

GS4200-USB[®]

USB-POWERED
DIGITAL PRESSURE TRANSDUCER



- USB 1.1 AND USB 2.0 FULL SPEED COMPATIBLE
- AUTO DETECTION & CONFIGURATION
- HOT PLUGABLE AND SOLELY POWERED BY USB BUS
- ESI-USB[®] WINDOWS INTERFACE SOFTWARE SUPPLIED
- EXTREMELY HIGH 21 BIT RESOLUTION
- EXCELLENT STABILITY AND REPEATABILITY
- INCLUDES BUILT-IN TEMPERATURE MONITORING
- IP68 USB CABLE INCLUDED
- RANGES 0-500mbar TO 0-1500bar

DESCRIPTION

The GS4200-USB[®] Digital Pressure Transducer has been designed to measure, analyse and record pressure directly on your computer without the need for costly I/O interface boards.

The transducer is powered by the computer's USB port, data is then presented on the PC via the ESI-USB[®] configurable software supplied with the transducer. It has instant connection with auto-detection, and will configure automatically with your desktop or laptop pc via USB protocol.

The fast sample rate enables dynamic pressures to be measured with up to 21 bit resolution. For real-time analysis, data transferred to the PC is achieved without loss of accuracy or bandwidth.

This pressure transducer is USB 1.1 and USB 2.0 compatible, the ESI-USB[®] interface configuration and analysis software is compatible with Windows[®] 98, 98SE, 2000, ME, XP & Vista. Data can be displayed in graphical or tabular form, with a choice of pressure units and fully adjustable scales. Data can be saved to a file or exported to Excel.

Excellent measurement accuracy provides high resolution with a precision greater than 1 in 10,000. Pressure ranges are available from 500mbar to 1500bar in gauge or absolute reference.

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GS4200-USB[©] USB-POWERED DIGITAL PRESSURE TRANSDUCER

SPECIFICATION

PRESSURE RANGES:

500mbar to 1500bar, 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 0.5bar range

2x for ranges 1bar to 600bar

1.5x for 1000bar

1.1x for 1500bar

OUTPUT SIGNAL:

USB 1.1 and USB 2.0 full speed connection.

RECALIBRATION

Fully configured and re-calibrated via PC software. Including pressure unit selection linearity and temperature compensation adjustment.

SUPPLY VOLTAGE:

5Vdc via USB bus.

COMBINED NON-LINEARITY AND

HYSTERESIS:

$\pm 0.05\%$ FS Best fit straight line definition.

REPEATABILITY:

$\pm 0.1\%$ FS Defined as maximum error between 3 consecutive pressure cycles.

LONG TERM STABILITY:

0.1 % FS/year non-cumulative.

PRESSURE MEDIA:

All fluids compatible with Titanium alloy.

RESOLUTION:

Up to 21 bit pressure measurement.

OPERATING TEMPERATURE RANGE:

Ambient: -20° to $+85^{\circ}$ C

Media: -50° to $+125^{\circ}$ C

Storage: 5° to $+40^{\circ}$ C

TEMPERATURE EFFECTS:

Typical thermal zero and span coefficients

$\pm 0.005\%$ FS/ $^{\circ}$ C

ELECTROMAGNETIC-COMPATIBILITY:

Emissions EN61000-6-4

Immunity EN61000-6-2

Certification CE marked

PRESSURE CONNECTION:

1/4" Male (Other threads available on request).

WEIGHT:

100 grams for standard.

ELECTRICAL CONNECTION:

Mating to USB Mini B socket for cable connection to PC

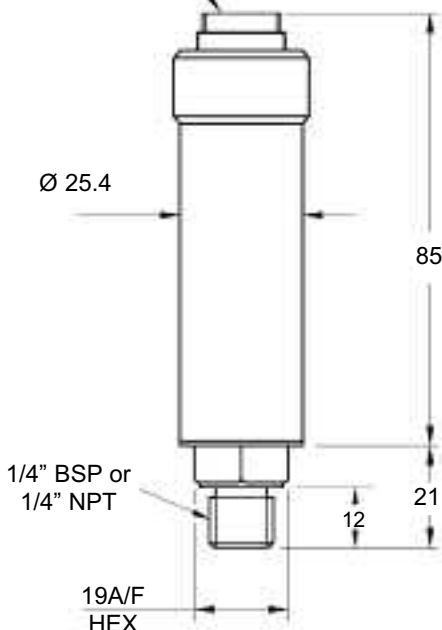
PRESSURE REFERENCE:

Gauge or Absolute



DIMENSIONS (in mm)

Remove dust cap
for access to
USB B socket



ORDER DETAILS

State model number and pressure range required:-
e.g. GS4200-USB 0-4 bar - 0-16bar

Model No.	DESCRIPTION
GS200 - USB	USB digital pressure transducer

PRESSURE RANGES

-1 - 0 bar Vac to 0 - 2.5 bar

0 - 4 bar to 0 - 16 bar

0 - 25 bar to 0 - 100 bar

0 - 160 bar to 0 - 400 bar

0 - 600 bar to 0 - 1500 bar

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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