### LC-SRB-LOOP

# Helvar

#### Strain Relief Series

- Innovative accessory, enables easy independent installation of compatible plastic case compact LED drivers and looping of the input cables
- Easy installation with screwless cable clamps
- Sturdy structure, compatible with cables of different thickness

Product code: 5801 (LC-SRB-LOOP)
58011 (LC-SRB-LOOP-2WIRE)



IEC Halogen free

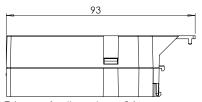


#### PACKAGE CONTENTS

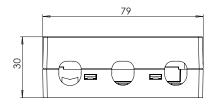
One set of LC-SRB-LOOP strain relief consists of the following parts:

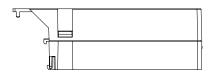
- Cover part
- Bottom part
- Looping connector
- Three screwless push-to-fix cable clamps
- One sticker bearing the symbol (for certain Helvar drivers, see page 3)
- Pre-cut wires for looping connector wiring inside the strain relief (available on request)
- For Active+ / Freedom drivers, the LC-SRB-LOOP-2WIRE model available with 2 pre-cut wires and 3-pole looping connector for optimal sensor / control unit / Node cable installation

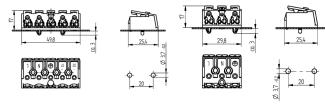
#### **DIMENSIONS**











5 - pole connector for DA / CC drivers with LC-SRB-LOOP

3 - pole connector for Active+/ Freedom drivers with LC-SRB-LOOP-2WIRE

# Mechanical, Operating & Storage Conditions

Driver cross-section dimensions	79-81 x 28-30 mm
Wire size	0.5 - 2.5 mm <sup>2</sup>
Ambient temperature range	-25+45 °C*
Storage temperature range	-40+80 °C
Assembly temperature range	+5+30 °C

Do not store in wet or humid environment!

\*Unless otherwise stated in the driver datasheet (for independent installation). Note! To max temperature of the driver shall not be exceeded.

### MATERIALS AND CONDITIONS

#### **Material Specifications**

Material type Polycarbonate
Fire retardant Yes

UV protected Yes

Colour White, RAL 9016 Halogen free according to IEC 61249-2-21

#### Conformity & Standards

Luminaires - Part 1: General IEC 60598-1:ed.8 2014
requirements and tests EN 60598-1:2015
Luminaires. Part 2: Particular IEC 60598-2-1:1979+A1:1987
requirements. Section One: Fixed EN 60598-2-1:1989

requirements. Section One: Fixed general purpose luminaires

Compliant with relevant EU directives, CE marked, RoHS/REACH compliant

### Application considerations



LC-SRB-LOOP strain reliefs enable the independent installation of certain Helvar plastic case compact LED drivers with input cable looping. Please always take specific requirements into account before installing and using the strain reliefs.

#### ASSEMBLY INSTRUCTIONS

Please refer to separate Installation guide, available on product website's Download & Links section, for instructions of how to install the LC-SRB-LOOP strain reliefs to the driver.

## Suitability for different Helvar LED drivers

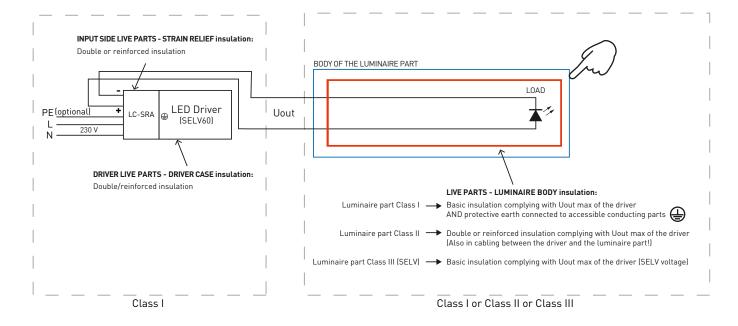
#### HELVAR LC45IC-DA-100-900 COMPACT LED DRIVER

Helvar LC45iC-DA-100-900 iC LED driver is Class I device that has double/reinforced insulation between live electrical parts and accessible parts of the driver. In addition to this, it has protective earth (PE) terminal. Protective earth is not designed as safety measure in this particular driver model, but it gives the integrator a possibility to improve the EMC performance of the driver instead. The grounding helps also in negating the possible glow effect, if present.

When installing Helvar LC45iC-DA-100-900 LED driver independently with LC-SRB-LOOP strain reliefs, PE terminal of the driver can be left unconnected. It may be connected however to improve the EMC performance of the driver.

This driver has isolated SELV output. The accessible parts of both the cabling and the luminaire part must have then basic isolated according to Uout max of the driver (SELV voltage). The operating conditions of the driver in independent installation may never exceed the specifications as per the product datasheet.

Required insulations illustrated in the figure below. It is always the integrator's responsibility to ensure that the combination of the driver and the luminaire part complies with the relevant standards (e.g. IEC / EN 60598-1).



LIMITATION OF LIABILITY. ALWAYS CHECK AND FOLLOW EXACT REGULATIONS FROM LATEST RELEVANT IEC/EN STANDARDS.

### Application considerations

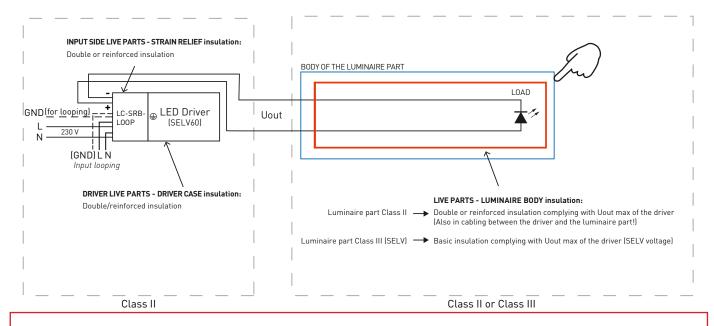


HELVAR LC1X50-E-CC, LC1X50-E-DA, LC1X50 ACTIVE+, LC1X70-E-CC, LC1X70-E-DA, LC35/2-DA-IC, LC45/2-DA-IC, LC50-FD-900-1400

The above mentioned Helvar compact LED drivers are Class II devices that have double or reinforced insulation between live electrical parts and accessible parts of the driver and no earthing terminal. However, if present in the input cable, the earthing (GND) can be looped in the LC-SRB-LOOP input looping connector to the next driver or device.

When installing above mentioned Helvar Class II drivers independently with LC-SRB-LOOP strain reliefs, these drivers have isolated SELV output. The accessible parts of both the cabling and the luminaire part must have then basic isolated according to Uout max of the driver (SELV voltage). In addition to this, the operating conditions of the driver in independent installation may never exceed the specifications as per the product datasheet.

Required insulations illustrated in the figure below. It is always the integrator's responsibility to ensure that the combination of the driver and the luminaire part complies with the relevant safety standards (e.g. IEC / EN 60598-1).



Because of the regulations, the Class II drivers designed for built-in usage, marked with symbol  $\bigcirc$  (double ring), must be marked with the symbol of  $\boxed{}$  (double square) when fitted with accessories making it suitable for independent installation.

Thus, when installing the LC-SRB-LOOP / LC-SRB-LOOP-2WIRE strain reliefs to Class II Helvar drivers marked with the symbol  $\bigcirc$ , the sticker bearing the symbol  $\square$  must be attached to the driver case or strain relief.

Do not use the sticker with Helvar LC45iC-DA-100-900 compact iC LED driver!

Attach the sticker, when using the LC-SRB-LOOP strain relief with the following drivers:			
LC1x50-E-CC	LC1x50-E-DA	LC1x50 Active+	LC1x70-E-CC
LC1x70-E-DA	LC35/2-DA-iC	LC45/2-DA-iC	LC50-FD-900-1400

LIMITATION OF LIABILITY. ALWAYS CHECK AND FOLLOW EXACT REGULATIONS FROM LATEST RELEVANT IEC/EN STANDARDS.

### Application considerations



### Thermal considerations

The LC-SRB-LOOP strain reliefs are designed and tested to comply with the luminaire standard EN 60598-1:2015 where applicable. When combining the strain reliefs and drivers for independent installation of the drivers, it is always the responsibility of the integrator to ensure that the combination complies with the relevant standards (e.g. IEC / EN 60598-1).

Thermal design of the luminaire system is important for the safety, reliability and lifetime of the system. Datasheets give quidelines what range of ambient temperature is recommended for the driver in built-in and in independent usage, but in both environments it it always the responsibility of the integrator to ensure that the Tc point temperature does not exceed the Tc max temperature specified in the product datasheet.

### Installation, mechanical and chemical considerations

- Do not assemble the LC-SRB-LOOP strain reliefs into place in cold environments (<5 °C)</li>
- When installing the strain reliefs, refer to the separate installation guide
- The protection class of the final installation must be adequate for the application
- While handling the strain reliefs avoid excess mechanical stress or pressure applied to them
- Avoid dropping of the strain reliefs
- Mechanical modifications (drilling, milling, sawing or cutting of the strain reliefs) are not permitted

Chemical substances may cause damage to the LC-SRB-LOOP strain reliefs. Avoid materials and substances containing:

- Acetone, ketones, ethers, and aromatic and chlorinated hydrocarbons
- Aqueous or alcoholic alkaline solutions, ammonia gas and its solutions and amines Do not expose LC-SRB-LOOP strain reliefs to steamy environments.

