

PT-S PRESSURE TRANSMITTER



FEATURES

- High accuracy capacitive pressure measurement with dry ceramic sensor
- Strong over-pressure resistance and anti-interference ability
- Anti-corrosion ceramic measuring interface
- The high-polymer plug in the vent-hole can avoid condensation.
- Optional stainless steel or aluminum shell material.

PRINCIPLE

The PT-S adopts high-polymer ceramic sensor as measure unit. The process pressure acts directly on the hard anti-corrosion ceramic diaphragm to make the diaphragm produce a displacement proportional to the capacitance change between the substrate electrode and the diaphragm electrode. The value of the capacitance change is amplified by a laser mini-adjustment circuit to get a voltage signal 1000 - 4000 mV, then the transmitter transforms the voltage signal into 4 - 20mA current signal.

SPECIFICATION

Span:

Ceramic Capacitive type : -0.1MPa - 0.005(Min) to 7MPa(Max)

Ceramic piezoresistive type: -0.1Mpa- 7(min) to 60MPa (Max)

Accuracy class : 0.1, 0.2, 0.5

Temperature influence: $\pm 0.07\%FS/10^{\circ}C$

Stability: $\pm 0.10\%FS/year$

Repeatability error: $\pm 0.10\%FS$

Overpressure ability:

Ceramic Capacitance type: 5 times of full span.

Ceramic piezoresistive type: 2 times of full span

Operating voltage: 24VDC

Max. Current: 30mA

Insulation Impedance: 100M Ω at 100VDC

Output: 4 - 20mA

Load Impedance: less than 500 Ω

Shell Material: SUS304

Seal Material: stainless steel 304 or Aluminum alloy

Medium Temp.: -20 - 80 $^{\circ}C$

SELECTION CHART



Diaphragm

C= dry-Style Ceramic Capacitance R=ceramic piezoresistive

Span lower limit

M=-0.1MPa N=MPa

Span higher limit(MPa)

Connection

R=NPT1/2 " M=M20 \times 1.5

CIRCUIT DIAGRAM

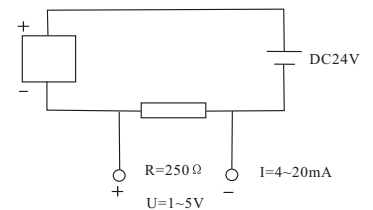
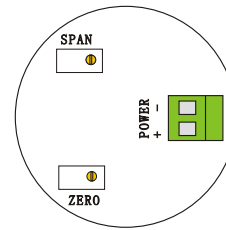


Fig1. Terminal Housing distribution diagram

Fig2. Electrical circuit diagram

STRUCTURE DRAWING

