



Linear Pressure Sensor



INDEX:

1. DESCRIPTION	2
2. ADVICE AND PRECAUTIONS DURING INSTALLATION.....	3
1.1 Precautions	3
1.2 Electrical Connections	3
2 SETTING CHANNELS WITH A GET DATA LOGGER	4

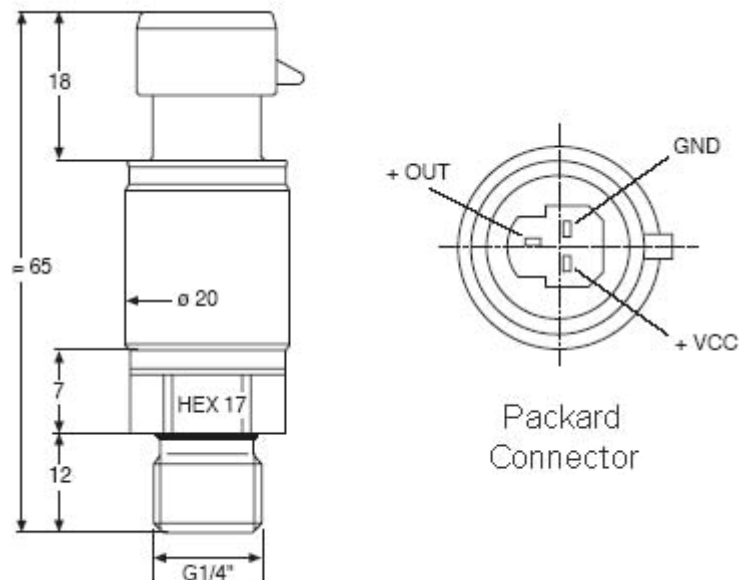
1. DESCRIPTION

Linear Active pressure sensor ideal for all applications (brake and oil engine pressure); high quality, made of Stainless steel INOX (AISI 316 L).

The maximum detectable pressure depends on the model purchased; GET offers the follows sensors: 10 bar, 35 bar, 100 bar.

See the table for details:

Parameter	Code		
	DS00080000 / DS40080000	DS00080001 / DS40080001	DS00080002 / DS40080002
Power Supply (V)	5 VDC \pm 0.25 V		
Max. output voltage (V)	da 0.5 V a 4.5 V ratiometric		
Max. detectable pressure (bar)	10	35	100
Sensor Characteristic	lineare da 0.5 V (0 bar) a 4.5 V (Max. pressure)		
Accuracy (@ max. pressure)	\pm 2% FS(Temp. range 10°C - 40°C)		
Vibration resistance	10 g / 5...2000 Hz, assi X/Y/Z / 20 g sin. 11 ms		
Response time	<10ms		
Mechanic connection	G 1/4"		
Protection grade	IP67		
Weight	50g		



2. ADVICE AND PRECAUTIONS DURING INSTALLATION

1.1 Precautions

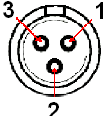
Before installing the sensor please take care not to place the sensor and wiring near electromagnetic noise source as spark plug, coils, alternators, telemetry antennas.

1.2 Electrical Connections

The GET pressure sensors can be powered at maximum at +5 V. A regulator circuit allow to set the signal output voltage between 0 and 5 V.

The sensor can be connected to a GET data logger by a 3 poles Binder connectors: any other interface isn't needed.

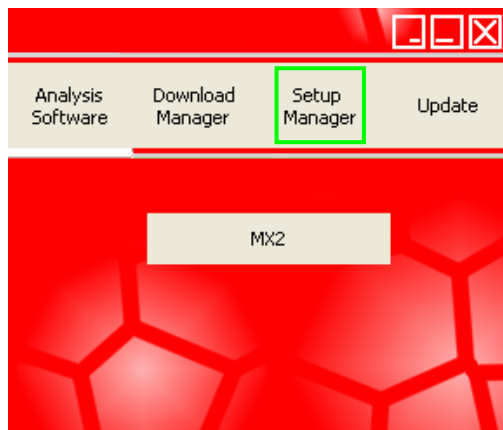
Binder Connector pinout (wire side):

	Pin	Wire Color	Channel
	1	Red	5 V
	2	White	Signal
	3	Black	Ground

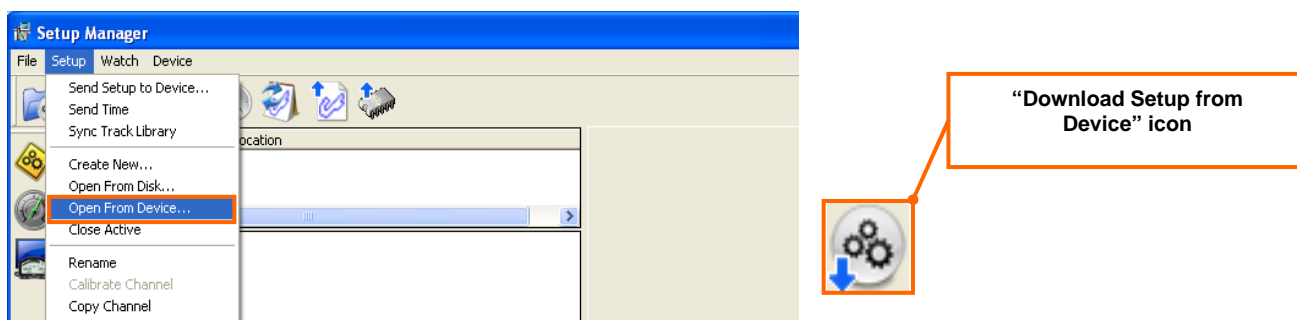
2 SETTING CHANNELS WITH A GET DATA LOGGER

The Pressure Sensor must be connected to an analog input of GET data logger. After connection at the analog input (AD1, AD2, etc..) the user needs to configure the sensor by using Setup Manager software, under the Analog Channels tree. Follow these steps:

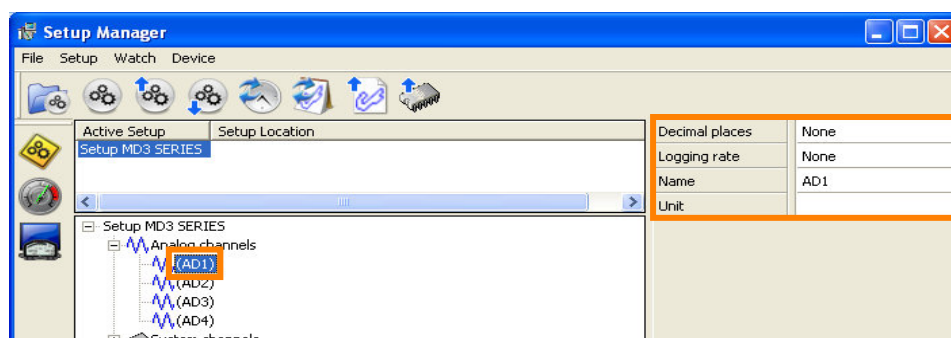
- Run **Setup Manager** in the **GATE** window as shown below.



- Download the device setup onto your computer by clicking on the download icon on the top bar or by clicking on **Open from Device** from the **Setup menu**.



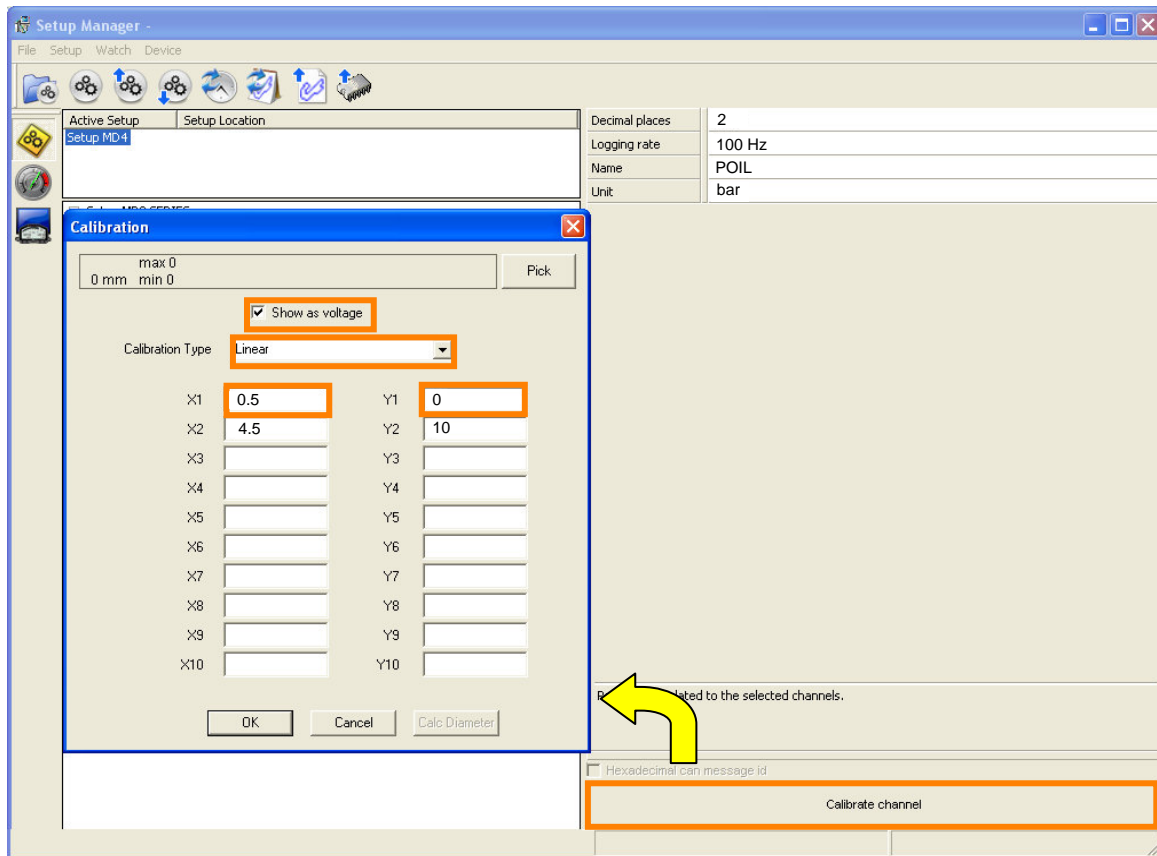
- The setup can now be seen in **Setup Manager**.
- We suppose that the X axis signal is connected at the AD1 input, we need to configure the channel properties (see the picture below).



- **Decimal places**: enter the number of decimal places to be displayed in the channel values (suggested 2)
- **Logging rate**: enter the channel acquisition frequency (the available choices are: 1, 5, 10, 50, 100, 500 Hz)
- **Name**: channel name in our case, for example, **POIL**
- **Unit**: enter the unit of measurement of the channel value (**bar** in our case)

It is now necessary to calibrate the channel (this operation is necessary to obtain the correct value of the signal being acquired).

- Click on **Calibrate Channel** in the bottom right-hand corner: the calibration window of the channel selected previously will appear:



- Once you have entered the calibration window, it is necessary to define:

Calibration Type: defines the type of channel calibration (in this particular case, set **Linear**)

X values: values, expressed in **COUNT** or **VOLTAGE**, of the channel being calibrated. In our case, **with "Show as Voltage" checked**, the values are:

X1 = 0
X2 = 4.5

Y values: these define the calibrated values of the channel with reference to the adjacent **X** box. In our case, **with "Show as Voltage" checked**, the values are:

Y1 = 0
Y2 = 10

PLEASE NOTE: the Y2 value depends from sensor maximum detectable pressure: for example place Y2=100 for 100 bar sensor

- Transfer the modified setup onto the instrument: click on the relevant icon or on **Send Setup to Device** from the Setup Manager menu

