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# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

# Datasheet Evaluation Kit EK-P3
## For SDP600 series differential pressure Sensors

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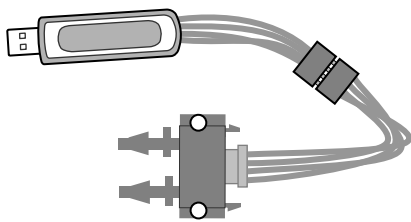- Easy connection via USB Interface



## 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.
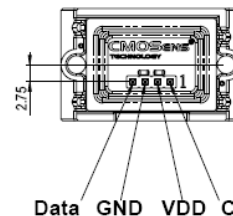
## Material Contents

- **1 EK-P3 USB Stick:** Contains USB to I$^2$C 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.
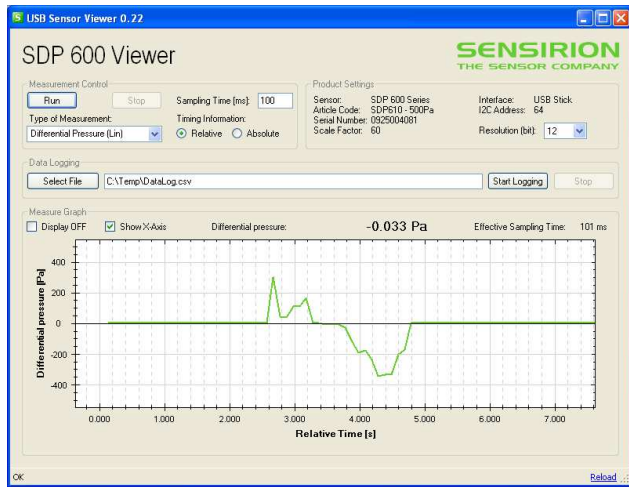


**Step 4:** Press run to start the measurement or chose advanced settings like described in the next section.

## 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.**

If the Buyer shall purchase or use SENSIRION products for any unintended or unauthorized application, Buyer shall defend, indemnify and hold harmless SENSIRION and its officers, employees, subsidiaries, affiliates and distributors against all claims, costs, damages and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if SENSIRION shall be allegedly negligent with respect to the design or the manufacture of the product.

## ESD Precautions

The inherent design of this component causes it to be sensitive to electrostatic discharge (ESD). To prevent ESD-induced damage and/or degradation, take customary and statutory ESD precautions when handling this product.

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

## Warranty

SENSIRION warrants solely to the original purchaser of this product for a period of 12 months (one year) from the date of delivery that this product shall be of the quality, material and workmanship defined in SENSIRION's published specifications of the product. Within such period, if proven to be defective, SENSIRION shall repair and/or replace this product, in SENSIRION's discretion, free of charge to the Buyer, provided that:

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- such defects shall be found, to SENSIRION's reasonable satisfaction, to have arisen from SENSIRION's faulty design, material, or workmanship;
- the defective product shall be returned to SENSIRION's factory at the Buyer's expense; and
- the warranty period for any repaired or replaced product shall be limited to the unexpired portion of the original period.

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SENSIRION reserves the right, without further notice, (i) to change the product specifications and/or the information in this document and (ii) to improve reliability, functions and design of this product.

# Headquarter and Sales Offices

**Headquarter**
SENSIRION AG
Laubisruetistr. 50
CH-8712 Staefa ZH
Switzerland

Phone: +41 44 306 40 00
Fax: +41 44 306 40 30
info@sensirion.com
http://www.sensirion.com/

**Sales Office USA:**
SENSIRION Inc.
2801 Townsgate Rd., Suite 204
Westlake Village, CA 91361
USA

Phone: +1 805 409 4900
Fax: +1 805 435 0467
michael.karst@sensirion.com
http://www.sensirion.com/

**Sales Office Japan:**
SENSIRION JAPAN Co. Ltd.
Postal Code: 108-0074
Shinagawa Station Bldg. 7F,
4-23-5, Takanawa, Minato-ku
Tokyo, Japan

Phone: +81 3 3444 4940
Fax: +81 3 3444 4939
info@sensirion.co.jp
http://www.sensirion.co.jp

**Sales Office Korea:**
SENSIRION KOREA Co. Ltd.

Phone: +82 31 440 9925~27

#1414, Anyang Construction Tower B/D,
1112-1, Bisan-dong, Anyang-city
Gyeonggi-Province
South Korea

Fax: +82 31 440 9927
info@sensirion.co.kr
http://www.sensirion.co.kr

**Sales Office China:**
Sensirion China Co. Ltd.
Room 2411, Main Tower
Jin Zhong Huan Business Building,
Futian District, Shenzhen,
Postal Code 518048
PR China

phone: +86 755 8252 1501
fax: +86 755 8252 1580
info@sensirion.com.cn
www.sensirion.com.cn

Find your local representative at: http://www.sensirion.com/reps