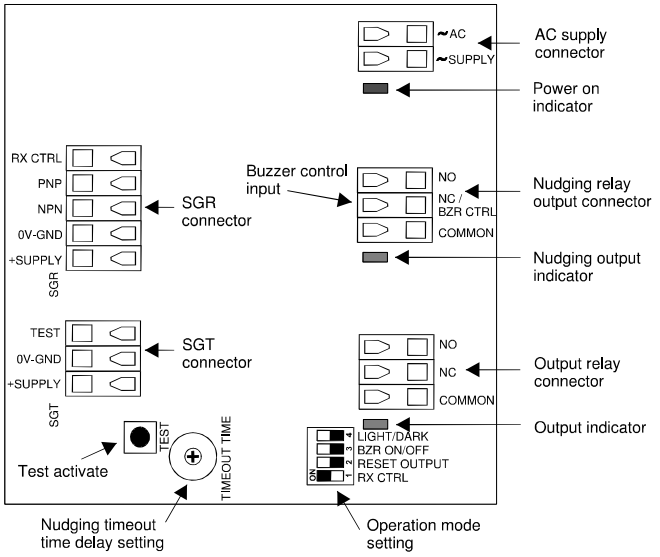
Product Data

Electrical Data	
Supply voltage	115 V ac or 230 V ac
Short circuit protection	Yes
Power consumption	Max. 250 mA
Output voltage	24 V dc @ 100 mA load
Output voltage ripple	4% @ 100 mA load
Maximum output load	150 mA
Output power on delay	SGC1 A Approx. 8 seconds

Environmental Data	
Temperature, operation	-20 to +65 °C
Sealing class	IP 54
Approvals	CE cULus

Illustration



Output	
Output relay	Max 3 A @ 250 V ac, max 5 A @ 120 V ac
Nudging output relay	Max 3 A @ 250 V ac, max 5 A @ 120 V ac

Indicators	
Power On	Green light when power is on
Output	Yellow light when output relay is in NO position
Nudging	Yellow light when nudging output is in NO position

Selectors

4: Switches between light operated (ON) and dark operated mode (OFF). Must be set according to SGR operating mode.

3: Switches the nudging buzzer function on (ON) or off (OFF).

2: In ON position the output relay will be reset for a period of 400 ms on each timeout. In OFF position the output relay will not be affected on timeout.

1: In ON position the RX control wire will be connected to gnd. In OFF position the RX control wire will not be connected.

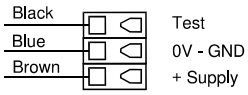
The SGT test input will be activated on push.

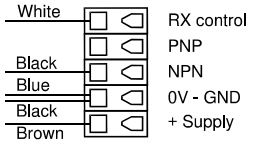
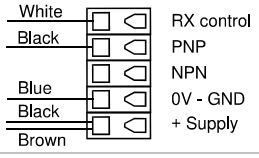
Potentiometers	
Timeout time	Sets the delay time for the nudging relay from approx. 3 - 60 sec.

Connection

Wiring Diagrams

SGT wiring



SGR with solid state relay output connected as NPN	SGR with solid state relay output connected as PNP
	

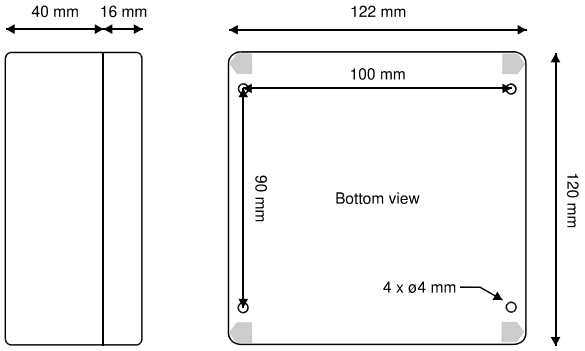
The white wire for RX control can also be connected to 0V - GND or + Supply according to SG user manual.

Installation

Connection Steps
Wire the SGC1 according to the wiring diagrams.
Set operation mode on DIP switch. Be sure to set the LIGHT/DARK switch according to SGR operation mode.
Check for correct wiring before turning on power. Wait for power on delay to expire.
Make sure SGT - SGR beam is unobstructed. Push Test button and make sure the output LED changes.

Mounting data	
Cable jacket size AC supply	ø6 - ø8 mm.
Cable jacket size relay connectors	ø6 - ø8 mm.
Cable jacket size buzzer control	ø4.5 - ø6.5 mm.

Dimensions



Functionality

Nudging feature

When the SGR output is activated (beam broken) the SGC1 output relay is activated and a timer is started. When a time delay, according to the setting of the “TIMEOUT TIME” potentiometer, has expired a timeout occurs. The nudging relay will then be activated. The nudging relay will stay activated as long as the SGR output is activated.

If the “RESET OUTPUT” option is selected the nudging feature affects the output relay. When a timeout occurs the nudging relay is activated and the output relay is de-activated for a period of approx. 400 ms. If the SGR output is still activated the output relay will then be re-activated. This event occurs on each timeout. Every time the output relay is re-activated a new timeout period is started.

In this case the nudging relay will be activated for at least approx. 6 s regardless that the SGR output is activated for a shorter period of time.

Buzzer	
Nudging buzzer	To select the Nudging buzzer function switch the “BZR ON/OFF” (3) selector to ON position. When the Nudging relay is activated the buzzer will sound with a nudging tone (at 0.5Hz).

Website: www.telcosensors.com
E-Mail: info@telcosensors.com
Made in Denmark

Warning

This product is not a safety system and must not be used as such.
It is not designed for personnel safety applications, and must not be used as a stand alone personnel safety system.

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