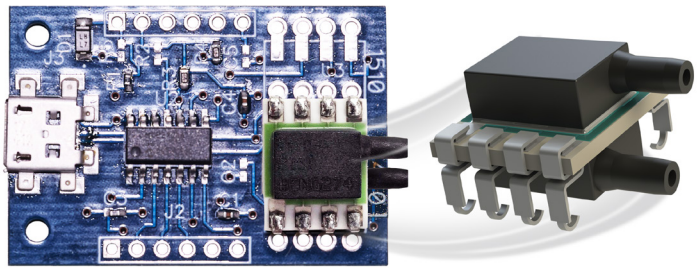
MERIT SENSOR™

DATA SHEET

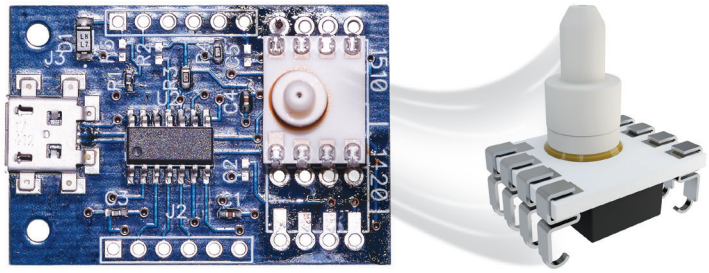
miniPEK

The miniPEK is a small low-cost printed circuit board that includes either Merit Sensor's LP Series or HTS Series. It provides a simple way to evaluate pressure in your application and to test the performance of one of these pressure sensors. In addition to the PCB, the evaluation kit includes Merit Sensor's custom software, which is available for free download at meritsensor.com/products/minipek/. All you need is some tubing and a micro USB cable, and you'll be ready to evaluate pressure.

miniPEK *with LP Series pressure sensor*



miniPEK *with HTS Series pressure sensor*



Overview

Merit Sensor's miniPEK is a 1.5" x 1" printed circuit board (PCB) that includes either an LP Series or HTS Series digital-output pressure sensor. The miniPEK provides a simple way to evaluate pressure on your application and to test the performance of the pressure sensor on board.

What is included?

- 1.5" x 1" PCB with LP Series or HTS Series pre-soldered on board

What is needed?

- Computer with Windows 10
- Software, which is available for free download at meritsensor.com/products/minipek/
- Tubing (1/16" ID)
- Cable for USB 2.0 to Micro-B

miniPEK Part Numbers

MINIPEK XXX

Full-Scale Pressure

- 1P0 – 1 psi (Digital LP part included)
- P04 – 250 pascal (Digital LP part included)
- P07 – 500 pascal (Digital LP part included)
- P15 – 1000 pascal (Digital LP part included)
- P30 – 2000 pascal (Digital LP part included)
- 1P0 HTS – 1 psi (HTS part included)

Setup Instructions

1. Open the packaging and remove the miniPEK.

2. Follow the instructions below based on the pressure sensor that has been soldered to the PCB.

   LP Series: If you are measuring differential pressure, connect one end of both pieces of tubing to the ports of the pressure sensor and the other end of both pieces to the ports of the pressure source that you are testing, e.g., an air duct. If you are measuring gauge pressure, connect one end of tubing to the top pressure port and the other end to the pressure source, leaving the bottom pressure port open.

   HTS Series: Connect one end of tubing to the pressure port and the other end to the pressure source.

3. Connect the USB 2.0 connector to your computer and the Micro-B connector to the miniPEK.

4. Power up your computer, if necessary.

5. Install the free Merit Sensor Evaluation Software.

   Note: *Windows 10 automatically installs the driver for the Merit Sensor Evaluation Software. The driver can also be installed manually by downloading it from the following link: http://ww1.microchip.com/downloads/en/DeviceDoc/MCP2221%20Windows%20Driver%202014-10-09.zip.*

   a. Go to meritsensor.com/products/minipek/ and select the button "Download Software." A zipped folder named "miniPEK-software" will become available on your computer.

   b. Save the software to an appropriate drive on your computer.

   c. Unzip the software folder.

d. Double-click or right-click on the "setup.exe" file to open it.

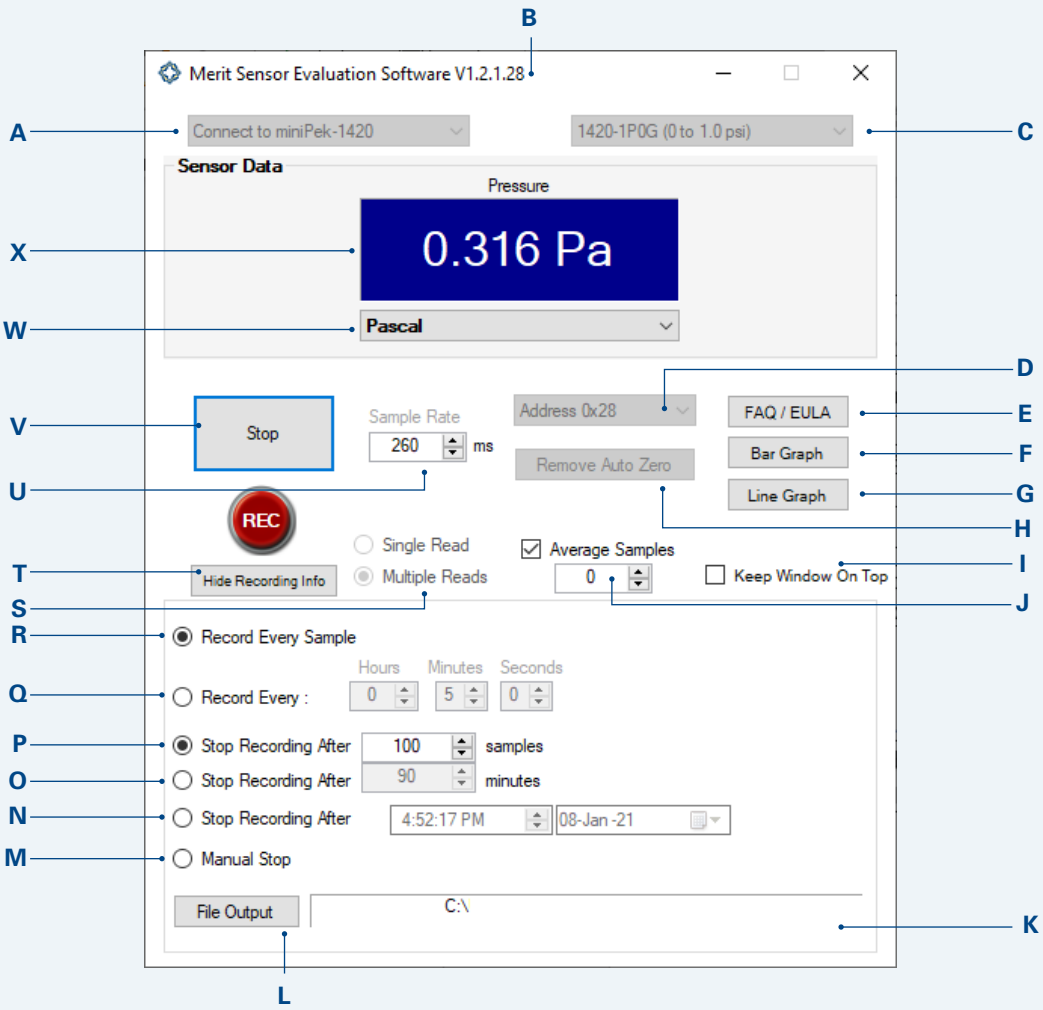
e. If you are prompted with any security warnings, it is safe to install or run the software.

f. If your computer prompts you to install the .net framework, which is necessary for the software to function appropriately, do so.
Note: The framework installation can take a while depending on your internet connection and computer hardware.

g. The application will launch.

6. Once the software is running, select the appropriate miniPEK part (1420 for LP and 1510 for HTS) and the pressure sensor that has been soldered to the PCB from the drop-down menus in the top two fields of the software window.

7. Make any other adjustments to the software settings, as necessary. To learn more about the options, refer to the information below.



A Choose the evaluation kit to connect
1420 = LP Series
1510 = HTS Series

B Software revision

C Select the sensor soldered to the PCB

D Address of the sensor

E Show FAQs and the End-User License Agreement

F Show or hide a bar graph

G Show or hide a line graph

H Auto-zero any offset

I Keep the miniPEK software window on top of other windows

J Smooth out turbulent pressure readings

K Location of the file where recorded information is saved

L Choose where to save recorded information

M Stop the recording instantly

N Stop recording after a certain time and date (works with "Record Every Sample" or "Record Every" selected)

O Stop recording after a certain number of minutes (works with "Record Every Sample" or "Record Every" selected)

P Stop recording after a certain number of samples (works with "Record Every Sample" or "Record Every" selected)

Q Record a sample at specified intervals

R Record every sample taken (per the selected sample rate)

S Perform individual or continuous pressure readings

T Show or hide recording options

U Choose the data sample rate (in milliseconds per sample)

V Start or stop pressure reading

W Choose the pressure units to display

X Pressure-reading display