

Model 103S Low Profile Pressure Transducers & Transmitters



Based on BCM semiconductor strain gauge technology, model 103S low profile pressure transducers and transmitters are designed for measuring low gauge pressure of gases or dilute liquids.

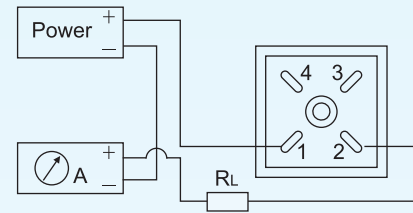
Model 103S transducers feature high output sensitivity compared to those made of BCM metal foil strain gauge technology. For the transmitter version of model 103S, various amplified output signals, such as current loop (4~20 mA), 1~5 Vdc or 2~10 Vdc voltage, are available. The measuring accuracy of 103S transducers and transmitters is up to 0.25% fs (full scale) within the temperature compensation range of -20 ~ +90 °C.

Features:

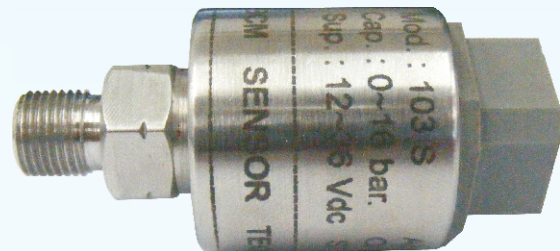
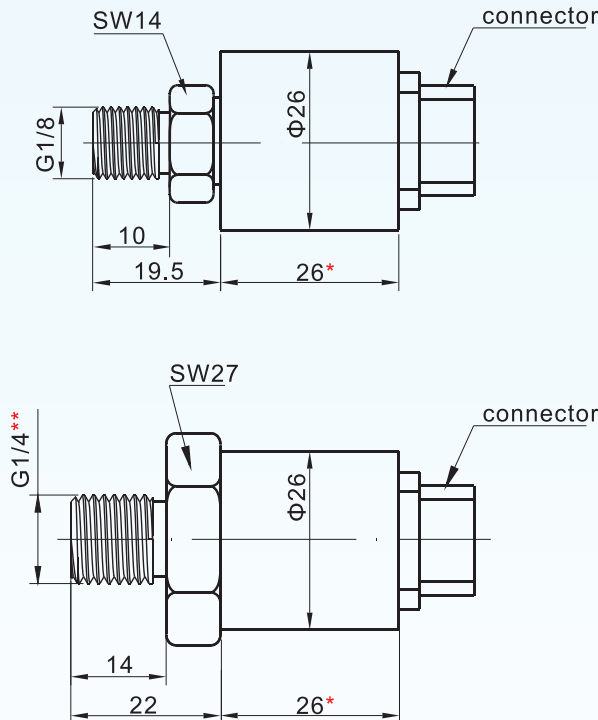
- pressure ranges and type: 0~0.2, ..., 0~40 bar, gauge
- output signal: 10 mV/V for transducers
4~20 mA, or 1~5 V or 2~10 V for transmitters
- measuring accuracy: up to 0.25%fs
- compensated temperature ranges: -20 ~ +90 °C
- materials: 17-4PH (diaphragm)
316L SS (wetted parts)
304 SS (housing)
- construction: low profile, integrated construction, rigid and robust
- environment protection:
IP 65 (4-pole rectangle connector)
IP 66 (direct cable)

Electrical connection:

(example of 4~20 mA output signal configured to a 4-pole rectangle connector)



Dimensions:



*: The length is increased by 20mm for the 103S transmitters.

** : Other threads are available on request.

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Technical Data:

parameters	units	specifications
pressure medium		gas or dilute liquid, which is compatible with the wetted part material
pressure ranges	bar	0~0.2, 0~0.5, 0~1, 0~1.6, 0~2.5, 0~4, 0~6, 0~10, 0~16, 0~25, 0~40
pressure type		gauge (G)
overload pressure	%FS	150
output signal	transducers	10 mV/V
	transmitters	4~20 mA (2-wire configuration), or 1~5 V (3-wire), or 2~10 V (3-wire)
zero offset	%FS	± 3
accuracy	%FS	0.25 (≥ 0.5 bar), 0.5 (standard)
long-term stability of zero	%FS/year	< 0.2
life time	cycle	10 ⁸
response time	ms	<2
input resistance	transducers	800 Ω ± 10
output resistance	transducers	400 Ω ± 10
load resistance	transmitters	250~1150 Ω (for 4~20 mA output signal)
		> 5000 Ω (for 1~5 V or 2~10 V output signal)
insulation resistance	MΩ	> 500 @ 100 Vdc
excitation voltage	transducers	6V, 10V (max.)
supply voltage	transmitters	12, ..., 36 (depending on the load resistance)
compensated temperature range	°C	-20 ~ +90
Operating temperature range	°C	-30 ~ +100
storage temperature range	°C	-40 ~ +110
temperature coefficient of ZERO	%FS/°C	0.05
temperature coefficient of SPAN	%FS/°C	0.05
pressure interface	external thread	G1/8 (standard), other thread available on request
electrical interface		4-pole rectangle connector (standard), other connectors available on request
		shielded PVC cable (3m length, 4-core, 4.7 mm)
material of pressure diaphragm		17-4PH
material of wetted part		316 SS
housing material		304 SS
environment protection	IP rating	IP 65 (4-pole rectangle connector); IP66 (director cable)
net weight	gram	~90 (transducer), ~ 150 (transmitter)

The listed specifications are subject to change without prior notice.

How to order:

Ordering Code: model-range&type-output-accuracy-process interface-electrical interface-customized specification (if any)
 example: 103S-0/16barG-4/20mA-0.5%fs-G1/8-4 pole rectangle connector



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