Datasheet Sensirion USB Sensor Stick

For all Sensirion Sensor Products with I²C or Sensibus Interface

- Very simple evaluation of Sensirion's fully digital sensors
- Applicable to SHT2x/7x, SDP600, SFM4100, LG16 and others
- Viewer software for download
- USB interface

Product Summary

The new Sensirion USB Sensor Stick is made to allow easy evaluation of all Sensirion's sensor products that provide I²C or Sensibus interface.

The USB Sensor Stick is part of evaluation kits for evaluating Sensirion's humidity and temperature, differential pressure, gas flow and liquid flow sensors.

The Stick uses a generic driver to allow simple installation on all Windows PCs (XP or higher). The viewer software allows real time plotting and simple data-logger features.

The main purpose of the evaluation kits is demonstrating the unique performance of Sensirion's sensors without any own hard or software design work.

USB Sensor Stick Setup

The USB Sensor Stick is part of various evaluation kits for Sensirion's sensor products. Depending on the specific sensors the USB Sensor Stick is supplied together with a specific adapter cable that fits the sensor to be tested.
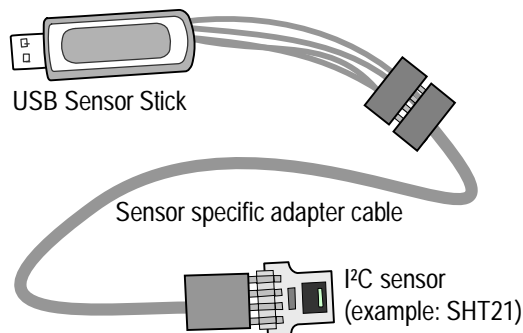

Figure 1 Schematic of Evaluation Kit EK-H5. Either SHT7x or SHT21 on PCB may be plugged to the adapter cable for Sensirion's humidity sensor.

Connector Orientation and Assignment

The USB Sensor Stick has build in protection against short circuit. This protects the sensor against being damaged when plugged into the connector with the wrong orientation.

In case of the adapters without a sleeve on the cable the coloring can be used to determine the correct orientation.
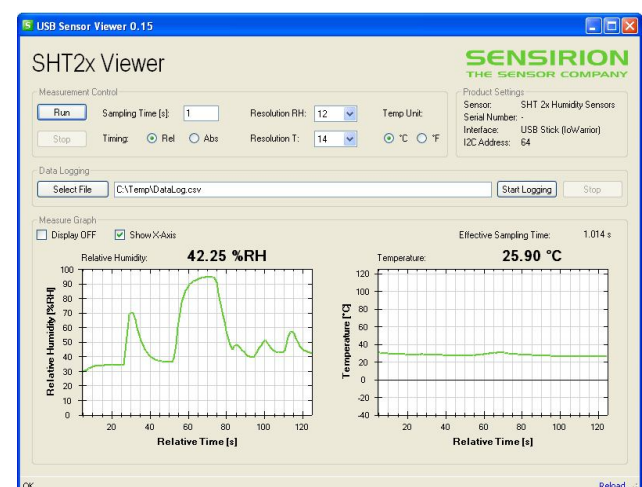
Yellow	Black	Red	Green
SDA	GND	VDD 3.3V or 5 Volt	SCL

Since the sensors are not damaged by plugging them into the adapter cable with the wrong orientation, we recommend trying both orientations to find the correct one.

5V Version

Some of Sensirion's digital sensors require a supply voltage greater than 3.3V. Therefore also a 5 Volt version of the USB Sensor Stick is available. The 5 Volt version of the USB Sensor Stick is marked "5 V Version" and should not be used with other sensors that do not support 5 Volt supply voltage like the SDP600 or the SHT2x.

Viewer Software

The viewer software displays relative humidity and temperature, flow or differential pressure data in one or two different windows. It allows for addressing all available resolutions, absolute or relative timing and free choice of

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measurement intervals (1 … 1440s). The data may be logged, stored and exported to Excel format.

Viewer Software must be downloaded from the Sensirion web page at www.sensirion.com/usbsensorstick. Please note that the USB stick, sensor cable and sensor must be connected to the computer before starting the software. No further software driver or any other hardware is required for running the USB Sensor Stick.

When starting the viewer software, the right sensor must be selected in the start up window.

Device Certification

The USB Sensor Stick is RoHS and WEEE compliant.

Important Notices

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:

- notice in writing describing the defects shall be given to SENSIRION within fourteen (14) days after their appearance;

- 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.

This warranty does not apply to any equipment which has not been installed and used within the specifications recommended by SENSIRION for the intended and proper use of the equipment. EXCEPT FOR THE WARRANTIES EXPRESSLY SET FORTH HEREIN, SENSIRION MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE PRODUCT. ANY AND ALL WARRANTIES, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY EXCLUDED AND DECLINED.

SENSIRION is only liable for defects of this product arising under the conditions of operation provided for in the data sheet and proper use of the goods. SENSIRION explicitly disclaims all warranties, express or implied, for any period during which the goods are operated or stored not in accordance with the technical specifications.

SENSIRION does not assume any liability arising out of any application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. All operating parameters, including without limitation recommended parameters, must be validated for each customer's applications by customer's technical experts. Recommended parameters can and do vary in different applications.

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.

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

Phone: +82 31 440 9925~27
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