

IPS SERIES

INDUSTRIAL PRESSURE TRANSDUCER - CERAMIC



CE

The IPS series is suitable for use in a wide range of industrial applications. The probe uses a piezo-resistive ceramic sensor, giving excellent media compatibility within a stainless steel housing.

The electronics incorporate a microprocessor based amplifier, requiring no adjusting and giving stable electronics, especially industrial applications.

Each device is temperature compensated, calibrated and supplied with a traceable serial number and calibration data.*

*Calibration data is supplied as a sticker affixed to the product packaging - do not discard.

Features

- Piezo-resistive thick film ceramic sensor
- Stainless steel body
- Accuracy $<\pm 0.25\%$ FS BFSL
- Various outputs including mV, Volts and mA
- Pressure ranges from -1 to 400 bar

SPECIFICATIONS

Performance

Accuracy (Non-linearity & Hysteresis)	$<\pm 0.25\%$ / FS (BFSL)	
Setting Errors (Offsets)	2-wire	Zero & Full Scale, $<\pm 0.5\%$ / FS
	3-wire	Zero & Full Scale, $<\pm 0.5\%$ / FS
	4-wire	Zero & Full Scale, $<\pm 0.5\%$ / FS
		@ 10 Volts

Material

Housing	303 Stainless Steel
"O" Ring Seals	Viton
Diaphragm	Ceramic Al_2O_3 96%
Media Wetted Parts	Housing & connection, 'O' ring seal, diaphragm
Weight	Approx 100g
Installation Position	Any
Operation Life	$> 100 \times 10^6$ cycles
Insulation Resistance	> 50 MOhms at 50Vdc

Electrical Protection

Supply Reverse Polarity	No damage/no function
Electromagnetic Compatibility	CE Compliant

Environmental Conditions

Shock	100g / 11s
Vibration	10g RMS (20 - 2000Hz)
Media Temperature	-40°C to +135°C
Ambient Temperature	-20°C to +80°C
Storage Temperature	-40°C to +125°C
Humidity	5% to 95% RH non-condensing

Temperature & Thermal Effects

Compensated Temperature Range	+20°C to +80°C
Thermal Zero Shift (TZS)	<±0.04% /FS/°C
Thermal Span Shift	<±0.015% /°C

PRESSURE RANGES

Pressure Ranges & Passive mV/V Outputs

Nominal Pressure, Gauge	bar	1	6	10	16	25	40	100	250	400
Compound Range	bar			-1 to +9		-1 to +24				
Permissible Overpressure	bar	2	10	15	35	100	100	150	350	500
Burst Pressure	bar	3	12	20	50	120	120	200	500	650

Output Signal & Supply Voltage

Wire System	Output	Supply Voltage	Connection Pin Nos		
2-wire	4 - 20mA	9 – 32V dc	+ve Supply Pin 1	-ve Supply Pin 2	Ground Earth Pin
3-wire	0 - 5V dc	9 – 32V dc	+ve Supply Pin 1	-ve Supply Pin 2	
			+ve Output Pin 3	Ground Earth Pin	
4-wire (amplified)	10mV/V (ratiometric)	3 – 12V dc	+ve Supply Pin 1	-ve Supply Pin 2	
			+ve Output Pin 3	-ve Output Earth Pin	

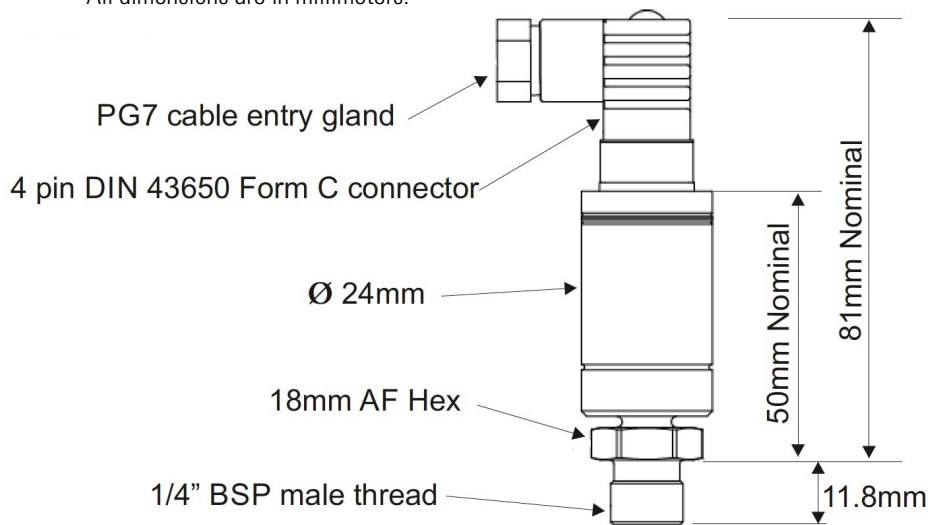
Part Number	Pressure Rating	Output
IPS-G1000-3	0 - 1 Bar G	0 - 100mV
IPS-G1000-5	0 - 1 Bar G	4 - 20mA
IPS-G1000-6	0 - 1 Bar G	0 - 5V
IPS-G6000-3	0 - 6 Bar G	0 - 100mV
IPS-G6000-5	0 - 6 Bar G	4 - 20mA
IPS-G6000-6	0 - 6 Bar G	0 - 5V
IPS-GM1P9-5	-1 to +9 Bar G	4 - 20mA
IPS-GM1P9-6	-1 to +9 Bar G	0 - 5V
IPS-G1002-3	0 - 10 Bar G	0 - 100mV
IPS-G1002-5	0 - 10 Bar G	4 - 20mA
IPS-G1002-6	0 - 10 Bar G	0 - 5V
IPS-G1602-3	0 - 16 Bar G	0 - 100mV
IPS-G1602-5	0 - 16 bar G	4-20mA
IPS-G1602-6	0 - 16 bar G	0-5V

Part Number	Pressure Rating	Output
IPS-C0184-5	-1 to +24 Bar G	4 - 20mA
IPS-C0184-6	-1 to +24 Bar G	0 - 5V
IPS-G2502-3	0 - 25 Bar G	0 - 100mV
IPS-G2502-5	0 - 25 Bar G	4 - 20mA
IPS-G2502-6	0 - 25 Bar G	0 - 5V
IPS-G4002-3	0 - 40 Bar G	0 - 100mV
IPS-G4002-5	0 - 40 Bar G	4 - 20mA
IPS-G4002-6	0 - 40 Bar G	0 - 5V
IPS-G1003-3	0 - 100 Bar G	0 - 100mV
IPS-G1003-5	0 - 100 Bar G	4 - 20mA
IPS-G1003-6	0 - 100 Bar G	0 - 5V
IPS-G2503-3	0 - 250 Bar G	0 - 100mV
IPS-G2503-5	0 - 250 Bar G	4 - 20mA
IPS-G2503-6	0 - 250 Bar G	0 - 5V
IPS-G4003-3	0 - 400 Bar G	0 - 100mV
IPS-G4003-5	0 - 400 Bar G	4 - 20mA
IPS-G4003-6	0 - 400 Bar G	0 - 5V



DIMENSIONS

All dimensions are in millimeters.



Made in the UK

Page 3

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

+44 (0)1202 897969
c3w_sales@sensata.com
Cynergy3 Components Ltd.
7 Cobham Road,
Ferndown Industrial Estate,
Wimborne, Dorset,
BH21 7PE, United Kingdom