

Productsheet - SC.CC.04

Controller for SoftControl solutions

SC.CC.04 is a controller used for several SoftControl solutions. A number of IO modules can be connected as required. The controller is the brain of the system and is responsible for communication to the SoftControl cloud. Used for Cleverhouse and Gridguard

MOD-Bus RTU (slave)

The slave channel is a highspeed MOD-Bus-channel running at 57.600 baud, 1 startbyte, 1 stopbyte without parity. The channel is used for IO PCBs needing realtime control, such as lightcontrols (DALI) and IO PCBs such as SC.IM.01/02.

MOD-Bus RTU (peripheral)

The peripheral channel runs at 9.600 baud, 1 startbyte, 1 stopbyte without parity. It is possible to change the default configuration, when all connected units are having the same configuration. The peripheral channel is used to communicate with MOD-Bus units for: ventilation, electricity/water/energy meters, analogue IO PCBs, relay PCBs etc.

CAN-Bus

The available CAN-Bus channel can be used to extend the functionality of the SC.CC.04 with various IO PCBs:

- SC.IM.04. Multifunctional PCB with 13 digitale IOs. 5 reserved for temperature inputs, and 8 available for outputs.
- SC.SS.01. Physical 4 touch-connector with integrated light- and temperature sensor and a 4 multicolored single LED indicator. Can be used for heat- and light controls inside buildings.
- SC.GC.01. Gateway for IHC integration. Replacing an IHC control with a CleverHouse controller for managing the IHC modules.

M-BUS

The controller contains one M-Bus channel, which can be used to access 30 M-Bus meters. The controller has a self-adjusting calibration of internal impedans eliminating the need for additional manuel SW setups. The following M-Bus standard protocols, typical for electricity/water/energy meters, have been implemented:

Energy meters:

- Kamstrup Multical 61/62/302/401/403/601/602/603/801
- Teksan HM
- Diehl Sharky 775
- All above mentioned energy meters adheres to the following profile B Meters HydroCal M3 protocol.



Ill. 1 - Image of SC.CC.04.

Water meters:

- Teksan TR-M-MBUS
- Kamstrup FlowIQ 2101/3100
- All above mentioned water meters adhere to the following general profile B Meters RFM-MB1 protocol.

Electricity meters:

- Various Kamstrup Electricity Meters

Brief facts

- x Modbus RTU (Slave)
- 1x MOD-bus RTU (Peripheral)
- 1x CAN-bus
- 1x M-bus
- 1x OneWire
- 2x FET-output OUT1/2
- 2x Digitale input/Pulse Counter
- 1x EnOcean
- 1x Ethernet port
- 1x Green LED indicator
- 1x Red LED indicator
- 8x LED Beam indicator:
 - LED 1: connection to ethernet
 - LED 2: Ethernet data transmission
 - LED 3: NA
 - LED4: Receiving M-BUS or MOD-Bus data
 - LED5: Data being stored
 - LED6: Pairing with or receiving EnOcean data
 - LED7: OUT1 on
 - LED8: OUT2 on

OneWire

Integrated OneWire input for connection of temperature sensors such as SC.ST.01/02/03. Temperature measuring range is -55°C - +125°C. Cable length permitted upto 10 m.

FET-output OUT1/2

The SC.CC.04 is equipped with 2 digital outputs, which can be used to control general relays or thermal actuators (tele stat) for heat control. Output switch towards minus, which requires connection of +24 Vdc first and then OUT1/2. When managing a thermal actuator, the output can be set to PWM signal to simulate an analogue output.

Digital inputs/Pulse counter

The SC.CC.04 is equipped with 2 digitale inputs, which contains preset pullup and activation via shortcutting to GND. Besides being used as digitale inputs, it can also function as a pulse counter for water/electricity/energy meters etc.

EnOcean

The SC.CC.04 has an integrated EnOcean wireless channel thru the SMA-antenna enclosed with the controller or an addon antenna for better wireless reach. EnOcean protocols can be downloaded to the SC.CC.04, which are compatible with temperature, RH, PIR, LUX relays, magnetic sensors, smoke detectors and on/off switches.

Ethernet

Connection to the internet is facilitated thru the ethernet port running at 10/100 Mbit.

LED beam indicators

The SC.CC.04 is equipped with a green and red LED beam in the lower left corner of the controllers front surface. The red LED only lights up in the event of an alarm. The green LED indicates connection to the internet.

The SC.CC.04 is furthermore equipped with an 8 LED beam in the upper left corner of the controllers front surface indicating:

- LED 1: Off=No link, On=Link, Flashing=Link+data
- LED 2: Ethernet data transmission
- LED 3: NA
- LED 4: Receiving M-BUS or MOD-Bus data
- LED 5: Data being stored
- LED 6: Pairing with or receiving EnOcean data
- LED 7: OUT1 on
- LED 8: OUT2 on

* The following protocols can be implemented:

A5-02-05	A5-06-01	A5-07-03	D2-01-09	D2-14-30
A5-02-17	A5-06-02	A5-12-01	D2-11-01	D5-00-01
A5-04-01	A5-07-01	A5-20-01	D2-12-01	F6-03-01



Ill. 2 - Overview of SC.CC.04 (1:1).

Specifications

Parameter	Specification
Supply	24 VDC
General FET output	Max. 0.8 A @ 24 VDC
Temperature input	1 x digitale 1-wire
Temperatur measurement	-55 to 125°C ± 2°C (-10 to 85°C ± 0,5°C)
General input	2 x / digitale
Ambient temperature	0 .. 40°C
Enclosure class	IP21
Size (WxHxD)	70 x 86 x 49 mm
Weight	200 g
Product number	96131615