



- PRESSURE RANGES 0-50mbar TO 0-1000mbar
- SUITABLE FOR WET MEDIA APPLICATIONS
- 0-100mV, 0-5V, 0-10V OR 4-20mA OUTPUT OPTIONS
- ROBUST STAINLESS STEEL CONSTRUCTION
- HIGH PROOF PRESSURE RANGES
- WIDE OPERATING TEMPERATURE

DESCRIPTION

LP1000 series now extends the pressure sensor technology into very low-pressure applications, with operating ranges down to 0-50mbar and still maintaining high performance. The advanced sensor design provides very low hysteresis and excellent long-term stability normally not achievable when measuring very low pressure.

The stainless steel housing, fluorosilicone seals and silicon sensing element ensures that the LP1000 series has most effective corrosion resistance and enables the product to be used continuously with wet media. With a design to meet demanding environments, this transducer will maintain accurate performance and provide extremely good durability.

Available in pressure ranges from 0-50 to 0-1000mbar and with electrical outputs of 0-100mV, 0-5Vdc, 0-10Vdc and 4-20mA.

Applications include laboratory and test, air and gas pressure monitoring, leak detection, low pressure liquid and hydrostatic pressure measurements.

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SPECIFICATION

PRESSURE RANGES:

0 to 1000 mBarG, see table below for list of all standard pressure ranges.

OVERPRESSURE:

Pressure can exceed rated range by the multiple shown below with no damage or change in calibration above $\pm 0.5\%$ FS.

4x for ranges 0bar to 500mbar

3x for ranges 0bar to 1000mbar

OUTPUT SIGNAL:

0-10mV/V [nominal] (4 wire non-amplified)

Zero offset: $\pm 1\text{mV/V}$,

Span tolerance: $\pm 30\%$ FSO

0-5 Vdc, 0-10 Vdc (4 wire amplified)

Zero Offset and Span Setting

$\pm 0.5\%$ FSO

4-20mA (2 wire amplified)

Zero Offset and Span Setting

$\pm 0.08\text{mA}$

ZERO AND SPAN SETTING:

$\pm 5\%$ FS adjustment with easy access trimming

Potentiometers on amplified version only

SUPPLY VOLTAGE:

Measured across supply terminals on connector plug

5-15Vdc for 0-10mV/V version

13-30Vdc for 0-5V and 0-10V versions

13-36Vdc for 4-20mA version

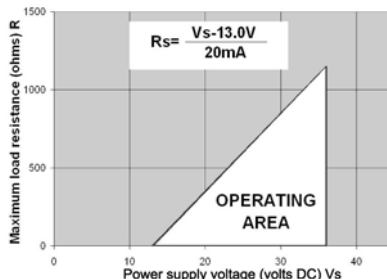
REVERSAL OF SUPPLY VOLTAGE:

Protected against supply voltage reversal up to 50Vdc

LOAD DRIVING CAPABILITY

(4-20mA version only):

Calculate maximum load see chart below.



e.g. with supply voltage load of 36vdc, maximum load is 1150ohms.

COMBINED NON-LINEARITY AND HYSTERESIS:

$\pm 0.50\%$ FS best fit straight line definition.

REPEATABILITY:

$\pm 0.20\%$ FS defined as maximum error between 3 consecutive pressure cycles.

LONG TERM STABILITY:

$\pm 0.5\%$ FS/year non-cumulative

PRESSURE MEDIA:

All fluids compatible with 303 stainless steel, PEI, fluorosilicone, silicon.

OPERATING TEMPERATURE RANGE:

Ambient: -20° to $+85^\circ\text{C}$

Storage: 5° to $+40^\circ\text{C}$

TEMPERATURE EFFECTS:

$\pm 2.5\%$ FS total error band for -20° to 70°C

Typical thermal zero and span coefficients

$\pm 0.04\%$ FS/ $^\circ\text{C}$

INSULATION RESISTANCE:

100Mohm @50Vdc all electrical connection to case

ELECTROMAGNETIC-COMPATIBILITY:

Emissions EN61000-6-4

Immunity EN61000-6-2

Certification CE marked

PRESSURE CONNECTION:

1/4" BSP (others on request)

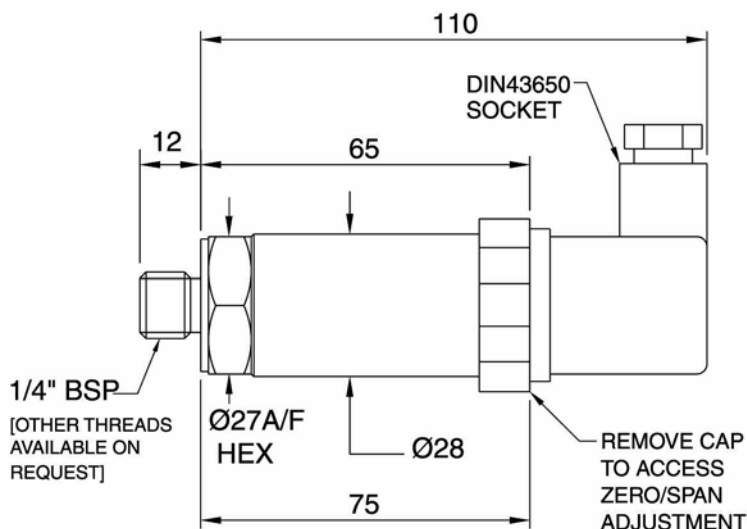
ELECTRICAL CONNECTION:

Mating socket with screw terminal connections to DIN 43650, rated IP65.

WEIGHT:

195 grams excluding mating connector.

DIMENSIONS (in mm)



ELECTRICAL CONNECTION

Pin No.	2 wire	4 wire
1	+supply	+supply
2	4-20mA signal	-supply
3	not fitted	+output
⊥	to case	-output

ORDER DETAILS

State model number and pressure range required:-
e.g. LP1000 0-1000mbar

Model No.	DESCRIPTION
LP1000	0-10mV/V, 4 WIRE
LP1001	0-5V, 4 WIRE
LP1002	0-10V, 4 WIRE
LP1003	4-20mA, 2 WIRE

PRESSURE RANGES

0 - 50 mbar
0 - 100 mbar
0 - 250 mbar
0 - 500 mbar
0 - 1000 mbar

CALIBRATION

All products manufactured by Ellison Sensors are calibrated using precision calibration equipment with traceability to international standards.

Ellison Sensors operates a policy of continuous product development. We reserve the right to change specification without prior notice.

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