- User can change the communication address, communication baud rate can be set
- The power supply range is 3.3V ~16V and 12 ~ 30V (typically 24V), which meets low power consumption or industry standards.
- Small size, high cost performance, high stability, long product life and durability
- Remote zero calibration and zero trimming
- With strong resistance to shock, vibration and electromagnetic interference

## Product Description

JC29 is an industrial measuring instrument that is modular in design and meets global OEM standards. The series is stable and reliable, and has excellent cost performance. It is rugged and durable to meet the requirements of more stringent industrial standards. It is widely used in industrial support, industry support and equipment support. The series includes a variety of options, which are applied to different industries and different working conditions. It solves the needs for economic pressure monitoring in different occasions and serves a wide range of industries.

JC29 RS485 digital pressure transmitter features a low power, wide voltage design. The power consumption is not more than 2 mA without digital communication. The power supply range is 3.3V ~ 16V and 12 ~ 30V (typically 24V). It can be powered by solar energy or battery, or it can be powered by 24VDC in industrial field. Good compatibility with industrial networking, through low-voltage electrical EMC testing (EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5). RS485 digital pressure sensor communication adopts RS485 communication protocol, half-duplex working mode, communication speed is 57600BPS. Easy to use with a simple MODBUS RTU command format. The sampling speed is 8-10 times/s and can be expanded by 400 times/s. The transmitter can form a twisted pair network via RS485 bus, which is especially suitable for computer control.

## Performance Parameter

Measuring Range	0~10KPa...100MPa	
Overload Capability	1.5~2 times full-scale pressure	
Burst Pressure	4xFS(≤110MPa)	
Durability	> 1x10 <sup>7</sup> cycle(P:10~90%FS)	
Pressure Type	Gauge / Absolute	
Measuring medium	Gas or liquid compatible with 316 stainless steel	
Response time	≤50ms	
Resolution	0.01%FS	
Baud rate(customer can modify)	9600(Default) A variety of baud rates are available as 2400,4800,19200,38400,	
Address(customer can modify)	01(Default)	
Accuracy (linear,hysteresis, repeatability)	Typical: ±0.5%FS	Maximum: ±1%FS
Long-term stability	Typical: ±0.2%FS	Maximum: ±0.3%FS
Zero temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.05%FS/ C
Sensitivity temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.05%FS/ C

# JC29 RS485/CAN Digital Pressure Transmitter

## Environmental Conditions

Medium Temperature	-20 ~ 85 C
Ambient Temperature	-20 ~ 80 C
Compensation Temperature	-10 ~ 60 C
Vibration resistance	10g IEC 60068-2-6
Impact resistance	500g/1ms IEC 60068-2-27
EMC test	Static electricity, radio frequency, pulse, surge EN61000-4-2、 EN61000-4-3、 EN61000-4-4、 EN61000-4-5
Insulation resistance	> 100MΩ(100V)
Shell Protection	Plug type(IP65); Cable type(IP67) Compliance IEC 60529 standard
Certification	CE

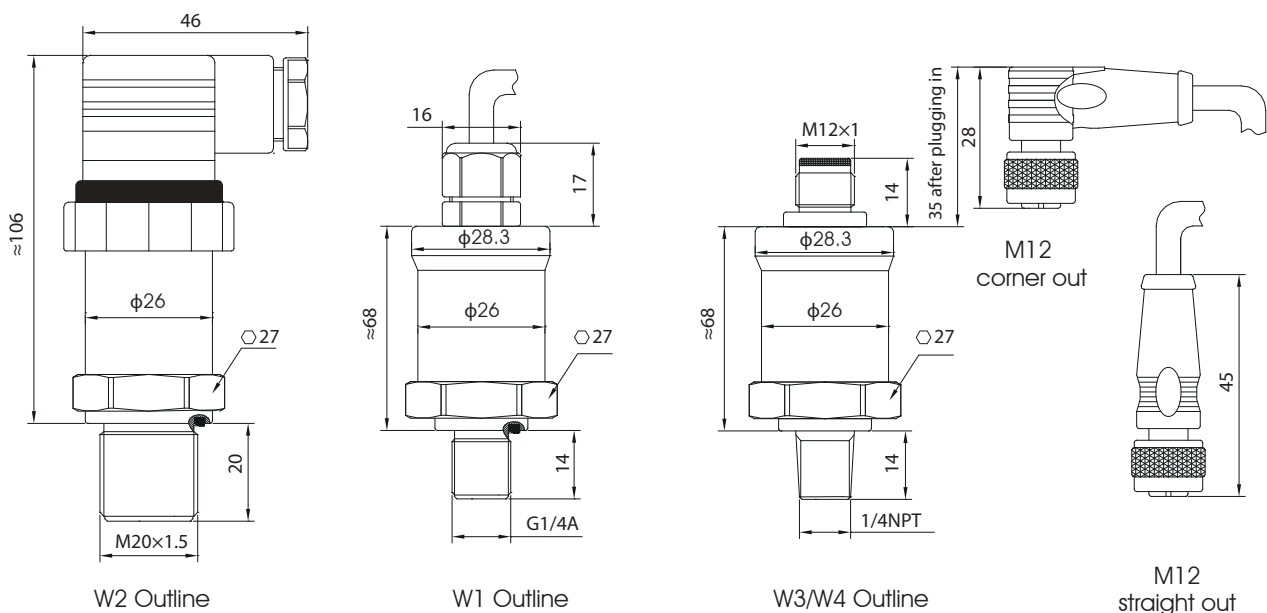
## Electrical Specifications

Code	Communication method	Communication Protocol	Power Supply	Working Current
S1	RS485 bus	MODBUS RTU	3.3 ~ 16VDC	<5mA(max)(customizable <2 mA)
			12 ~ 30V(typical 24V)	<10mA(max)
C1	CAN bus	CAN customize	12 ~ 30V(typical 24V)	<10mA(max)
C2	CAN bus	CAN open	12 ~ 30V(typical 24V)	<10mA(max)

## Material

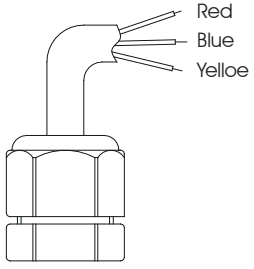
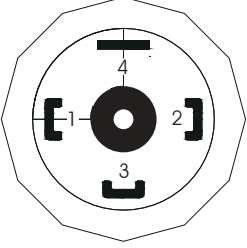
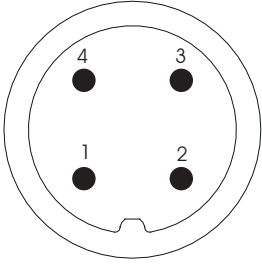
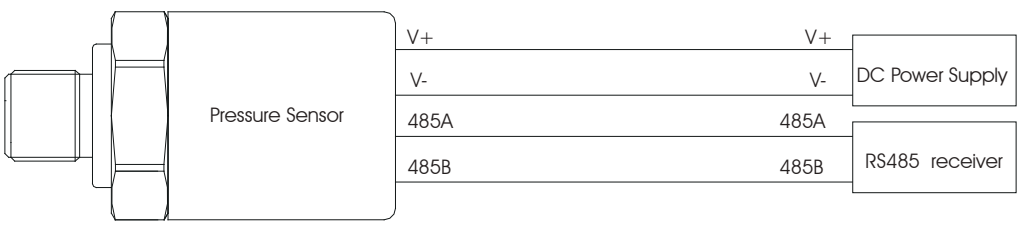
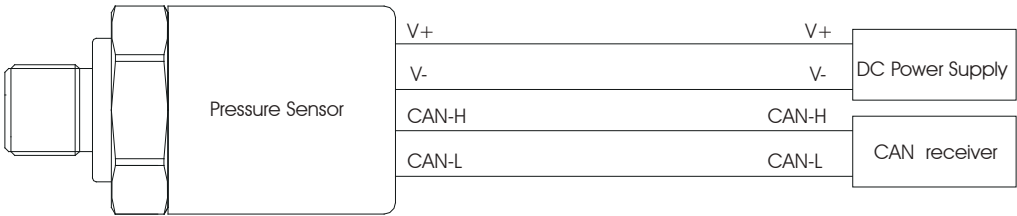
Interface and housing	Stainless Steel 304L
O-ring	Fluororubber
Sensor Diaphragm	Ceramic
Weight	Approx. 180g

## Size and Outline



# JC29 RS485/CAN Digital Pressure Transmitter

## Electrical Connections

Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable
Code	W1	W2	W3/W4
Diagram			
Protection Grade	IP67	IP65	IP67
Ambient Temperature	-40 ~ 85 °C	-40 ~ 85 °C	-40 ~ 85 °C
485 output wiring definition	RED:V+ BLACK:V- BLUE:RS485A YELLOW:RS485	1#:V+ 2#:V- 3#: RS485A 4#: RS485B	BROWN(1 #):V+ BLACK(2 #):V- BLUE(3 #):RS485A WHITE(4 #):RS485B
CAN output wiring definition	RED:V+ BLACK:V- BLUE:CAN-High YELLOW: CAN-Low	1 #:V+ 2 #:V- 3 #: CAN-High 4 #: CAN-Low	BROWN(1 #):V+ BLACK(2 #):V- BLUE(3 #): CAN-High WHITE(4 #): CAN-Low
485 output wiring diagram			
CAN output wiring diagram			

## JC29 Micro Fused Pressure Transmitter

### Ordering Information

JC29	G	010B	S1	D1	F1	W3
Model	Pressure type	Pressure Range	Output	Power supply DC	Mounting thread	Electrical connections
JC29	G=Gauge A=Absolute	010K = 10KPa G 020K = 20KPa G 035K = 35KPa G 070K= 70KPa G 001B= 1bar G/A 002B= 2bar G/A 004B= 4bar G/A 006B= 6bar G/A 010B= 10bar G/A 016B= 16bar G/A 025B= 25bar G/A 040B= 40bar G/A 060B= 60bar G 100B= 100bar G 160B= 160bar G 250B= 250bar G 400B= 400bar G 600B= 600bar G 01KB= 1000bar G	S1=RS485 Modbus RTU C2=CAN Customize C2=CAN open	D1= 12~36V D2= 3.3~16V	F1=M20x1.5 male F2=G1/4 male F3= 1/4NPT F0= Customize	W1= Straight Out 1m W2=A type HSM plug W3=M12 corner out 1m W4=M12 Straight Out 1m

Model example: **JC29G010BS1D1F2W3**

(JC29 RS485/CAN Pressure Transmitter; Range 0~1MPa Gauge; Output RS485; Accuracy 0.5% typical; Power Supply 24VDC; Pressure Connection G1/4 male thread; Electrical Connection M12 corner out 1m, Special instruction: 010B=10bar G/A, G/A stands for gauge and absolute pressure, G gauge, A absolute).

**Remarks: It can be customized if the order quantity exceeds a certain amount. Please contact the sales engineers for details.**

# JC30 Air Pressure/ Micro Differential Pressure Transmitter

## Application

- HVAC
- Energy Management System
- VAV and fan control
- Environmental pollution control
- Clean room, clean room project
- Oven pressurization and furnace ventilation control
- Monitoring of natural gas and gas pipeline network
- Downhole ventilation test
- Pharmaceutical equipment and medical equipment
- Filter pressure
- Building exhaust system



## Product Features

- Measuring range: 0~100Pa...100KPa
- All stainless steel construction, compact and durable, easy to install
- Temperature range is -20~100°C
- Wind pressure, differential pressure two kinds of structural interoperability design
- Accuracy 1-2% FS for pressure below 250Pa, accuracy 0.5% of industry standard FS for other ranges
- Reliable quality and cost-effective

## Product Description

JC30 is an industrial measuring instrument that is modular in design and meets global OEM standards. The series is stable and reliable, and has excellent cost performance. It is rugged and durable to meet the requirements of more stringent industrial standards. It is widely used in industrial support, industry support and equipment support. The series includes a variety of options, which are applied to different industries and different working conditions. It solves the needs for economic pressure monitoring in different occasions and serves a wide range of industries.

JC30 air pressure / differential pressure transmitter adopts new technology to produce micro range, high stability silicon piezoresistive non-oil-filled sensor components and special digital integrated circuits. It is firmly packaged with 304 stainless steel casing through stress isolation technology. The measured air pressure or differential pressure enters the positive and negative pressure chamber of the sensor through the G1/4 external thread or  $\phi 6$  integrated barbed tower pressure interface, and the corresponding air pressure or differential pressure is converted into a plurality of industrial standard signal outputs proportional to the sensor detection, Such as 4 ~ 20mA, 0-5V DC, 0.5-4.5V DC.

## Performance Parameter

Measuring Range	0~100Pa...100KPa	
Overload Capability	1.5~2 times full-scale pressure	
Burst Pressure	4xFS	
Durability	> 1x10 <sup>7</sup> cycle(P:0~FS)	
Pressure Type	Gauge / Absolute	
Measuring medium	Dry clean gas compatible with 304 stainless steel	
Response time	≤4ms	
Resolution	Minimum. 0.5Pa	
Accuracy (linear,hysteresis, repeatability)	Typical: ±0.5%FS	Maximum: ±1%FS
	Typical: ±1%FS(below 250Pa)	Maximum: ±2%FS(below 250Pa)
Long-term stability	Typical: ±0.2%FS/year	Maximum: ±0.3%FS/year
Zero temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.05%FS/ C
Sensitivity temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.05%FS/ C

# JC30 Air Pressure/ Micro Differential Pressure Transmitter

## Environmental Conditions

Medium Temperature	-40 ~ 100 °C
Ambient Temperature	-40 ~ 85 °C
Compensation Temperature	-20 ~ 80 °C
Vibration resistance	10g IEC 60068-2-6
Impact resistance	100g/1ms IEC 60068-2-27
EMC- launch	EN61000-6-3
EMC- anti-interference	EN61000-6-2
Insulation resistance	> 100MΩ/100V
Shell Protection	Plug type(IP65); Cable type(IP67) Compliance IEC 60529 standard
Certification	CE

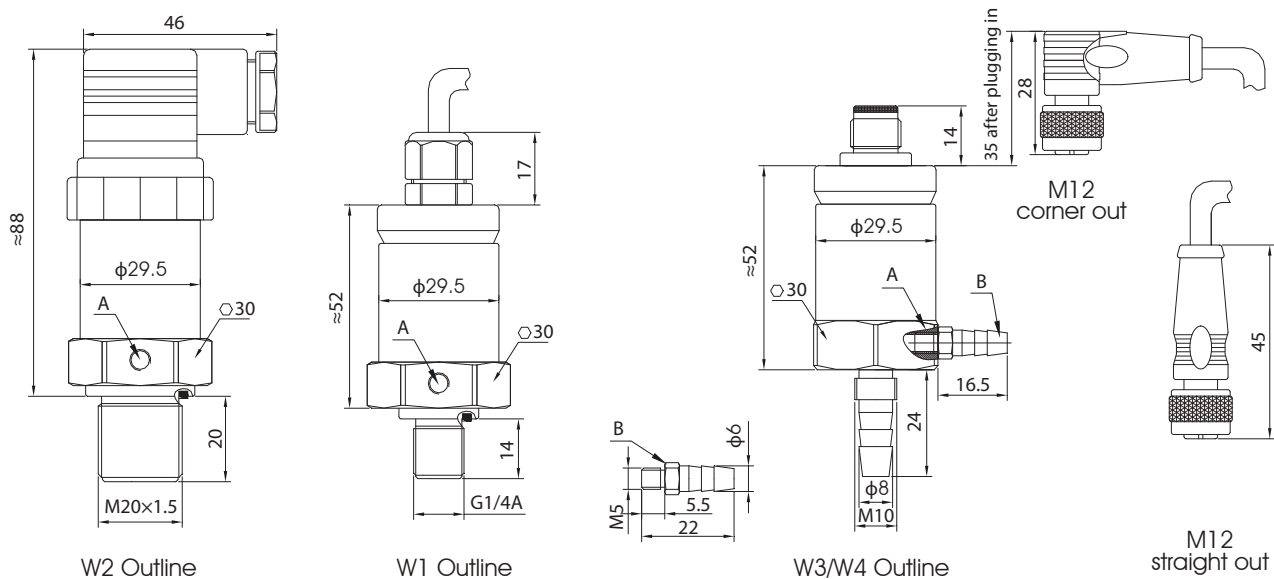
## Electrical Specifications

Code	Standard signal (with shortcircuit protection)	Supply voltage with polarity protection	Power supply-Current	Load(R)	Output Impedence
A1	4~20mA	DC 9~30V	Max.25mA	$R \leq (U-9)/0.02\Omega$	
V1	1~5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V2	0~5 V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V3	0.5~4.5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V4	0.5~4.5V DC	DC 5±0.25V	8mA	$R \geq 50k\Omega$	<2kΩ

## Material

Interface and housing	Stainless Steel 304L
O-ring	Silicone Rubber
Sensor Diaphragm	Silicon wafer(measured dry ,dust-free, non-corrosive or weakly corrosive, clean gas)
Weight	Approx.150g

## Size and Outline

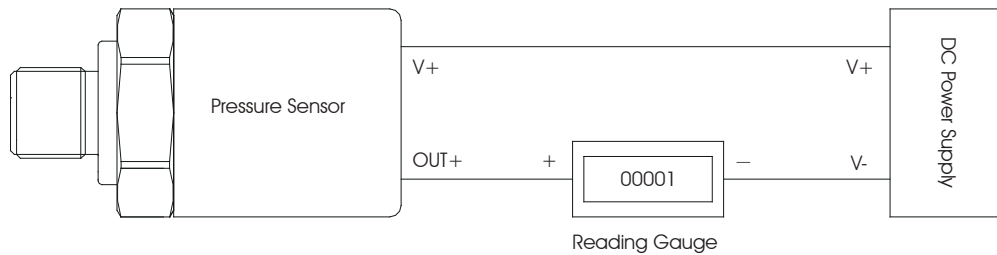


# JC30 Air Pressure/ Micro Differential Pressure Transmitter

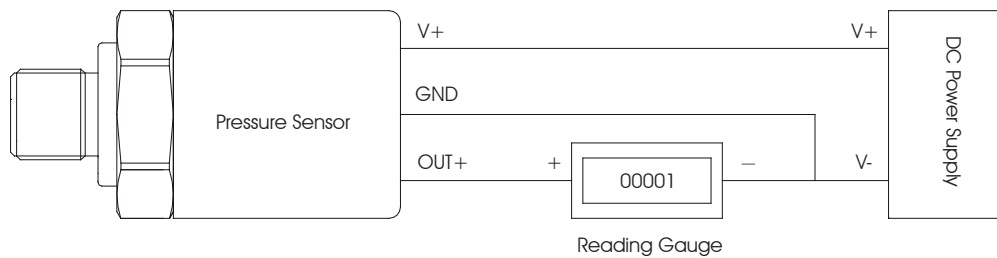
## Electrical Connections

Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable
Code	W1	W2	W3/W4
Diagram			
Protection Grade	IP67	IP65	IP67
Ambient Temperature	-40~85 C	-40~85 C	-40~85 C
Current output wiring definition	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND

Current output wiring diagram



Voltage output wiring diagram





# JC30 Air Pressure/ Micro Differential Pressure Transmitter

## Ordering Information

JC30	G	01KN	A1	F2	W2
Model	Pressure type	Pressure Range	Output	Mounting thread	Electrical connections
JC30	G=Gauge or wind/ air pressure  D=Differential Pressure	002C= ±200Pa G/D 005C= ±500Pa G/D 01KC= ±1KPa G/D 02KC= ±2KPa G/D 05KC= ±5KPa G/D 10KC= ±10KPa G/D 005N= -500Pa G/D 01KN= -1KPa G/D 02KN= -2KPa G/D 05KN= -5KPa G/D 10KN= -10KPa G/D 20KN= -20KPa G/D 002P= 200Pa G/D 005P= 500Pa G/D 01KP= 1KPa G/D 02KP= 2KPa G/D 05KP= 5KPa G/D 10KP= 10KPa G/D 20KP= 20KPa G/D 40KP= 40KPa G/D 001B= 100KPa G/D	A1=4~20mA V1=1~5V V2=0~5V V3=0.5~4.5V V4=0.5~4.5V/5V	F1=M20x1.5male F2=G1/4male F5=Ø8 gas nozzle F0= Customize	W1= Straight Out 1m W2=A type HSM plug W3=M12 corner out 1m W4=M12 Straight Out 1m

Model example: **JC30G01KNA1F2W3**

(JC30 Air Pressure/ Micro Differential Pressure Transmitter; Range 0~1MPa Gauge; Output 4~20mA; Accuracy 0.5% typical; Power Supply 9~30VDC;- Pressure Connection G1/4 male thread; Electrical Connection M12 corner out 1m; Selection Remarks: The range meter 01KP= 1KPa G/D G indicates the gauge pressure or wind/air pressure, which is the pressure difference with the atmosphere, that is, the wind pressure measurement of a single pressure port, D is the differential pressure measurement, measuring the pressure difference between the two pressure ports. Use the B-copper joint in the outline drawing to connect the negative pressure port, as shown in the outline drawing.

**Remarks: It can be customized if the order quantity exceeds a certain amount. Please contact the sales engineers for details.**

# JC60 Anti-explosion Pressure Transmitter

## Application

- Petrochemical equipment and control system
- Mining equipment and control system
- Ship equipment and control system
- Natural gas, shale gas equipment and control systems
- Other explosion-proof hydraulic and pneumatic equipment and control systems

## Product Features

- Wide measuring range: 0~35KPa...150MPa
- Intrinsically safe explosion-proof Ex iaIICT6, isolation explosion-proof Ex dIICT6
- Smart size, all stainless steel welded structure
- IP67 and above protection level, moisture and moisture proof
- Accuracy is 0.5% FS (typical) for industry standards
- Explosion-proof design, safe and reliable, high strength, anti-vibration



## Product Description

JC60 is an industrial measuring instrument that is modular in design and meets global OEM standards. The series is stable and reliable, and has excellent cost performance. It is rugged and durable to meet the requirements of more stringent industrial standards. It is widely used in industrial support, industry support and equipment support. The series includes a variety of options, which are applied to different industries and different working conditions. It solves the needs for economic pressure monitoring in different occasions and serves a wide range of industries.

JC60 explosion-proof pressure transmitter is an ultra-small explosion-proof pressure sensor, which is different from the shortcomings of excessive explosion-proof and inconvenient to install. At the same time, the safety considerations are also considered. Sputter film technology is used in all ranges over 6bar. The stainless steel all-welded structure completely isolates the pressure chamber from the electronics chamber, improving safety and extending product life. All-welded stainless steel diaphragm technology is also used below 6 bar. This series provides two types of intrinsically safe explosion-proof Ex iaIICT6 and isolation explosion-proof Ex dIICT6, which can be single or fully selected according to site requirements.

EX-explosion-proof grades according to Ex iaIICT6 and ATEX can be used in the following hazardous environments: gas, steam and fog: connected to zone 0, zone 1, zone 2, dust: connected to zone 20, zone 21, zone 22, mining zone: M1 and M2 type. This type of pressure transmitter is made up of an intrinsically safe barrier or a standard Zener diode input voltage of 10...30V and an output signal of 4...20mA two wires.

Isolation explosion-proof Ex dIICT6, providing a threaded interface to the customer for provide an explosion-proof hose for connect G1/2 internal threads, and the electric cable protection must be considered when installing the sensor.

## Performance Parameter

Measuring Range	0~35KPa...150MPa	
Overload Capability	200%FS(range < 6Bar) 300%FS(range ≥ 6Bar)	
Burst Pressure	300%FS(range < 6Bar) 500%FS(range ≥ 6Bar, limit 1800Bar)	
Durability	> 1x10 <sup>7</sup> cycle(P:10~90%FS)	
Pressure Type	Gauge / Absolute	
Measuring medium	Gas or liquid compatible with 17-4/316 stainless steel	
Response time	≤4ms	
Resolution	0.01%FS	
Accuracy (linear, hysteresis, repeatability)	Typical: ±0.5%FS	Maximum: ±1%FS
Long-term stability	Typical: ±0.2%FS	Maximum: ±0.3%FS
Zero temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.05%FS/ C
Sensitivity temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.05%FS/ C

# JC60 Anti-explosion Pressure Transmitter

## Environmental Conditions

Medium Temperature	-40~100 C
Ambient Temperature	-40~85 C
Compensation Temperature	-10~70 C
Storage temperature	-30~105 C
Vibration resistance	20g(<6bar); 10g(≥6bar) IEC 60068-2-2
Impact resistance	500g(<6bar); 200g(≥6bar) IEC 60068-2-27
Intrinsically safe explosion	Ex ia II CT6 Ga Power supply with Zener barrier(in case of excessive current, instantaneous blow fuse) U <sub>i</sub> =28VDC, I <sub>i</sub> =93mA, P <sub>i</sub> =0.65W, C <sub>i</sub> =42nF, L <sub>i</sub> =0mH
Isolation explosion protection	Ex d II CT6 Gb The sensor cable is connected to the explosion-proof hose to prevent the cable from being pulled and shorted
Cable protection	Electrode reverse protection and short circuit protection
Insulation resistance	> 100MΩ(100V)
Shell Protection	Cable type(IP67) Compliance IEC 60529 standard
Certification	CE

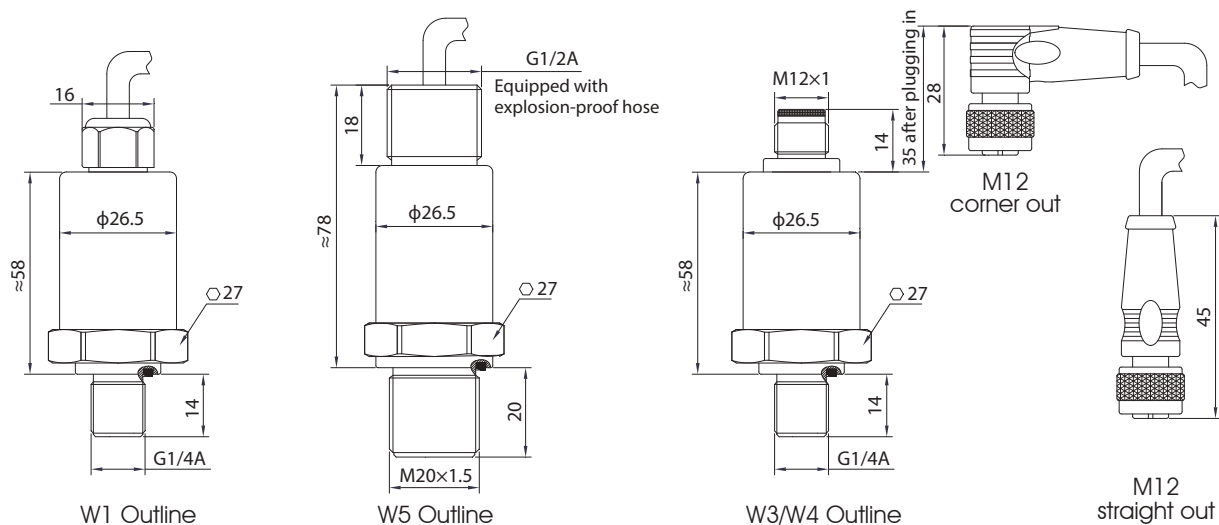
## Electrical Specifications

Code	Standard signal (with short circuit protection)	Supply voltage with polarity protection	Power supply-Current	Load(R)	Output Impedence
A1	4~20mA	DC 9~30V	Max.25mA	$R \leq (U-9)/0.02\Omega$	
V1	1~5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ

## Material

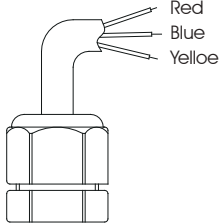
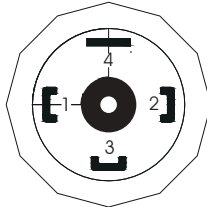
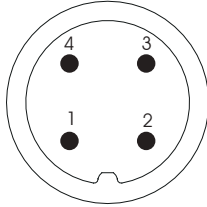
Interface and housing	Stainless Steel 304L
Sensor Diaphragm	Stainless Steel 316L (range < 6Bar) / 17-4PH Stainless Steel (range ≥ 6Bar)
Weight	Approx.200g

## Size and Outline

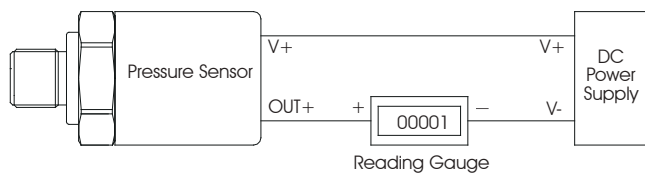


# JC60 Anti-explosion Pressure Transmitter

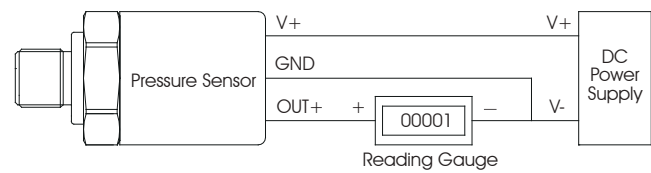
## Electrical Connections

Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable
Code	W1	W2	W3/W4
Diagram			
Protection Grade	IP67	IP65	IP67
Ambient Temperature	-40 ~ 85 C	-40 ~ 85 C	-40 ~ 85 C
Current output wiring definition	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND

Current output wiring diagram



Voltage output wiring diagram



## Ordering Information

JC60	G	040B	A1	F2	W1	ED
Model	Pressure type	Pressure Range	Output	Mounting thread	Electrical connections	Explosion-proof Grade
JC60	G=Gauge A=Absolute	035K =35KPa G 070K=70KPa G 001B=1bar G/A 002B=2bar G/A 004B=4bar G/A 006B=6bar G/A 010B=10bar G/A 016B=16bar G/A 025B=25bar G/A 040B=40bar G 060B=60bar G 100B=100bar G 160B=160bar G 250B=250bar G 400B=100bar G 600B=600bar G 01KB=1000bar G 15KB=1500bar G	A1=4~20mA V1=1~5V	F1=M20x1.5 male F2=G1/4 male F3=1/4NPT F0=Customize	W1= Straight Out 1m W2=A type HSM plug W3=M12 corner out 1m W4=M12 straight out 1m	E=Ex iallCT6 D=Ex dllCT6 T=Special

Model example: **JC60G040BA1F2W1ED**

(JC60 Anti-explosion Pressure Transmitter; Range 0~4MPa Gauge; Output 4~20mA; Accuracy 0.5% typical; Power Supply 9~30VDC; Pressure Connection G1/4 male thread; Electrical Connection straight Out 2m cable; Intrinsically safe Ex iall CT6 ; Flameproof Ex dll CT6 ;Special instruction: 010B=10bar G/A, G/A stands for gauge and absolute pressure, G gauge, A absolute)

**Remarks: It can be customized if the order quantity exceeds a certain amount. Please contact the sales engineers for details.**

# JC90 High- frequency Dynamic Pressure Transmitter

## Application

- High speed oil pump test
- Testing of high speed valves
- Engine pressure dynamics detection
- Locomotive test bench,
- Hydraulic and pneumatic dynamic test bench
- Petroleum, chemical industry equipment
- Medical equipment
- Other equipment and systems for dynamic pressure measurement

## Product Features

- Measuring range: 0~20KPa...60MPa
- Static and simultaneous measurement, frequency from 0~20KHz
- Various industrial signal output 4~20mA, DC 0~5V, DC 1~5V and DC 0.5~4.5V
- All stainless steel structure, can measure the gas, liquid, gas-liquid mixing and other fluids compatible with it
- Compact structure, standardized process production, stable and reliable quality, high cost performance



## Product Description

JC90 is an industrial measuring instrument that is modular in design and meets global OEM standards. The series is stable and reliable, and has excellent cost performance. It is rugged and durable to meet the requirements of more stringent industrial standards. It is widely used in industrial support, industry support and equipment support. The series includes a variety of options, which are applied to different industries and different working conditions. It solves the needs for economic pressure monitoring in different occasions and serves a wide range of industries. .

JC90 high-frequency dynamic pressure transmitter is designed and manufactured by the company using special technology. This sensor is designed and manufactured by advanced MEMS technology. Three-dimensional integrated double-sided silicon piezoresistive pressure sensitive components through the ion implantation, fine lithography technology of the Wheatstone bridge, through silicon-silicon bonding technology, inverted V-slot design to make products with high sensitivity and dynamic characteristics. This principle design ensures the dynamic characteristics of the natural frequency of 500KHz and the measurement stability of the product, followed by the special high-frequency digital calibration circuit, which can convert the change of the pressure amount into a linear corresponding standard electrical signal, such as 4-20mA, 0-5V, etc., while ensuring the accuracy of the measurement.

## Performance Parameter

Measuring Range	0~10KPa.....60MPa	
Overload Capability	1.5~2 times full-scale pressure	
Burst Pressure	4Xfs(≤100MPa)	
Durability	> 1x10 <sup>8</sup> cycle(P:0~FS)	
Pressure Type	Gauge / Absolute	
Measuring medium	Gas or liquid compatible with 316 stainless steel	
Response frequency	0~3KHz	
Natural frequency	500KHz	
Resolution	0.01%FS	
Accuracy (linear,hysteresis, repeatability)	Typical: ±0.5%FS	Maximum: ±1%FS
Long-term stability	Typical: ±0.2%FS	Maximum: ±0.3%FS
Zero temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.05%FS/ C
Sensitivity temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.05%FS/ C

# JC90 High-frequency Dynamic Pressure Transmitter

## Environmental Conditions

Medium Temperature	-20 ~ 85 C
Ambient Temperature	-20 ~ 80 C
Compensation Temperature	-10 ~ 60 C
Vibration resistance	10g IEC 60068-2-6
Impact resistance	500g/1ms IEC 60068-2-27
EMC- launch	EN61000-6-3
EMC- anti-interference	EN61000-6-2
Insulation resistance	> 100MΩ(100V)
Shell Protection	Plug type(IP65); Cable type(IP67) Compliance IEC 60529 standard
Certification	CE

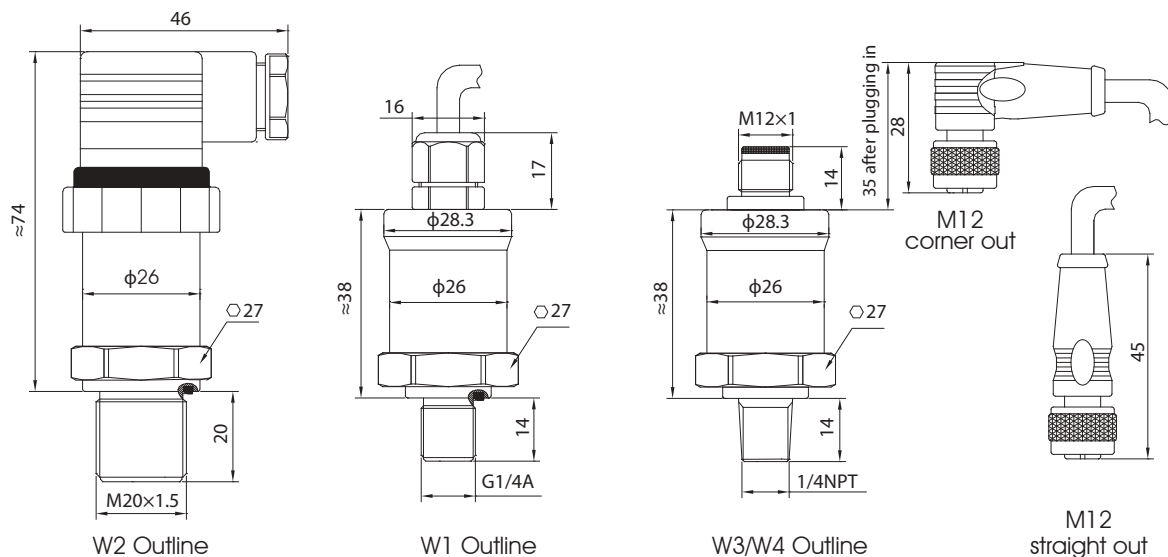
## Electrical Specifications

Code	Standard signal (with short circuit protection)	Supply voltage with polarity protection	Power supply-Current	Load(R)	Output Impedence
A1	4~20mA	DC 9~30V	Max.25mA	$R \leq (U-9)/0.02\Omega$	
V1	1~5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V2	0~5 V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V3	0.5~4.5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V4	0.5~4.5V DC	DC 5±0.25V	8mA	$R \geq 50k\Omega$	<2kΩ

## Material

Interface and housing	Stainless Steel 304L
O-ring	Fluororubber
Sensor Diaphragm	Silicon based material
Weight	Approx.180g

## Size and Outline



# JC90 High-frequency Dynamic Pressure Transmitter

## Electrical Connections

Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable
Code	W1	W2	W3/W4
Diagram			
Protection Grade	IP67	IP65	IP67
Ambient Temperature	-40~85 C	-40~85 C	-40~85 C
Current output wiring definition	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND
Current output wiring diagram		Voltage output wiring diagram	

## Ordering Information

JC90	G	010B	A1	F2	W2
Model	Pressure type	Pressure Range	Output	Mounting thread	Electrical connections
JC90	G=Gauge A=Absolute	010K = 10KPa G 020K = 20KPa G 035K = 35KPa G 070K = 70KPa G 001B = 1bar G/A 002B = 2bar G/A 004B = 4bar G/A 006B = 6bar G/A 010B = 10bar G/A 016B = 16bar G/A 025B = 25bar G/A 040B = 40bar G/A 060B = 60bar G 100B = 100bar G 160B = 160bar G 250B = 250bar G 400B = 100bar G 600B = 600bar G	A1 = 4~20mA V1 = 1~5V V2 = 0~5V V3 = 0.5~4.5V	F1 = M20x1.5male F2 = G1/4male F3 = 1/4NPT F0 = Customize	W1 = Straight Out 1m W2 = A type HSM plug W3 = M12 corner out 1m W4 = M12 Straight Out 1m

Model example: **JC90G010BA1F2W2**

(JC90 High-frequency Dynamic Pressure Transmitter; Range 0~1MPa Gauge; Output 4~20mA; Accuracy 0.5% typical; Power Supply 9~30VDC;- Pressure Connection G1/4 male thread; Electrical Connection Hessman plug; Special instruction: 010B=10bar G/A, G/A stands for gauge and absolute pressure, G gauge, A absolute)

**Remarks: It can be customized if the order quantity exceeds a certain amount. Please contact the sales engineers for details.**

# JC91 Micro Pressure Sensor and Transmitter

## Application

- Laboratory and research development, micro-miniature devices
- On-board equipment monitoring, airbag testing, brake system pressure
- Cylinder pressure, engine intake and turbine
- Ocean monitoring, underwater equipment
- Robots and small reactors
- Biomedical liquid analyzer

## Product Features

- One-piece micro-mini design, multiple transmission output 4-20mA, 0~5V, 0.5~4.5V
- Dynamic and static pressure measurement
- Can be flush diaphragm, has good dynamic characteristics
- Shell in stainless steel or titanium material to meet different working conditions
- Low sensitivity to mounting torque
- A variety of mounting threads are available: M5x0.8, M6x1, M8x1, G3/8 flush film threads
- Wide measuring range and modular design, optional pressure gauge and absolute pressure



## Product Description

JC91 is an industrial measuring instrument that is modular in design and meets global OEM standards. The series is stable and reliable, and has excellent cost performance. It is rugged and durable to meet the requirements of more stringent industrial standards. It is widely used in industrial support, industry support and equipment support. The series includes a variety of options, which are applied to different industries and different working conditions. It solves the needs for economic pressure monitoring in different occasions and serves a wide range of industries.

JC91 is a micro pressure sensor for measuring dynamic and static pressure integrated transmission output. It is suitable for applications where the installation space is limited or the weight of the sensor is light. The sensor elements of the JC91 micro-miniature pressure sensor and transmitter are made of a fully temperature-compensated Wheatstone bridge diffused on a highly stable micromachined silicon strained substrate, so the product guarantees good performance, the sensor body structure is compact, the outer casing can be made of titanium material, the weight without cable is less than 52g, and the G3/8 flat membrane design choices ensure the dynamic frequency response of 3KHz. The conventional small thread pressure can also reach the dynamic characteristic index of 1KHz, has a wide range of application scenarios, cost-effective.

## Performance Parameter

Measuring Range	0~100KPa.....70MPa	
Overload Capability	1.5~2 times full-scale pressure	
Burst Pressure	4xFS(≤100MPa)	
Durability	> 1x10 <sup>7</sup> cycle(P:0~FS)	
Pressure Type	Gauge / Absolute	
Measuring medium	Gas or liquid compatible with 316 stainless steel	
Response frequency	0~1KHz Flat film shape 0~3KHz	
Natural frequency	500KHz	
Resolution	0.01%FS	
Accuracy (linear, hysteresis, repeatability)	±0.5%FS (default)	±0.25%FS/±0.1%FS(Additional item T1/T2)
Long-term stability	Typical: ±0.1%FS	Maximum: ±0.2%FS
Zero Temperature Drift	Typical: ±0.01%FS/ C	Maximum: ±0.02%FS/ C
Sensitivity temperature drift	Typical: ±0.01%FS/ C	Maximum: ±0.02%FS/ C



# JC91 Micro Pressure Sensor and Transmitter

## Environmental Conditions

Medium Temperature	-40 ~ 100 C, Special -55 ~ 150 C can be customized
Ambient Temperature	-40 ~ 85 C
Compensation Temperature	-20 ~ 70 C, Special -40 ~ 120 C can be customized
Vibration resistance	20g, IEC 60068-2-6
Impact resistance	500g/1ms, IEC 60068-2-27
EMC- launch	EN61000-6-3
EMC- anti-interference	EN61000-6-2
Insulation resistance	> 100MΩ(100V)
Shell Protection	Plug type(IP65); Cable type(IP67); Compliance IEC 60529 standard
Certification	CE

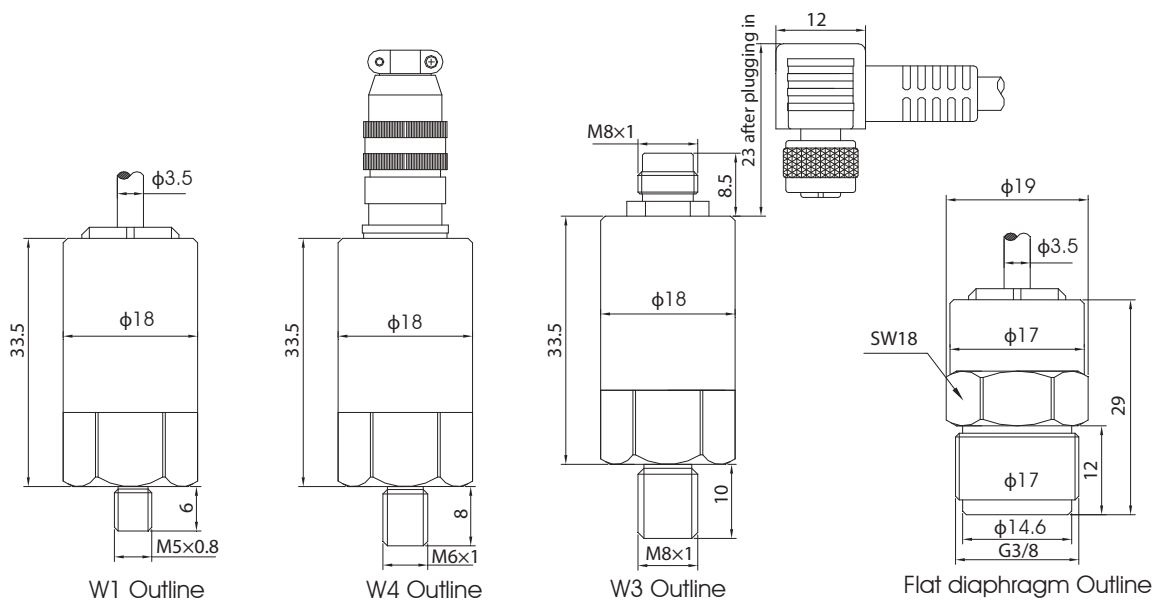
## Electrical Specifications

Code	Standard signal (with shortcircuit protection)	Supply voltage with polarity protection	Power supply-Current	Load(R)	Output Impedence
A1	4~20mA	DC 9~30V	Max.25mA	$R \leq (U-9)/0.02\Omega$	
V1	1~5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V2	0~5 V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V3	0.5~4.5V DC	DC 9~30V	8mA	$R \geq 50k\Omega$	<2kΩ
V4	0.5~4.5V DC	DC 5±0.25V	8mA	$R \geq 50k\Omega$	<2kΩ

## Material

Interface and housing	Stainless Steel 304L/ titanium
O-ring	Fluororubber
Sensor Diaphragm	Stainless Steel 316L
Weight	Approx.52g

## Size and Outline



# JC91 Micro Pressure Sensor and Transmitter

## Electrical Connections

Description	Lock head outlet 1m Shielded cable	M8 aviation plug Corner out 1m unshielded cable	XS9 aviation plug 1m flexible shielded cable
Code	W1	W3	W4
Diagram			
Protection Grade	IP67	IP67	IP65
Ambient Temperature	-40~85 C	-40~85 C	-40~85 C
Current output wiring definition	RED:V+ BLUE:OUT+/V-	RED:V+ BLUE:OUT+/V-	RED:V+ BLUE:OUT+/V-
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	RED:V+ BLUE:OUT+ YELLOW:GND	RED:V+ BLUE:OUT+ YELLOW:GND
Current output wiring diagram		Voltage output wiring diagram	

## Ordering Information

JC91	G	016B	A1	F1	W4	T1
Model	Pressure type	Pressure Range	Output	Mounting thread	Electrical connections	Additional item
JC91	G=Gauge A=Absolute	001B=1bar G/A 002B=2bar G/A 004B=4bar G/A 006B=6bar G/A 010B=10bar G/A 016B=16bar G/A 025B=25bar G/A 040B=40bar G/A 060B=60bar G 100B=100bar G 160B=160bar G 250B=250bar G 400B=400bar G 600B=600bar G 700B=700bar G	A1=4~20mA V1=1~5V V2=0~5V V3=0.5~4.5V V4=0.5~4.5V/5V	F1=M6x1 male F2=M8x1 male F3= M5x0.8male F4=G3/8male F0= Customize	W1= Straight Out 1m W3=M8 corner out 1m W4=XS9 Straight Out 1m	T1=Accuracy 0.25% T2=Accuracy 0.1% T3= Full titanium housing T0= Special

Model example: **JC91G016BA1F1W4T1**

(JC91 Micro Pressure Sensor/Transmitter; Range 0~1.6MPa Gauge; Output 4~20mA; Accuracy 0.25% typical; Power Supply 9~30VDC; Pressure Connection M6X1 male thread; Electrical Connection XS9 aviation plug to 1m flexible shielded cable; r, Special instruction: 010B=10bar G/A, G/A stands for gauge and absolute pressure, G gauge, A absolute)

**Remarks: It can be customized if the order quantity exceeds a certain amount. Please contact the sales engineers for details.**

# JC620 General-purpose Pressure Transmitter

## Product Overview

Specially designed for industrial and civil OEM customers, JC620 General-purpose Pressure Transducer has been researched, developed and manufactured by our company. By introducing European state-of-the-art sensor technology, strict product quality standard and rationalized product manufacturing technology, we have established the new cost performance standard for this type of products.

JC620 General-purpose Pressure Transducer has been produced with proprietary technology. Imported silicon sensitive elements as well as circuits and assembly technology designed in a normalized way to guarantee the advancement, practicality and quality stability of our products. This standard product may extensively be used in various places. Under the precondition of ensuring quantity and application, Our design team can re-design or improve the product to meet special requirements arising during application according to users' specific requirements.



## Performance Parameters

Measuring range	-100kPa~0~5kPa...100MPa	
Overload capacity	2 times of FS pressure (1.1 times of FS pressure for 100MPa)	
Pressure type	Gauge pressure or absolute pressure	
Measuring Media	The gas or liquid compatible with 316 stainless steel	
Overall accuracy(Linearity, repeatability and hysteresis)	±0.25%FS	±0.4%FS
Long-term stability	Typical: ±0.1%FS	Maximum: ±0.2%FS
Zero temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.05%FS/ C
Sensitivity temperature drift	Typical: ±0.02%FS/ C	Maximum: 0.05%FS/ C
Operating temperature	-40 ~ 85 C	
Compensation temperature	-10 ~ 60 C	
Range of power supply	12~36VDC(generally 24VDC)	
Signal output	4~20mA / 1~5VDC / 0~5VDC / 0.5~4.5VDC	
Load resistance	≤(U-12)/0.02 Ω	
Enclosure protection class	Plug type(IP65); cable type(IP67)	
Safety and explosion protection	Ex ia II CT5	
Weight	About 0.5kg	
Vibration error	≤±0.01%FS(Axes X, Y and Z, 200Hz/g)	
Response time	≤2 ms	
Resolution	Infinitely small(theoretic), 1/100000(normal)	
Dielectric strength / RF degree	EN50081-1; EN50082-2; IEC61000-4-3	
Pressure connection	See the product selection table and process connection diagram (customizable)	
Electrical connection	See the product selection table and electrical connection diagram (customizable)	
Interface and housing	Stainless steel 1Cr18Ni9Ti	
O-ring	Fluoro rubber	
Sensor diaphragm	Stainless steel 316L	

## Product Features

- High cost performance, specially designed and produced for OEM customers
- Silicon sensitive elements imported from Germany have excellent corrosion, impact, overloading, vibration and wear resistance performance.
- A wide range of operating temperature, high overall measuring accuracy, and good long-term stability
- Normalized design and production ensure the advancement, practicality and quality stability of our products
- Wide pressure range: From vacuum to 100MPa, with a positive and negative gauge pressure range

## Product Application

- Equipment automation
- Engineering machinery
- Medical equipment
- Pump and compressor
- Energy and water treatment system
- Testing jig
- Agricultural mechanical equipment
- Internal combustion engine
- Locomotive braking system
- Hydraulic and pneumatic system
- Air conditioning unit and refrigeration equipment

# JC620 General-purpose Pressure Transmitter

## Ordering Information

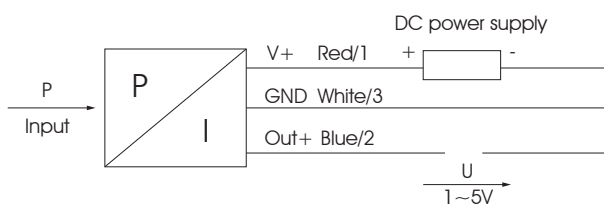
<b>JC620</b>	General-purpose Pressure Transducer	
<b>Code</b>	Pressure type	
<b>G</b>	Gauge pressure(G may not be indicated)	
<b>A</b>	Absolute pressure	
<b>Range</b>	Measuring range (0~ X KPa or MPa)	
	<b>Code</b>	Overall accuracy (linearity + repeatability + hysteresis)
<b>1</b>	±0.4%FS	
<b>2</b>	±0.25%FS	
<b>3</b>	±0.5%FS	
<b>Code</b>	Signal output	
	<b>A1</b>	4~20mA
	<b>V1</b>	1~5V DC
	<b>V2</b>	0~5V DC
	<b>V3</b>	0.5~4.5V DC
<b>Code</b>	Additional functions	
	<b>F1</b>	M20x1.5 male thread
	<b>F2</b>	G1/4 male thread
	<b>F3</b>	1/4NPT male thread
	<b>F0</b>	Special
	<b>W1</b>	Cable type (See Outline Drawing I)
	<b>W2</b>	Socket type (See Outline Drawing II)
	<b>L1</b>	31/2LCD display
	<b>L2</b>	31/2LED display
	<b>P</b>	Flush diaphragm type
	<b>E</b>	Intrinsically safe explosion-proof type Ex iaIICT5
<b>JC620(0~100KPa) —1 —A1 —F1—L2</b>		
<b>General-purpose Pressure Transducer</b>		

## Tips for Type Selection

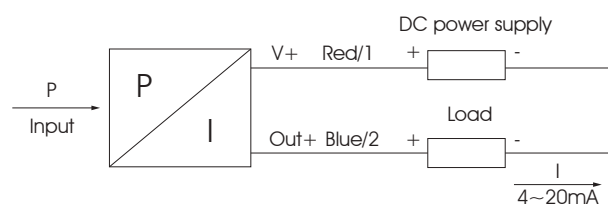
1. The medium measured shall be compatible with the material contacting with the product.
2. As an additional function code for type selection, the code "E" for intrinsically safe explosion-proof type Ex ia II CT5 denotes that power source must be supplied via safety barrier.
3. For other special requirements, please discuss with us and clearly indicate them in the order.

## Electrical Connection

Plug	Cable	4-20mA	1-5V/0~5V/0.5-4.5V DC
1	Red	Positive power supply: +V	Positive power supply: +V
2	Blue	Signal output / negative power supply: OUT/-V	Positive signal output: +OUT
3	White	Idle	Common port / power source end: GND/-V
4(⊥)	Yellow	Grounded in case of strong disturbance	Reliably grounded in case of strong disturbance



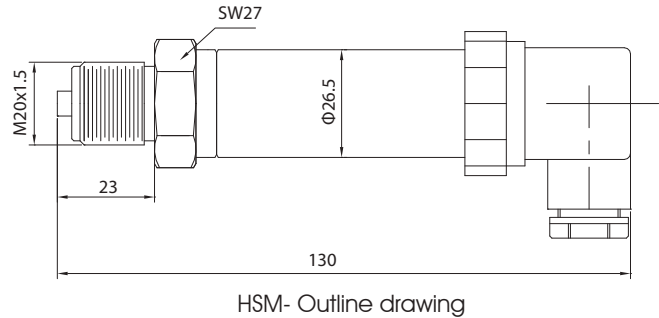
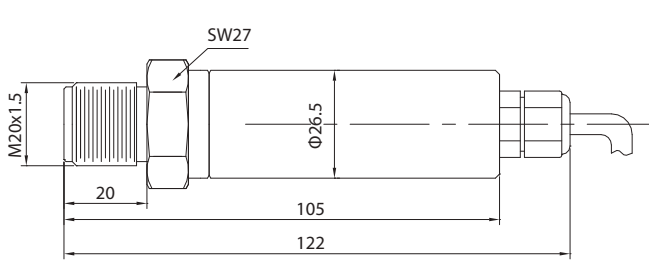
3-wire system:  
1-5V DC/0-5V DC/0.5-4.5V CD Electrical connection method



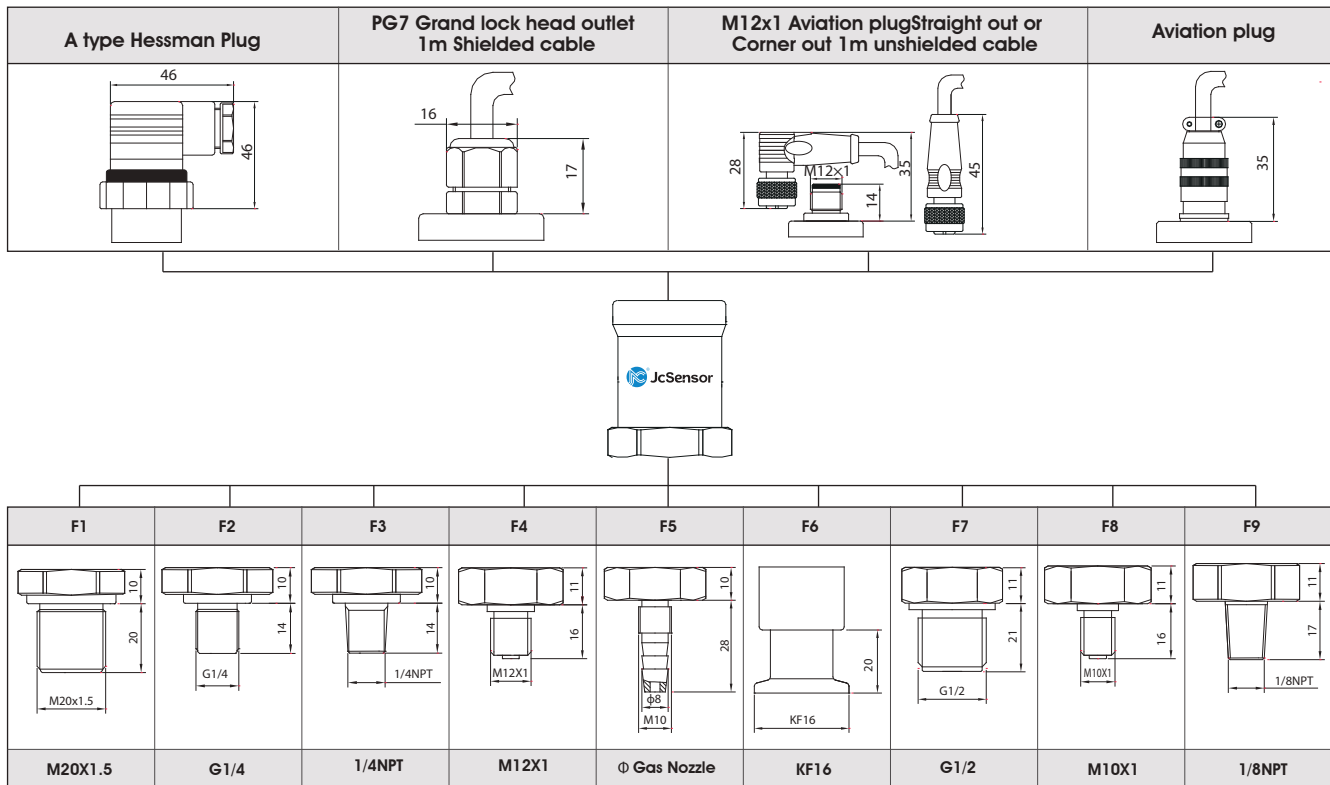
2-wire system:  
4-20mA Electrical connection method

# JC620 General-purpose Pressure Transmitter

## Overall Dimension Drawings



## Electrical Connections



# JC621 Throw-in Type Liquid Level Transmitter

## Product Overview

The measurement of water or liquid level using hydrostatic equilibrium system is an important application of pressure sensors. The high-sensitivity silicon piezoresistive sensitive element fabricated with micromachining technology is the critical component of the liquid level transducer, supported with the special cable provided with an air tube as well as special water-tightness technology, which not only ensures the water tightness of immersion transducers, but also makes the reference pressure chamber connect with the ambient atmosphere, so as to attain accurate measurement results and excellent stability. JC621 Liquid Level Transducer adopts the internationally advanced dry ceramic capacitive sensor or temperature-compensating isolation diaphragm diffused silicon pressure sensor as a sensing element to greatly enhance operating performance of the product. It can be extensively used for the measurement and control of water and liquid levels in petroleum, chemical, power generation plant, urban water supply & drainage and hydrologic exploration fields, etc..

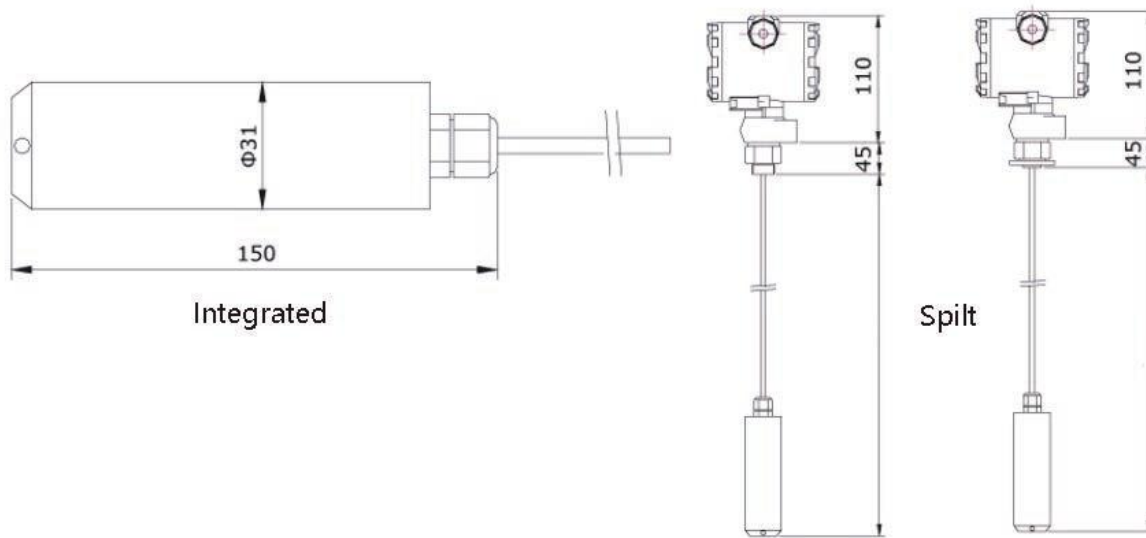


## Performance Parameters

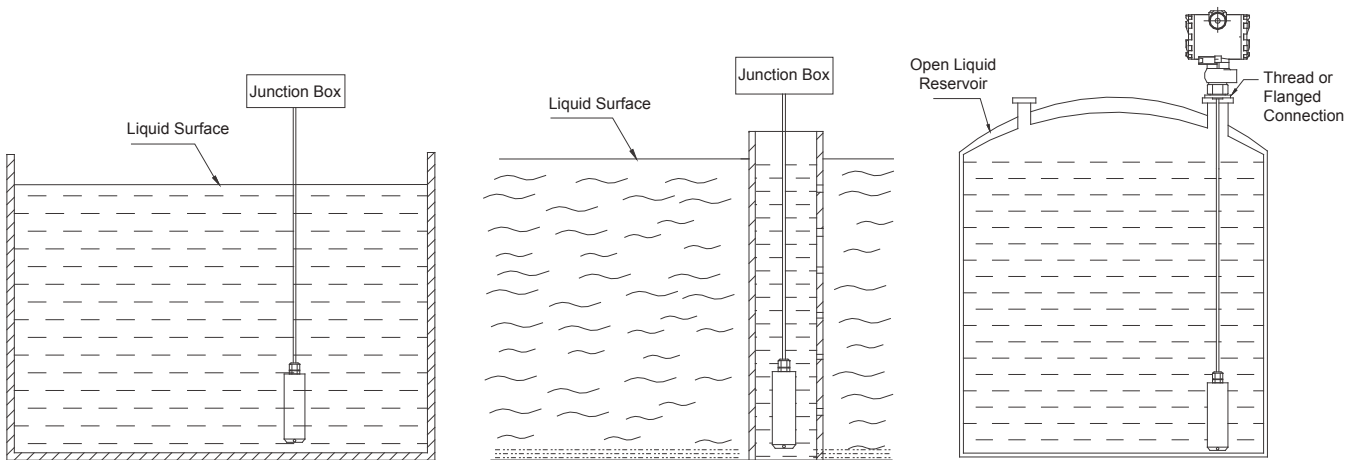
Measuring range (FS)	0~0.5m...200mH <sub>2</sub> O or 0~5kPa...2MPa		
Permissible overpressure	Two times of full-scale pressure		
Measuring media	The liquid compatible with 316 stainless steel (Corrosion-proof type can be selected under special conditions)		
Overall accuracy	±0.25%FS	±0.5%FS	±1%FS
Long-term stability	Typical: ±0.1%FS/year		Maximum: ±0.2%FS/year
Operating temperature range	Integrated: -20 C ~70 C		Split (plug-in): -20 C ~80 C
Compensation temperature range	Integrated: -10 C ~55 C		Split (plug-in): -10 C ~70 C
Zero-point temperature drift	Typical: ±0.02%FS/ C		Maximum: ±0.05%FS/ C
Full-scale temperature drift	Typical: ±0.02%FS/ C		Maximum: ±0.05%FS/ C
Range of power supply	12~36VDC(generally 24VDC)		
Signal output	4~20mA/1~5VDC/ 0~5VDC		
Load resistance	≤(U-10)/0.02Ω		
Structural material	Enclosure: stainless steel 1 Cr18Ni9Ni	Diaphragm: stainless steel 316L	
	Sealing: fluoro rubber	Cable: Φ7.2mm special PVC cable	
Insulation resistance	100MΩ,50VDC		
Protection class	Enclosure protection class IP68		
Safety and explosion protection	Ex ia II CT5		
Response time	≤2 ms		
Weight	Approx. 250g		
Resolution	Infinitely small(theoretic), 1/100000(normal)		

# JC621 Throw-in Type Liquid Level Transmitter

## Overall Dimension Drawings



## Field Installation Diagram



As shown in Figure 1, for installation in the water tank, water tower and other static water, generally the sensing end is directly thrown into the bottom of the water tank as far away from the pump and valve position as possible. The wiring section of the transducer is provided within the junction box, with the outgoing line pointing downward, to prevent water from penetrating into the airway tube of the air-guiding cable. Meanwhile, remember not to block the airway tube.

As shown in Figure 2, for installation in the water dam, water well and other flowing water, a steel tube with an inner diameter of approximately  $\phi$  45mm is generally inserted into the water channel, where some small holes shall be drilled at the same height opposite to the water flow direction so that water can smoothly flow into the tube. The wiring section of the transducer is provided within the junction box, with the outgoing line pointing downward, to prevent water from penetrating into the airway tube of the air-guiding cable. Meanwhile, remember not to block the airway tube.

Figure 3 shows threaded or flanged connection of the split liquid level transducer in the open-hole vessel, wherein thread size or flange size are G 1 / 2 and DN20 respectively or customized.

# JC621 Throw-in Type Liquid Level Transmitter

## Product Features

- Split structure: The section of the sensor thrown into the liquid is of fully-sealed stainless steel structure, wherein the enclosure of the electronic circuit is of cast aluminum structure for easy alignment & adjustment and wiring.
- Integrated structure: Both the sensor and the amplified circuit are provided in the fully-sealed enclosure made of stainless steel, without external alignment and adjustment.
- The enclosure of the sensor is designed with IP68 and the junction box is designed with IP65.
- This product takes the high-performance pressure sensor as the measuring element, with high accuracy, small dimensions, easy operation, strong antijamming capability, high reliability, good stability, high sensitivity, water resistance and anti-condensation.
- The product is of free maintenance, as well as easy installation and commissioning. It can be directly thrown into the water to measure the height of liquid level from the transducer end to the liquid surface.

## Ordering Information

<b>JC621</b>	Throw-in Type Liquid Level Transducer	
	Measuring range	0~X mH <sub>2</sub> O or 0~X KPa
	<b>Code</b>	Structural form (maximum operating range)
	<b>C1</b>	Integrated:0~200mH <sub>2</sub> O
	<b>C2</b>	Split:0~10mH <sub>2</sub> O
	<b>C3</b>	Plug-in:0~4 mH <sub>2</sub> O
	<b>Code</b>	Overall accuracy (linearity + repeatability + hysteresis)
	<b>0</b>	1.0%FS
	<b>1</b>	0.4%FS
	<b>2</b>	0.25%FS
	<b>Code</b>	Signal output(standard power supply)
	<b>A1</b>	4~20mA (12~36V DC)
	<b>V1</b>	1~5V DC (12~36V DC)
	<b>V2</b>	0~5V DC (12~36V DC)
	<b>S1</b>	RS485 (5~9V DC)
	<b>Code</b>	Additional functions
	<b>F1</b>	G1 <sup>1</sup> / <sub>2</sub> male thread(split and plug-in)
	<b>F2</b>	DN20 flange(split and plug-in)
	<b>F0</b>	Special
	<b>E</b>	Intrinsically safe explosion-proof type Ex ia II CT5
	<b>R</b>	Corrosion-proof type

**JC621(0~10mH<sub>2</sub>O) —C1 —1 —A1 —E Throw-in Type Liquid Level Transducer**

## Tips for Type Selection

1. The medium to be measured shall be compatible with the material contacting with the product. Meanwhile, the density of the medium to be measured during measurement shall be indicated (except for water).
2. As an additional function code for type selection, the code "E" for intrinsically safe explosion-proof type Ex ia II CT5 denotes that power source must be supplied via safety barrier.
3. The length of cable shall be L = X m + 1m. Please indicate any extension (if needed) when placing an order.
4. To install the product in thunderous areas, select HM21F Anti-lightning Liquid Level Transducer when placing an order.
5. The corresponding relationship of 1m water columns with pressure under standard conditions (i.e.4 C ,g =9.80665m/s<sup>2</sup>):1mH<sub>2</sub>O=0.1kgf/cm<sup>2</sup>(Kgf/cm<sup>2</sup>)=9.8kPa(KPa)
6. For other special requirements, please discuss with us and clearly indicate them in the order.



# JC621F Anti-lightning Liquid Level Transmitter

## Product Overview

JC621F Anti-lightning Liquid Level Transducer is used to measure the liquid level using the principle that the liquid static pressure is directly proportionate to the liquid height. By use of foreign advanced silicon piezoresistive sensitive elements, supported with patented lightning protection devices, this series of products is specially designed for thunderous areas in Southern China, and is applicable for liquid level measurement of rivers, lakes, reservoirs and head water tanks, particularly of the hydrology and water conservancy of strong thunderous areas in Southern China and high mountain regions in Northern China. It has been successfully applied in many hydrographic industries in China.



## Performance Parameters

Measuring range (FS)	0~0.5m...200mH <sub>2</sub> O or 0~5KPa...2MPa		
Permissible overpressure	Two times of full-scale pressure		
Measuring media	The liquid compatible with 316 stainless steel (Corrosion-proof type can be selected under special conditions)		
Overall accuracy	±0.25%FS	±0.5%FS	±1%FS
Long-term stability	Typical: ±0.1%FS/year		Maximum: ±0.2%FS/year
Operating temperature range	Integrated: -20 C ~70 C		Split (plug-in): -20 C ~80 C
Compensation temperature range	Integrated: -10 C ~55 C		Split (plug-in): -10 C ~70 C
Zero-point temperature drift	Typical: ±0.02%FS/ C		Maximum: ±0.05%FS/ C
Sensitivity temperature drift	Typical: ±0.02%FS/ C		Maximum: ±0.05%FS/ C
Range of power supply	12~36VDC(generally 24VDC)		
Signal output	4~20mA/1~5VDC/ 0~5VDC		
Load resistance	≤(U-12)/0.02Ω		
Structural material	Enclosure: stainless steel 1Cr18Ni9Ni		Diaphragm: stainless steel 316L
	Sealing: fluororubber		Cable: Φ7.2mm special PVC cable
Insulation resistance	100MΩ,500VDC		
Lightning protection class	Class III lightning design (10000V/5kA);optional (20000V / 10000A)under special conditions		
Protection class	Enclosure protection class IP68		
Safety and explosion protection	Ex ia II CT5		
Response time	≤2 ms		
Resolution	Infinitely small (theoretic), 1/100000 (normal)		
Thermal hysteresis	±0.1%FS (typical value)		
Weight	Approx.500g		

## Product Features

- With high sensitivity, fast response and high accuracy of measurement, the high-quality sensor can accurately reflect subtle changes in dynamic or static liquid level.
- Provided with lightning system and intrinsically safe explosion-proof capacity, it is applicable to all kinds of hazardous sites.
- 12V battery can be used to supply power under special conditions, so as to solve the problem of field power supply.
- Easy installation, convenient operation and strong interchangeability
- Fine and unique zero point, temperature drift and non-linear compensation ensure good accuracy and long-term stability of the instrument within the scope of working conditions.

# JC621F Anti-lightning Liquid Level Transmitter

## Ordering Information

<b>JC621F</b>	Anti-lightning Liquid Level Transducer	
Measuring range	0~X mH <sub>2</sub> O or 0~X KPa	
	<b>Code</b>	Structural form (maximum operating range)
	<b>C1</b>	Integrated:0~200mH <sub>2</sub> O
	<b>C2</b>	Split:0~10mH <sub>2</sub> O
	<b>C3</b>	Plug-in:0~4 mH <sub>2</sub> O
	<b>Code</b>	Overall accuracy (linearity + repeatability + hysteresis)
	<b>0</b>	±1.0%FS
	<b>1</b>	±0.4%FS
	<b>2</b>	±0.25%FS
	<b>Code</b>	Signal output (standard power supply)
	<b>A1</b>	4~20mA (12~36V DC)
	<b>V1</b>	1~5V DC(12~36V DC)
	<b>V2</b>	0~5V DC(12~36V DC)
	<b>S1</b>	RS485(5~15V DC)
	<b>Code</b>	Additional functions
	<b>F1</b>	G1 <sup>1</sup> / <sub>2</sub> male thread (split and plug-in)
	<b>F2</b>	DN20 flange (split and plug-in)
	<b>F0</b>	Special
	<b>E</b>	Intrinsically safe explosion-proof type Ex ia II CT5
	<b>R</b>	Corrosion-proof type
<b>JC621F (0~10mH<sub>2</sub>O) —C1 —1 —A1 —E</b>		<b>Anti-lightning Liquid Level Transducer</b>

## Tips for Type Selection

1. The medium to be measured shall be compatible with the material contacting with the product. Meanwhile, the density of the medium to be measured during measurement shall be indicated (except for water).
2. For battery supply feed, please indicate it in the order.
3. As an additional function code for type selection, the code "E" for intrinsically safe explosion-proof type Ex ia II CT5 denotes that power source must be supplied via safety barrier.
4. The length of cables shall be L=X m+1m. Please indicate any extension (if needed) when placing an order. There are two kinds of cable materials. By virtue of its more flexibility and good wear resistance, polyurethane material can be selectively used. Where no special requirement is indicated, cables to be supplied shall be made of PVC material.
5. The corresponding relationship of 1m water columns with pressure under standard conditions ( i.e. 4℃, g = 9.80665 m / S<sup>2</sup>):1mH<sub>2</sub>O=0.1kgf/cm<sup>2</sup> (Kgf /cm<sup>2</sup>)=9.8kPa(kPa)
6. For other special requirements, please discuss with us and clearly indicate them in the order.

# JC621R Anti-corrosive Liquid Level Transmitter

## Product Overview

As a new liquid level measurement series product, JC621R Anti-corrosive Liquid Level Transducer is specially designed for measuring sea water level and viscous & corrosive liquid level by completely using foreign state-of-the-art technology. The use of titanium alloy large flush-diaphragm sensors, advanced manufacturing and encapsulating techniques, as well as high-accuracy electronic elements has greatly enhanced service life and comprehensive performance of the product. The use of internationally state-of-the-art ceramic capacitive sensors, dry pressure measuring technology with intermediate liquid, thick-film electronic technology, surface mount technology (SMT) and PFM signal transmission technology has given full play to technical advantages of ceramic capacitive sensors, with strong corrosion, overloading and impact resistance capabilities, high stability, and quite high measuring accuracy. This series product can be extensively used in many measurement and control fields of such corrosive and viscous liquid levels as sea water level.



## Performance Parameters

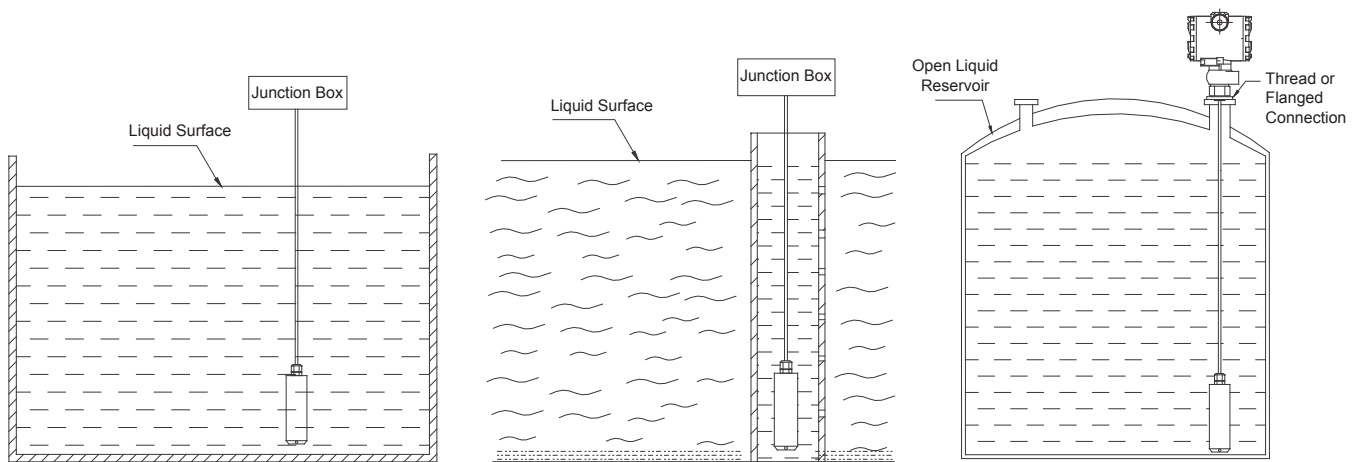
Measuring range	0~0.5m...200m		
Overload capacity	Three times of the maximum rated pressure		
Measuring media	Corrosive liquid (the medium compatible with AL <sub>2</sub> O <sub>3</sub> )		
Overall accuracy	±0.25%FS	±0.5%FS	±1%FS
Long-term stability	Typical: ±0.1%FS/year		Maximum: ±0.2%FS/year
Operating temperature range	Integrated: -20 C ~70 C		Split (plug-in): -20 C ~80 C
Compensation temperature range	Integrated: -10 C ~55 C		Split (plug-in): -10 C ~70 C
Zero-point temperature drift	Typical: ±0.02%FS/ C		Maximum: ±0.05%FS/ C
Sensitivity temperature drift	Typical: ±0.02%FS/ C		Maximum: ±0.05%FS/ C
Range of power supply	12~36VDC(generally 24VDC)		
Signal output	4~20mA/1~5VDC/ 0~5VDC		
Load resistance	≤(U-12)/0.02 Ω		
Structural material	Enclosure: 316L (optional)	Diaphragm:titanium alloy	
	Sealing: fluorosilicone rubber(optional)	Cable: Ø7.2mm special PE cable(optional)	
Insulation resistance	100MΩ,500VDC		
Protection class	Enclosure protection class IP68		
Safety and explosion protection	Ex ia II CT5		
Response time	≤2 ms		
Resolution	Infinitely small (theoretic), 1/100000 (normal)		
Weight	Approx.250g		

# JC621R Anti-corrosive Liquid Level Transmitter

## Product Features

- Strong corrosive resistance
- Large flush-diaphragm design and good block resistance
- A wide range of measurement from micro pressure 0.5m to high pressure 200m.
- Strong overloading and impact resistance capacity, with overpressure up to dozens of times to hundreds of times of the measuring range.
- Adoption of imported ceramic capacitive sensors, with strong signal output, high overall accuracy and good stability.
- Small temperature drift due to intermediate liquid canceled for measuring elements.

## Field Installation Diagram



As shown in Figure 1, for installation in the water tank, water tower and other static water, generally the sensing end is directly thrown into the bottom of the water tank as far away from the pump and valve position as possible. The wiring section of the transducer is provided within the junction box, with the outgoing line pointing downward, to prevent water from penetrating into the airway tube of the air-guiding cable. Meanwhile, remember not to block the airway tube.

As shown in Figure 2, for installation in the water dam, water well and other flowing water, a steel tube with an inner diameter of approximately  $\phi$  45mm is generally inserted into the water channel, where some small holes shall be drilled at the same height opposite to the water flow direction so that water can smoothly flow into the tube. The wiring section of the transducer is provided within the junction box, with the outgoing line pointing downward, to prevent water from penetrating into the airway tube of the air-guiding cable. Meanwhile, remember not to block the airway tube.

Figure 3 shows threaded or flanged connection of the split liquid level transmitter in the open-hole vessel, wherein thread size or flange size are G 1 / 2 and DN20 respectively or customized.

# JC621R Anti-corrosive Liquid Level Transmitter

## Ordering Information

<b>JC621R</b>	Anti-corrosive Liquid Level Transducer	
	Measuring range	0~X m or 0~X KPa
	<b>Code</b>	Structural form (maximum operating range)
	<b>C1</b>	Integrated: 0~200m
	<b>C2</b>	Split: 0~10m
	<b>C3</b>	Plug-in: 0~4 m
	<b>Code</b>	Overall accuracy (linearity + repeatability + hysteresis)
	<b>0</b>	1.0%FS
	<b>1</b>	0.4%FS
	<b>2</b>	0.25%FS
	<b>3</b>	0.1%FS
	<b>Code</b>	Signal output(standard power supply)
	<b>A1</b>	4~20 mA (12~36V DC)
	<b>V1</b>	1~5V DC (12~36V DC)
	<b>V2</b>	0~5V DC(12~36V DC)
	<b>Code</b>	Additional functions
	<b>F1</b>	G1 1/2 male thread (split and plug-in)
	<b>F2</b>	DN20 flange (split and plug-in)
	<b>F0</b>	Special
	<b>E</b>	Intrinsically safe explosion-proof type Ex ia II CT5
	<b>F</b>	Lightning protection type
<b>JC621F (0~10mH2O) —C1 —1 —A1 —E</b>		<b>Anti-lightning Liquid Level Transducer</b>

## Tips for Type Selection

1. The medium to be measured shall be compatible with the material contacting with the product. Meanwhile, the density of the medium to be measured during measurement shall be indicated (except for water).
2. As an additional function code for type selection, the code "E" for intrinsically safe explosion-proof type Ex ia II CT5 denotes that power source must be supplied via safety barrier.
3. The length of cables shall be  $L = X \text{ m} + 1 \text{ m}$ . Please indicate any extension (if needed) when placing an order. There are two kinds of cable materials. By virtue of its more flexibility and good wear resistance, polyurethane material can be selectively used. Where no special requirement is indicated, cables to be supplied shall be made of PVC material.
4. The corresponding relationship of 1m water columns with pressure under standard conditions ( i.e.  $4 \text{ } ^\circ\text{C}$ ,  $g = 9.80665 \text{ m} / \text{S}^2$ ):  $1 \text{ mH}_2\text{O} = 0.1 \text{ kgf/cm}^2$  ( $\text{Kgf} / \text{cm}^2$ ) =  $9.8 \text{ kPa}$ (KPa).
5. For other special requirements, please discuss with us and clearly indicate them in the order.

# JC622 High-accuracy Pressure Transmitter

## Product Overview

JC622 High-accuracy Pressure Transducer is a new pressure transducer jointly developed, researched and produced by our company and a foreign company. This series of products adopts high-accuracy force-sensitive chips imported from Germany as central sensing elements, as well as such new high and new technology as temperature-self-compensation and normalized circuit commissioning etc., thus greatly enhancing their overall accuracy. With advanced technology, excellent performance and reliable quality, this product is of small volume and light weight, and easy to install and use, and can be extensively used in such scientific research and production fields as airspace and aerospace, petroleum, chemical industry, metallurgy, electric power, building material, hydrogeology, medical treatment and environmental protection etc.. It can realize high-accuracy measurement of fluid pressure and liquid level.



## Performance Parameters

Measuring range	-100kPa~0~5kPa...100MPa	
Overload capacity	Two times of full-scale pressure(wherain 100MPa overpressure is 1.1 times of full-scale pressure)	
Pressure type	Gauge pressure or absolute pressure	
Measuring media	The gas or liquid compatible with 316 stainless steel	
Overall accuracy (Nonlinearity, repeatability and hysteresis)	±0.1% FS	±0.25% FS
Long-term stability	Typical: ±0.1%FS/year	Maximum: ±0.15%FS/year
Zero-point temperature drift	Typical: ±0.01%FS/ C	Maximum: ±0.15%FS/ C
Sensitivity temperature drift	Typical: ±0.01%FS/ C	Maximum: ±0.15%FS/ C
Operating temperature	-20~85 C	
Compensation temperature	-20~60 C	
Ambient temperature	-40~85 C	
Range of power supply	12~36VDC(generally 24VDC)	
Signal output	4~20mA/1~5VDC/0~5VDC/0.5~4.5VDC	
Load resistance	≤(U-12)/0.02 Ω	
Enclosure protection class	Plug type(IP65);cable type(IP67)	
Safety and explosion protection	Ex ia II CT5	
Vibration error	≤±0.01%FS(Axes X, Y, and Z, 200Hz/g)	
Response time	≤2 ms	
Thermal hysteresis	±0.01%FS(typical value)	
Insulation resistance	100MΩ,500V DC	
Weight	Approx.250g	
Resolution	Infinitely small(theoretic),1/100000(normal)	

# JC622 High-accuracy Pressure Transmitter

## Product Features

- High-accuracy force-sensitive chips imported from Germany serve as central sensing elements, with up to 0.1% FS accuracy.
- Sensor temperature-self-compensation and normalized circuit debugging are adopted to enhance the temperature stability index to 0.01%/FS/°C.
- The product can be used to measure corrosive and easily crystallized media according to special requirements.
- With its structural parts made of stainless steel, the product of fully enclosed structure can be used in the open air for a long time.
- It can be used in places where online measurement has been carried out for a long time, but cannot be calibrated.
- It can be used in hazardous areas, with intrinsically safe type Ex ia II CT5.
- With structural diversity, the product can be designed in an individualized manner as per customers' special requirements.

## Ordering Information

<b>JC622</b>	High-accuracy Pressure Transducer		
	<b>Code</b>	Pressure type	
	<b>G</b>	Gauge pressure (G may not be indicated)	
	<b>A</b>	Absolute pressure	
	<b>Range</b>	Measuring range	
		(0~X KPa or Mpa)	
	<b>Code</b>	Overall accuracy (linearity + repeatability + hysteresis)	
	<b>2</b>	±0.25%FS	
	<b>3</b>	±0.1%FS	
	<b>Code</b>	Signal output	
		<b>A1</b>	4~20mA
		<b>V1</b>	1~5V DC
		<b>V2</b>	0~5V DC
		<b>V3</b>	0.5~4.5V DC
	<b>Code</b>	Additional functions	
		<b>F1</b>	M20x1.5 male thread
		<b>F2</b>	G1/4 male thread
		<b>F0</b>	Special
		<b>W1</b>	Cable type
		<b>W2</b>	Socket type
		<b>P</b>	Flush diaphragm type
	<b>E</b>	Intrinsically safe explosion-proof type Ex iaIICT5	
<b>JC621F (0~10mH2O) —C1 —1 —A1 —E</b>		<b>Anti-lightning Liquid Level Transducer</b>	

## Tips for Type Selection

1. The medium to be measured shall be compatible with the material contacting with the product.
2. As an additional function code for type selection, the code "E" for intrinsically safe explosion-proof type Ex ia II CT5 denotes that power source must be supplied via safety barrier
3. For other special requirements, please discuss with us and clearly indicate them in the order.

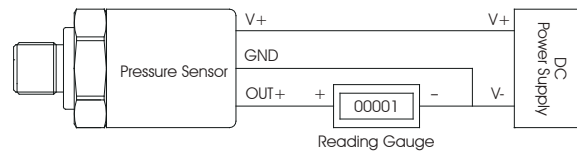
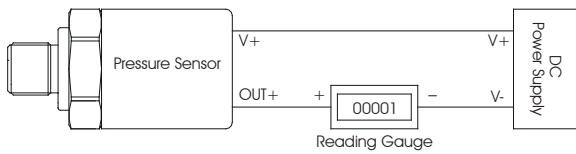
# JC622 High-accuracy Pressure Transmitter

## Electrical Connections

Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	4 pins Aviation plug Straight out 1m unshielded cable
Code	W1	W2	W3/W4	W5
Diagram				
Protection Grade	IP67	IP65	IP67	IP65
Current output wiring definition	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+	RED:V+ BLUE:OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND	RED:V+ BLUE:OUT+ YELLOW:GND

Current output wiring diagram

Voltage output wiring diagram



A type Hessman Plug	PG7 Grand lock head outlet 1m Shielded cable	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	Aviation plug



F1	F2	F3	F4	F5	F6	F7	F8	F9
M20X1.5	G1/4	1/4NPT	M12X1	∅ Gas Nozzle	KF16	G1/2	M10X1	1/8NPT



# JC624 Compact Pressure Transmitter

## Product Overview

JC624 is a series has features of anti-corrosion, anti-wear, shock resistance and vibration resistance. Its anti-overload capacity is over 10 times of the range, completely solved poor overload in small range of other sensors. In addition to general ranges of normal sensors, its most outstanding characteristic is the positive and negative gauge pressure function. JC624 is a civil and industrial product with large consumption and low costs, for which a new standard of cost performance has been established. This series of products is widely used for pneumatic and hydraulic detection even in very harsh medium environment such as sewage, vapor, slight corrosive liquid and gas.



## Performance Parameters

Sensor Range	0-40KPa, 1MPa,2MPa,5MPa,10MPa, 15MPa...20Pa...50MPa... 100 MPa customized	
Input	Pressure type	Gauge pressure, sealing pressure, absolute pressure
Overload Capacity	2 times of full-scale pressure. Maximum 110MPa	
Measuring media	The gas or liquid compatible with 316 stainless steel or ceramic	
Signal output	Analog	mV DC,0.5...4.5V, 4...20mA, 0...10V, 1...5V,0...5V
	Digital	I <sup>2</sup> C, SPI
Accuracy	0.50%	Linearity, hysteresis, repetitiveness; <0.5% sensor full range
	1%	Linearity, hysteresis, repetitiveness; <1% sensor full range
Long-term stability	±0.25%FS/year	
Operating temperature	-20~+85 C	
Compensation temperature	-10~+50 C	
Thermal hysteresis	±0.1%FS(typical)	
Power Supply	Supply voltage	5VDC, 12~36 VDC (24V DC typical)
	Supplier voltage effect	5V supply voltage effect: min 3V/max5.5V For 0.5...4.5V output sensor, voltage has no effect for linearity and temperature compensation, voltage is proportional to LRV and FRV For I2C and SPI digital output sensor, voltage has no effect for linearity, LRV, URV and compensation temperature. 24V supply power effect: min 9V/max30v For 4...20MA current output sensor, voltage has no effect for linearity, LRV, URV and compensation temperature.
Electrical connection	PG7cable connection	Connector DIN43650
Enclosure protection class	IP67(cable type)	IP65(socket type)
Response time(10%~90%)	≤3ms	
Load resistance	≤(U-12)/0.02 Ω	
Insulation resistance	100MΩ,500VDC	
Vibration error	≤±0.01%FS(Axes X,Y,Z, 200Hz/g)	
Weight	Approx. 250g	

## Application

- Pressure measurement of gas, vapor or liquid in various areas
- Integrated in a variety of user-defined solutions
- Pump and compressor
- Hydraulic and pneumatic system
- Energy and water treatment system
- Automatic detection system
- Agricultural equipment
- Refrigeration equipment --- Freon or ammonia

## Features

- Excellent anti-corrosive and anti-wear performance;
- Suitable for pollution and corrosive environment;
- Various electrical connectors available;
- Rapid response, no hysteresis;
- Anti- Icing;
- Accurate, stable and reliable;
- 0.5..4.5V and 4.20MA analog output, I2C and SPI digital output;
- Refrigeration equipment --- Freon or ammonia

# JC624 Compact Pressure Transmitter

## Ordering Information

<b>JC624</b>	Pressure Transmitter		
<b>Code</b>	Pressure type		
<b>G</b>	Gauge pressure (G may not be indicated)		
<b>S</b>	Sealing pressure		
<b>A</b>	Absolute pressure		
<b>Range</b>	Measuring range		
	0~ X KPa or MPa		
<b>Code</b>	Overall accuracy (linearity + repeatability + hysteresis)		
<b>1</b>	±0.5%FS		
<b>0</b>	1%FS		
<b>Code</b>	Signal output		
<b>A1</b>	4~20mA		
<b>V1</b>	1~5V DC		
<b>V2</b>	0~5V DC		
<b>V3</b>	0.5~4.5V DC		
<b>V4</b>	I <sup>2</sup> C		
<b>V5</b>	SPI		
<b>X</b>	Customized		
<b>Code</b>	Electrical connector		
<b>C1</b>	Packard		
<b>C2</b>	M12x4P		
<b>C3</b>	Cable Outlet (the cable length needs to be advised while ordering)		
<b>C4</b>	Mini DIN43650		
<b>C5</b>	GX12-3		
<b>CX</b>	Customized		
<b>Code</b>	Process connector		
<b>F1</b>	M20X1.5 male thread		
<b>F2</b>	G1/4 male thread		
<b>F3</b>	1/4 NPT male thread		
<b>F0</b>	Customize		
<b>JC624 (0~2MPa) G—1 —A1 —C1—F2 Pressure Transmitter</b>			

## Tips for Type Selection

1. The medium to be measured shall be compatible with the material contacting with the product.
2. As an additional function code for type selection, the code "E" for intrinsically safe explosion-proof type Ex iaIICT6 denotes that power source must be supplied via safety barrier
3. For other special requirements, please discuss with us and clearly indicate them in the order.

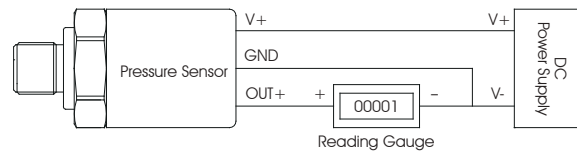
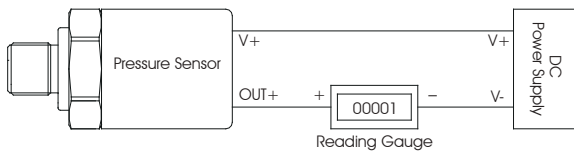
# JC624 Compact Pressure Transmitter

## Electrical Connections

Description	Packard		PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	4 pins Aviation plug Straight out 1m unshielded cable
Code	C1		W1	W2	W3/W4	W5
Diagram						
Protection Grade			IP67	IP65	IP67	IP65
Current output wiring definition	Current (2 wire)	Current (3 wire)	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+	RED:V+ BLUE:OUT+
Voltage output wiring definition	Pin1: Supply V+ Pin2: Output Pin3: N/A	Pin1: Supply V+ Pin2: Common Pin3: Output	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND	RED:V+ BLUE:OUT+ YELLOW:GND

Current output wiring diagram

Voltage output wiring diagram



Packard	A type Hessman Plug	PG7 Grand lock head outlet 1m Shielded cable	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	Aviation plug



F1	F2	F3	F4	F5	F6	F7	F8	F9
M20X1.5	G1/4	1/4NPT	M12X1	∅ Gas Nozzle	KF16	G1/2	M10X1	1/8NPT

# JC625 Industrial Pressure Transmitter

## Product Overview

JC625 Industrial Pressure Transducer is provided with foreign advanced sensor force-sensitive chips, supported with high-accuracy electronic elements, and assembled through strict process flow. This series of products is provided with special terminals, shield cables, pointers and digital display, with easy installation, calibration and maintenance. It can be extensively used in many industrial fields such as petroleum, chemical, electric power, metallurgical, pharmaceutical and food industry fields etc.. Thus, this product is considered ideal for upgrading conventional pressure gauges and pressure transducers, and also serves as an ideal instrument for pressure measurement and control in industrial automation field.



## Performance Parameters

Measuring range	Optional within -100KPa~0~5KPa...100MPa		
Overload capacity	2 times of full-scale pressure(1.1 times of full-scale pressure for 100MPa)		
Pressure type	Gauge pressure or absolute pressure		
Measuring media	The gas or liquid compatible with 316 stainless steel		
Overall accuracy (nonlinearity + repeatability+ hysteresis)	±0.1%FS	±0.25%FS	±0.4%FS
Long-term stability	Typical: ±0.1%FS	Maximum: ±0.15%FS/year	
Zero temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.15%FS/ C	
Sensitivity temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.15%FS/ C	
Range of operating temperature	-40~125 C		
Range of compensation temperature	-20~80 C		
Power supply	12~36VDC(generally 24VDC)		
Signal output	4~20mA / 1~5VDC / 0~5VDC / 0.5~4.5VDC		
Load resistance	≤(U-12)/0.02 Ω		
Signal wire connecting hole	Cable hole is Φ8		
Weight	Approx.0.5kg		
Response time	≤2 ms		
Thermal hysteresis	±0.1%FS(typical value)		
Enclosure protection class	IP65		
Safety and explosion protection	Ex ia II CT6		
Vibration error	≤±0.01%FS(Axes X, Y, Z, 200Hz/g)		
Insulation resistance	100MΩ,500V DC		
Resolution	Infinitely small (theoretical), 1/100000(normal)		

## Product Features

- Laser resistor trimming temperature compensation
- Adjustable zero position and range
- High accuracy, high reliability and high stability
- Radio frequency immunity
- Power reverse polarity and over-voltage protection
- Isolating corrosion-proof, and intrinsic safe explosion-proof
- Direct process installation, field pointer or digital display
- Standard intelligent 4~20 mA, HART protocol (optional)

## Product Features

It can be extensively used in many industrial fields such as petroleum, chemical, electric power, metallurgical, pharmaceutical and food industry fields etc.. Thus, this product is considered ideal for upgrading conventional pressure gauges and pressure transducers, and also serves as an ideal instrument for pressure measurement and control in industrial automation field.

# JC625 Industrial Pressure Transmitter

## Ordering Information

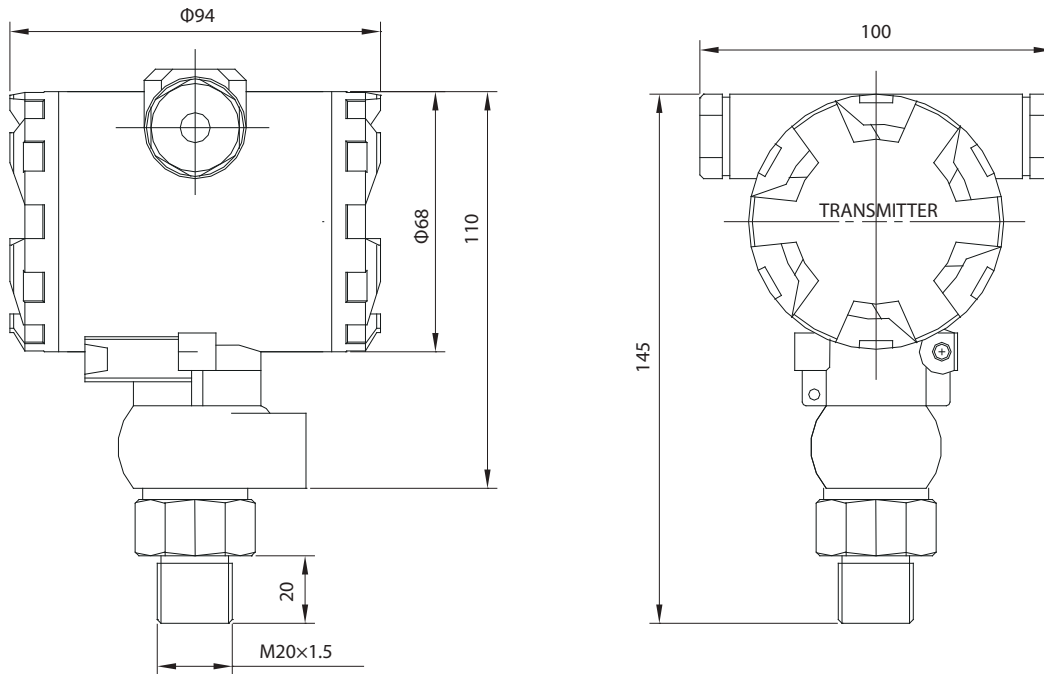
<b>JC625</b>	Industrial Pressure Transducer		
	<b>Code</b>	Pressure type	
	<b>G</b>	Gauge pressure (G may not be indicated)	
	<b>A</b>	Absolute pressure	
	<b>Range</b>	Measuring range	
		(0~X KPa or Mpa)	
	<b>Code</b>	Overall accuracy (linearity + repeatability + hysteresis)	
	<b>1</b>	±0.5%FS	
	<b>2</b>	±0.25%FS	
	<b>3</b>	±0.1%FS	
	<b>Code</b>	Signal output	
	<b>A1</b>	4~20mA	
	<b>V1</b>	1~5V DC	
	<b>V2</b>	0~5V DC	
	<b>V3</b>	0.5~4.5V DC	
	<b>S</b>	4~20mA, HART protocol (standard intelligent type)	
	<b>Code</b>	Additional functions	
	<b>F1</b>	M20x1.5 male thread	
	<b>F2</b>	G1/4 male thread	
	<b>F0</b>	Special	
	<b>L1</b>	Pointer gauge (0~100%) display	
	<b>L2</b>	Four-LCD display	
	<b>L3</b>	Four-LED display	
	<b>P</b>	Flush-diaphragm type	
	<b>E</b>	Intrinsically safe explosion-proof type Ex iaIICT6	
<b>JC625(0~100KPa) —1 —A1 —F1 —L2 Industrial Pressure Transducer</b>			

## Tips for Type Selection

1. The medium to be measured shall be compatible with the material contacting with the product.
2. As an additional function code for type selection, the code "E" for intrinsically safe explosion-proof type Ex iaIICT5 denotes that power source must be supplied via safety barrier.
3. For other special requirements, please discuss with us and clearly indicate them in the order.

# JC625 Industrial Pressure Transmitter

## Electrical Connections



F1	F2	F3	F4	F5	F6	F7	F8	F9
M20X1.5	G1/4	1/4NPT	M12X1	$\Phi$ Gas Nozzle	KF16	G1/2	M10X1	1/8NPT

# JC627 Vacuum/Absolute Pressure Transmitter

## Product Overview

As a new series product specially used for vacuum measurement and control, JC627 Vacuum/Absolute Pressure Transducer has completely solved the problem of difficult vacuum measurement. This series product has three specifications, i.e. JC627G negative pressure transducer, JC627A absolute pressure transducer and JC627CA capacitor thin-film absolute pressure transducer, which have widely been used in such fields as pharmaceutical, medical equipment, aerospace and aerospace, scientific research, leakage detection and completed automation equipment fields.

By use of a mono-crystalline silicon thick-film sensor, JC627G negative pressure transducer is equipped with a high-accuracy signal processing circuit, with stable and reliable performance, which has solved such disadvantages of domestic diffused silicon-type negative pressure vacuum products as unstable signal and short service life. Normal ranges include 0 ~ 100kPa and 0 ~ 50kPa, etc..

JC627A absolute pressure transducer adopts such advanced foreign new high technologies as absolute pressure chips, temperature automatic compensation, and normalized circuit debugging etc., to expand the absolute pressure range to 5kPa at the minimum, and to greatly enhance the overall accuracy of the product. Characterized by advanced technology, superior performance, reliable quality and small volume, this product has quite obvious advantages in high cost performance by comparison with domestic similar absolute pressure products.

JC627CA capacitor thin-membrane absolute pressure transducer is a vacuum pressure gauge made in China through the introduction of foreign capacitor thin-film gauge technology and internationally advanced calibration equipment. This product works by the capacitance changing principle. Its minimum range may be up to 0.02MPa ~ 200MPa absolute pressure, and its detection won't be influenced by the type and component of the medium to be detected. Its output of standard electric signals can be remotely transmitted, to facilitate intelligent control of microprocessors. Therefore, it is ideal for the measurement of low vacuum pressure.



## Performance Parameters

Measuring media	The gas or liquid compatible with Ceramic or 316 stainless steel		
Pressure type	Negative gauge pressure (G), silicon-type absolute pressure (A), capacitor thin-film absolute pressure (CA)		
Overload capacity	2 times at negative gauge pressure; 10 times to one hundred times at micro-range absolute pressure		
Measuring range	Negative gauge pressure: 0~-5kPa ...-50kPa...-100kPa		
	Silicon-type absolute pressure: 0~5kPa.....10kPa ...20kPa...100kPa...200kPa...1MPa		
	Capacitor thin-film absolute pressure: 0.02Pa~200Pa、1Pa~1kPa customized		
Overall accuracy(nonlinearity + repeatability+ hysteresis)	±0.1%FS	±0.25%FS	±0.5%FS
Long-term stability	Typical: ±0.1%FS/ year	Maximum: ±0.15%FS/year	
Zero temperature drift	Typical: ±0.01%FS/ C	Maximum: ±0.15%FS/ C	
Sensitivity temperature drift	Typical: ±0.01%FS/ C	Maximum: ±0.15%FS/ C	
Range of operating temperature	-20~80 C		
Range of compensation temperature	-10~60 C		
Ambient temperature	-20~80 C		
Range of power supply	12~36VDC(generally 24VDC)		
Signal output	4~20mA/1~5VDC/0~5VDC		
Load resistance	≤(U-12)/0.02 Ω		
Resolution	Infinitely small (theoretical), , 1/100000(normal)		
Enclosure protection class	Plug type(IP65); cable type (IP67)		
Safety and explosion protection	Ex ia II CT5		
Vibration error	≤±0.01%FS(Axes X, Y and Z, 200Hz/g)		
Response time	≤2 ms		

# JC627 Vacuum/Absolute Pressure Transmitter

## Product Features

- Fully provided with foreign high- accuracy sensing elements, with the maximum accuracy of up to 0.1% FS
- Continuously operable for a long time, with good long- term stability
- Applicable for measuring corrosive medium according to special requirements
- Strong overloading resistibility.Fast response. Stable and reliable performance
- Applicable for hazardous areas, with intrinsically safe explosion-proof type Ex ia II CT5
- With structural diversification, the product can be designed in an individualized manner as per customers' special requirements

## Ordering Information

<b>JC627</b>	Vacuum/absolute pressure transducers		
<b>Pressure type</b>	Negative gauge pressure (G), silicon- type absolute pressure (A), capacitor thin-film absolute pressure (CA)		
<b>Measuring range</b>	0~X KPa or 0~X Mpa		
	<b>Code</b>	Overall accuracy (linearity + repeatability+ hysteresis)	
	<b>1</b>	±0.5%FS	
	<b>2</b>	±0.25%FS	
	<b>3</b>	±0.1%FS	
	<b>Code</b>	Signal output	
	<b>A1</b>	4~20mA(12~36V DC)	
	<b>V1</b>	1~5V DC(12~36V DC)	
	<b>V2</b>	0~5V DC (12~36V DC)	
	<b>V3</b>	0~10V DC (24V DC)	
	<b>Code</b>	Additional functions	
	<b>F1</b>	M20x1.5 external thread	
	<b>F2</b>	G1/4 external thread	
	<b>F6</b>	Clamped type	
	<b>F0</b>	Special	
	<b>W1</b>	Cable type (IP67, 2m)	
	<b>W2</b>	Socket type (IP65, DIN43650)	
	<b>W3</b>	Aviation plug	
	<b>P</b>	Flush-diaphragm type	
	<b>E</b>	Intrinsically safe explosion-proof type Ex iaIICT6	
<b>JC627A(0~10KPa) —1 —A1 —F1 —W2 Vacuum/Absolute Pressure Transducer</b>			

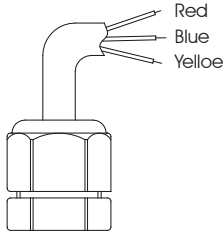
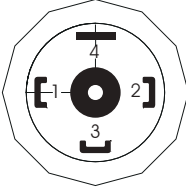
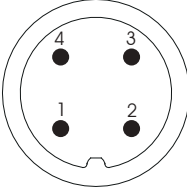
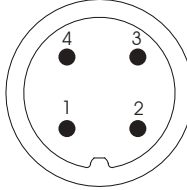
## Tips for Type Selection

1. The medium to be measured shall be compatible with the material contacting with the product.
2. As an additional function code for type selection, the code "E" for intrinsically safe explosion-proof type Ex iaIICT6 denotes that power source must be supplied via safety barrier.
3. For other special requirements, please discuss with us and clearly indicate them in the order.



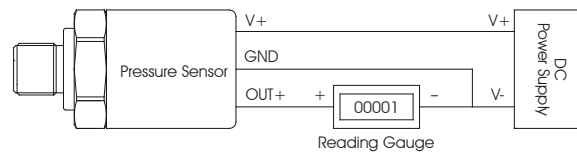
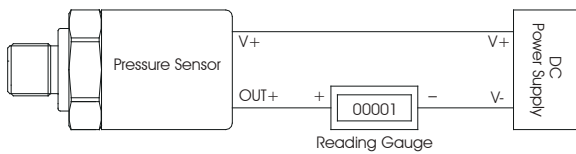
# JC627 Vacuum/Absolute Pressure Transmitter

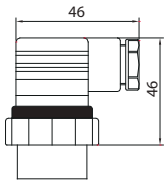
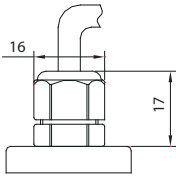
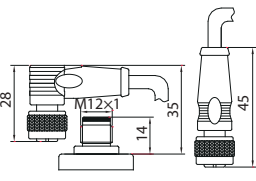
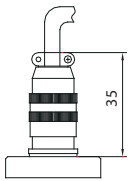
## Electrical Connections

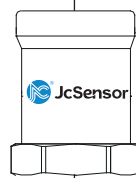
Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	4 pins Aviation plug Straight out 1m unshielded cable
Code	W1	W2	W3/W4	W5
Diagram				
Protection Grade	IP67	IP65	IP67	IP65
Current output wiring definition	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+	RED:V+ BLUE:OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND	RED:V+ BLUE:OUT+ YELLOW:GND

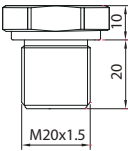
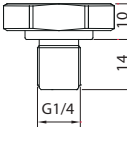
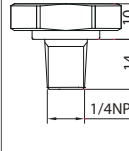
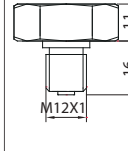
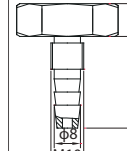
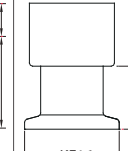
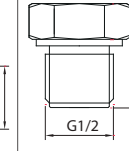
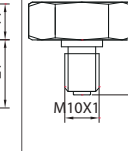
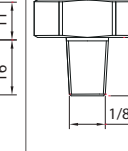
Current output wiring diagram

Voltage output wiring diagram



A type Hessman Plug	PG7 Grand lock head outlet 1m Shielded cable	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	Aviation plug
			



F1	F2	F3	F4	F5	F6	F7	F8	F9
								
M20X1.5	G1/4	1/4NPT	M12X1	Ø Gas Nozzle	KF16	G1/2	M10X1	1/8NPT

# JC630 Micro Differential Pressure / Air Pressure Transmitter

## Product Overview

Designed with high-quality components from a foreign company, JC630 Micro Differential Pressure / Air Pressure Transducer adopts the circuit of normalized design and assembly process as well as unique sensor stress isolation technology, to convert the differential pressure signal of the measured medium into 4~20mA or 1~5V DC standard signal through temperature compensation and high-stability amplification process. High-quality sensor, circuit of normalized design, superb encapsulation technology as well as improved assembling process ensure superior quality and best performance of this product. This series product is specially designed for industrial and civil OEM customers, for which new cost performance standard has been established.



## Performance Parameters

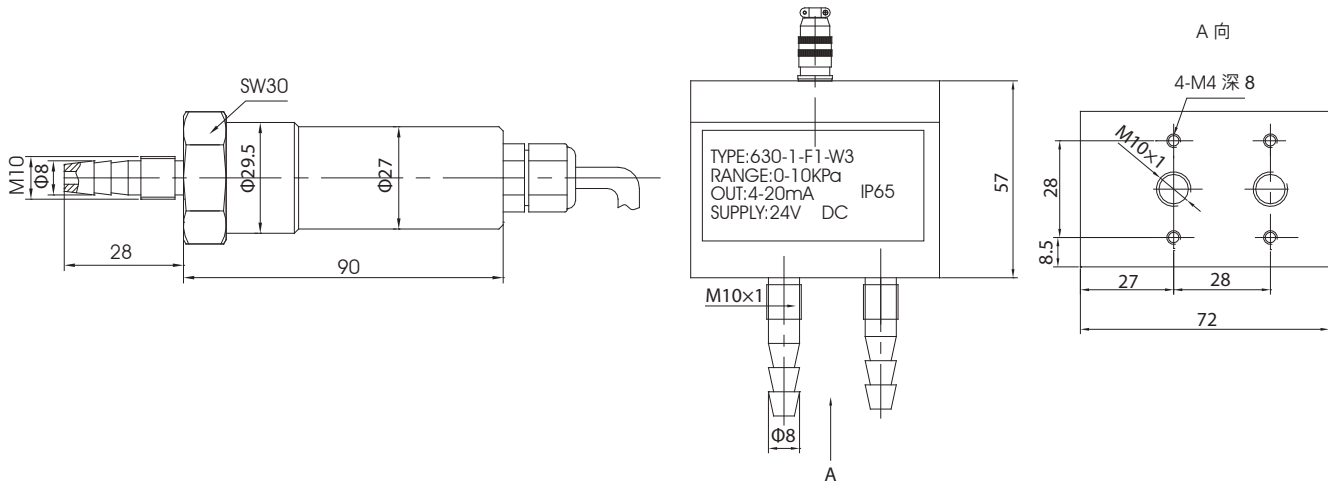
Measuring range	TDifferential pressure / air pressure: 0~500Pa...700KPa		
	Negative pressure: 0~-500Pa...-1KPa...-5KPa...-10KPa...-50KPa...-100KPa		
Permissible overpressure	Three times of FS pressure		
Measuring media	Non-corrosive, dust-free dry gas		
Overall accuracy(nonlinearity + repeatability+ hysteresis)	±0.1%FS	±0.25%FS	±0.5%FS
Medium temperature	-20 C ~85 C		
Compensation temperature	-10 C ~55 C		
Ambient temperature	-10 C ~80 C		
Zero temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.05%FS/ C	
Sensitivity temperature drift	Typical: ±0.02%FS/ C	Maximum: ±0.05%FS/ C	
Long-term stability	Typical: ±0.1%FS/year	Maximum: ±0.2%FS/ year	
Range of power supply	12~36VDC(generally 24VDC)		
Signal output	4~20mA / 1~5V DC		
Load resistance	≤(U-12)/0.02 Ω		
Enclosure material	Hard aluminum alloy surface coating or 304 stainless steel		
Protection class	IP65 or IP67		
Process connection	φ 8 tip, with M10×1 mounting screws (threaded connection can be made in special cases)		
Ex-mark	Exia II CT6(intrinsically safe explosion-proof type)		
Weight	Approx.0.35Kg		
Vibration error	≤±0.01%FS(Axes X, Y and Z, 200Hz/g)		
Thermal hysteresis	±0.1%FS(typical value)		
Response time	≤1 ms		
Insulation resistance	100MΩ,500V DC		
Resolution	Infinitely small (theoretical),1/100000(normal)		

## Product Overview

- High performance cost ratio
- From 0~0.5kpa to 0~700kpa
- Continuously adjustable zero point and range
- Lightning and radio frequency immunity
- Reverse polarity protection and current-limiting protection
- Compact structure, elegant appearance, and easy installation
- Normalized design and production guarantee stable quality and performance of the product
- The product can be designed or improved as per customers' specific requirements
- Purification equipment and cleaning engineering
- Dust control and environmental protection
- Underground ventilation monitoring
- Hearth pressure or hearth negative pressure
- Measurement of air pressure and flow rate in industrial process
- Medical instruments and equipment
- Fan measurement and control
- Normalized design and production guarantee stable
- HVAC

# JC630 Micro Differential Pressure / Air Pressure Transmitter

## Overall Dimension Drawings



## Ordering Information

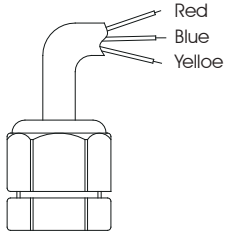
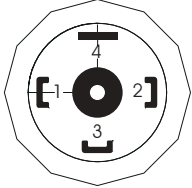
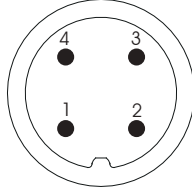
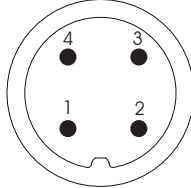
<b>JC630</b>	Micro Differential Pressure / Air Pressure Transducer	
	<b>Range</b>	Measuring range(0~ X KPa)
	<b>Code</b>	Overall accuracy (linearity + repeatability+ hysteresis)
	<b>1</b>	±0.5%FS
	<b>2</b>	±0.25%FS
	<b>3</b>	±0.1%FS
	<b>Code</b>	Signal output (standard power supply)
	<b>A1</b>	4~20mA
	<b>V1</b>	1~5V DC
	<b>V2</b>	0~5V DC
	<b>V3</b>	0.5~4.5V DC
	<b>Code</b>	Additional functions
	<b>F1</b>	M20x1.5 male thread
	<b>F2</b>	G1/4 male thread
	<b>F5</b>	φ8 tip, with M10×1 mounting thread
	<b>F0</b>	Special
	<b>W1</b>	Cable type (IP67,2m)
	<b>W2</b>	Socket type (IP65,DIN43650)
	<b>W3</b>	Aerial socket type (IP65)
	<b>E</b>	Intrinsically safe explosion-proof type Ex iaIICT5
<b>JC630 (0~500Pa) —1 —A1 —F2 —W1 Micro Differential Pressure / Air Pressure Transducer</b>		

## Tips for Type Selection

1. If the medium to be measured contains dusty or wet gas, be sure to select supporting dust-proof dry filters for connecting lines, and remove wet dust or make a replacement on time.
2. As an additional function code for type selection, the code "E" for intrinsically safe explosion-proof type Ex iaIICT5 denotes that power source must be supplied via safety barrier
3. For other special requirements, please discuss with us and clearly indicate them in the order.

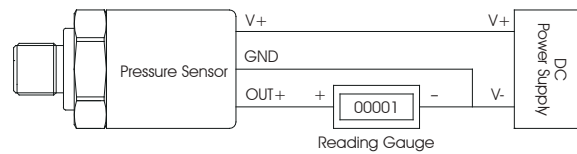
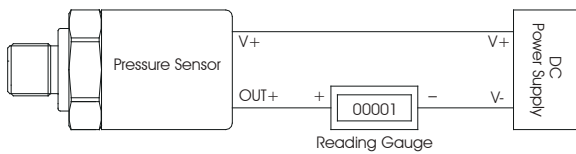
# JC630 Micro Differential Pressure / Air Pressure Transmitter

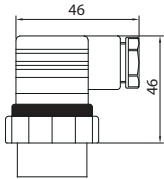
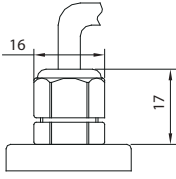
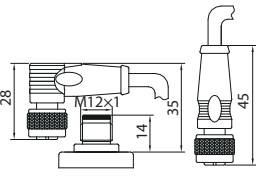
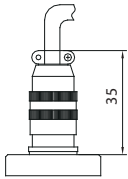
## Electrical Connections

Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	4 pins Aviation plug Straight out 1m unshielded cable
Code	W1	W2	W3/W4	W5
Diagram				
Protection Grade	IP67	IP65	IP67	IP65
Current output wiring definition	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+	RED:V+ BLUE:OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND	RED:V+ BLUE:OUT+ YELLOW:GND

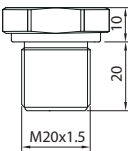
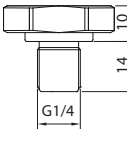
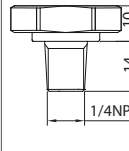
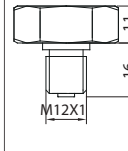
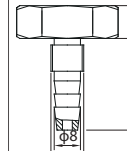
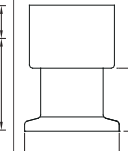
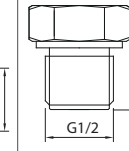
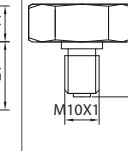
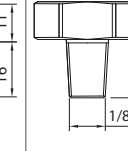
Current output wiring diagram

Voltage output wiring diagram



A type Hessman Plug	PG7 Grand lock head outlet 1m Shielded cable	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	Aviation plug
			



F1	F2	F3	F4	F5	F6	F7	F8	F9
								
M20X1.5	G1/4	1/4NPT	M12X1	Ø Gas Nozzle	KF16	G1/2	M10X1	1/8NPT

# JC631 Differential Pressure Transmitter

## Product Overview

JC631 Differential Pressure Transducer adopts foreign-made differential pressure sensitive chips and special transducer integrated circuits as well as high-performance key components and strict production process to ensure that this series product features superior performance, small dimensions and easy installation. Therefore, it is the optimum choice for micro differential pressure, flow field, flow rate, and flow measurement.



## Performance Parameters

Measuring range	0~10KPa...2 MPa		
Full scale range	10~ 50KPa		
Positive permissible overpressure	≥3 times of full scale, ≤2MPa		
Negative permissible overpressure	2 times of full scale, ≤2MPa		
Maximum static pressure	≤20MPa		
Overall accuracy(nonlinearity + repeatability+ hysteresis)	±0.1%FS	±0.25%FS	±0.5%FS
Zero temperature error	±0.02%FS/ C (typical)		±0.05%FS/ C (maximum)
Sensitivity temperature error	±0.02%FS/ C (typical)		±0.05%FS/ C (maximum)
Influence of static pressure	±0.05%FS/100KPa		
Operating temperature	-10~80 C		
Compensation temperature	-10~50 C		
Long-term stability	±0.3%FS/year(≤200kPa)	±0.1%FS/year(≥200kPa)	
Range of power supply	12~36V DC(generally 24V DC)		
Output signal	Two-wire 4~20mA DC, three-wire 0/1~5V DC		
Response time	≤2 ms		
Insulation resistance	100MΩ, 500VDC		
Influence of vibration	≤1% change after vibration at 3gRMS 30~2000Hz		
Impact	≤1% change after impact of 100g for 10ms		
Service life	1×10 <sup>8</sup> pressure cycles		
Medium	The liquid or gas adapting to structural material		
Enclosure protection class	Plug-in type(IP65); cable type(IP67)		
Safety and explosion protection	Ex ia II CT5(intrinsically safe explosion-proof type)		
Weight	Approx 0.35kg		
Thermal hysteresis	±0.1%FS(typical value)		
Enclosure protection class	Plug-in type(IP65); cable type(IP67)		

## Product Overview

- High cost performance
- Reliable and stable performance
- Range of differential pressure: 0 ~ 10KPa ... 2MPa
- Resistant to static pressure of up to 20MPa
- Fully made of stainless steel, with small dimensions,light weight, and easy installation

## Product Applications

- Industrial process control
- Medical instrument
- Aerodynamic measurement
- Hydraulic and pneumatic equipment
- Flow measurement

# JC631 Differential Pressure Transmitter

## Ordering Information

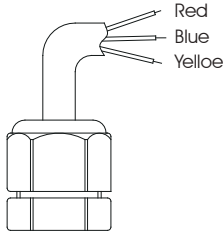
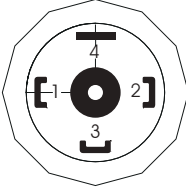
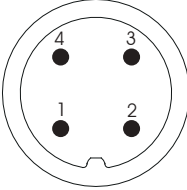
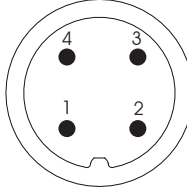
<b>JC631</b>	Differential Pressure Transducer	
	<b>Range</b>	Measuring range(0~ X KPa or MPa)
	<b>Code</b>	Overall accuracy (linearity + repeatability+ hysteresis)
	<b>1</b>	±0.5%FS
	<b>2</b>	±0.25%FS
	<b>3</b>	±0.1%FS
	<b>Code</b>	Signal output (standard power supply)
	<b>A1</b>	4~20mA (12~36V DC)
	<b>V1</b>	1~5V DC (12~36V DC)
	<b>V2</b>	0~5V DC (12~36V DC)
	<b>V3</b>	0.5~4.5V DC (12~36V DC)
	<b>Code</b>	Additional functions
	<b>F1</b>	M20x1.5 male thread
	<b>F2</b>	G1/4 male thread
	<b>F0</b>	Special
	<b>W1</b>	Cable type(IP67, 2m)
	<b>W2</b>	Socket type(IP65, DIN43650)
	<b>E</b>	Intrinsically safe explosion-proof type Ex iaIICT6
<b>JC631 (0~50KPa) —1 —A1 —F2 —W1 Differential Pressure Transducer</b>		

## Tips for Type Selection

1. In order to guarantee safe and reliable operation of the transducer, it is recommended that the three-valve manifold should be installed between the point to be measured and the transducer to ensure that the medium to be measured is slowly and evenly applied on the positive and negative chambers.
2. During installation, it is recommended that pressure connections on both ends should be located above the horizontal line so as to minimize the influence of the installation position on the product.
3. During type selection, please note that the static pressure to be measured shall be less than 20MPa and the overpressure to be applied on the positive and negative chambers shall not exceed the specified value of the product.
4. As an additional function code for type selection, the code "E" for intrinsically safe explosion-proof type Ex iaIICT6 denotes that power source must be supplied via safety barrier
5. For other special requirements, please discuss with us and clearly indicate them in the order.

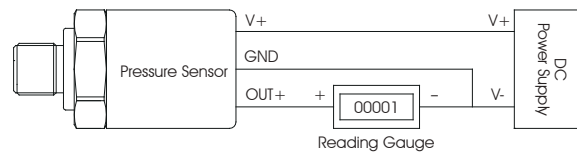
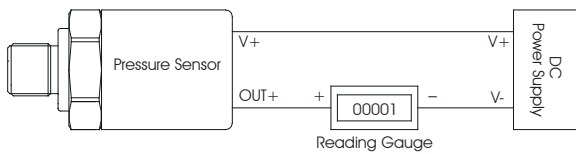
# JC631 Differential Pressure Transmitter

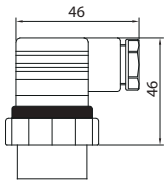
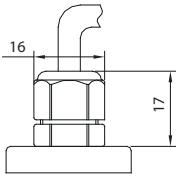
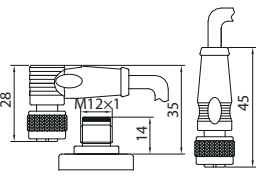
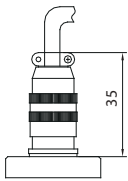
## Electrical Connections

Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	4 pins Aviation plug Straight out 1m unshielded cable
Code	W1	W2	W3/W4	W5
Diagram				
Protection Grade	IP67	IP65	IP67	IP65
Current output wiring definition	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+	RED:V+ BLUE:OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND	RED:V+ BLUE:OUT+ YELLOW:GND

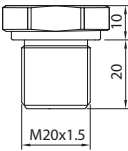
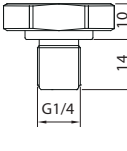
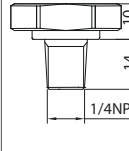
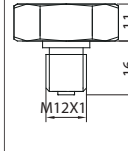
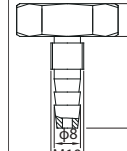
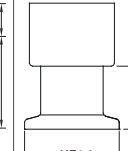
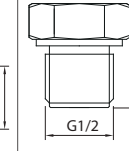
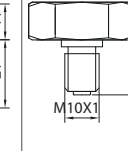
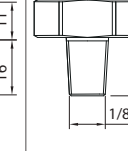
Current output wiring diagram

Voltage output wiring diagram



A type Hessman Plug	PG7 Grand lock head outlet 1m Shielded cable	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	Aviation plug
			



F1	F2	F3	F4	F5	F6	F7	F8	F9
								
M20X1.5	G1/4	1/4NPT	M12X1	⊙ Gas Nozzle	KF16	G1/2	M10X1	1/8NPT

# JC650 Anti-corrosive Pressure Transmitter

## Product Overview

JC650 anti-corrosive pressure transducer adopts foreign high-performance anti-corrosive tantalum diaphragm force-sensing chip, supported with high-precision electronic element. It is assembled through strict process flow. Featured by strong corrosive and wear resistance etc, this series of product has very well solved the pressure measurement problems of strong and weak corrosive gas or liquid under domestic special applications. This series of pressure transducer can be widely used in petroleum, chemical, metallurgical, electric power, environmental protection and other fields to automatically measure and control the gauge pressure, absolute pressure and negative pressure of corrosive gas, liquid, and vapor.



## Performance Parameters

Measuring range	-100KPa ~ 0 ~ 5KPa...100KPa...60MPa	
Overload capacity	Two times FS pressure	
Pressure type	Gauge or absolute pressure	
Measured medium	Strong and weak corrosive gas or liquid	
Overall accuracy	Typical: $\pm 0.25\%FS$	Maximum: $\pm 0.4\%FS$
Long-term stability	Typical: $\pm 0.1\%FS/ \text{year}$	Maximum: $\pm 0.2\%FS/ \text{year}$
Zero point temperature drift	Typical: $\pm 0.015\%FS/ ^\circ C$	Maximum: $\pm 0.03\%FS/ ^\circ C$
Sensitivity temperature drift	Typical: $\pm 0.015\%FS/ ^\circ C$	Maximum: $\pm 0.03\%FS/ ^\circ C$
Response time	$\leq 3ms$	
Resolution	Infinite small (theoretical), 1/100000 (general)	
Medium temperature	-20 ~ 85 °C	
Compensation temperature	-10 ~ 60 °C	
Ambient temperature	-20 ~ 80 °C	
Service life	$\geq 1 \times 10^8$ pressure circulation (25 °C)	
Diaphragm material	Tantalum diaphragm	
Enclosure material	PVC, titanium alloy, PTFE	
Load resistance	$\leq (U-12)/0.02 \Omega$	
Protection degree	IP 65 – IEC 60529 for plug-in type; IP 67 – IEC 60529 for cable type	
Intrinsically safe explosion-proof	Ex ia II CT6	
Weight	Approx. 250g	

## Product Features

- Tantalum diaphragm piezoresistive chip, with very strong corrosive resistance
- Resistant to impact, vibration and wear
- High accuracy: 0.25% FS 0.5%FS
- Good stability:  $\leq 0.2\% FS / \text{year}$ ,  $\leq 0.02\% FS / ^\circ C$
- Without production process pollution; without any force transmission filling liquid
- The enclosure can be made of PVC, titanium alloy or PTFE, depending on the customer's medium corrosion.



## JC650 Anti-corrosive Pressure Transmitter

### Ordering Information

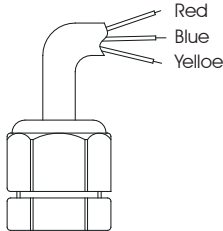
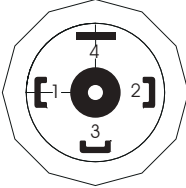
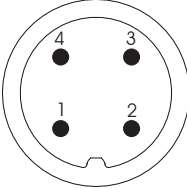
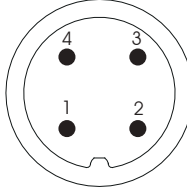
<b>JC650</b>	Anti-corrosive Pressure Transducer	
<b>Code</b>	Pressure type	
<b>G</b>	Gauge pressure (may not be indicated)	
<b>A</b>	Absolute pressure	
<b>Range</b>	Measuring range	
	(0~ X KPa or MPa)	
<b>Code</b>	Overall accuracy (linearity + repeatability + lagging)	
<b>1</b>	±0.5%FS	
<b>2</b>	±0.25%FS	
<b>Code</b>	Signal Output	
	<b>A1</b>	4~20mA
	<b>V1</b>	1~5V DC
	<b>V2</b>	0~5V DC
	<b>V3</b>	0.5~4.5V DC
<b>Code</b>	Additional functions	
	<b>F1</b>	M20x1.5 male thread
	<b>F2</b>	G1/4 male thread
	<b>F0</b>	Special
	<b>W1</b>	Cable type
	<b>W2</b>	Socket type
	<b>W0</b>	Special
<b>E</b>	Intrinsically safe explosion - proof type Ex iaIICT5	
<b>JC627A(0~10KPa)—1—A1—F1—W2 Vacuum/Absolute Pressure Transducer</b>		

### Tips for Type Selection

1. The measured medium shall be compatible with the material contacting with the product.
2. The code E, an additional function code for selection, namely, intrinsically safe explosion-proof Ex ia II CT5, must be power supplied via safety barrier.
3. Please contact us for other special requirements and clearly indicate them in the order.

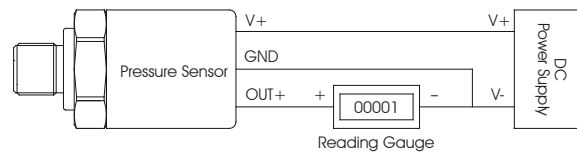
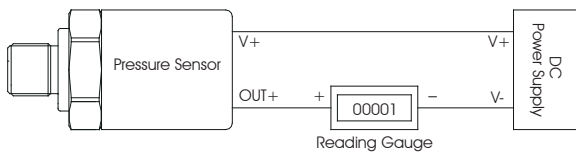
# JC650 Anti-corrosive Pressure Transmitter

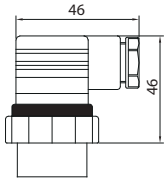
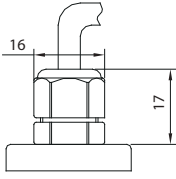
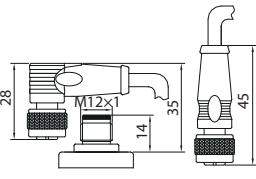
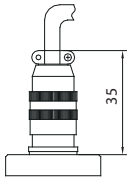
## Electrical Connections

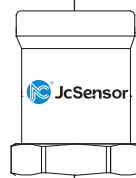
Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	4 pins Aviation plug Straight out 1m unshielded cable
Code	W1	W2	W3/W4	W5
Diagram				
Protection Grade	IP67	IP65	IP67	IP65
Current output wiring definition	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+	RED:V+ BLUE:OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND	RED:V+ BLUE:OUT+ YELLOW:GND

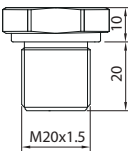
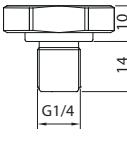
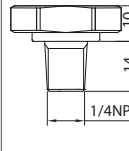
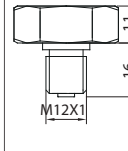
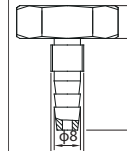
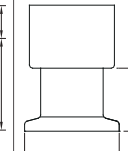
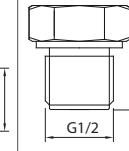
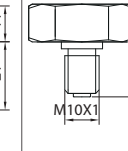
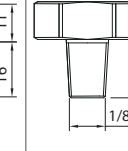
Current output wiring diagram

Voltage output wiring diagram



A type Hessman Plug	PG7 Grand lock head outlet 1m Shielded cable	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	Aviation plug
			



F1	F2	F3	F4	F5	F6	F7	F8	F9
								
M20X1.5	G1/4	1/4NPT	M12X1	Ø Gas Nozzle	KF16	G1/2	M10X1	1/8NPT

# JC670 Hygienic Flat-diaphragm Pressure Transmitter

## Product Overview

JC670 hygienic flat-diaphragm pressure transducer adopts imported high-accuracy and high-stability pressure sensor module to convert the absolute pressure or the gauge pressure of the measured medium into 4 ~ 20mA, 1 ~ 5V / 0 ~ 5V standard electrical signal through high-reliability amplification circuit and precise temperature compensation. High-quality sensor and encapsulation technology of full seal welding as well as improved assembling process have ensured excellent quality and best performance of this series of product.



## Performance Parameters

Measured Medium	Liquid, gas or vapor compatible with Ceramic or 316 stainless steel	
Measuring range	-100KPa ~ 0 ~ 20KPa...35MPa	
Overload capacity	1.5 times FS pressure	
Pressure type	Gauge pressure or absolute pressure	
Overall accuracy	Typical: $\pm 0.25\%FS$	Maximum: $\pm 0.5\%FS$
Long-term stability	Typical: $\pm 0.1\%FS/ \text{year}$	Maximum: $\pm 0.2\%FS/ \text{year}$
Zero point temperature drift	Typical: $\pm 0.02\%FS/ C$	Maximum: $\pm 0.03\%FS/ C$
Sensitivity temperature drift	Typical: $\pm 0.02\%FS/ C$	Maximum: $\pm 0.03\%FS/ C$
Medium temperature	-20 ~ 85 C	
Compensation temperature	-10 ~ 50 C	
Ambient temperature	-20 ~ 80 C	
Range of power supply	12~36VDC (24VDC generally)	
Signal output	4~20mA / 1~5 V DC / 0~5 V DC / 0.5~4.5V DC	
Load resistance	$\leq (U-12)/0.02\Omega$	
Thermal lagging	$\pm 0.1\%$ (typical)	
Process connection	M30x1.5 external thread or clamp	
Enclosure protection degree	Plug type (IP65); cable type (IP67)	
Safe explosion-proof degree	Ex ia II CT6	
Response time	$\leq 2 \text{ ms}$	
Insulation resistance	100M $\Omega$ , 500VDC	
Weight	Approx. 0.5kg	

## Product Features

- High stability and high sensitivity
- Lightning and RFI immunity
- Fully made of stainless steel
- Clean flat type isolating diaphragm
- Diversified signal output form and adjustable zero
- Point and full scale
- Reverse polarity protection and transient over-current and over-voltage protection

## Product Application

- Hygienic pressure pipelines
- Food and beverage processing
- Medical and pharmaceutical
- Sewage treatment
- Viscous medium pressure measurement

# JC670 Hygienic Flat-diaphragm Pressure Transmitter

## Ordering Information

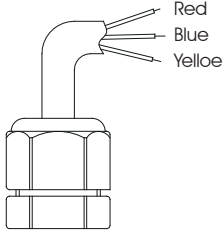
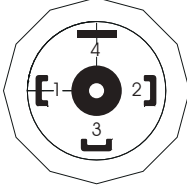
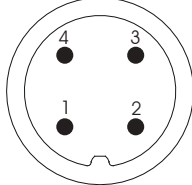
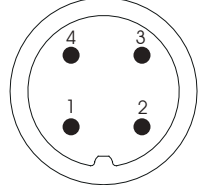
<b>JC670</b>	Hygienic Flat - diaphragm Pressure Transducer		
<b>Pressure type</b>	Gauge pressure (G, may not be indicated); absolute pressure (A)		
<b>Range</b>	Measuring Range		
	(0~X KPa or MPa)		
<b>Code</b>	Overall accuracy (linearity + repeatability + lagging)		
<b>1</b>	±0.5%FS		
<b>2</b>	±0.25%FS		
<b>3</b>	±0.1%FS		
<b>Code</b>	Signal Output		
<b>A1</b>	4~20mA		
<b>V1</b>	1~5V DC		
<b>V2</b>	0~5V DC		
<b>V3</b>	0.5~4.5V DC		
<b>Code</b>	Additional functions		
<b>F6</b>	Clamp type		
<b>F10</b>	M30x1.5 male thread		
<b>F0</b>	Special		
<b>W1</b>	Cable type (IP67, 2m)		
<b>W2</b>	Socket type (IP65, DIN43650)		
<b>E</b>	Intrinsically safe explosion-proof type Ex iaIICT6		
<b>JC670(0~100KPa)—1 —A1 —F1—W1 Hygienic Flat-diaphragm Pressure Transducer</b>			

## Tips for Type Selection

1. The measured medium shall be compatible with the material contacting with the product.
2. The code E, an additional function code for selection, namely, intrinsically safe explosion-proof Ex iaIICT6, must be power supplied via safety barrier.
3. Please contact us for other special requirements and clearly indicate them in the order.
4. During the field installation of flat diaphragm, the correct sealing method shall be adopted to prevent the installation stress influencing product stability.

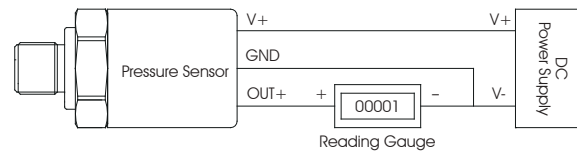
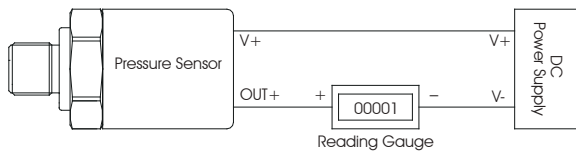
# JC670 Hygienic Flat-diaphragm Pressure Transmitter

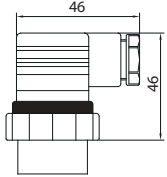
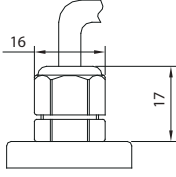
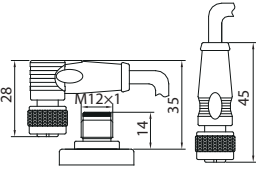
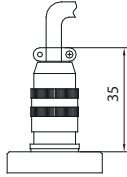
## Electrical Connections

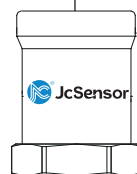
Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	4 pins Aviation plug Straight out 1m unshielded cable
Code	W1	W2	W3/W4	W5
Diagram				
Protection Grade	IP67	IP65	IP67	IP65
Current output wiring definition	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+	RED:V+ BLUE:OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND	RED:V+ BLUE:OUT+ YELLOW:GND

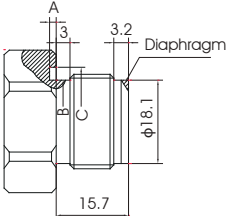
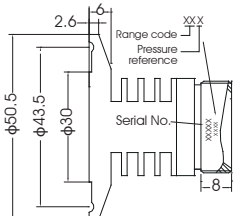
Current output wiring diagram

Voltage output wiring diagram



A type Hessman Plug	PG7 Grand lock head outlet 1m Shielded cable	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	Aviation plug
			



	
Customize	

# JC680 High - temperature Pressure Transmitter

## Product Overview

For general piezoresistive pressure sensor, the four force-sensing resistors of its sensitive Wheatstone bridge for control and measuring are manufactured using IC technology. The resistors are isolated from one another with PN junction. The highest operating temperature is only 125 °C due to temperature resistant limitation of the PN junction. However, the performance of sensor has greatly been deteriorated after the temperature is above 100 °C because reverse current leakage of the PN junction rises with the exponent of the temperature, which limits the temperature range available for the conventional piezoresistive sensor. Utilization of thick film technology to make force-sensing resistor can expand the operating temperature up to 125 °C; utilization of multi-crystalline silicon SOI technology to make force-sensing resistor can expand the operating temperature up to 150 °C; utilization of the traditional SOS technology and advanced SOI technology can expand the operating temperature up to 180 °C-350 °C. Utilization of the latest  $\beta$ -phase high-temperature force-sensing material SiC, combined with SOI technology can expand the operating temperature up to 450 °C ~ 850 °C. This series of product is assembled through strict process using internationally advanced sensor, supported with high-precision electronic elements.



## Performance Parameters

Measuring range	0~10kPa...1MPa...100MPa			
Overload capacity	Two times FS pressure (1.1 times FS pressure for 100MPa product)			
Pressure type	Gauge pressure or absolute pressure or sealed reference pressure			
Measured medium	Gas or liquid compatible with 316 stainless steel			
Overall accuracy	±0.25%FS	±0.5%FS		±1%FS
Operating temperature range	-40°C~+150°C	-40°C~+200°C	-40°C~+250°C	-40°C~+250°C
Compensation temperature range	-20°C~+130°C	-20°C~+180°C	-20°C~+200°C	0°C~+250°C
Long-term stability	Typical: ±0.1%FS/year		Maximum: ±0.2%FS/ year	
Zero point temperature drift	Typical: ±0.02%FS/ C		Maximum: ±0.05%FS/ C	
Sensitivity temperature drift	Typical: ±0.02%FS/ C		Maximum: ±0.05%FS/ C	
Range of power supply	12~36VDC(24VDC generally)			
Signal output	4~20mA / 1~5V DC / 0~5V DC			
Load resistance	$\leq (U-12)/0.02 \Omega$			
Response time	$\leq 3 \text{ ms}$			
Thermal lagging	±0.1% (typical)			
Enclosure protection degree	Plug type (IP65); cable type (IP67)			
Safe explosion-proof	Ex ia II CT5			
Vibration error	$\leq \pm 0.01\%FS(\text{Axes X,Y,Z, } 200\text{Hz/g})$			
Insulation resistance	100M $\Omega$ , 500V DC			

## Product Features

- Stainless steel enclosure, with excellent corrosion resistance
- Wide pressure measuring range
- Wide temperature measuring range, with very small temperature error
- Stable working and strong interference immunity
- High reliability, dual-diaphragm structure
- Small dimensions, light weight, and a variety of types
- Reverse polarity, over-voltage and over-current protection
- Wide range of measured medium

## Product Application

- Chemical
- Water conservancy
- Industrial process control
- Power generation engineering
- Thermal energy engineering
- Petroleum survey and investigation
- Airspace and aerospace
- Scientific research of national defense

# JC680 High - temperature Pressure Transmitter

## Ordering Information

<b>JC680</b>	High - temperature Pressure Transducer		
<b>Pressure type</b>	Gauge pressure ( G, may not be indicated); absolute pressure (A)		
<b>Range</b>	Measuring Range (0~ X KPa or MPa)		
<b>Code</b>	Range of operating temperature		
<b>C1</b>	-40°C~ +150°C		
<b>C2</b>	-40°C~ +200°C		
<b>C3</b>	-40°C~ +250°C		
<b>C4</b>	-25°C~ +350°C		
<b>C5</b>	0°C~ +800°C (High - temperature, water - cooled)		
<b>Code</b>	Overall accuracy (linearity + repeatability + lagging)		
<b>0</b>	±1.0%FS		
<b>1</b>	±0.5%FS		
<b>2</b>	±0.25%FS		
<b>Code</b>	Signal Output (Standard power supply)		
<b>A1</b>	4~20mA (12~36V DC)		
<b>V1</b>	1~5V DC (12~36V DC)		
<b>V2</b>	0~5V DC(12~36V DC)		
<b>Code</b>	Additional functions		
<b>F1</b>	M20x1.5 male thread		
<b>F2</b>	G1/4 male thread		
<b>F0</b>	Special		
<b>W1</b>	Cable type (IP67, 2m)		
<b>W2</b>	Socket type (IP65,DIN43650)		
<b>P</b>	Flush diaphragm		
<b>E</b>	Intrinsically safe explosion-proof type Ex IallCT5		
<b>JC680(0~10MPa)—C1 —1 —A1 —F1 —W1 —E High-temperature Pressure Transducer</b>			

## Tips for Type Selection

1. The measured medium shall be within the product operating temperature range and usage beyond the range shall be avoided.
2. The code E, an additional functional code for selection, namely, intrinsically safe explosion-proof type Ex IallCT5, must be power supplied via safety barrier.
3. Please contact us for other special requirements and clearly indicate them in the order.

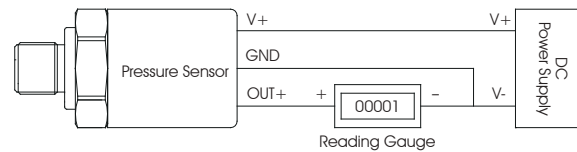
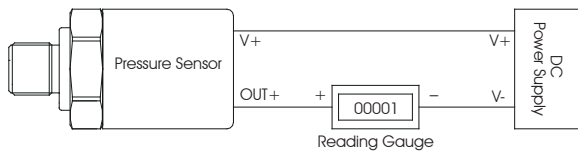
# JC680 High - temperature Pressure Transmitter

## Electrical Connections

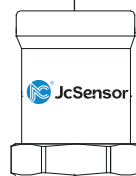
Description	PG7 Grand lock head outlet 1m Shielded cable	A type Hessman Plug	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	4 pins Aviation plug Straight out 1m unshielded cable
Code	W1	W2	W3/W4	W5
Diagram				
Protection Grade	IP67	IP65	IP67	IP65
Current output wiring definition	RED:V+ BLUE:OUT+	1#:V+ 2#:OUT+	BROWN(1#):V+ BLUE(3#):OUT+	RED:V+ BLUE:OUT+
Voltage output wiring definition	RED:V+ BLUE:OUT+ YELLOW:GND	1#:V+ 2#:OUT+ 3#:GND	BROWN(1#):V+ BLUE(3#):OUT+ BLACK(4#):GND	RED:V+ BLUE:OUT+ YELLOW:GND

Current output wiring diagram

Voltage output wiring diagram



A type Hessman Plug	PG7 Grand lock head outlet 1m Shielded cable	M12x1 Aviation plug Straight out or Corner out 1m unshielded cable	Aviation plug



F1	F2	F3	F4	F5	F6	F7	F8	F9
M20x1.5	G1/4	1/4NPT	M12x1	Ø Gas Nozzle	KF16	G1/2	M10x1	1/8NPT



# JC3051 Intelligent differential Pressure Transmitter

## Product Overview

JC3051 intelligent differential pressure/ pressure transducer is a new type of instrument researched and developed by our company according to international advanced technology combined with many domestic technologies. This instrument adopts micro-processing technology for temperature characteristic and non-linear compensation, thus having greatly enhanced the measurement accuracy of the instrument, improved the temperature characteristic and expanded the turndown ratio. Besides, intelligent functions can be added, which further meets the requirements of high reliability and high stability of the instrument at the industrial sites. The adoption of digital technology in the capacitive pressure / differential pressure transducer not only ensures high reliability of the instrument and other superior performance, but also realizes the remote digital connection between the intelligent instrument and the control room to ensure rapid and reliable communication. The control room can remotely enquire into or make a real-time configuration of the transducer. The sensitive elements of this intelligent transducer are the same as those of general JC1151 series of capacitive transducers and featured by stability and reliability.



## Working Principle

The intelligent PCB integrates converting circuit and processing circuit into one circuit using advanced IC and SMT technology. The micro-processor of the transducer controls the A / D and D / A converting module and performs digital communication and self-diagnosis function. When working, the micro-processor controls the A / D converting module for sampling conversion of the analog signals from the sensitive elements and converts them into digital signal so that the micro-processor can process it, including signal linearization, temperature compensation, engineering unit conversion etc. The micro-processor can also complete sensor characterization, measuring range, damping time, and other functions. E2PROM stores all the configurations and tuning parameters. Because the memory is a non-volatile memory (NVM), the parameters stored will not be lost in case of power failure. The PC working station or personal digital assistant (PDA) is used to configure and test the parameters or complete communication with any upper system supporting HART protocol. HART protocol uses industrial standard BELL202 frequency shift keying (FSK) technology to realize communication with the 1200HZ-2200HZ digital signals overlapped on 4 ~ 20mA signal. The frequency signal during communication will not disturb the process signal. This intelligent capacitive transducer can perform online real-time self-diagnosis. The transducer has a presetting value of 3.9mA before delivery if it has 21mA or 3.9mA output.



## Product Features

- High accuracy
- Good stability
- Small size, light weight, solid and vibration resistant
- Good compatibility, compatible with products of other companies in line with HART protocol
- Support the user to use handheld unit 272 / 275 or PC for software debugging and for real-time configuration of the instrument during its running.
- Can conduct intelligent linearization for pressure signal to ensure higher accuracy of measurement.

# JC3051 Intelligent differential Pressure Transmitter

## Functional Indicators

Measured medium	Liquid, gas, or vapor
Power supply	12-----45V, 24V DC generally
Indicating gauge	LCD gauge
Explosion-proof	a. Flameproof type d II BT4, b. Intrinsically safe type ia II CT6
Measuring range & zero point	Externally and continuously adjustable
Positive and negative immigration	The lower and upper limit of the measuring range shall not exceed the range limit after positive and negative immigration.
	Max. positive immigration: 500% of the min. measuring range
	Max. negative immigration: 600% of the min. measuring range
Temperature range	The range of operating temperature for the amplifier: -29 ~ +93 C
	The measuring element filled with silicon oil : -40 ~ +104 C
	Flange-type transducer filled with high-temperature silicon oil: +15 ~ +315 C; that filled with general silicon oil: -40 ~ +150 C
Volume intake capacity	<0.16cm <sup>3</sup>
Damping (step response)	Continuously adjustable generally between 0.2s ~ 1.67s when filled with silicon oil.
Starting time	2s, preheating is unnecessary
Accuracy	± 0.1% FS; ± 0.25% FS; ± 0.5% FS
Dead zone	None (≤ 0.1%)
Stability	Not exceeding the absolute value of the basic error of the max. range within 6 months
Influence of temperature	Zero error ≤ ±0.1%/55 C, total error ≤ ±0.2%/55 C
Influence of static pressure	Min. ±0.2%FS, Max. ±1%FS
Influence of vibration	In any axial direction, the error is ± 0.05% / g of the upper limit of the measuring range when the vibration frequency is 200Hz.
Influence of power supply	Less than 0.005% / V of the output range
Influence of load	The load has no influence on it if the power supply is stable
Influence of installing position	A maximum of 0.24KPa zero error can be generated, but it can be corrected, without influence on the measuring range
Structural materials	Isolating diaphragm: 316LSST, Hastelloy alloy C, monel, or tantalum.
	Gas exhaust / liquid discharge valve: 316LSST, Hastelloy alloy C, monel
	Flange and joint: Electroplated carbon steel, 316LSST, Hastelloy alloy C, or monel
	O – ring contacting medium: NBR, fluo rubber
	Liquid filled: Silicon oil or inertia oil
	Bolt: Electroplated carbon steel
	Enclosure of electronic parts: Low-copper aluminum alloy
Pressure guide connecting part	connecting screw hole on the pressurized vessel /chamber :1/ 4 ~ 18NPT,connecting screw hole on the pressure leading joint :1/ 2 ~ 14NPT.
Connecting hole of the signal wire	G1 / 2
Weight: Approx	3.5kg (excluding accessories)
Standard accessories	Flanged joints, gas exhaust valves liquid discharge valves and one copy of instruction manual have been provided for all the types upon delivery

# JC3051 Intelligent differential Pressure Transmitter

## Required

Code	Type
DR	Micro differential pressure transducer
DP	Differential pressure transducer
HP	High static pressure differential pressure transducer
AP	Absolute pressure transducer
GP	Pressure transducer
LT	Flange type liquid level transducer
DP/GP	Remote differential pressure/pressure transducer

Code	Functions
E	4~20mA
S	4~20Ma HART protocol digital communication
L	4~20mA adjustable intelligent condition

Code	Static Pressure MPa
A	1
B	4
C	10
E	25
F	32

Code	Measuring range
2	0-0.125~1.5KPa
3	0-1.3~7.5 KPa
4	0-6.2~37.4 KPa
5	0-31~186.8 KPa
6	0-117~690 KPa
7	0-345~2068 KPa
8	0-1170~6890 KPa
9	0-3450~20680 KPa
0	0-6890~41370 KPa

Code	Structural material		
	Flange/joint	Liquid discharge/ gas exhaust valve	Diaphragm
22	316 SST	316 SST	316 SST
23	316 SST	316 SST	Hastelloy C
24	316 SST	316 SST	Monel
25	316 SST	316 SST	Tantalum
56	Hastelloy C	Hastelloy C	Hastelloy C

## Additional/Random

Code	Additional functions
M1	Linear indicator (0~100% scale)
M2	Square root indicator (0~10 scale)
M4	3½-digit LCD indicator (0~100% linearity)
B1	Bent stand for pipe installation (pipe outside diameter $\Phi$ 50~60)
B2	Bent stand for plate installation
B3	Flat stand for pipe installation (pipe outside diameter $\Phi$ 50~60)
D1	Gas exhaust and liquid discharge valve for the upper part of the flange side
D2	Gas exhaust and liquid discharge valve for the lower part of the flange side
J	T-shaped joint, M20*1.5 male thread
M	"Waist-shaped" joint, NPT½" taper pipe thread
C12	NPT½" pressure guide transition joint and rear welding pressure guide pipe
D	Flameproof type: explosion-proof rating all BTS
I	Intrinsically safe type: explosion-proof rating all CT6

eg. JC3051-DP-6-S-25-B-C12

## Quick Selection Table

### Ordering instructions

- 1) If there is positive and negative migration, the migration value must be indicated;
- 2) If the differential pressure transducer needs to be equipped with three-valve manifold, throttling device, this shall be specified separately;
- 3) For the purchase of a remote transducer, it shall be determined based on the needs as per the different remote flange selection table;
- 4) If the remote transducer needs to be used in a vacuum and high temperature situation, it shall be specially indicated in the order;
- 5) The material of contacting medium O-ring includes nitrile rubber and fluorine rubber.

# JC100 Integrated Temperature Transmitter

## Product Overview

JC100 series of industrial thermal resistor, as a temperature measurement sensor, is usually used together with temperature transducer, regulator and display instrument to form a process control system for direct measurement or control of the temperature of liquid, vapor and gas media as well as solid surface within  $-200\text{ C} \sim 500\text{ C}$  in various production processes. The thermal resistor measures temperature by using the characteristic that the resistance itself changes with the change of temperature of substance. When temperature gradient exists in the measured medium, the temperature measured is the average temperature of the medium where temperature-sensing element is located. Although the appearance of all thermal resistors varies widely, their basic structure is roughly similar, generally including such major components as temperature-sensing element, insulation casing, protective tube and junction box.



## Working Principle

Thermal resistor measures temperature by using the characteristic that the resistance itself changes with the change of temperature of substance. When the resistance changes, the bridge passing through the temperature transducer will produce an unbalanced signal, which is converted into 4-20mA DC signal after being amplified, and then the working instrument will show the corresponding temperature value.

## Performance Parameters

Measuring range	$-200\text{ C} \sim 500\text{ C}$
Measured medium	Gas or liquid compatible with 304 or 316 L stainless steel
Output	Sensor (PT100); transducer (two-wire system 4-20mA+HART protocol)
Power supply	10 ~ 36V DC
Overall accuracy	$\pm 0.5\%FS$ ; $\pm 0.25\%FS$ ; $\pm 0.1\%FS$
Allowable error	Graduation PT100: Grade A ( $\pm 0.15 + 0.002  t $ ); Grade B ( $\pm 0.30 + 0.005  t $ )
Withstand voltage	Typical: 40bar (Max: 300bar)
Long-term stability	$\pm 0.1\%FS/\text{year}$
Response time	$T=50\text{ C}$ 2.3s ; $T=90\text{ C}$ 5.4s
Electrical protection	Reverse polarity protection and optional surge voltage protection
Ambient temperature	$-40 \sim +85\text{ C}$
Storage temperature	$-40 \sim +125\text{ C}$
Installation mode	Plug-in (insertion depth: beyond 50mm thread; can be customized)
Probe dimensions	$\Phi 12, \Phi 8, \Phi 6$ (mm), others
Liquid-contacting material	304 stainless steel, 316 stainless steel, 316L stainless steel lined PTFE
Damping	Adjustable 0-32 seconds
Protection degree	IP65 ; IP67
Resistance to mechanical vibration	10 ~ 60HZ, 0.21mm sine wave
ARFI	IEC61000-4-3, 20V/M, 80 ~ 1000MHZ
Executive standard	IEC584 ; IEC1515; GB/T16839-199; JB/T5582-91

## Product Features

- German temperature sensor, with high temperature measurement accuracy
- Simple installation and a variety of temperature ranges optional
- Gas-liquid dual-purpose, any medium compatible with 316L
- German thin-film resistive element, with rapid thermal response speed and reliable and stable performance
- Good long-term stability, low energy consumption and small size
- Compression spring-type temperature sensor, with good vibration resistance
- Automatic compensation of cold end temperature, using non-linear correction circuit

# JC100 Integrated Temperature Transmitter

## Ordering Information

<b>JC100</b>	Integrated Intelligent Temperature Transducer	
<b>Code</b>	Type: Transducer (4-20mA)-B (may not be indicated as default); sensor (PT100) -P	
<b>Range</b>	Measuring Range: 0~ X °C, e.g.: 0~100 °C	
<b>Code</b>	Overall accuracy	
<b>1</b>	0.5%FS (PT100-Grade B)	
<b>2</b>	0.25% (PT100- Grade A)	
<b>3</b>	0.1% (PT100- Grade A)	
<b>Code</b>	Output Mode	
<b>V1</b>	PT100	
<b>A1</b>	Two-wire system 4-20mA	
<b>S1</b>	Two-wire system 4-20mA overlapped with HART protocol intelligence	
<b>Code</b>	Pressure interface	
<b>F1</b>	M20x1.5 external thread	
<b>F2</b>	G1/4 external thread	
<b>F0</b>	Custom (including flange, special thread)	
<b>Code</b>	Electrical connection mode	
<b>W1</b>	Cable type (2m shielded wire)	
<b>W2</b>	HSM Socket	
<b>W3</b>	Air plug to 2m shielded wire	
<b>Code</b>	Outer protective pipe diameter (insertion depth mm)	
<b>J1</b>	Φ12 outer protective pipe (insertion depth)	
<b>J2</b>	Φ8 outer protective pipe (insertion depth)	
<b>J3</b>	Φ6 outer protective pipe (insertion depth)	
<b>J4</b>	Other outer protective pipes (insertion depth)	
<b>Code</b>	Additional selections	
<b>X</b>	304 steel pipe (may not be indicated)	
<b>Y</b>	316L steel pipe	
<b>F</b>	316L stainless steel + lined PTFE	
<b>E</b>	Intrinsically safe explosion-proof Ex iaIICT6	
<b>JC100B(0~100 °C)—1 —S1 —F1—W3—J1(50mm)—Y Intelligent Digital Temperature Transducer</b>		

### Application Scope

- Piping and ventilation system
- Hydraulic and pneumatic system
- Cooling system and heating system
- Water supply and hot water system
- Air conditioning system

### Tips of Selection

1. The measured medium shall be compatible with the material contacting with the product.
2. Please contact us for other special requirements and clearly indicate them in the order.

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