

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

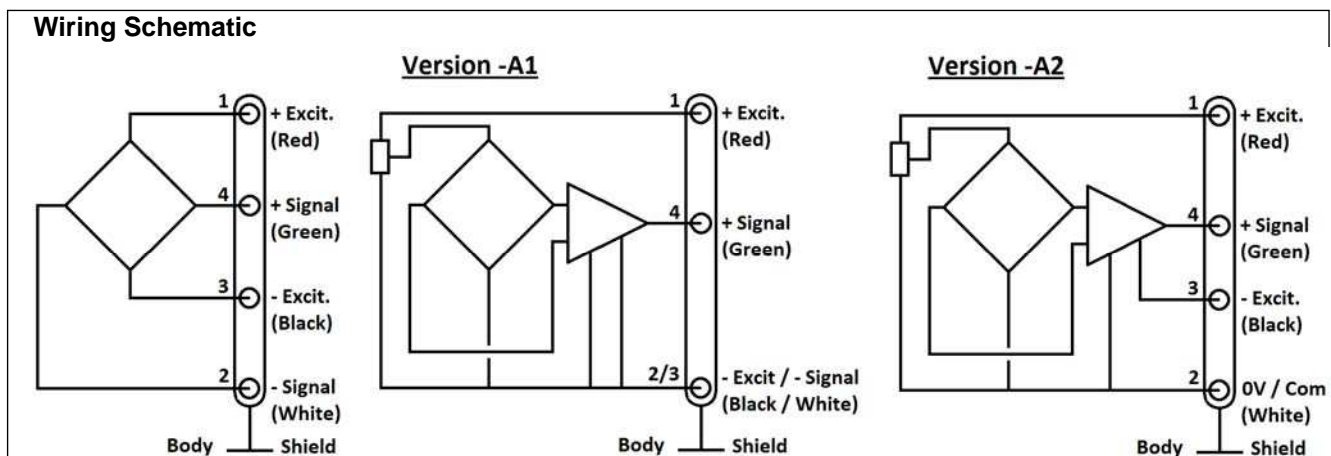
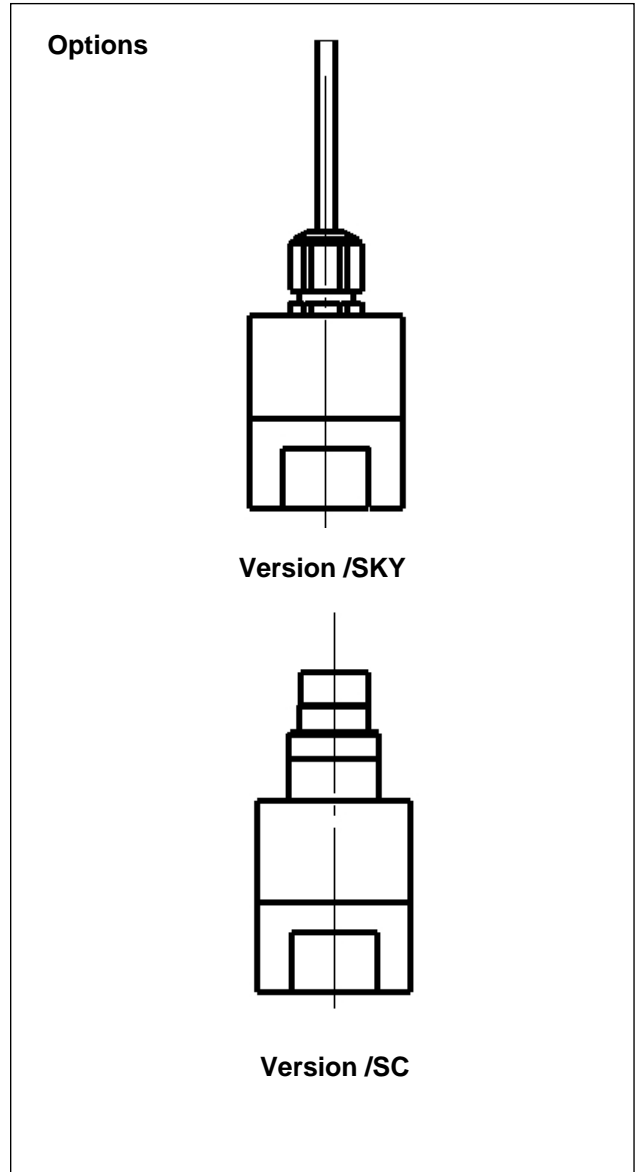
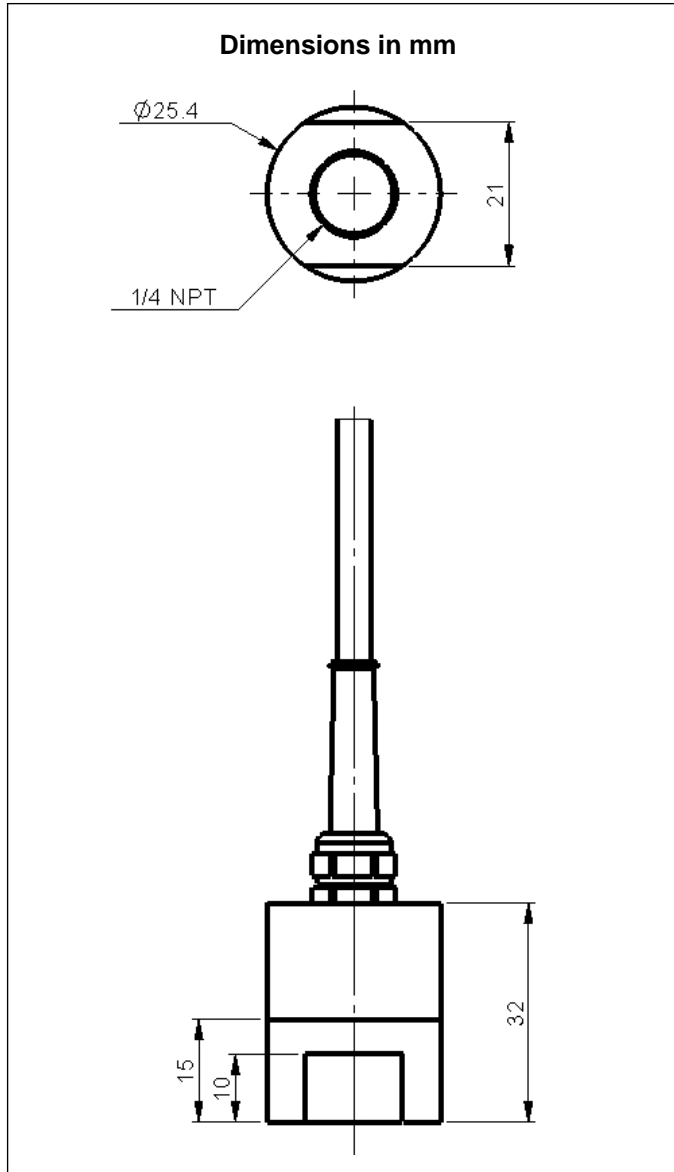
Model	P101	P101-A1	P101-A2
Supply Voltage	10 Vdc	10 - 30Vdc	±15Vdc (±12 to ±18Vdc)
F.S. Output 10 bar model ⁵	1 mV/V	4V ±5% F.S.	5V ±5% F.S.
F.S. Output ≥20 bar model ⁵	2 mV/V	4V ±5% F.S.	5V ±5% F.S.
Zero Offset	<± 5% F.S.	0.5V ±5% F.S.	0 V ±5% F.S.
Input Impedance/Consumption	350 Ω	<50mA	<50mA
Output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

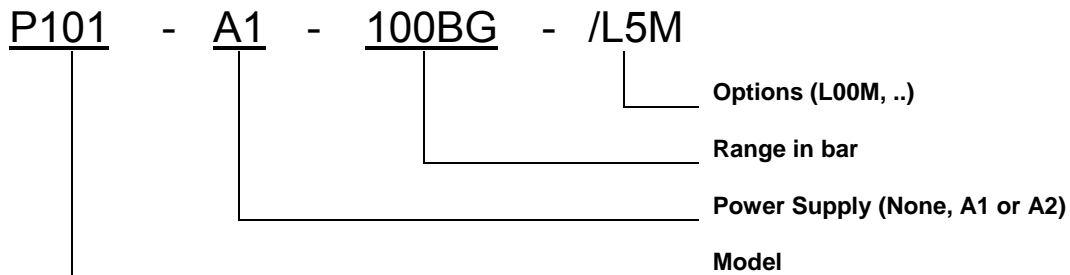


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OPTIONS

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

ORDERING INFORMATION



NORTH AMERICA

Measurement Specialties, Inc.
 Vibration Design Center
 32 Journey - Suite 150
 Aliso Viejo, CA 92656
 United States USA
 Tel: 1-949-716-0877
 Fax: 1-949-916-5677
t&m@meas-spec.com

EUROPE

Measurement Specialties
 (Europe), Ltd.
 26 Rue des Dames
 78340 Les Clayes-Sous-Bois,
 France
 Tel: +33 (0) 130 79 33 00
 Fax: +33 (0) 134 81 03 59
cs.lcsb@meas-spec.com

ASIA

Measurement Specialties
 (China), Ltd.
 No. 26 Langshan Road
 Shenzhen High-Tech Park (North)
 Nanshan District, Shenzhen
 518057
 China
 Tel: +86 755 3330 5088
 Fax: +86 755 3330 5099
pfg.cs.asia@meas-spec.com

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