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.

With the variable list obtained from Regin, you as an integrator can 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.

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.

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. Get Regin:GO from the *App store* (iPhone and iPad) or *Google play* (Android).

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.
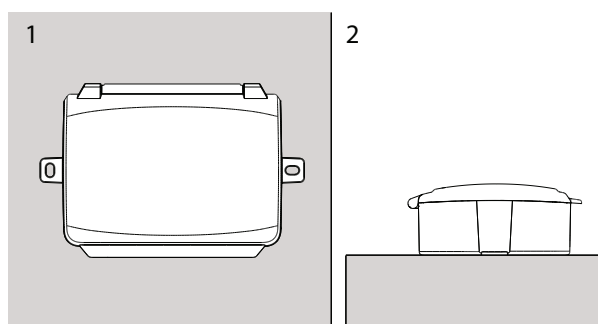

Fig. 1 1: Vertically mounted on wall 2: Mounted horizontally

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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.
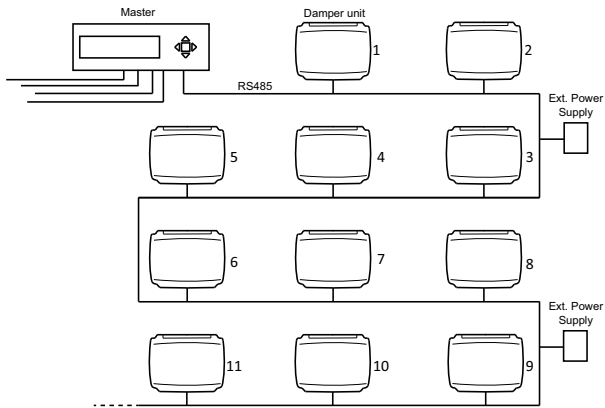

Fig. 2 Example of smoke control system with master unit , damper units, and external power supplies

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.

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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 2.5 V)

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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)
	⚠ **Caution!** This is a non-protected output. A current overload will destroy the unit

Communication port data

Communication ports	1
Port type	RS485, isolated
Supported protocols	Modbus
Modbus address	Modbus addresses 4…60 must 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, default	9600 Baud
Parity	Even, None
Stop bits	1
Cable length	Max 300 m

CE

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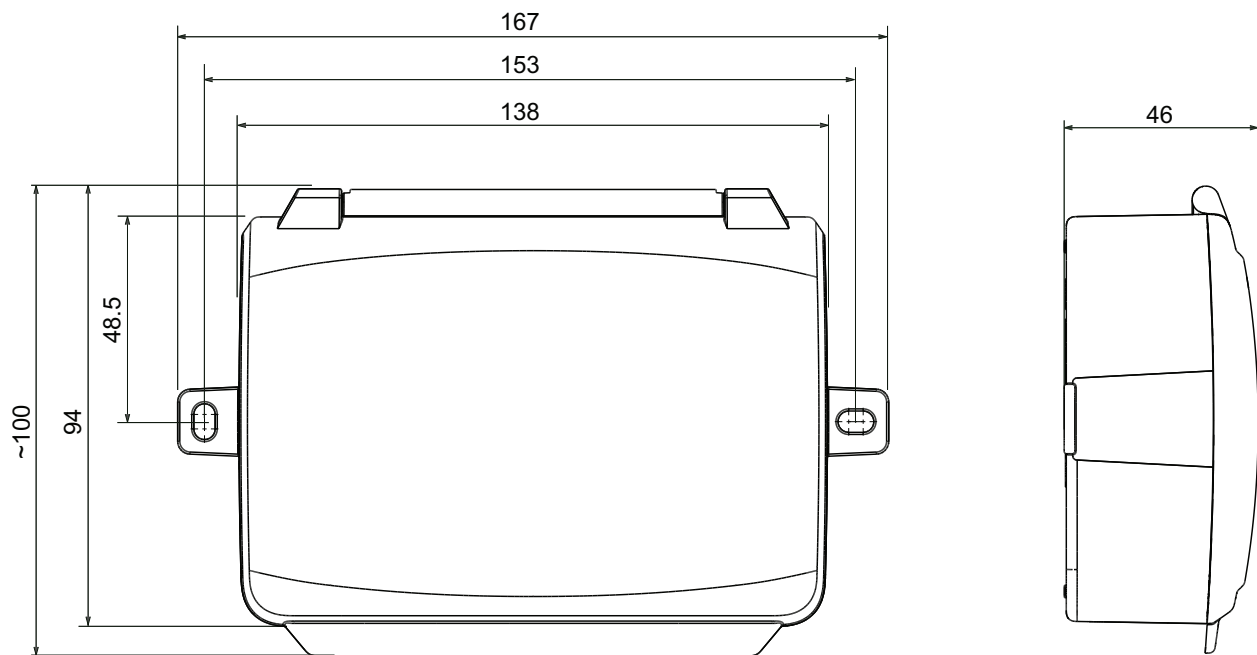
Material

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

Accessories

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

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Dimensions

[mm]

Documentation

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

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