sdc Smart Data Adapter

The perfect solution for the FIRST MILE of your meters/sensors

The sdc Smart Data Adapter sends the signals from electrical meters, S0 encoders or sensors directly into existing data networks, eg. LAN, LoRa® or directly into WAN/Internet, thus automatically bridging the FIRST MILE of measured data acquisition.

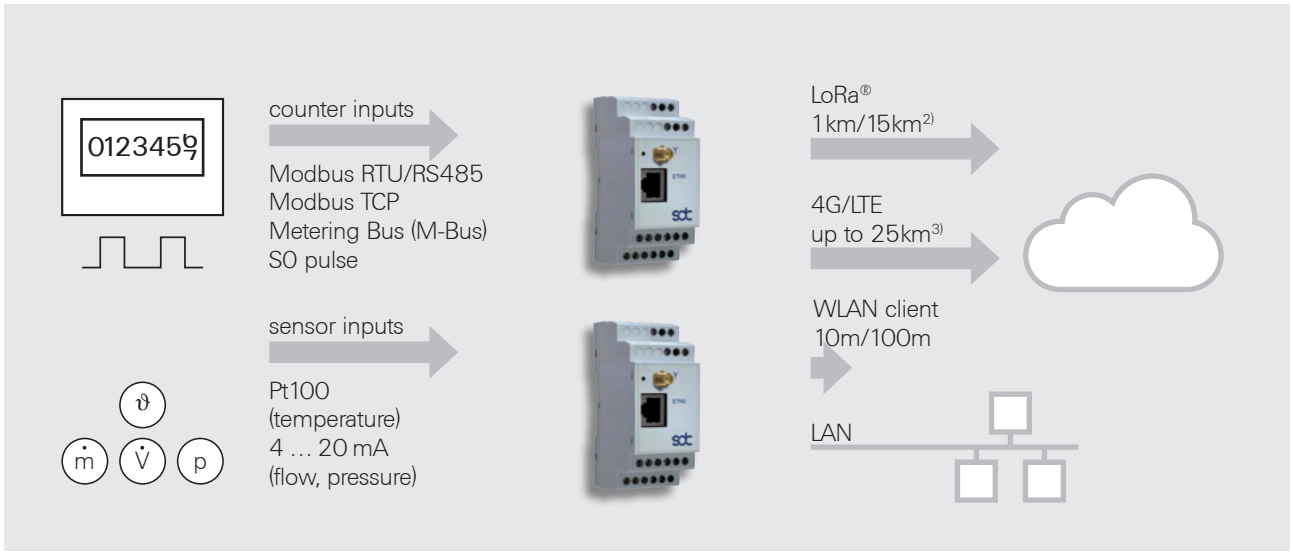
YOUR BENEFIT

- Use of existing meters and sensors for your energy and environmental management
- No effort: automatic transmission of meter/sensor data
- Data transfer into existing data networks

Automatic Acquisition of Meters/ Sensors
The sdc Smart Data Adapter automatically acquires signals from electrical, thermal water and gas meters temperature, pressure or flow sensors. Optionally, Modbus RTU/RS485, Modbus TCP, Metering Bus (M-bus), S0 pulses or sensor interfaces (Pt 100, 4 ... 20 mA) can be adapted.

High number of network interfaces
The basic version of the sdc Smart Data Adapter offers a LAN interface and a WiFi hotspot and can also be extended with LoRa® 868 MHz or 4G/LTE modem.

Data Records Transmission
The time intervals for the transmission of the meter or sensor signals can easily be set. The measurement data can be sent directly by email. Optionally, FTP and SFTP protocols can be used. Likewise, integration into existing (LoRa®) networks is possible.



subject to modifications, illustrations similar 2) radio range inside/outside of buildings, maximum 3) extreme far range up to the base station, maximum 6) prerequisite is a connection to a Smtp server (by customer)

Technical Characteristics sdc Smart Data Adapter

Meter / sensor inputs	selectable ■ 4 Modbus RTU/RS485 or ■ 4 Modbus TCP or ■ 4 Metering Bus (M-Bus) or ■ 4 S0 pulse ■ 2 x 2 sensor interfaces (2 x Pt100, 2 x 4 … 20 mA)
Data interfaces	LAN (Ethernet RJ45) WLAN hotspot 802.11 b/g/n (intern) WLAN client 802.11 b/g/n (external antenna connection)[5] RS485 (terminal connection)
	optional: LoRa® 868 MHz (external antenna connection) 4G/LTE modem: IEEE 802.15.4g (external antenna connection)
Data protocols	SMTP (email)
	optional: FTP, SFTP (data transfer) further on request
Web server	Http, Parameterization, visualization and remote selection of the stored[4] measured data (CSV files) via a web browser.
Power supply	5 VDC, 3 A, 230 VAC via switching power supply
Dimensions (W x H x D)	ca. 35 mm x 98 mm x 65 mm
Installation	DIN rail mounting
Runtime system	sdc RTE/Linux
Data recorder (optional)	up to 128 GB of onboard memory available data storage format: CSV file
Dynamic function (optional)	adjustable data storage rate up to 10 values / second and measurment

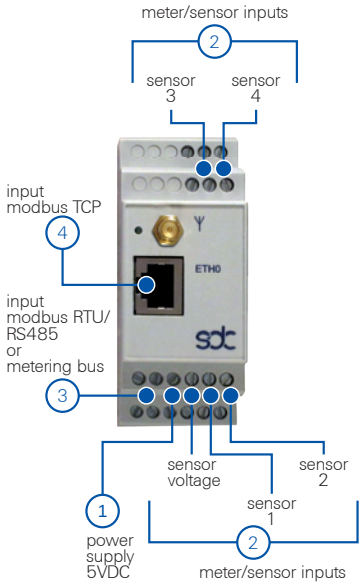


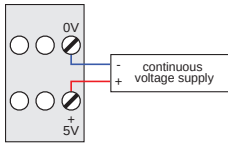
Fig. 3

Accessories

Switching power supply	230 VAC (Dimensions W x H x D app. 25 mm x 93 mm x 56 mm)
temperature, flow, pressure sensors	on demand

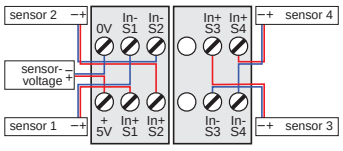
Power supply (Fig. 3/1)

+5V 0V	connection of the power supply 5 VDC, 3 A



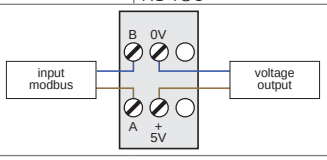
Meter/Sensor Inputs (Fig. 3/2)

+5V 0V	sensor voltage 5 VDC
In- S1 / In+ S1	sensor 1
In- S2/ In+ S2	sensor 2
In- S3/ In+ S3	sensor 3
In- S4/ In+ S4	sensor 4



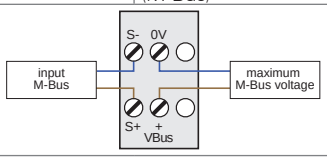
Modbus RTU/RS485 (Fig. 3/3)

+ 5V 0V	Spannungsausgabe
A B	input Modbus RTU or RS485



Metering-Bus (M-Bus, Fig. 3/3)

VBus 0V	maximum Metering-Bus (M-Bus) voltage
S+ S-	input Metering-Bus (M-Bus)



Order code sdc Smart Data Adapter

A1 XX – X – X – X

A – **B** – **C** – **D**

A **Number of counter / sensor interfaces**
11: 1 x Modbus RTU/RS485[7]
14: 4 x Modbus RTU/RS485[7]
21: 1 x Modbus TCP[7]
24: 4 x Modbus TCP[7]
31: 1 x Metering Bus (M-Bus)[7]
34: 4 x Metering Bus (M-Bus)[7]
44: 4 x S0 pulse
54: sensor inputs (2 x Pt100 und 2 x 4 … 20 mA)

B **Data recorder**
0: none
1: data recorder 8GB
2: data recorder 128 GB
3: data recorder 8 GB dynamic
4: data recorder 128 GB dynamic

C **Data interfaces**
0: LAN, WLAN hotspot (internal), RS485
in addition
1: WLAN client (external)
2: LoRa®
3: 4G/LTE modem

D **Data protocols**
0: SMTP (email), standard http
in addition
1: FTP, SFTP
X: specific on request

subject to modifications, illustrations similar
4) prerequisite: option data recorder
5) with option LoRa® only for parameterization, as antenna connection is used for LoRa®
7) Master

Product Line

sdc Smart Data Systems 2020

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