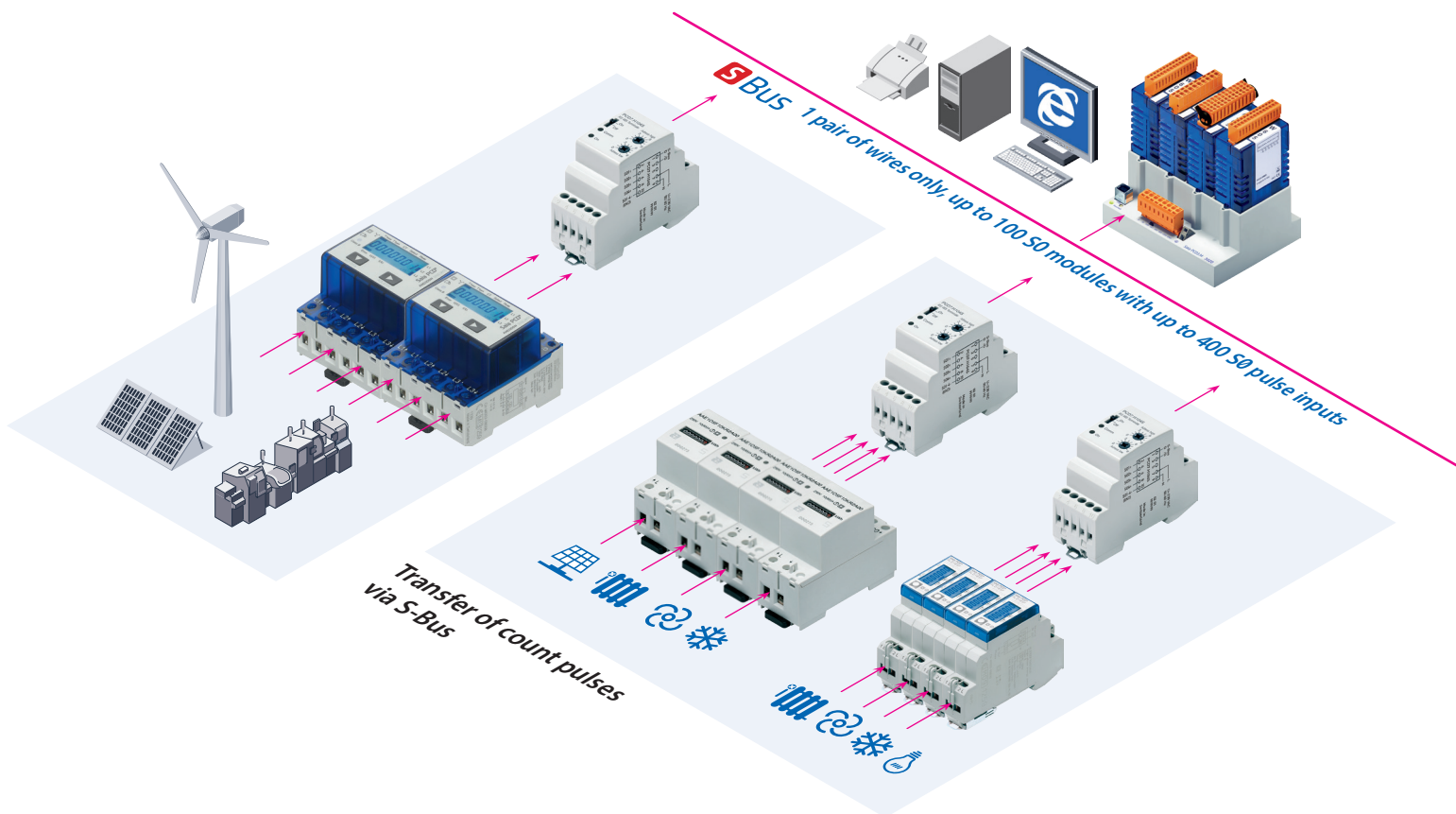


PCD7.H104S interface for transmission of S0 counting pulses via the S-Bus to the billing location



S-Bus S0 modules greatly reduce the costs of installing energy meter networks with Saia PCD / Saia PCS

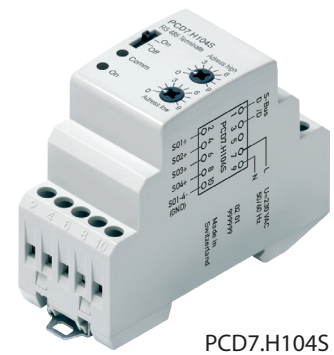
Low installation costs through transmission of individual consumption values via S-Bus

- Clear, simple installation building
- Up to 100 S-Bus S0 modules per Saia PCD/PCS billing location
- Up to 400 energy meters (4 per S-Bus S0 module)
- 4 S0 pulse inputs (S01+...S04+) per S-Bus S0 module
- The definition of the S0 interface is in the DIN43864

For precise energy management and individual billing in locations with communal installations, such as:

- Shopping centres, airports and railways
- Groups of offices, factories, shops, air conditioned areas, advertising and lighting
- Rental and holiday homes, houses, bungalows, hotels, hospitals and schools
- Exhibitions, markets, etc.

- ▶ Technical data
- ▶ Dimensions
- ▶ S-Bus

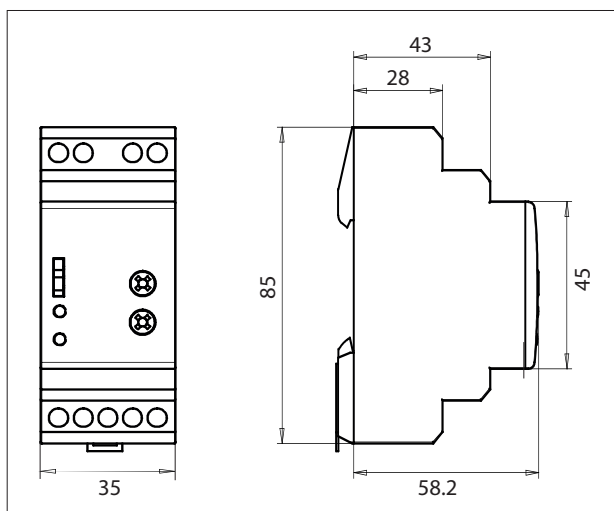


PCD7.H104S

Technical data PCD7.H104S

Protection type as DIN40050	IP 40 connections IP 20
Operating voltage Un	230 VAC (-20/+15%)
Current draw	< 12 mA
Power draw	< 3 W
Mounting	On 35 mm DIN top-hat rail (EN50022) any mounting position
Connections	For Pozidrive, Philips or slot-head screwdriver N°1 S0x, S-Bus, 230 VAC 0.5 ... 2.5 mm ²
Temperature	Operation -20° C...+55 °C Storage -25° C...+70 °C
EMC / noise immunity	<ul style="list-style-type: none"> - Surge voltage according to IEC61000-4-5 on main electric circuit, 4 kV 1.2 / 50 µs - Surge voltage according to IEC61000-4-5 at S0 inputs, 1 kV 1.2 / 50 µs - Burst voltage according to IEC61000-4-4, <ul style="list-style-type: none"> - Main electric circuit 4 kV direct - S0 inputs 2 kV capacitive - S-Bus connections 1 kV capacitive - ESD according to IEC61000-4-2, <ul style="list-style-type: none"> - Contact 8 kV, air 8 kV
Insulation characteristics	4 kV/50 Hz test according to VDE0435 6 kV 1.2/50 µs surge voltage according to IEC61000-4-5 Device protection class II
LEDs	Run indication by green LED (On) Function indication by red LED when bus active

Dimensions



Technical data S-Bus

Bus system	SBC S-Bus
Transmission rate	9600-19'200-28'800-33'600- 57'600
Transmission mode	Data
Bus length (max.)	1200 m (without repeater)
Response time: (to system response)	Write: 30 ms Read: 10 ms

Data transmission:

Only «read/write» register instructions are recognized. Only one register can ever be read/written at a time. The device will not respond to any unknown query. The «automatic transmission rate» is set by default. The module has a voltage monitoring system. In case of voltage loss, registers are stored in EEPROM (S0 number of registers, transmission rate» etc.)

Registers

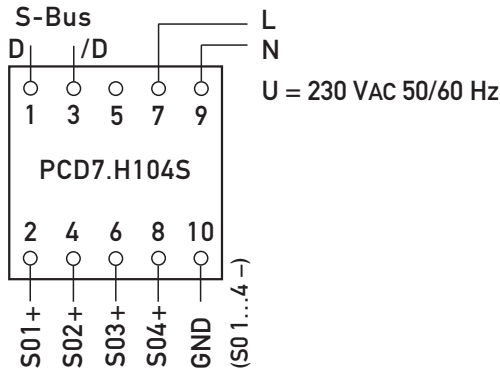
Register	Instruction	Description
0	R	S-Bus address
1	R	Module type
2	R	Software version
3	RW	Transmission rate 1 = 57 600 2 = 33 600 3 = 28 800 4 = 19 200 5 = 9 600 (default)
4	RW	Automatic transmission rate 1 = ON (default) 0 = OFF
10	RW	identity (ID) of S01 ¹⁾
11	RW	identity (ID) of S02 ¹⁾
12	RW	identity (ID) of S03 ¹⁾
13	RW	identity (ID) of S04 ¹⁾
14	RW	Number of pulses for S01 ¹⁾
15	RW	Number of pulses for S02 ¹⁾
16	RW	Number of pulses for S03 ¹⁾
17	RW	Number of pulses for S04 ¹⁾
18	RW	Factor n: Impulses per unit for S01 ¹⁾
19	RW	Factor n: Impulses per unit for S02 ¹⁾
20	RW	Factor n: Impulses per unit for S03 ¹⁾
21	RW	Factor n: Impulses per unit for S04 ¹⁾
R = Read RW = Read + Write		¹⁾ 32 Bit, unsigned

Connections and display elements

Centralized meter reading and billing with Saia PCD/PCS

Connections and display elements

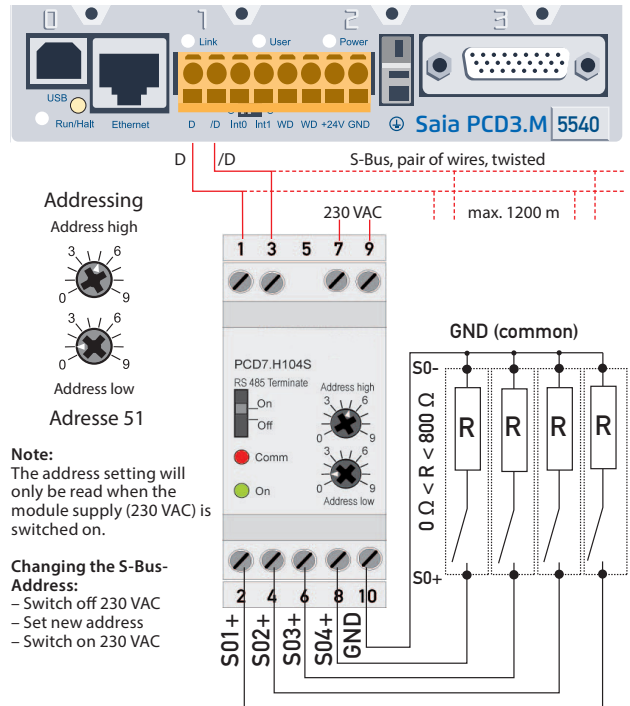
Connections



S0 input:

- Complies with S0 standard 62053-31
- Counts pulses as 0 when $R < 800 \Omega$
counts pulses as 1 when $R > 1 M\Omega$
- Voltage max. (GND-S0) 13 VDC
- Current max. (with 0 Ω) 6 mA
- Pulses low min. 30 ms
- Pulses high min. 30 ms
- Frequency max. 17 Hz

S-Bus, Supply



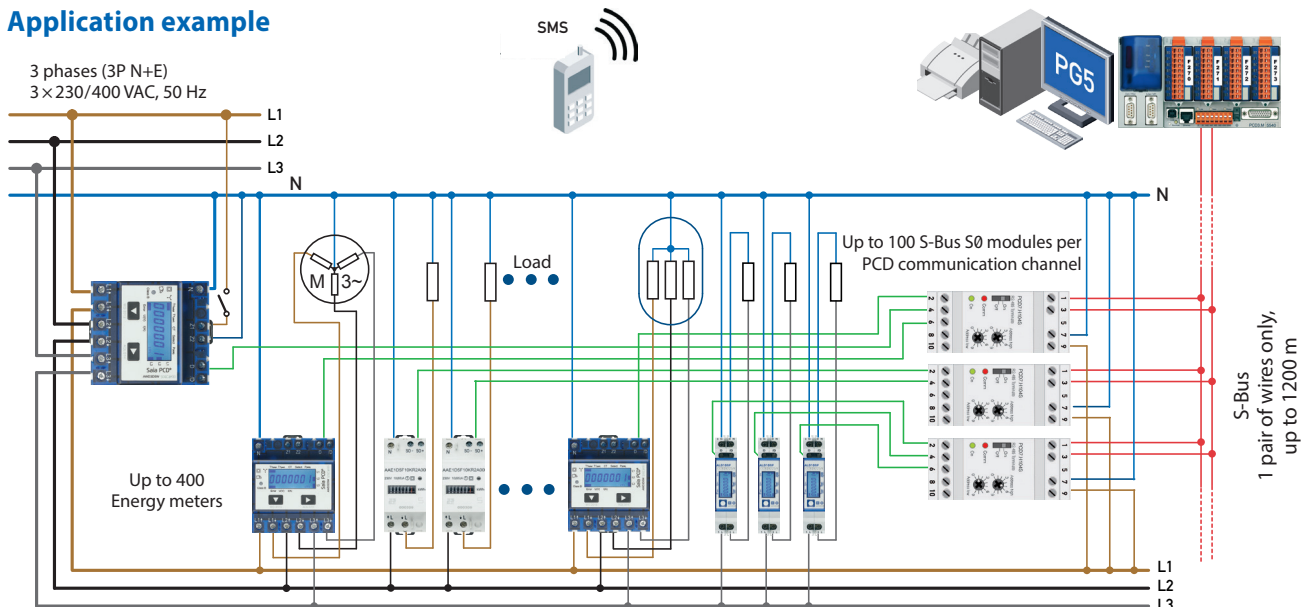
Note: If the S0-S-Bus module is used in the S-Bus as last device, then the sliding switch «RS-485 Terminate» need to be in the position «On».

Centralized meter reading and billing with Saia PCD/PCS

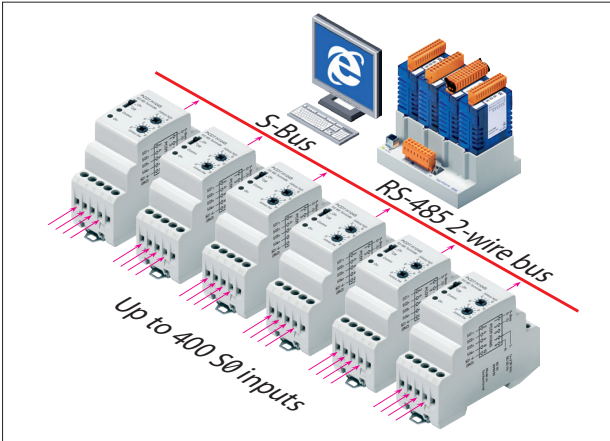
Management of up to 400 S0 connections between AAD or AAE energy meters and Saia PCD/PCS controllers via S-Bus. This network of meters can be conveniently programmed with Saia PG5® FBoxen.

- ▶ Consumption data collected, stored and transmitted – including via Internet – to other systems
- ▶ Billing data output and automatic invoice printing
- ▶ Transmission of metered data via modem, TCP/IP, and all other commonly used protocols
- ▶ Data visualization by direct access, using the PCD's integral web server

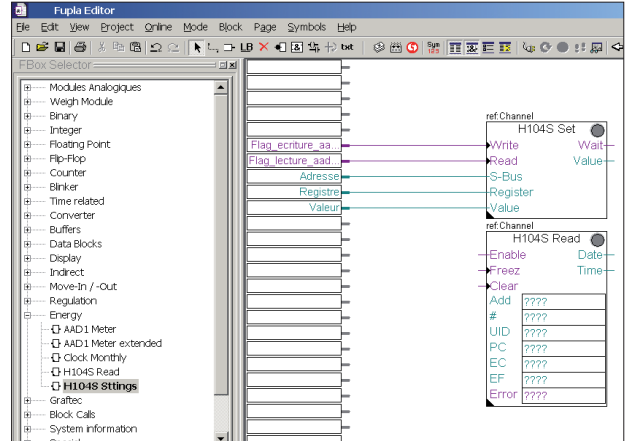
Application example



...lower installation costs for a wealth of applications



Up to 100 S-Bus S0 modules
Concentration of up to 400 lines on RS-485 2-wire bus



H104S FBoxes. Download from www.sbc-support.com
Efficient parameter setting for S-Bus S0 modules with Saia PG5® Fupla FBoxes



Energy distribution and consumption in billing centre
Individual billing of power consumption for shared business premises in offices or industry.



Novotel, Bern | BEA Expo
Knowledge of the user's energy requirement is important for energy management in hotels, motels, hostels, hospitals, etc.

Ordering information

Type	Description	Dimensions	Weight
PCD7.H104S	SBC S-Bus S0 module for the connection of up to 4 energy meters	35×85×58.2 mm	170 g

Saia-Burgess Controls AG
Bahnhofstrasse 18 | 3280 Murten, Switzerland
T +41 26 672 72 72 | F +41 26 672 74 99
www.saia-pcd.com
support@saia-pcd.com | www.sbc-support.com