

# SMART TUBED 82 SURFACE/SUSPENSION

## Description

Cylindrical ceiling mounted tube, used to incorporate LED recessed spotlights (COB LED or retrofit LED GU10 bulb) with an outer diameter of 82mm. Available in two version: direct ceiling-mounted, or suspended.

The LED spotlights are installed in the tube by means of leaf springs.

Connection to the mains (or driver) is done in the backside compartment close to the wall.

No visible screws or wires after installation.

The tube is available in 3 sizes: small, large and extra-large, all varying in length.

The small version (86mm) is suitable for retrofit LED GU10 spotlight or COB LED spotlight (with driver on distance).

The large version (130mm) is suitable for COB LED spotlight and has an non-dimmable driver integrated. Also available in driver excluded version.

The extra-large version (190mm) is suitable for COB LED spotlight and has driver integrated, available in trailing edge, 1-10V, pushdim or DALI dimming protocol. Also available in driver excluded version.

## Materials

- Aluminium housing finished with a scratch resistant fine textured powder coating in matt white or matt black, or in brushed aluminium finish
- Galvanised steelplate ceiling bracket (for the suspended version)
- Textile cable (for the suspended version)
- Aluminium ceiling housing finished with scratch resistant fine textured powder coating in matt white or matt black, or in brushed aluminium finish (for the suspended version)

## Technical characteristics

- Dimensions:
  - Small:  $\varnothing 86$ mm, H: 86mm
  - Large:  $\varnothing 86$ mm, H: 130mm
  - X-Large:  $\varnothing 86$ mm, H: 190mm
- Only for indoor use (IP20)
- 2m feedcord included (for the suspended version)

## Installation

- The ceiling tube is directly mounted with two universal chipboard screws of max.  $\varnothing 5$  mm (not included). The suspended version ceiling housing is mounted to the ceiling with two universel chipboard screws of max.  $\varnothing 5$  mm (not included).
- Connection to the mains (or driver) by means of 3 splicing connectors ( $0.4-2.5\text{mm}^2$ ) for the driver included version. Connection to the LED driver by means of 2 included splicing connectors ( $0.4-2.5\text{mm}^2$ ) for the driver excluded versions.

## Standards and directives:

- 2006/95/EC - Low Voltage Directive
- 2004/108/EC - EMC Directive
- 2011/65/EU - RoHS Directive
- 2009/125/EC - Ecodesign Directive
- 245/2009/EC + 347/2010/EU - Ecodesign Directive
- 1194/2012/EU - Ecodesign Regulation
- EN 60598-1:2008 +A11:2009 - Luminaires. General requirements and tests
- EN 62471:2008 - Photobiological safety of LED lamps and lamp systems
- EN 62493: 2010 - Assessment of lighting equipment related to human exposure to electromagnetic fields
- EN 60598-2-1 - Fixed general purpose luminaires
- EN 55015:2006 +A1:2007 +A2:2009 - Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
- EN 61000-3-2:2006 +A1,A2:2009 - Limits for harmonic current emissions (equipment input current  $\leq 16$  A per phase)
- EN 61000-3-3:2013 - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current  $\leq 16$  A per phase and not subject to conditional connection
- EN 61547:2009 - EMC Immunity Requirements
- EN 50581:2012 - Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

