

SCS-S2

Damper unit for smoke control system



The SCS-S2 is used as a damper unit in a smoke control system. It works together with a master unit where most of the setup of the SCS-S2 is made.

The SCS-M2 master unit from Regin is ready to connect with 57 SCS-S2 damper units. With the variable list obtained from Regin, you as an integrator can also use your own master unit.

- ✓ Easy to install
- ✓ Can be addressed and updated with the Regin mobile app – Regin:GO
- ✓ Can be connected to e.g. damper units, smoke detector, temperature sensors and VAV
- ✓ 57 damper units can be connected to one master unit
- ✓ Modbus communication

Application

SCS-S2 is a damper unit used in the Regin smoke control system. The SCS is a complete smoke control system that can control and test up to 60 damper units. The master unit and the damper units control e.g. smoke detectors, temperature sensors and VAV.

There is an app available (**Regin:GO**) for Android and iOS that can be used to identify the units and for setting a Modbus address for the unit. The app can also be used to upgrade the firmware. It is also possible to set different Modbus baud rates, parities and stop bits. Get Regin:GO from the *App store* (iPhone and iPad) or *Google play* (Android).

Function

The damper unit has two analogue inputs, two digital inputs, one analogue output and two digital outputs. The in- and outputs are used for e.g. damper control, smoke detector, temperature sensors and VAV. It communicates via Modbus. One terminal is used as +19 V DC supply voltage for a smoke detector.

Installation

The damper unit should be mounted on a stable, vibration free surface. The unit can be mounted vertically with the cable front pointing downwards or horizontally with the lid up.

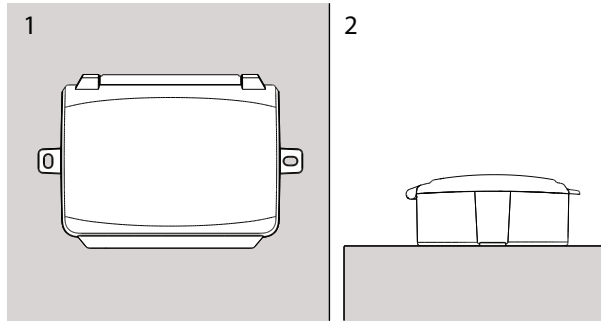


Fig. 11: Vertically mounted on wall 2: Mounted horizontally

If a number of units are installed in a smoke control system, there will be a voltage drop along the wire which makes it necessary to add external power supplies between the damper units, see Fig. 2. In the instruction for the SCS-S2, there is an example on how to calculate the voltage drop, as well as detailed installation and wiring instructions. The instruction is available at www.regincontrols.com.

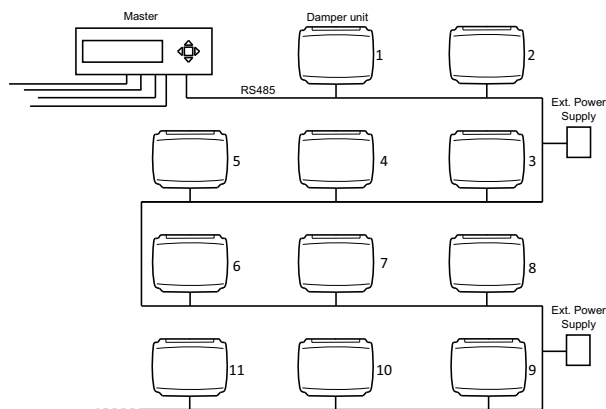


Fig. 2 Example of smoke control system with master unit, damper units, and external power supplies

Repeater

A repeater enhances the signal quality and enables more units to be connected to the network. A signal repeater should be used in the system if more than 30 damper units are connected or if the communication cable is longer than 300 m.

The Regin repeater REPEAT485 is suitable for the application.

Technical data

1 General

Supply voltage	18...30 V AC (50...60 Hz), 22...26 V DC
Power consumption	2 VA, 2 W
Protection, Electrical	Class III
Protection class, Housing	IP44
Ambient temperature	-25...+50°C
Storage temperature	-25...+70°C
Ambient humidity	5...95 %RH (non-condensing)
Wireless communication	Bluetooth® Low Energy
Communication frequency	2.4 GHz
Number of cable glands	8 large, 5 small
Recommended cable size, cable glands	Note! circular cable only ✓ Small cable gland: 3...6 mm ✓ Large cable gland: 6...10 mm
Approved cable area	✓ Solid/stranded cable: 0.14...1.5 mm ² ✓ Stranded cable with ferrule: 0.25...1.0 mm ²
Recommended cable tie width	Up to 2.8 mm
Dimensions, external (WxHxD)	167 x 110 x 46 mm

2 Smoke detector specifics

Number of smoke detectors per SCS-S2 unit	1
Supply voltage	+ 19 V DC, provided from terminal DO1
Detector status range	0...100 mA

Inputs and outputs

Analogue inputs (AI)	2
Digital inputs (DI)	2
Analogue outputs (AO)	1
Digital outputs (DO)	2
+19 V DC (DO1 on label)	1

Analogue inputs

Analogue inputs	0...10 V or PT1000
Accuracy for input	± 1 % (0...10 V) ± 1 K (PT1000)
Measuring range, PT1000	-40...+150 °C


Digital inputs

Digital input (DI)	Potential-free contacts on / off (on = closed)
Output pull-up current	0.5 mA (max 12 V)

Analogue outputs

Analogue outputs	0...10 V
Load impedance, 0...10 V	Min. 10 kΩ
Accuracy	± 1 %

Digital outputs

Configuration	Mosfet sinking type outputs, 24 V AC or DC, 2 A continuous
Output current	Max. 2A (in total) <div>Caution! This is a non-protected output. A current overload will destroy the unit</div>

Communication port data

Communication ports	1
Port type	RS485, isolated
Supported protocols	Modbus
Modbus address	Modbus addresses 4...60 <u>must</u> be used for the damper units. If addresses outside this range is used, the master will not find the units.
Port isolation	Isolated
Communication speed	1200 bit/s 2400 bit/s 9600 bit/s (default) 19200 bit/s 38400 bit/s 57600 bit/s 115200 bit/s
Format	8 bit, no parity, 1 stop bit (default) 8 bit, no parity, 2 stop bits 8 bit, even parity, 1 stop bit 8 bit, even parity, 2 stop bits
Cable length	Max 300 m



This product carries the CE-mark. More information is available at www.regincontrols.com.

Material

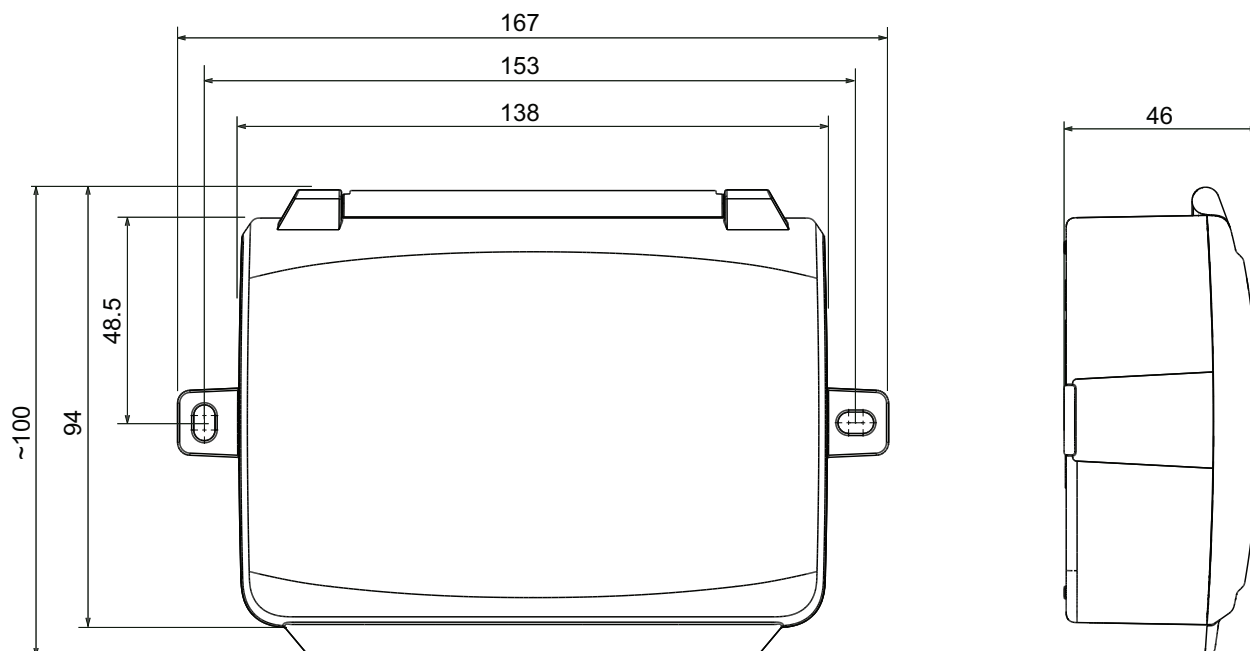
Material, (base and cover)	Polycarbonate (PC)
Material, cable gland	Thermoplastic elastomer (TPS-SEBS)

Accessories

Article	Description
SCS-M2	Master unit with Modbus communication
REPEAT485	Repeater with RS485 connection
SDD-OE65	Optical smoke detector with service alarm. Duct mounted.
S65-OE + S-BP	Optical smoke detector with service alarm + Base plate for detector. Ceiling mounted.

Article	Description
TG-KH3/PT1000	Temperature sensor for ducts, with housing
TRAFO75	Transformer, 75 VA. Wall mounted.
TRAFO150	Transformer, 150 VA. Wall mounted.

Dimensions



[mm]

Documentation

All documentation can be downloaded from www.regincontrols.com.