

# P101 Pressure Transducer



- Heavy Industrial Pressure Transducer
- Ranges from 10 to 1000 bars
- Several available options
- Harsh environment

## DESCRIPTION

The **P101** is a pressure transducer designed to measure pressure under a wide variety of conditions, including hostile environments and temperatures up to 150° C. Its stainless steel body and sealing options render the P101 ideal for use in chemically aggressive environments, such as Skydrol® aviation hydraulic fluid.

The sensing element is fitted with a temperature compensated Wheatstone bridge equipped with thin strain gauges. The **P101-A1/A2** Series include a high level output.

With many years of experience as a designer and manufacturer of sensors, Measurement Specialties, Inc. has the expertise to customize and/or design sensors for specific uses and testing environments. To meet your needs we also offer complete turnkey systems. Our conditioning electronics can power the sensor, amplify the electronic signal, and display the data digitally. A turnkey measurement system arrives with matched components, formatted, calibrated and ready for your immediate use.

## FEATURES

- Full Scale Range from 0-10 bar to 0-1000 bar
- Stainless Steel Diaphragm
- High Level Output Available
- Optional Protection

## APPLICATIONS

- General Industries
- Regulation measurement
- Harsh environment
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## STANDARD RANGES

Range in bar	10	20	50	100	200	350	500	1k
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## CHARACTERISTICS

All values are typical at temperature 20±1° C

Parameters	
Operating Temperature Range (OTR)	-20 to 100 ° C [-4 to 212 ° F]
Compensated Temperature Range (CTR)	0 to 60° C [32 to 140° F]
Zero Shift in CTR	<2%. / 50° C [/100° F]
Sensitivity Shift in CTR	<2% / 50° C [/100° F]
Range (F.S.)	See standard ranges table (G = Gauge type only)
Over-Range	
Without Damage	1.5 x F.S
Without Destruction	3 x F.S.
Accuracy	
Combined Non-Linearity & Hysteresis	≤±0.3% F.S.

### Electrical Characteristics

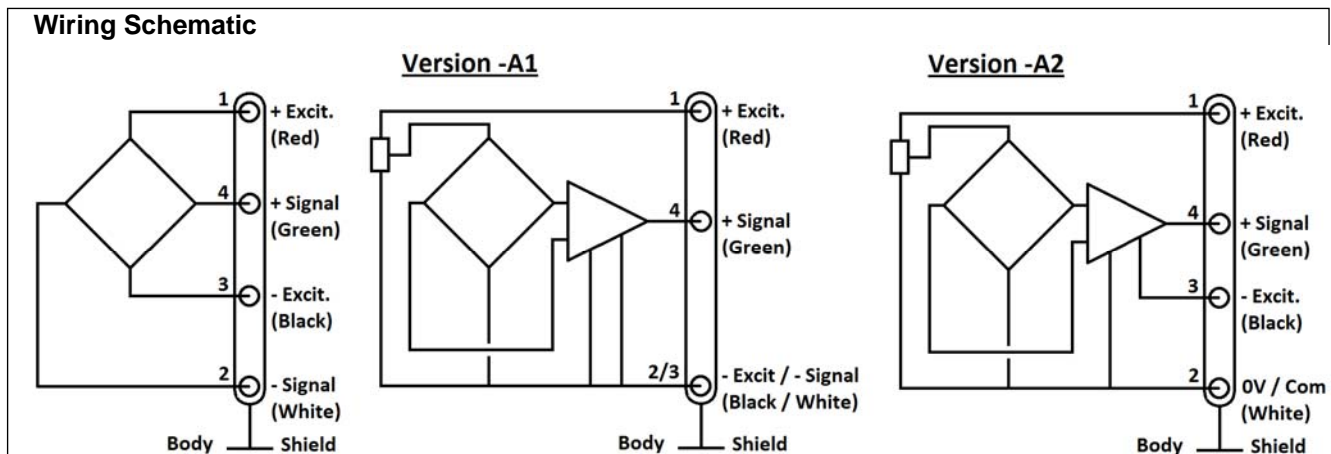
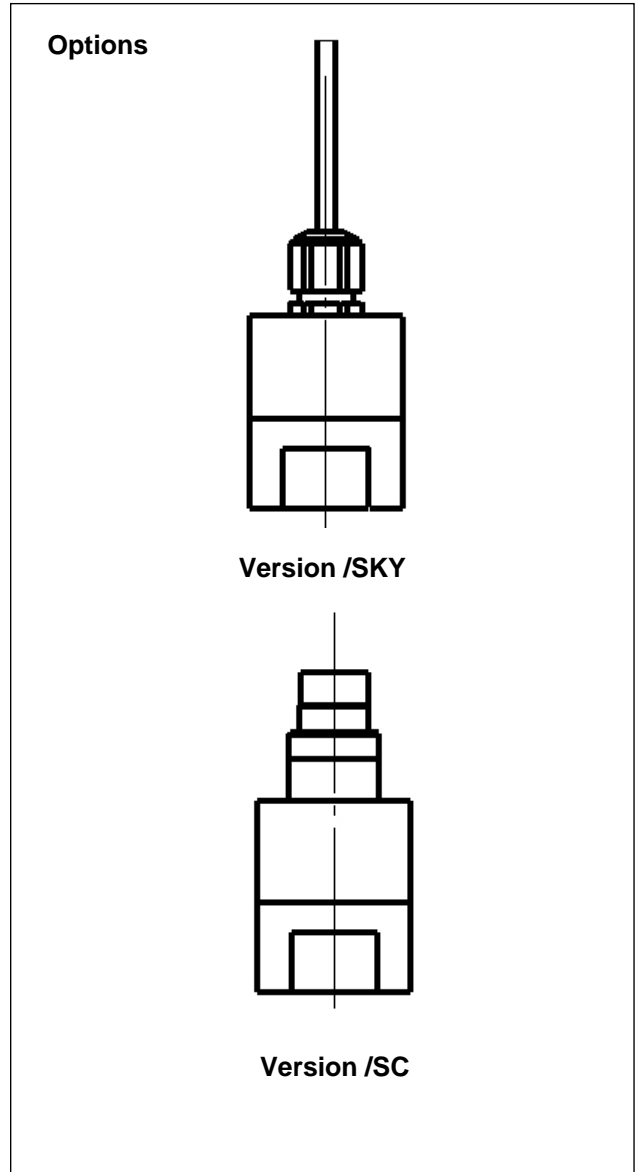
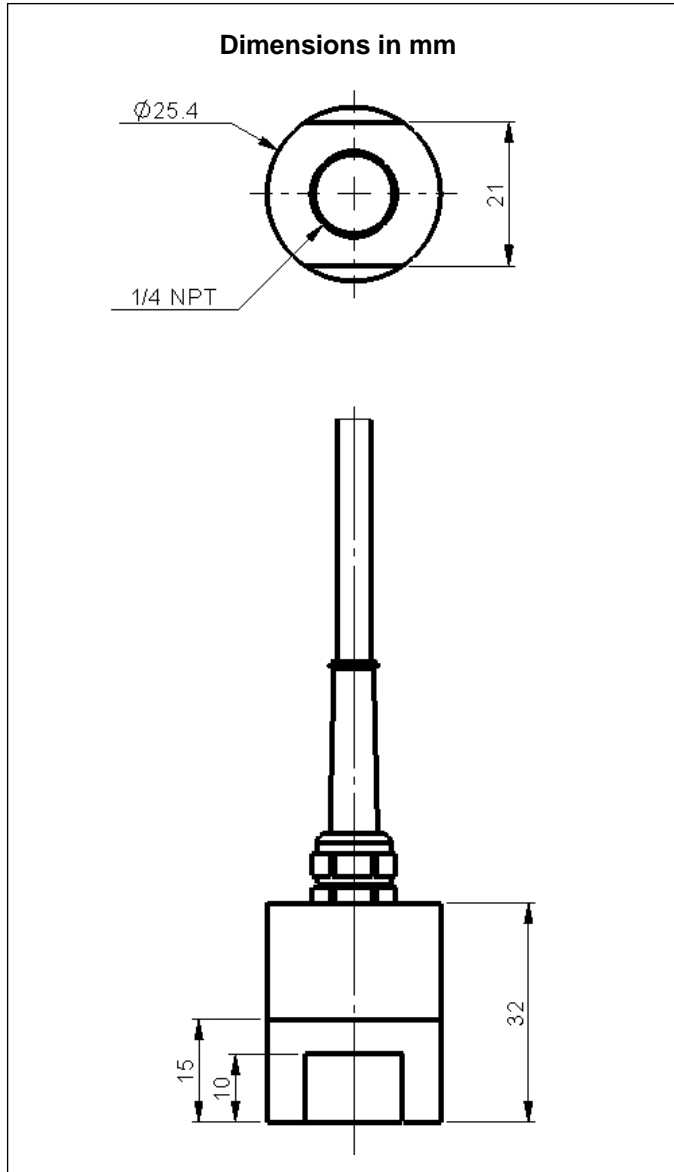
Model	P101	P101-A1	P101-A2
Supply Voltage	10 Vdc	10 - 30Vdc	±15Vdc (±12 to ±18Vdc)
F.S. Output 10 bar model <sup>5</sup>	1 mV/V	4V ±5% F.S.	5V ±5% F.S.
F.S. Output ≥20 bar model <sup>5</sup>	2 mV/V	4V ±5% F.S.	5V ±5% F.S.
Zero Offset	<± 5% F.S.	0.5V ±5% F.S.	0 V ±5% F.S.
Input Impedance/Consumption	350 Ω	<50mA	<50mA
Output Impedance	350 Ω	1 kΩ <sup>6</sup>	1 kΩ <sup>6</sup>
Insulation under 50Vdc	≥100 MΩ	≥100 MΩ	≥100 MΩ

### Notes

1. Electrical Termination: Cable gland Termination, 2m [6.6ft] cable standard length
2. Material: Stainless steel diaphragm, body in aluminum
3. Pressure connector: ¼ NPT female
4. Weight: <300g [0.66lb] without cable
5. Standard output signal, custom outputs available on request
6. Output impedance standard, available <100Ω on request.
7. CE conformance according to EN 61010-1, EN 50081-1, EN 50082-1

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## DIMENSION & WIRING SCHEMATIC (METRIC ONLY)

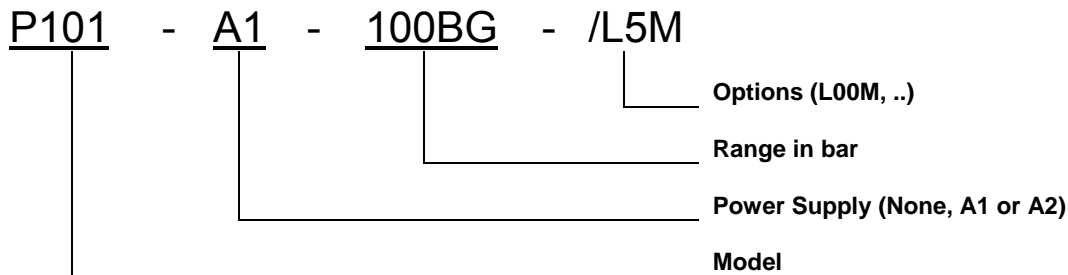


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## OPTIONS

<b>A1</b>	: Amplified Tension output with unipolar power supply
<b>A2</b>	: Amplified Tension output with bipolar power supply
<b>HA</b>	: Accuracy (CNL&H) $\leq \pm 0.15\%$ F.S.
<b>SI</b>	: Sensitivity shift $\leq 0.5\%$ / 50° C
<b>ZI</b>	: Zero shift $\leq 0.5\%$ / 50° C
<b>ET1</b>	: CTR -20 to 100° C [-4 to 212° F]
<b>ET7</b>	: CTR -20 to 120° C [-4 to 248° F] OTR=CTR
<b>SC</b>	: Connector output
<b>SKY</b>	: Skydrol protection
<b>L00M</b>	: special cable length, replace "00" with total length in meters

## ORDERING INFORMATION



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