Datasheet Evaluation Kit EK-P3

For SDP600 series differential pressure Sensors

- Evaluation Kit
- Applicable to SDP5xx/6xx/7xx sensors
- Viewer Software for download
- Easy connection via USB Interface

Product Summary

The evaluation kit EK-P3 contains everything needed for fast evaluation and qualification of the SDP600 series differential pressure sensors. It contains a USB dongle, a SDP610 differential pressure sensor and an adapter cable to connect the sensor to the USB-dongle.

With this equipment, first measurements can be done within a couple of minutes.

The viewer software can be downloaded from the Sensirion web page and includes some simple data-logger features.

Set Up of EK-P3

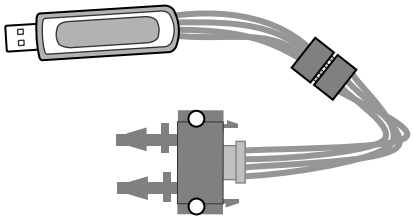


Figure 1 Schematic of Evaluation Kit EK-P3. USB Dongle with I2C to USB converter. SDP6xx sensor is connected via plug to this USB dongle. Viewer software must be downloaded from the Sensirion web page.

Material Contents

- **1 EK-P3 USB Stick:** Contains USB to I²C translator capabilities.
- **1 Sensor cable** of 20 cm length with plug for connecting sensors with USB dongle.
- **1 SDP610 sensor:** Digital Sensor with I2C output.

Please refer to datasheet for the SDP600 series for more details:
http://www.sensirion.com/en/pdf/product_information/Datasheet_SDP600series_differential_pressure_sensor.pdf

Installation Guide

Step 1: Connect USB-stick to PC and install viewer software. Viewer Software must be downloaded from the Sensirion web page at:
http://www.sensirion.com/en/Installationsprogramme/USB-Sensor-Viewer_Setup.msi.

Step 2: Connect the sensor via the adapter cable to the USB-stick (see figure 2).

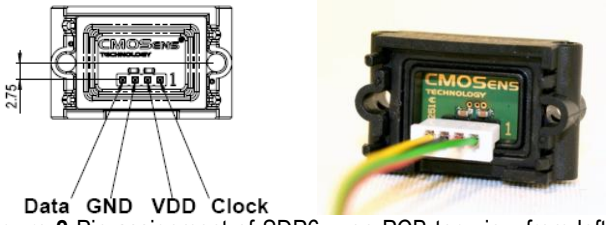
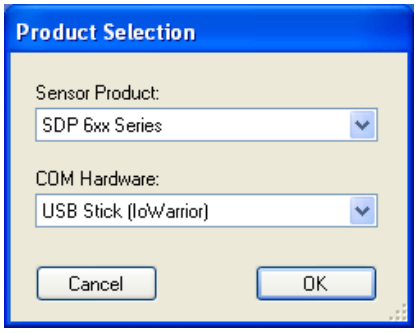


Figure 2 Pin assignment of SDP6xx on PCB top view from left to right. Connect cable such that yellow cable is connected to data, black (GND), red (Vdd) and green (clock).
WARNING: Reverse polarity connection might damage sensor permanently.

Step 3: Start software. Please note that the USB stick, sensor cable and sensor must be connected to the computer before starting the software. Please choose SDP6xx series and press OK button.

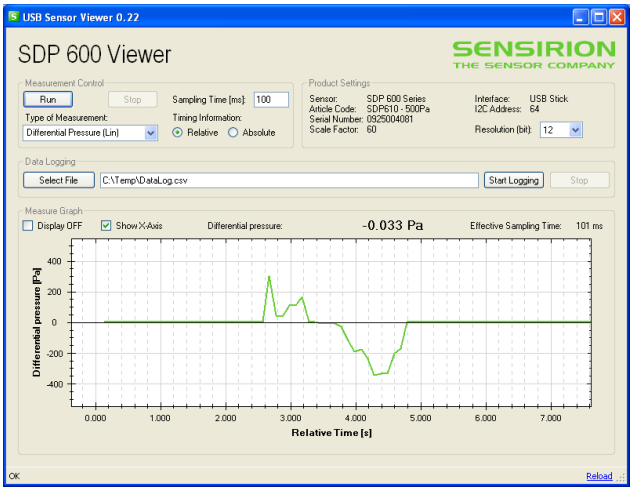


Step 4: Press run to start the measurement or chose advanced settings like described in the next section.

Viewer Software

The viewer software displays differential pressure over time. It allows selecting all available resolutions, absolute or relative timing and free choice of sampling time (sampling time is limited to 8 ms due to the USB-stick not because of the sensor). Furthermore, the output signal

may be displayed as linearized or raw data. The data can be logged, stored and exported to Excel format.



When starting the viewer software, the right sensor must be selected in a first window (please select SDP 600 series). The settings must be chosen and then the measurement may be started. Choose the type of measurement, the resolution and sampling time and press the run button. The software has a simple data logger feature which saves data as csv-file.

Device Certification

The Evaluation Kit EK-P3 is RoHS and WEEE compliant.

Ordering Information

Use the part names and item numbers shown in the following table when ordering the EK-P3 evaluation kit. For the latest product information and local distributors, visit www.sensirion.com.

Part name	Description / Output	Item number
EK-P3	SDP600 series evaluation kit	1-100766-01

Revision History

Date	Version	Page(s)	Author	Changes
August 2010	1.0	1 – 3	DAT	Initial release
December 2010	1.1	2	DAT	New Link to Software

Important Notice

Warning, Personal Injury

Do not use this product as safety or emergency stop devices or in any other application where failure of the product could result in personal injury. Do not use this product for applications other than its intended and authorized use. Before installing, handling, using or servicing this product, please consult the data sheet and application notes. Failure to comply with these instructions could result in death or serious injury.

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See application note "ESD, Latchup and EMC" for more information.

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