SmartGen

MAKING CONTROL SMARTER

SGPT110-0.4

PRESSURE TRANSMITTER

USER MANUAL

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Table 1 Software Version

Date	Version	Content
2017-06-01	1.0	Original release.
2018-09-25	1.1	Change comprehensive accuracy from class 0.25 to class 1.0.
2023-12-11	1.2	Update company logo and address information.

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1 OVERVIEW

SGPT110-0.4 piezoresistive pressure transmitter is based on MEAS original advanced highly stable silicon piezoresistance transmitter, which is installed into a 304 stainless steel enclosure. With premium performance of compatibility, stability, reliability and accuracy, it can be widely used for gas and liquid (compatible with stainless steel 304) pressure measurement.

2 PERFORMANCE AND CHARACTERISTICS

1) Measuring range: (0~0.4)MPa;
2) Two-wire standard output: 4mA~20mA;
3) Wide working temperature range: (-40°C~+125°C), with temperature compensation and common mode rejection functions;
4) Whole stainless steel structure;
5) O-shape gasket;
6) Pluggable connection, small volume, and low power consumption.

3 SPECIFICATION

Table 2 Performance Parameter

Item	Content
Measuring range	(0~0.4)MPa
Overload capacity	250% Full Scale Pressure
Pressure type	Gauge pressure
Measuring dielectric	Gas and liquid which compatible with stainless steel 304
Comprehensive accuracy	Class 1.0
Working temperature	-40°C~+125°C
Compensation temperature	-20°C ~+85°C
Power supply range	DC 12V~36V (DC 24V)
Signal output	4mA ~20mA
Load resistance	$R_L \leq (V_{power} - 7.5V)/20mA$
Enclosure protection	Hersman Plug-type (IP65)
Safety and explosion prevention	EXIA II CT5
Interface and enclosure	Stainless steel 304
O-shape gasket	Fluororubber
Transmitter mebrane	Stainless steel 316L
Weight	0.12kg

4 TERMINAL CONNECTION

Table 3 Terminal Description

	Port	Description
	1	Positive source: V+
	2	4mA~20mA output: OUT
	3	Not connected
	4	Shell ground (Shield ground)

5 ELECTRICAL CONNECTION

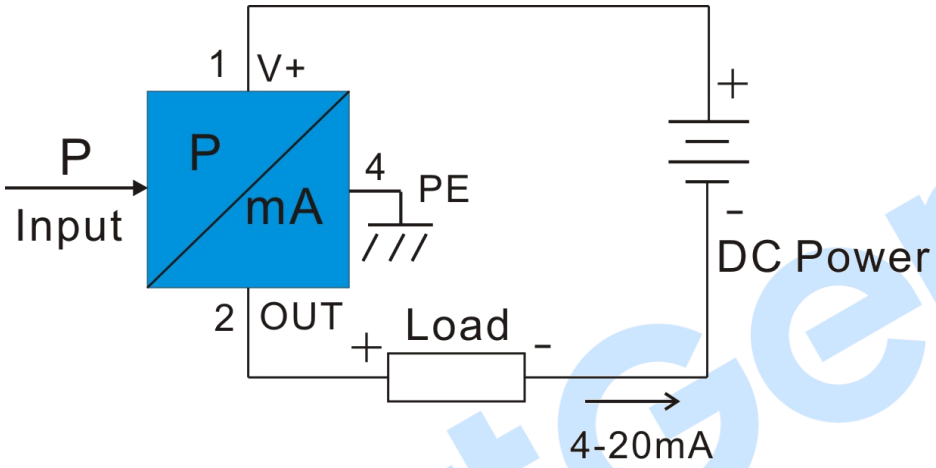

Fig.1 Electrical Connection

6 OVERALL DIMENSION

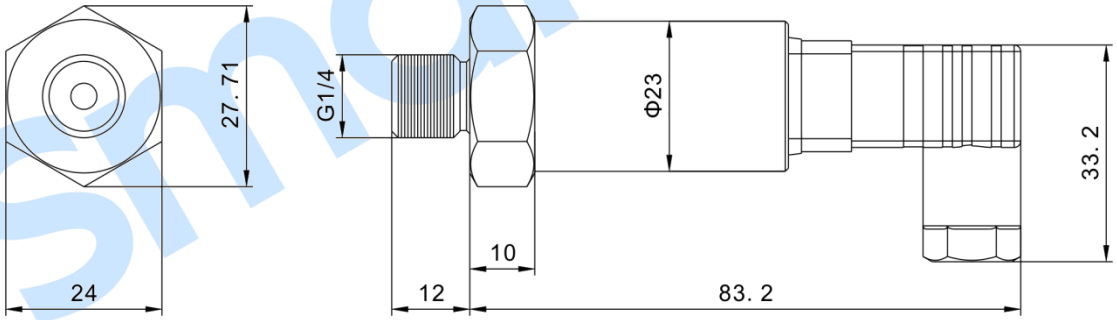

Fig.2 Overall Dimension

7 INSTALLATION STRUCTURE

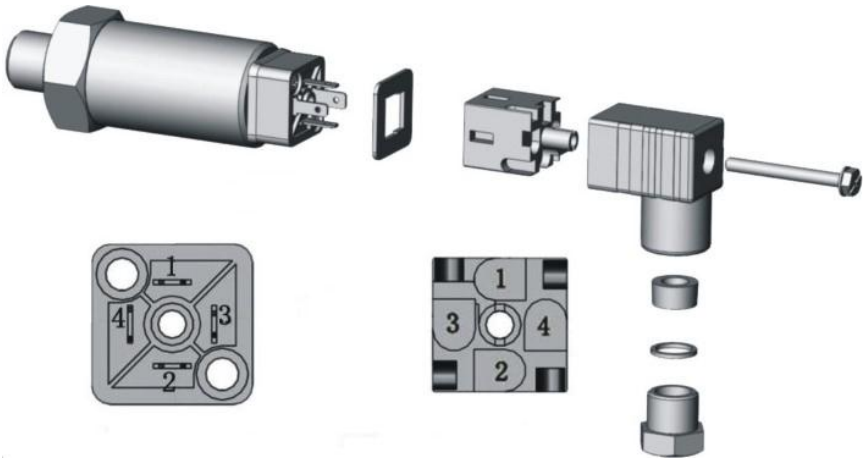

Fig.3 Installation Structure

As shown in above picture, separate connector assembly and connect them following the number designation.

8 ATTENTION

a) During installation ensure that measuring range and wiring is correct.
b) The enclosure of the pressure transmitter should usually be connected to the ground; signal cable and power cable must not be crossed over; strong electromagnetic interference around the transmitter must be avoided.
c) Transmitter in use must be regularly calibrated according to the industry standards.
d) Do not expose the transmitter to overpressure for a long time.
e) Do not throw foreign bodies into the pressure transmitting hole, which can influence measurement results.
f) Avoid transmitter contact with over-corrosive or overheated medium.
g) During liquid pressure measurement, transmitter must not be installed to the place exposed to liquid impact (water hammer phenomenon) in order to avoid damage.
h) During liquid pressure measurement, pressure tappings must be opened from the side of pipeline in order to avoid sediment slag accumulation.