

FC0802 Ceramic Capacitance Pressure Transmitter

Production Profile

FC0802 ceramic capacitance pressure transmitter adopt ceramic capacitive sensor with the international advanced level, cooperate with high-precision electronic components, assembled through rigorous craft process. It uses dry pressure measurement technology with no intermediate liquid, giving full play to the advantages of ceramic sensor technology, so that the pressure transmitter has excellent technical performance. It

has a strong capacity of anti-overload and shock resistance, high stability and high accuracy. FC0802 ceramic capacitance pressure transmitter has various models, measuring ranges, process connections and materials, it can be widely used in many industrial fields of petroleum, chemical industry, electric power, metallurgy, pharmacy, food, etc., it can be adapted to kinds of occasions and the medium of various industrial measurements, it is the traditional ideal upgraded production of traditional gauge and pressure transmitter, and ideal pressure measuring instruments for industrial automation field.



Function features

- Strong capacity of overload resistance and impact resistance
Overvoltage up to several times even one hundred times of measuring range.
- With high precision, good repeatability, high stability
Superior to F.S 0.1% / year.
- Small temperature drift.
Sensor gets a high measuring precision and is less influenced by temperature, because the cancel of intermediate liquid in measuring element.
- Strong capacity of anti-interference.
Waterproof, dustproof, anti-vibration, explosion-proof, anti-corrosion.
- Easy to install.
With reasonable production structure, small volume, light weight, can be directly installed at any position.

Technical index

- ✧ Use object: liquid, gas or vapor
- ✧ Measurement range
 - Gage pressure: 0~2kPa~7MPa
 - Absolute pressure: 0~20kPa~100kPa
 - Negative pressure: -100kPa~7MPa
- ✧ Output: 4~20mADC
- ✧ Power supply: 12~30VDC
- ✧ Load characteristic: two-wire system 4~20mADC, load $R \leq 50(V-12) \Omega$
- ✧ Temperature range
 - Environment temperature: $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$
 - Standard medium temperature: $-20^{\circ}\text{C} \sim +80^{\circ}\text{C}$
- ✧ Case protection: superior to IP65
- ✧ Explosion-proof type:
 - Flameproof type Exd II CT6
 - Intrinsic safety type Exia II CT6 should configurate with barriers outside.

Performance index

- ✧ Accuracy leve: 0.25, 0.5
- ✧ Stability: Superior to $\pm 0.1\% \text{FS/a}$
- ✧ Temperature influence: In the range of $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$, variable quantity is less than $\pm 0.18\% / 10^{\circ}\text{C}$.
- ✧ Vibration influence: When vibrational frequency is 20-200Hz in any direction, variable quantity is less than $\pm 0.02\% \text{FS}$
- ✧ Shock influence: After shock 11 ms with 100g in any direction, variable quantity is less than $\pm 0.02\% \text{FS}$
- ✧ Load influence: As long as the terminal voltage input of transmitter is higher than 12V, then there is no load influence.
- ✧ Position influence: Installation position does not affect zero.

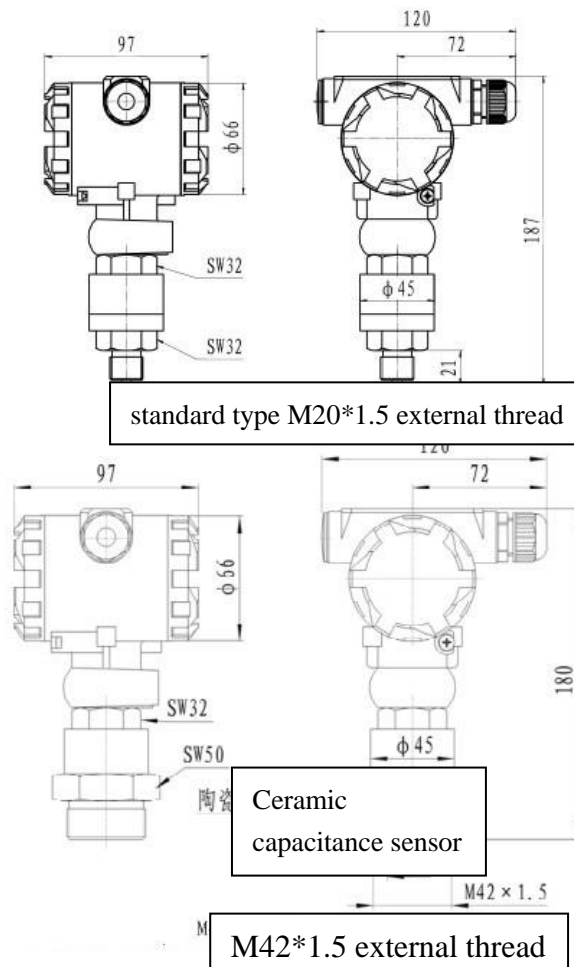
Structure indicator

- ✧ Structural material
 - Diaphragm: aluminum oxide ceramics
 - Case: polyurethane stoving varnish low cuprum cast aluminum alloy
 - Pressure transmitter contact medium material: 316L stainless steel

Ring of “O” type leakproof structure: poly tetrafluoroethylene (teflon) or fluororubber.

- ✧ Process connection: standard provide M20*1.5 external thread.
- ✧ Electrical connection: Draw forth from any exit according to the need, apply in cable diameter of industrial cable is from $\phi 8.5 \sim \phi 10.0$ as the lead, in order to seal joints, can choose universal cable connector PG16 or M20 *1.5, one end without being drawn forth is sealed by cap.

Structure size



Mode selection diagram

Code			Illustration
FC0802			Ceramic capacitance pressure transmitter
Measurement range	0~7.0		(MPa) Write the numerical value directly
Output signal	E		4~20mADC
	S		Intelligent type 4~20mADC two-wire system +fieldbus HART protocol
			Special requirement
Level of accuracy	J1		0.25
	J2		0.5
Process connection	L1		Standard type external thread M20*1.5
	L2		external thread M42*1.5
	O		Provide size processing according to users
Option	d		Flameproof ExdIICT6
	i		Intrinsic safety type ExiaIICT6
	M1		Simulation indicating meter
	M3		Digital display meter 3 1/2LCD
	G		Gauge pressure measurement
	A		Absolute pressure measurement (customized by users' appointment.)
	F		Negative pressure (customized by users' appointment.)
	S		Radiator and process adapting piece
Y		User's appointment	