



## Specification Sheet

# SC100B/02 SR Transceiver WH

The Signify SC100B/02 is a SR transceiver, which is an ideal solution to control individual luminaire. Signify SC100B/02 is a single and compact device for easier installation with luminaire.

Signify SC100B/02 transceiver is D4i certified, and fits to a Zhaga Book 20 rectangular slot. A luminaire with an integrated Signify SC100B/02 works with Indoor Interact systems.

Signify SC100B/02 operates according to the established SR compatible devices standard. Signify SC100B/02 transceiver creates a two wire connection between sensor, driver, and other peripheral SR devices. The use of Signify SC100B/02 eliminates the need for multiple components and auxiliary devices to control the luminaire.

# SC100B/02

## Features

The following are the key features of SC100B/02:

- Simple two wire connection.
- Compact in size
- Operates with Signify SR devices and Interact ready switches.
- Supports Tunable White luminaires.
- Supports to remotely test the emergency function of the luminaire, if supported by the control system.

## Note

- SC100B/02 is a transceiver, not a sensor.

## Benefits

The following are the benefits of SC100B/02:

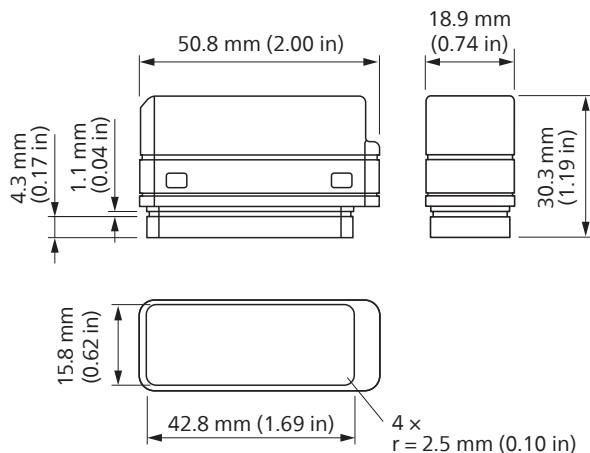
- One device to support various functions which eliminates the need for multiple components and auxiliary devices.
- Suitable to install in existing and as well as new luminaire designs.
- Cost-effective solution for energy-savings

## Applications

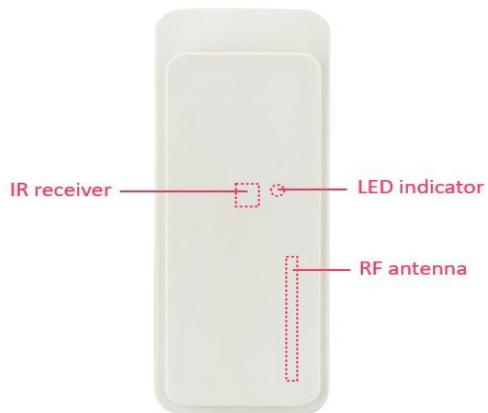
The following are the applications of SC100B/02:

- Individual office, open offices, and Conference rooms
- Lobbies, Stairways, Restrooms, and Break rooms
- Classrooms and any other indoor rooms

## Dimensional drawing



## Device layout



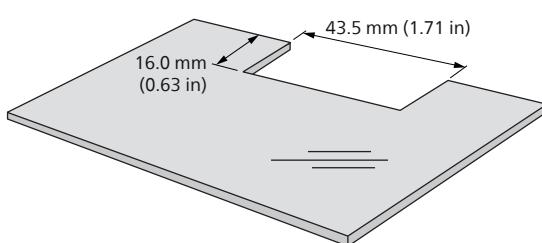
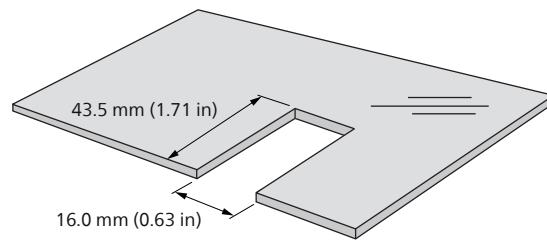
SC100

The IR receiver, LED indicator and RF antenna are hidden behind the plastic front cover

## Mounting dimensions

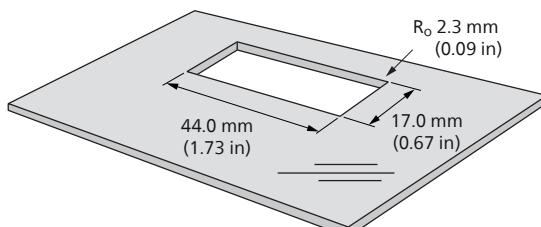
### Mounting in U-shaped slot

In sheet metal (max. thickness 1 mm).



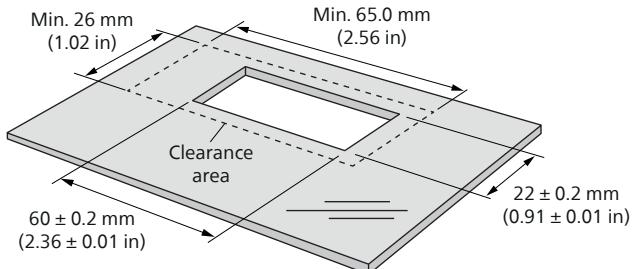
### Mounting in cut-out

In sheet metal (thickness 0.7 mm to 1.2 mm).

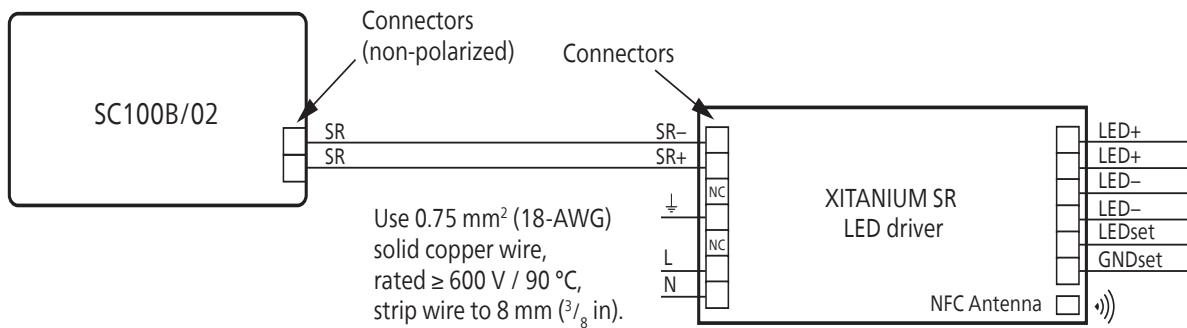


### Mounting with a clip for upgradable sensor slot

The SC100B/02 can be mounted in a surface mounted bracket or in a SA0210/05 mounting clip for the upgradable sensor slot. See Accessories for details.



### Wiring diagram



### Zigbee

This device is compatible with the Zigbee standard IEEE 802.15.4. Firmware can be upgraded over the air.

# Specifications

All specifications are typical and at  $T_c = 25^\circ\text{C}$  unless otherwise specified.

## Physical information

Overall dimensions	50.8 x 18.9 x 30.3 mm (2.00 x 0.74 x 1.19 in)
Housing F1 slot compatible luminaire hole (l x w)	44.0 x 17.0 mm (1.73 x 0.67 in)
Net weight per piece	18.5 g (0.653 oz)
Volume required inside luminaire (l x w x h)	(50.8 x 19.0 x 24.0 mm) (2.00 x 0.75 x 0.94 in)
Color	White
Connectors	WAGO 2060
Input wire cross-section (solid conductor wire)	0.25 to 0.75 mm <sup>2</sup> 24 to 18 AWG
Input wire cross-section (stranded wire)	0.25 to 0.75 mm <sup>2</sup> 24 to 18 AWG

## Electrical information

Input voltage ( $V_{\text{in}}$ )	12 to 22 V
Input current ( $I_{\text{in-typ}}$ )	8 mA ( $V_{\text{in}} = 12\text{ V}$ , $P_{\text{ZB-tx}} = 7\text{ dBm}$ )
Input current ( $I_{\text{in-max}}$ )	20 mA ( $V_{\text{in}} = 12\text{ V}$ , $P_{\text{ZB-tx}} = 7\text{ dBm}$ )
Maximum input current ( $I_{\text{max}}$ )	48 mA (Maximum current drawn from bus)
Sink current ( $I_{\text{sink}}$ )	250 mA (Capability of DALI transceiver)
Typical Input power ( $P_{\text{in}}$ )	140 mW (rated input, $P_{\text{ZB-tx}} = 7\text{ dBm}$ )
Frequency	2.4 GHz

## IR receiver

Carrier frequency	36 kHz
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## Zigbee and Bluetooth Low Energy (BLE)

Communication distance	Zigbee: 25 m (line of sight, package error rate <1%) BLE: 15 m (line of sight, package error rate <10%)
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\*The RF-distance at luminaire level is different. It depends on design-in and results of TRP-loss tests.

## Environment and approbation

Operating ambient temperature range*	-40 to +65 °C (-40 to +149 °F)
Operating humidity	20 to 85% non condensing
Storage temperature	-40 to +85 °C (-40 to +185 °F)
Storage humidity	0 to 95% non condensing
Ingress protection	IP20
Maximum case temperature ( $T_{\text{c-max}}$ )	70 °C (158 °F)
Approbations	CE, UKCA, CB, UL, RED, FCC, IC, RCM, REACH, ENEC
DALI certification	D4i
Digital interface	Xitanium SR

\* Product is capable to work under this condition without component damage, but performance is not tested.

## Other

Number of drivers per sensor	4 maximum
Lifetime	10% failure at 100 000 hours, max. $T_c$
Failure rate	≤ 300 ppm at max. $T_c$ per 1000 hr
Insulation	No insulation between the SR bus and internal circuits.



# Accessories

## Mounting bezel



Order name	Color	MOQ	Order number	Region of sale
SA0100/05 Mnt Bez SC1xxx/SC2xxx 44x17	White	1	9137 136 20003	Global

## Mounting clip for upgradable sensor slot



Order name	Color	MOQ	Order number	Region of sale
SA0200/05 F Mnt Clip SC1xxx/SC2xxx 60x22	White	1	9137 136 20203	Global

## F1 slot cover



Order name	Color	MOQ	Order number	Region of sale
SA0300/05 Cover plate 60x22	White	1	9137 136 20403	Global

## Recessed mounting plate



Order name	Color	MOQ	Order number	Region of sale
LCA8008 ActiLume round mounting clip	White	1	9137 003 59003	Global

## Surface mount box



Order name	Color	MOQ	Order number	Region of sale
SA0600/05 Ind. Surf Mnt SCxxxx/SNSxxx	White	1	9137 136 20803	Global (excluding North America)
SA0600/05 Ind. Surf Mnt SCxxxx/SNSxxx	White	1	9137 136 20813	North America

## Mounting clip



Order name	Color	MOQ	Order number	Region of sale
SA0200/15 F Mnt Clip SC1xxx/SC2xxx 60x22	Black	1	9137 010 47703	Global

## Ordering information

Commercial product name	Color	MOQ	Order number	Region of sale
SC100B/02 SR Tranceiver WH	White	50	9137 010 69303	Global (excluding North America)

### Warning

- Avoid touching live parts.
- Do not use drivers with damaged housing and/or connectors.
- Do not use drivers with damaged wiring.
- Class 1 luminaires must be connected to protective earth.
- Switchable function to make the open load on the driver output is an abnormal condition, and it is not an intended application that will be allowed.

#### **Safety warnings and installation instructions to be taken into account during design-in and manufacturing:**

- Do not use damaged or defective contacts or housings.
- Do not use damaged products.
- Do not service the driver when the mains voltage is connected and this includes connecting or disconnecting the LED load.

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