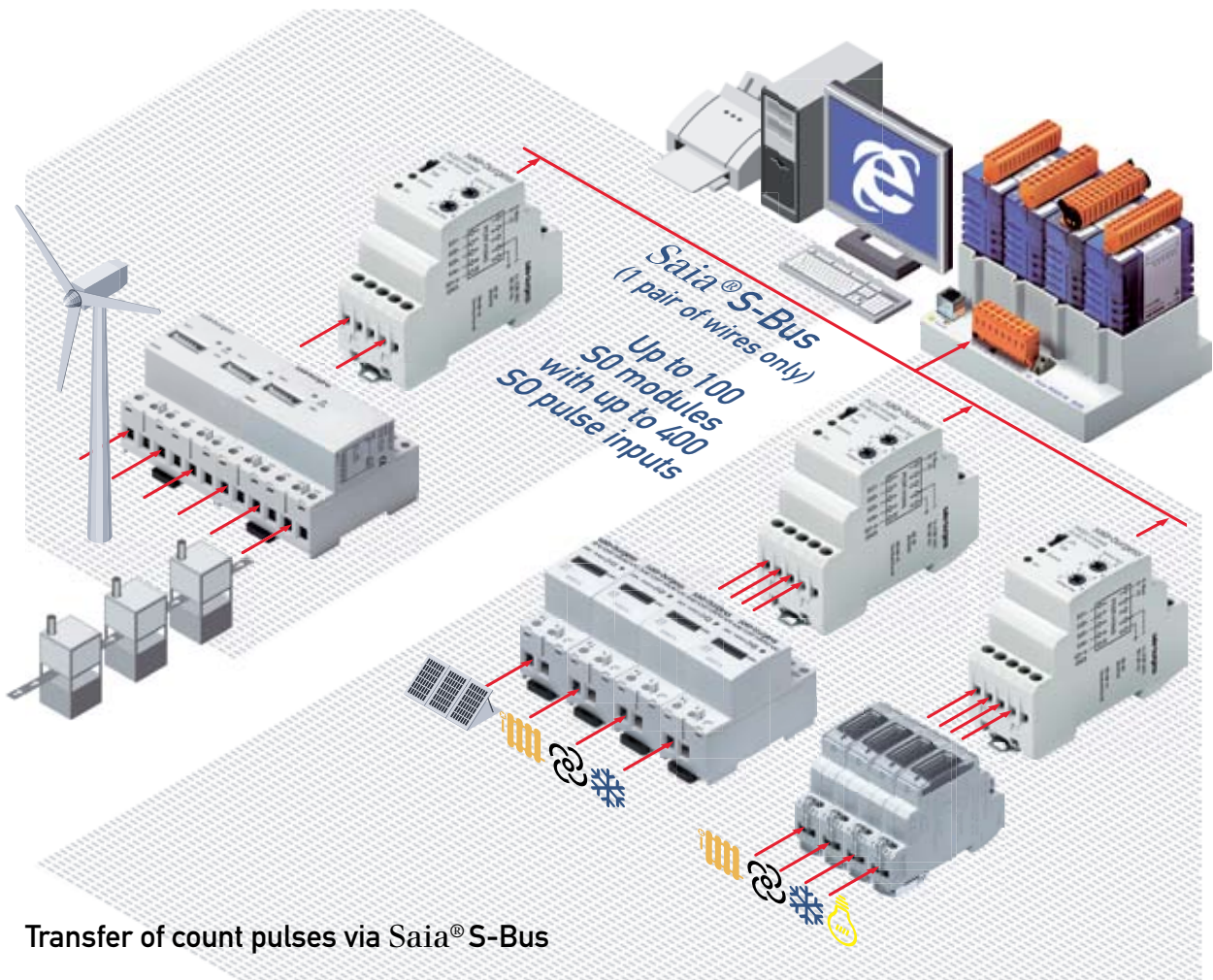


Technical information



Transfer of count pulses via Saia® S-Bus

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

Division Controls

Saia® 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 Saia® S-Bus

- Clear, simple installation building
- Up to 100 Saia® S-Bus S0 modules per Saia® PCD/PCS billing location
- Up to 400 energy meters (4 per Saia® S-Bus S0 module)
- 4 S0 pulse inputs (S0...S04) per Saia® S-Bus S0 module

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

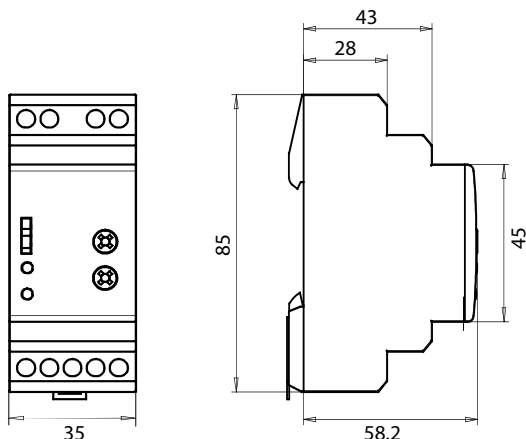


PCD7.H104S

Technical data PCD7.H104S

Protection type as DIN 40050	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 (EN 50 022) 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	<ul style="list-style-type: none"> Operation -20°C ... +55°C Storage -25°C ... +70°C
EMC / noise immunity	<ul style="list-style-type: none"> Surge voltage according to IEC 61 000-4-5 on main electric circuit, 4 kV 1.2 / 50 µs Surge voltage according to IEC 61 000-4-5 at S0 inputs, 1 kV 1.2 / 50 µs Burst voltage according to IEC 61 000-4-4, <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 IEC 61 000-4-2, <ul style="list-style-type: none"> Contact 8 kV, air 8 kV
Insulation characteristics	<ul style="list-style-type: none"> 4 kV/50 Hz test according to VDE 0435 6 kV 1.2/50 µs surge voltage according to IEC 61 000-4-5 Device protection class II
LEDs	<ul style="list-style-type: none"> Run indication by green LED (On) Function indication by red LED when bus active

Dimensions



Technical data S-Bus

Bus system	Saia® 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 = 57600 2 = 33600 3 = 28800 4 = 19200 5 = 9600 (default)
4	RW	Automatic transmission rate 1 = ON (default) 0 = OFF
10	RW	identity (ID) of S0 1 ¹⁾
11	RW	identity (ID) of S0 2 ¹⁾
12	RW	identity (ID) of S0 3 ¹⁾
13	RW	identity (ID) of S0 4 ¹⁾
14	RW	Number of pulses for S0 1 ¹⁾
15	RW	Number of pulses for S0 2 ¹⁾
16	RW	Number of pulses for S0 3 ¹⁾
17	RW	Number of pulses for S0 4 ¹⁾
18	RW	Factor n: Impulses per unit for S0 1 ¹⁾
19	RW	Factor n: Impulses per unit for S0 2 ¹⁾
20	RW	Factor n: Impulses per unit for S0 3 ¹⁾
21	RW	Factor n: Impulses per unit for S0 4 ¹⁾

R = Read

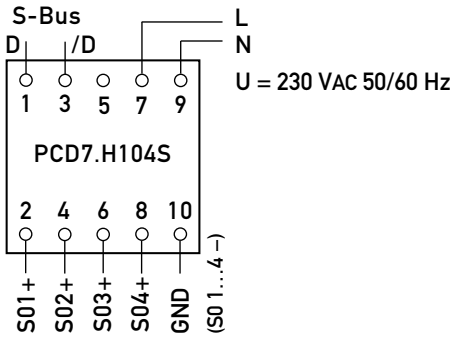
RW = Read + Write

¹⁾ 32 bit, unsigned

Connections and display elements | Centralized meter reading and billing with Saia® PCD/PCS

Connections and display elements

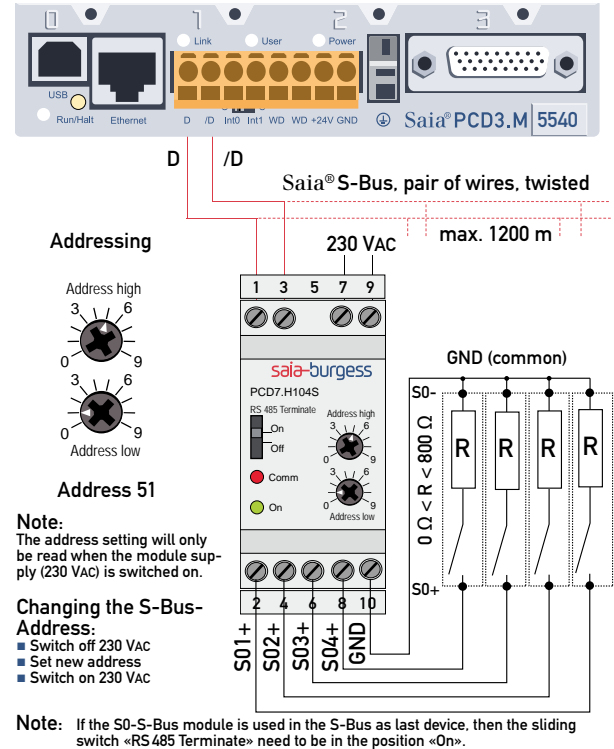
Connections



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

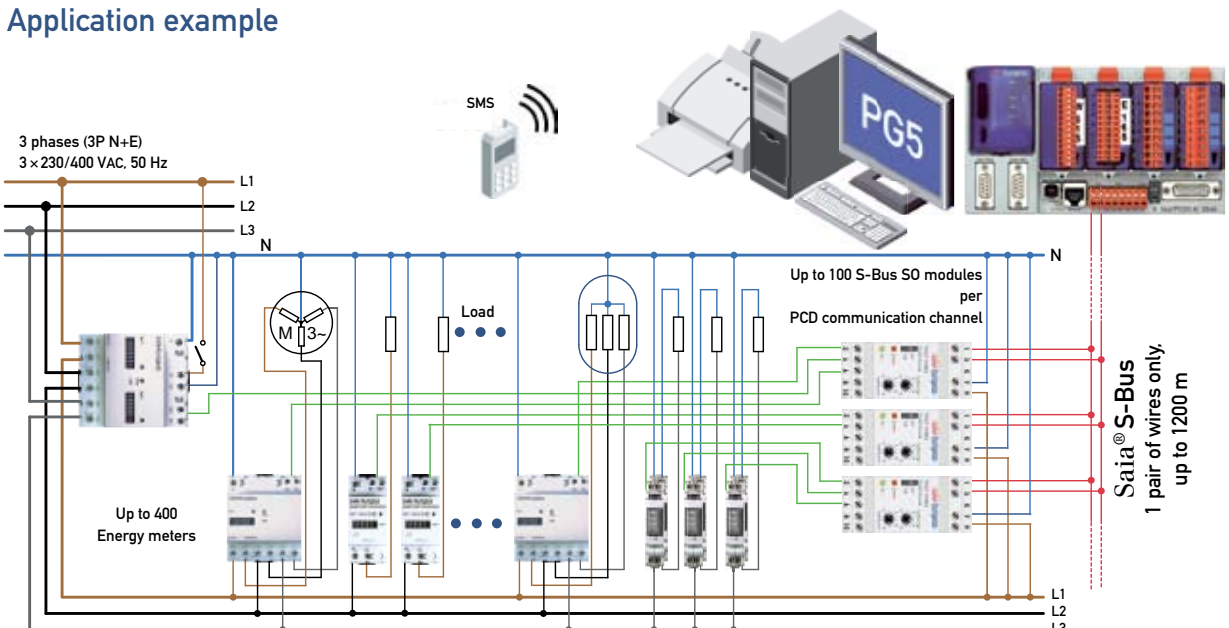


Centralized meter reading and billing with Saia® PCD/PCS

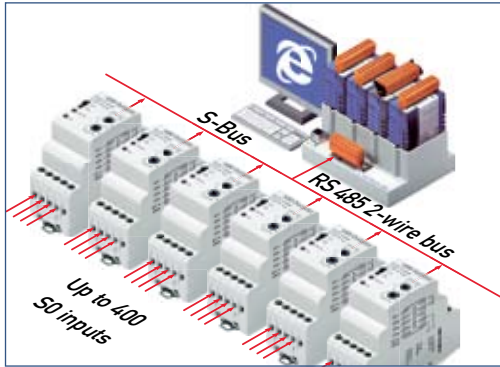
Management of up to 400 S0 connections between AAD or AAE energy meters and Saia® PCD/PCS controllers via Saia® S-Bus. This network of meters can be conveniently programmed with Saia® PG5 FBoxen.

- 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



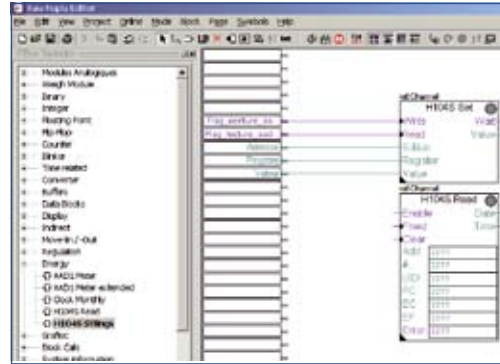
Up to 100 Saia® S-Bus S0 modules

Concentration of up to 400 lines on RS485 2-wire bus



Energy distribution and consumption in billing centre

Individual billing of power consumption for shared business premises in offices or industry.



H104S FBoxes. Download from www.sbc-support.ch

Efficient parameter setting for Saia® S-Bus S0 modules with Saia® PG5 Fupla FBoxes



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	Saia® S-Bus S0 module for the connection of up to 4 energy meters	35 × 85 × 58.2 mm	170 g

Contact

Switzerland and International
Saia-Burgess Controls Ltd.
 Bahnhofstrasse 18
 CH-5280 Murten / Switzerland
 T +41 26 / 672 71 11
 F +41 26 / 672 74 99
pcd@saia-burgess.com
www.saia-cc.com

Great Britain
Saia-Burgess Gateshead Ltd
 Dukesway | Team Valley Trading Estate | Gateshead
 Tyne&Wear NE11 0UB | United Kingdom
 T +44 191 / 401 61 00
 F +44 191 / 401 63 24
simon.adams@saia-burgess.com
www.saia-cc.com

United States of America
Saia-Burgess USA Inc.
 3115 North Wilke Road, Suite C
 Arlington Heights, IL 60004 | USA
 T +1 847 / 368 21 46
 F +1 847 / 368 21 52
kurt.luthi@saia-burgess.com
www.saia-cc.com

Hungary
Saia-Burgess Controls Kft.
 Puskás Tivadar u. 12
 H-2040 Budaörs / Hungary
 T +36 23 / 50 11 70
 F +36 23 / 50 11 80
office@saia-burgess.hu
www.saia-cc.hu

Benelux
Saia-Burgess Benelux B.V.
 Hanzeweg 12c
 NL-2803 MC Gouda / Netherlands
 T +31 182 / 54 51 54
 F +31 182 / 54 51 51
officenl@saia-burgess.com
www.saia-cc.nl

Distributed by:

Product support,
 Technical Reference Website:

www.sbc-support.ch