Technical Specification

Safety and environmental conditions

CE marking	LV directive 2006/95/EC RoHS directive 2011/65/EU WEEE directive 2012/19/EU
Standard	EN-IEC 61439-2:2011 EN-IEC 60269-3:2013

This product is designed to be safe under the following conditions:

Specification

Environmental conditions	
Operating temperature:	-5°C - +55°C
Relative humidity:	5% - 85%, non condensing
Protection degree:	IP23
Installation class:	1 (protective earth)
Pollution degree:	2
Application conditions	
Umax:	230V (L-N)
Frequency:	50Hz
Imax:	25A (mantle terminals)
Fuse:	1x DII (E27), max 6A
Strain relief:	Yes, maximum 2 ground cables 23mm and 2 light poles cords
Maximum wire cross section and torque:	Terminal N, 1, 2, 3: 2x 10mm^2, 2-4Nm Terminal 4, 5: 2,5mm^2 , 1-2Nm Terminal 6, 7: 1,5mm^2, spring
Diameter ø	94mm
Height	279,5mm
Storage	
Temperature:	-20°C - +70°C
Relative humidity:	5% - 85%, non condensing
Approval	-

Specification per type

	5L2411
Fuse included	No
Phase selection	Yes
PE-N connection	No
Covered mantle terminals	Yes
Weight	597gr
Surge Protection Device (SPD)	Citel MLPC1-230L-R* Protection level 10kA/10kV Spring terminal connection for max 1,5mm²

* Please consult www.citel.fr for more information about the MLPC1- 230L-R

Please be aware, product liability, fulfilment to requirements and warranty are all expired when modifications on the product are made.

ELEQ reserves the right to carry out modifications on its products, in order to improve them, without prior notice.

Safety instruction

All activities for installation, commissioning and maintenance of this connection box must be performed by qualified personnel that has the knowledge of applicable safety precautions. This guide assumes that the reader of this document has sufficient electro-technical knowledge to understand the content of this document.

General

The LS-94 is a connection box for public lighting and intended to be used in lighting poles. The connection box shall be mounted in a weather protected and dry location. In the connection box the incoming (ground) cable can be connected. If desired, looped circuits wiring to the next lighting pole is possible. The cable of the armature shall be connected on the outgoing terminals.

Fuses protect the installation against overload and short-circuiting.

Explanation of symbols

This product is designed according to the EN-IEC 61439-2:2011 standards and meets the requirements of the Low Voltage Directive 2006/95/EC.

Read the installation guide before mounting the product. Unprofessional work activities on electrical installations may result in a threat of danger to the life and health of human beings and livestock!

RoHS Directive 2011/65/EU
ELEQ states that it uses qualified components in its products only from manufacturers which meet the requirements of the European Directive for the "Restriction of use of certain Hazardous Substances

WEEE Directive 2012/19/EU
This equipment should not be disposed as unsorted municipal waste. Contact a qualified recycler for disposal.

ELEQ b.v.
Tukseweg 130, 8331 LH Steenwijk, The Netherlands
+31 (0) 521 533 333 info@eleq.com www.eleq.com

83751 / EN1603

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LS-94 Connection Box for Public Lighting
Installation Guide

LS-94 5L2411

Read this installation guide before installing the product

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ELEQ b.v.
Tukseweg 130, 8331 LH Steenwijk, The Netherlands
+31 (0) 521 533 333 info@eleq.com www.eleq.com

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Always avoid working on live parts of an installation.

Functional Description

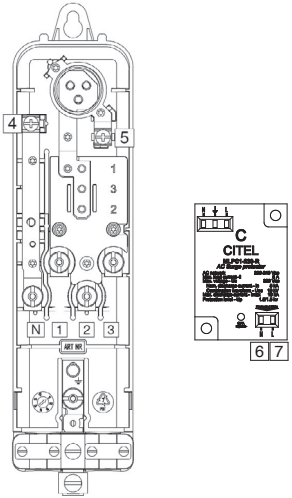
The 5L2411 connection box is intended to be fitted with one DII fuse. The fuse capacity is limited to max 6A.
The phase to be connected to the fuse has to be chosen by the black selection pin (screw type).

A connection between PE and the frame of the lighting pole is made automatically by mounting the connection box to the lighting pole. The connection box is equipped with a 'Surge protection device' (SPD) module.

Assembly

Attention
Remove the fuse during assembly of the connection boxes

1. Ensure a safe working area during assembly, maintenance and inspection of the connection box. Disconnect the power of the primary circuit and make sure it cannot be enabled unintentionally.
2. Remove the transparent lid, fuse, selection pin and the intermediate cover.
3. Mount the connection box with the upper and lower connection in the lighting pole.
4. Remove the cover with SPD (pull off the mantle terminals). There is a possibility to hook this on top of the connection box.
5. Connect the incoming and (if present) outgoing ground cable to terminals N, 1, 2, 3 and PE.
6. Replace the cover with SPD on the mantle terminals.
7. **For in-line connection of the SPD:** connect the outgoing cable to the armature to terminals 6 and 7 (spring connection)
   For parallel connection of the SPD: connect the outgoing cable to the armature to terminals 4 and 5 (screw connection)
8. Tightly mount strain relief block.
9. Check if the connections are mounted properly and firmly.
10. Mount the intermediate cover and the selection pin.
11. Install the fuse. Note: fuse type: DII (E27), max 6A.
12. Mount the transparent lid and screw tightly.



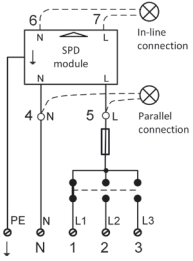
Incoming
N = Neutral
PE = Protective earth
1 = Phase L1
2 = Phase L2
3 = Phase L3

Outgoing (SPD in-line)
6 = Neutral wire to armature
7 = Phase wire to armature

Outgoing (SPD parallel)
4 = Neutral wire to armature
5 = Phase wire to armature

If required, incoming terminals N, 1, 2 3 and PE can also be looped to the next lighting pole.

Wiring Diagram



Attention
Terminal box is provided with phase selection: the phase to be connected to the fuse has to be chosen by the black selection pin (screw type).

Maintenance and inspection

- The connection box should be situated on a dry and clean location.
- The connection box should be mounted firmly.
- The connections should be mounted firmly.
- Indicator on SPD is on when power is switched on.

Attention
Always avoid working on live parts of an installation.

Disassembly instruction

1. Disconnect the power of the main circuit and make sure it cannot be enabled unintentionally.
2. Unmount the transparent lid.
3. Remove the fuse, selection pin and the intermediate cover
4. Remove the strain relief block.
5. Disconnect the armature cables.
6. Remove the SPD
7. Disconnect the ground cables
8. Disconnect the connection box from the lighting pole.

Recycling

When the product has reached 'end of life', it must be recycled. Do not dispose this product as unsorted municipal waste. Contact a qualified recycler for disposal.