



| P528

Pressure Sensor

Description

The P528 incorporates Kavlico's 4th generation ceramic capacitive sense element with the latest state of the art proprietary ASIC. Available in brass or stainless steel housings, this multi-purpose sensor is rugged by design. Highly reliable, the P528 is ideal for measuring a broad range of process media including hydrocarbon based fluids, air, and gases. The P528 package has a built-in Metri-Pack 150 series sealed electrical connector and is available with popular pressure connection thread options. The sensor is offered with seal materials suitable for diverse applications. Standard pressure ranges are available in PSI or Bar.



Features

- Small Size (3/4" Hex)
- External Hex for Easy Installation
- Linear Amplified Output
- Temperature Compensated
- Superior Long-Term Stability
- Low Power Consumption
- Minimum Life Expectancy: Ten Million Cycles

Applications

- Compressors
- Process Controls
- Instruments & Test Equipment
- Sterilizers
- Air Pressure
- Oil & Fuel Pressure
- Coolant Pressure
- Agricultural Equipment
- CNG & Natural Gas Engines



MAIN FEATURES

Pressure Ranges	0 - 6 up to 0 - 70 Bar and 0 - 100 up to 0 - 1000 PSI
Electrical Connection	Packard Electric Metri-Pack 150 Series
Pressure Connection	1/4" SAE Female Flare w/ Schrader Deflator 7/16"-20 UNF-2A external threads 1/4"-18 NPT 1/8"-27 NPT (external threads)
Housing Material	Brass (up to 300 psi) and stainless steel (above 300 psi)
Output Voltage	0.5 to 4.5 Vdc



Pressure Ranges

Bar A, S or G	0 - 1	0 - 1.6	0 - 2.5	0 - 4	0 - 6	0 - 10	0 - 16	0 - 25	0 - 40	0 - 50	0 - 70	
PSI A, S or G	0 - 15	0 - 20	0 - 30	0 - 50	0 - 75	0 - 100	0 - 150	0 - 200	0 - 300	0 - 500	0 - 750	0 - 1000

For custom pressure ranges consult Kavlico Pressure Sensors.

Physical

Durability/Service Life	10 million full pressure cycles (minimum)
Proof Pressure	3X FS Pressure (upto 14 Bar / 200 PSI) 2X FS Pressure (above 14 Bar / 200 PSI)
Burst Pressure	1500 PSI (upto 24 Bar / 300 PSI) 2500 PSI (above 24 Bar / 300 PSI)
Humidity	93 +/- 3% RH
Vibration	10 g's peak to peak sine (10 - 2000 Hz)
Shock	75 g's, 1/2 Sine Wave
Drop Test	1 meter drop on concrete as per SAE J1455
Weight	< 50 gm
Ingress Protection	IP67

Performance

Linearity Error	≤ +/- 0.5% of span
Total Error Band	+/-1.5% of span (0 ≤ T ≤ 85 C°) +/-2.0% of span (T < 0 C°, T < 85 C°)
Stability Coefficient	+/-0.3 % of Full span over 1 year
Operating Temperature	-40 C° to 125 C° (Seal material dependent. See Ordering Options)
Storage Temperature	-40 C° to 125 C° (Seal material dependent. See Ordering Options)

Electrical

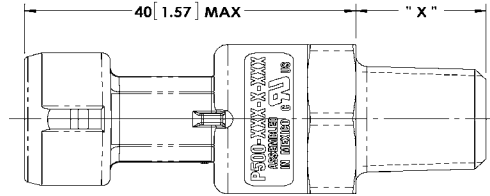
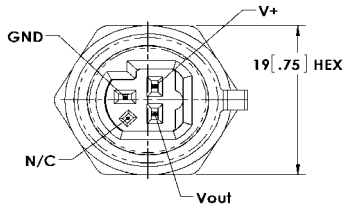
Supply Voltage	5.0 Vdc +/- 0.5
Output Voltage	0.5 to 4.5 Vdc
Supply Current	≤ 5 mA
Output Impedance	≤ 100 Ω
Output load	≥ 10 KΩ
Output response time	≤ 2 ms to 63 % of final output voltage with step change in input pressure
Overvoltage protection	36 Vdc
Reverse Voltage	-36 Vdc
Short Circuit protected	Output to supply, Output to Ground: Indefinite
Isolation Voltage	R ≥ 100 MΩ, 500 Vdc / 1 min
Warmup time	3 mSec Max.
EMC	Meets ISO 7637-3, ISO 11452-4, ISO 11452-2, CISPR 25, MIL-STD 461 E
ESD	IEC 1000-4.2 (8kV contact, 15kV air), ISO 10605 (8kV contact, 25kV air)



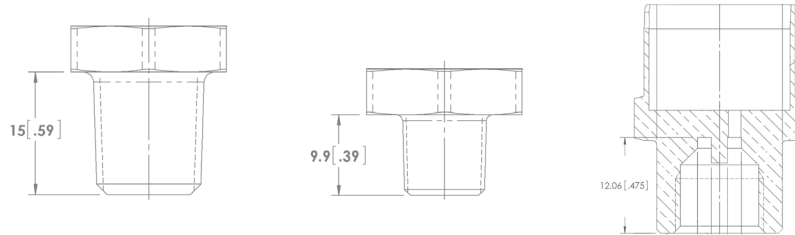
DIMENSIONS

Dimensions in mm [Inch]

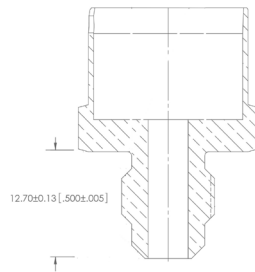
Pressure Sensor with Electrical Connection



Pressure Connections and Recommended Installation Torque



Name	1/4 - 18 NPT	1/8 - 27 NPT	Schrader deflator
Thread	External	External	Internal
Torque	25 Nm	14 Nm	15 Nm



Name	7/16 – 20 UNF 2A
Thread	External
Torque	16 Nm

Note: Recommended torque may vary according to material and specific application.



P528 Sensor, 0 - 16 Bar Absolute, Fluorosilicone Seal Material, 1/4 - 18 NPT Pressure Connection,

P528 - **16B** - **A** - **C** **1** **A**

Family

P528

Pressure Ranges

- 6B: 0 – 6 Bar 100: 0 – 100 PSI 1000: 0 – 1000 PSI
- 10B: 0 – 10 Bar 150: 0 – 150 PSI
- 16B: 0 – 16 Bar 300: 0 – 300 PSI
- 25B: 0 – 25 Bar 400: 0 – 400 PSI
- 40B: 0 – 40 Bar 500: 0 – 500 PSI
- 50B: 0 – 50 Bar 600: 0 – 600 PSI
- 70B: 0 – 70 Bar 750: 0 – 750 PSI

Reference

- A: Absolute
- G: Gage
- S: Sealed Gage (Referenced to 14.7 PSIA)

Seal Material

- C: Neoprene (-30° to 120°C)
- F: Ethylene Propylene (-40° to 120°C)
- H: HNBR (-20° to 125°C)

Pressure Connection (Port)

- 1: 1/4 - 18 NPT (External Threads)
- 2: 1/4 SAE Female flare w/schrader deflator
- 3: 7/16 - 20 UNF 2A (External threads)
- 4: 1/8 - 27 NPT (External threads)

Built-in Electrical Connection

- A: With Mating Connector, w/12", 18 AWG Leads
- C: Without Mating Connector



AGENCY APPROVALS & CERTIFICATIONS



EN 61326-1, 2006
IEC 61000-4-2, 2001
IEC 61000-4-3, 2006
IEC 61000-4-8, 2001



2002/95/EC RoHS Directive



File # SA10552

Revised 2/7/18

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

CONTACT US

Americas

+1 (800) 350 2727
sensors@sensata.com
switches@sensata.com

Europe, Middle East & Africa

+359 (2) 809 1826
pressure-info.eu@sensata.com

Asia Pacific

sales.isasia@list.sensata.com
China +86 (21) 2306 1500
Japan +81 (45) 277 7117
Korea +82 (31) 601 2004
India +91 (80) 67920890
Rest of Asia +886 (2) 27602006
ext 2808