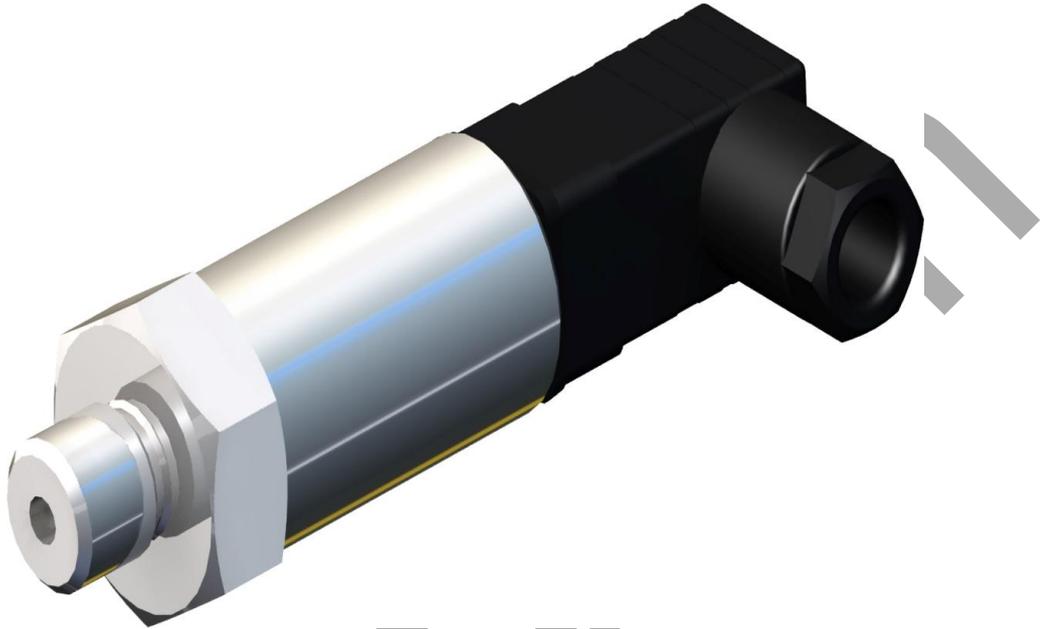


Smartgen[®]

SGPT110 Pressure Transmitter

USER MANUAL



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众智电子 Chinese trademark

Smartgen[®] English trademark

Smartgen — make your generator *smart*

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If the colors of actual products are difference from instruction, please take the material object as the standard.

Version History

Date	Version	Content
2013-12-18	1.0	Original release

This manual is suitable for SGPT110 pressure transmitter only.

Clarification of notation used within this publication.

SIGN	INSTRUCTION
 NOTE	Highlights an essential element of a procedure to ensure correctness.
 CAUTION!	Indicates a procedure or practice, which, if not strictly observed, could result in damage or destruction of equipment.
 WARNING!	Indicates a procedure or practice, which could result in injury to personnel or loss of life if not followed correctly.

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1 OVERVIEW

SGPT110 piezoresistive pressure transmitter is based on MEAS original advanced highly stable silicon piezoresistance transmitter installed into a 304 stainless steel enclosure. Compatible with various mediums, stable, reliable and highly accurate, SGPT110 can be widely used for gas and liquid pressure measurement.

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2 CHARACTERISTICS

- Measuring range: (0~1)MPa
- Two-wire standard output: 4 mA ~20 mA
- Wide working temperature range: (-40°C~125°C), with temperature compensation and common mode rejection functions.
- Whole stainless steel structure
- O-shape gasket
- Standard screw thread pressure measurement method
- Pluggable connection, small volume, low power consumption.

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3 PERFORMANCE PARAMETER

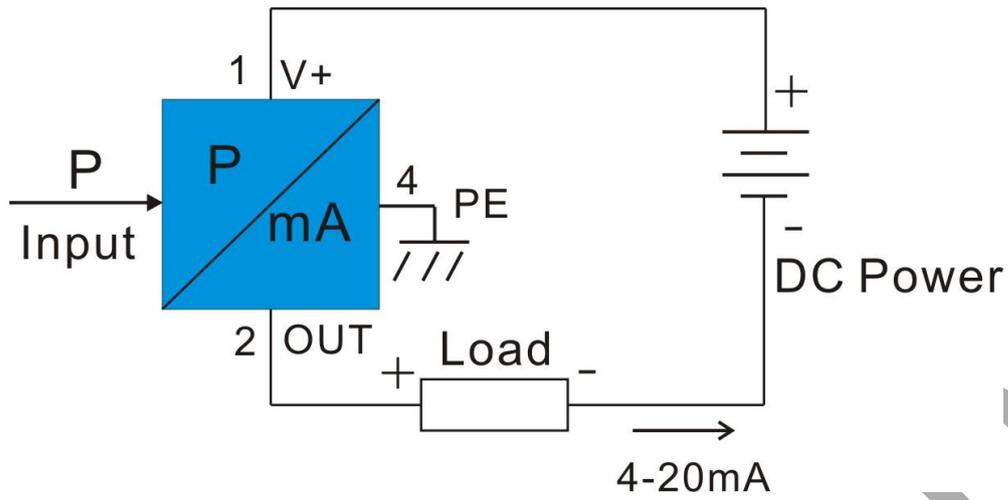
Item	Content
Measuring range	(0~1)MPa
Overload capacity	250% Full Scale Pressure
Pressure type	Gauge pressure
Measuring dielectric	Gas and liquid which compatible with stainless steel 304.
Measurement Accuracy Class	Class 0.25
Working temperature	-40°C~125°C
Compensation temperature	-20°C ~85°C
Power supply range	DC 12V~36V (DC 24V)
Signal output	4 mA ~20 mA
Load resistance	$R_L \leq (V_+ - 7.5V)/20mA$
Enclosure protection	Hersman Plug-type(IP65)
Safety and explosion prevention	EXIA II CT5
Connector and enclosure	stainless steel 304
O-shape gasket	Fluororubber
Transmitter mebrane	Stainless steel 316L.

4 TERMINAL CONNECTION

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

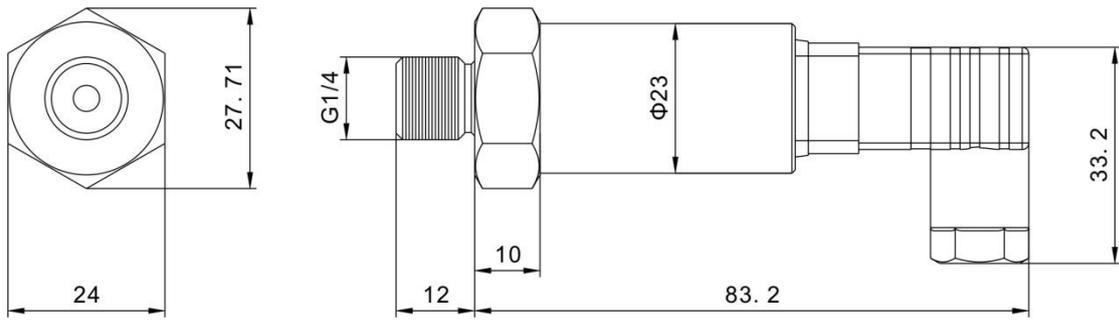
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5 ELECTRICAL CONNECTION



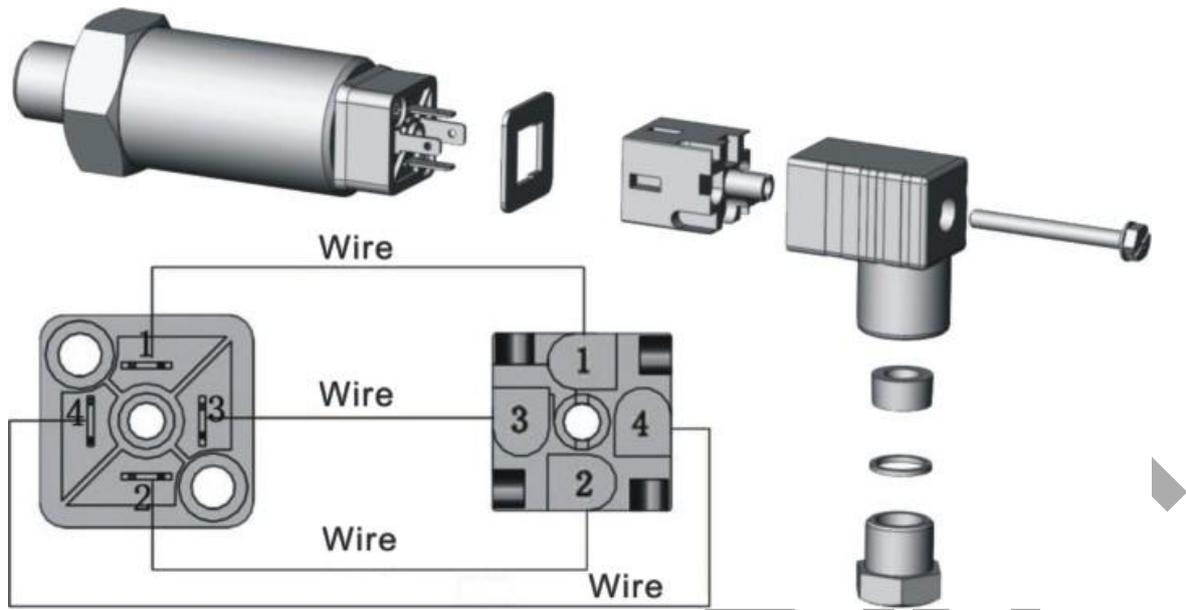
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6 CASE DIMENSION



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7 INSTALLATION



8 ATTENTION

- During installation ensure that measuring range and wiring is correct.
- 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 in the vicinity of the sensor must be avoided.
- Transmitter in use must be regularly calibrated according to the industry standards.
- Do not expose the transmitter to overpressure for a long time.
- Do not throw foreign bodies into the pressure opening, it can influence measurement results.
- Avoid transmitter contact with over-corrosive or overheated medium.
- During liquid pressure measurement, transmitter must not be installed to the place exposed to liquid impact (water hammer phenomenon) in order to avoid damage.
- During liquid pressure measurement, pressure tapplings must be opened from the side of pipeline in order to avoid sediment slag accumulation.