

Control Unit SG-RED 1X3

Operating Instructions

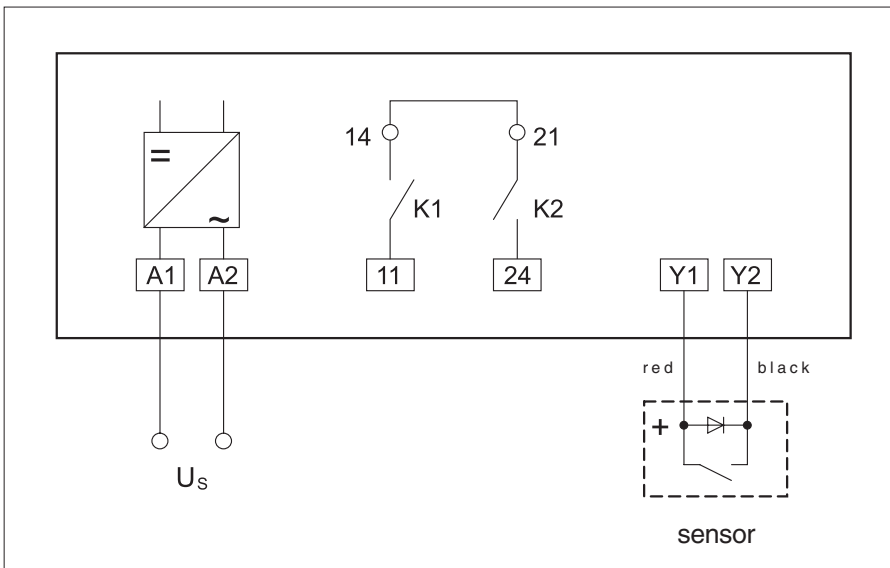


Control Unit

with EEC-type-examination certificate
Category 2 per EN 954-1
Redundant control unit for sensors with end diode;
Fulfills the requirements for power operated windows, doors and gates according to ZH 1/494

These operating instructions apply to the following units:

SG-RED 103 24 V=~/~
SG-RED 133 230 V~

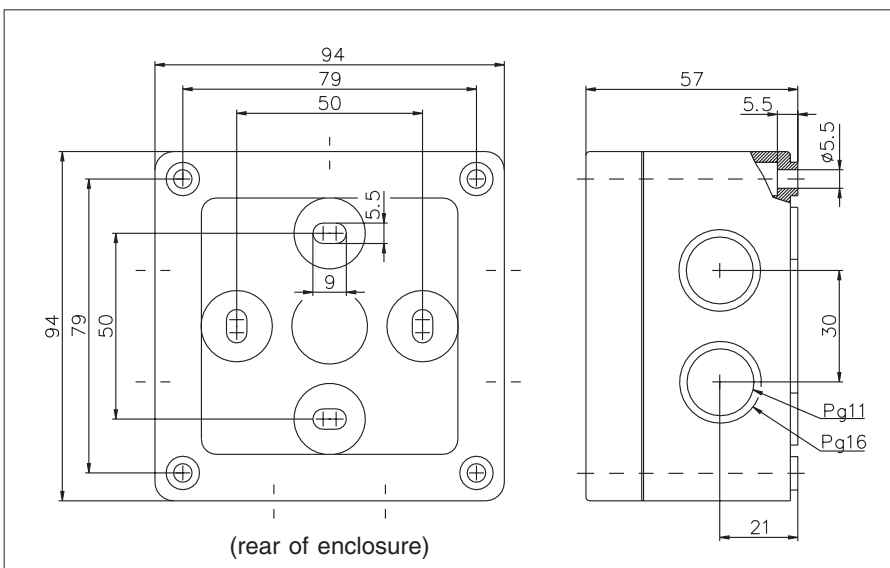


Control

The single-fault-safe electronics module has two channels (redundant). If a fault occurs in the electronics the protective action is maintained.

The electronics monitor a connected sensor which has a defined alternating voltage, which is rectified by the end diode.

When the sensor is not activated both output relays are energized (EIN). If the sensor is activated, or a break occurs in the supply to the control unit, relays K1 and K2 deenergize (AUS).



Enclosure Type I 94

W x H x D (mm)	94 x 94 x 57
with screw connectors	144 x 94 x 57
Protection class enclosure	IP 65
Cable clamps	6-channel, each 1.5 mm ²

Weight	SG-RED 103	c. 220 g
	SG-RED 133	c. 300 g

Installation and Operation

Technical Data

Connecting voltage U_s

SG-RED 103	AC 24 V	DC 22 - 30 V
SG-RED 133	AC 230 V	
Voltage tolerance	- 15 % to + 10 %	
Nominal frequency	50 Hz	
Frequency tolerance	48 - 62 Hz	
Power consumption	< 3 VA	< 3 W

Sensor Voltage

< 10 V AC

Relay Data

Switching voltage	max. 380 V AC
Switching current	max. 8 A

Permissible ambient temperature range

- 20 °C to + 55 °C

Installation

The enclosure can be mounted in any position:
- to the wall using M5 screws

Wiring is carried out in the cable clamps (in the enclosure):

Sensor	Y1 (red), Y2 (black)
Supply voltage	A1, A2
Switching channel	11, 24

WARNING!

Do not release terminals with power on.

Commissioning

After connecting up sensor, switching contacts and power supply, carry out a function test in the following order:

Sensor not activated

- output relays K1, K2 are energized

Sensor activated

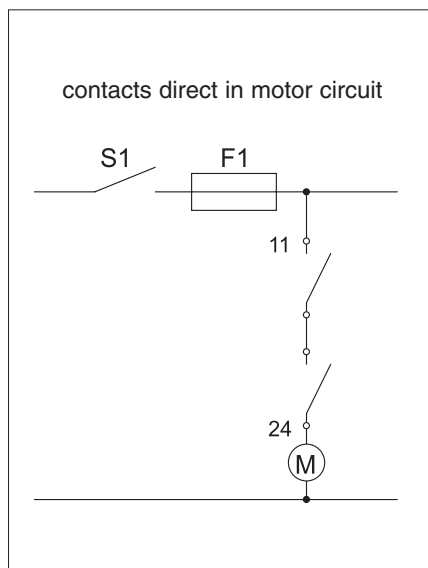
- output relays K1, K2 are deenergized

Troubleshooting and remedies

- Relays do not switch on:
 - > supply voltage off or incorrect, faulty sensor or connecting cables (incorrect pole connection, break in supply, short circuit)
 - ☞ check supply voltage, compare with type plate.
 - ☞ check polarity connection of sensor is correct.
 - Control unit is faulty.
- Relays do not deenergize:
 - > Fault in control unit
 - Control unit is defective.

Maintenance

The control unit is maintenance free.
Check the safety installation monthly by activating the sensor.



Important notes:

- **Supply voltage**
must be in accordance with the connecting voltage U_s indicated on the type plate.
- **Permissible temperature range**
When mounting into a cabinet maintain sufficient distance from heat sources (min. 2 cm).
- **Wiring**
Wire direct to the control circuit or continue two-channel mode to the next circuit.
Fuse relay contacts externally (risk of welding).
- **recommended fuse**
250 V / T 4A

Subject to technical modifications.