Sensor Signal Converter S²C-2

Feautures and application

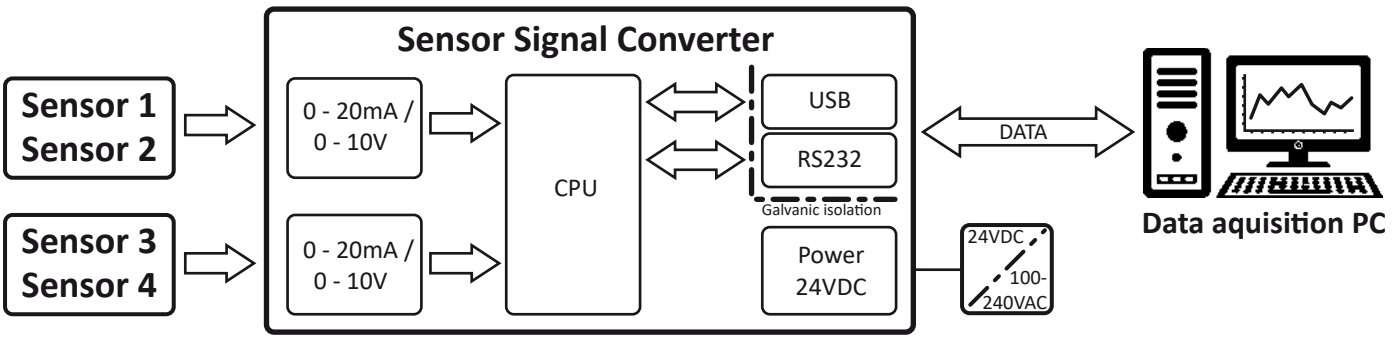
- *Precision sensor signal converter*
- *Calibrated measurement inputs*
- *Suitable for mA and V sensors*
- *Up to 10 measurements per second*
- *Accuracy of < 0.1%*
- *Desktop device*
- *Free data acquisition software*
- *Galvanic isolation between PC and sensors*
- *USB & RS232 interface*
- *Plug and Play*

The **Sensor Signal Converter S²C-2** offers an efficient solution for the simultaneous evaluation of up to four sensors, completely tool-free. Thanks to its minimal measurement tolerances, it is ideally suited for high-precision analyses in critical applications. The configurable inputs ensure maximum compatibility with almost all standard sensors.
With its compact desktop design and easy handling, the S2C-2 is particularly flexible, suitable for laboratory test series or for use close to machinery. An integrated RS232 interface also enables convenient remote control over long distances. The S2C-2 sensor signal converter features four sensor inputs, compatible with sensors providing 0 - 20 mA, 4 - 20 mA, 0 - 5 V, or 0 - 10 V outputs.

Technical specifications

Supply Voltage	*24VDC (12 - 26VDC)*
Current consumption	*< 150mA*
Measurement range	*Current inputs: 0 - 20mA*
	Voltage inputs: 0 - 10V
Number of channels	*4 Channels*
Resolution ADC	*16 Bit*
Conversiontime of all Channels	*100ms*
Measurements per second	*up to 10*
Filtering (Hardware)	*Low pass filter with cutoff frequency f_g = 159Hz*
Filtering (Software)	*Moving average with up to 20 measured values*
Input impedance	*Current inputs: 50Ohm*
	Voltage inputs: 12.4kOhm
Interfaces	*USB-B (2.0), RS232 (D-Sub 9)*
Galvanic isolation PC <-> sensor	*1kV*
Baudrate	*up to 115200 baud*
Dimensions [mm] (L x W x H)	*120 x 78 x 27*
Case material	*Black anodized aluminum*
Weight	*320g*
Environmental conditions (operation)	*0 - 65°C, at < 60% RH, non-condensing*
Environmental conditions (storage)	*-20 - 70°C, at < 60% RH, non-condensing*
IP protection class	*IP40*

Block diagram



Scope of delivery

- *Sensor Signal Converter 4 Channel*
- *Connectors for sensor connection with release lever (2 pcs.)*
- *Quick start guide*
- *User Manual*
- *Download Link of S2C Dataloggingsoftware, Light Version, Part No. 18.30100.000*

Available documents

- *Datasheet*
- *User Manual*
- *Quick start guide*
- *Calibration certificate (optional)*

Accessories

- *Cable USB A - USB B, 1.8m (Part No. 18.20005.001)*
- *Cable RS232 9 Pol, 3m (Part No. 18.20006.001)*
- *Connector for sensor connection*
- *Datalogging-Software Full Version (Part No. 18.30101.000)*

EMC emissions

- *EN55022*
- *EN55032*

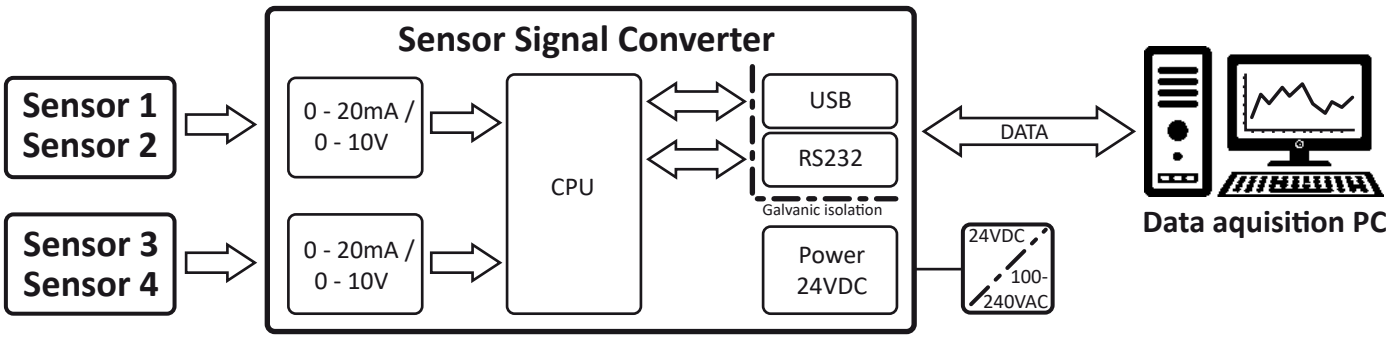
Conformity / certifications

- *CE*
- *EMV 2014/30/EU*
- *NSRL 2014/35/EU*
- *IEC 61000-4:2008*
- *IEC 61000-4-4:2012*
- *IEC 61000-4-6*
- *IEC 61326-1:2012*
- *IEC 61326-2-3:2012*
- *IEC 61326-2-5*

Device variants and accessories

- *Variants:*

Part No.:	Description:
18.0300.5.0001	S^2C-2 with **four voltage inputs** 0 - 10V
18.0300.5.0002	S^2C-2 with **four current inputs** 0 - 20mA
18.0300.5.0003	S^2C-2 with **two voltage und two current inputs** combined



- *Accessories:*

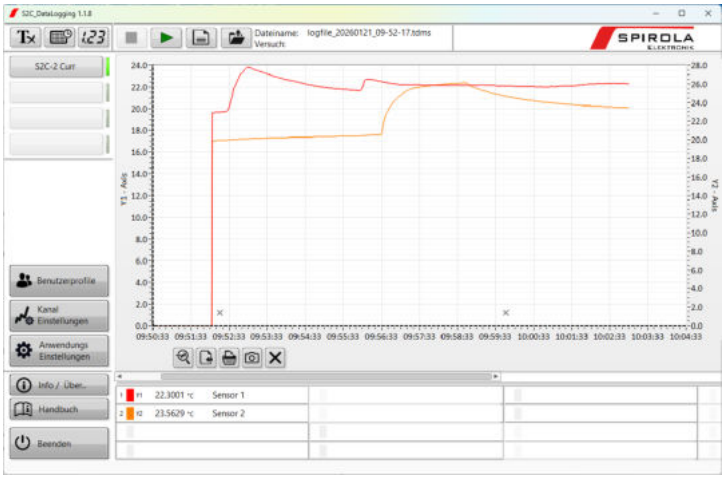
Part No.:	Description:	Included with 18.0300.5.0001	Included with 18.0300.5.0002	Included with 18.0300.5.0003
1EUS00001	Cable USB A – USB B 1.8m	⁄	⁄	⁄
18.20006.001	RS232 Cable 9 pin 3m			
18.30003.001	Spring clamp terminal with lever	⁄ 2 pcs.	⁄ 2 pcs.	⁄ 2 pcs.
18.30002.001	Spring clamp terminal with screws			
18.30001.001	Power supply 24VDC 0.25A	⁄	⁄	⁄
18.30100.000	Datalogging-Software Light Version	Free Download	Free Download	Free Download
18.30101.000	Datalogging-Software Full Version			

Spring clamp terminal with screws
18.30002.001

Spring clamp terminal with lever
18.30003.001

S^2C-DataLogging Software

Features and applications



- *Temperature values in degrees Celsius or Fahrenheit*
- *Y-axis unit manually adjustable*
- *Scale configurable*
- *Up to 4 decimal places*
- *Measurement-Log exportable as *.csv or *.xlsx*
- *Softwaredriver for custom applications*
- *Certified USB drivers*
- *Compatible with Windows*
- *Free Light-Version for maximum one Converter*
- *Up to four simultaneously devices with the full version*

Use-Cases

Graph View:
The graph view shows measured values over time and allows the simultaneous visualization of up to 16 channels. This makes it possible to reliably analyze and compare even complex measurement profiles.

Numerical View:
The numerical view offers the flexibility to show up to six selected process values simultaneously. Thanks to the clear numerical presentation, you cankeep all relevant data precisely in view at all times, even in demanding monitoring situations.

Data aquisition:
The software enables seamless documentation of all process values in a log file. For structured data evaluation, a seprarate file is created as standard for each test or batch, ensuring clear archiving and full traceability.

Device operation:
For each connected device, a dedicated dialog is available for intuitive operation and configuration. This ensures precise control and individual customization of all sensor signal converters directly vie the userfriendly interface.

Creation of laboratory logs:
For seamless test documentation, a wide rage of documentation tools is available: while you can record manual notes precisely using text markers, the software automatically logs key events. Such as starting and stopping functions into a journal.

Simple evaluation of measurement data:
The graphical view allows you to flexibly scale and shift measured values and analyze them precisely using cursors. For documentation purposes, the data can also be exported directly as a screen graphic or printed.