



SMARTEH[®]
LIVING SYSTEMS

USER MANUAL

- ▶ Longo programmable controller
LPC-2.DOL
Door Lock Output module

Version 1

Written by SMARTEH d.o.o.
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User Manual

Document Version: 001
February 23, 2010



STANDARDS AND PROVISIONS: Standards, recommendations, regulations and provisions of the country in which the devices will operate, must be considered while planning and setting up electrical devices. Work on 100 .. 240 V AC network is allowed for authorized personnel only.

DANGER WARNINGS: Devices or modules must be protected from moisture, dirt and damage during transport, storing and operation.

WARRANTY CONDITIONS: For all modules LONGO LPC-2 - if no modifications are performed upon and are correctly connected by authorized personnel - in consideration of maximum allowed connecting power, warranty of 24 months is valid from the date of sale to the end buyer, but not more than 36 months after delivery from Smarteh. In case of claims within warranty time, which are based on material malfunctions the producer offers free replacement. The method of return of malfunctioned module, together with description, can be arranged with our authorized representative. Warranty does not include damage due to transport or because of unconsidered corresponding regulations of the country, where the module is installed.

This device must be connected properly by the provided connection scheme in this manual. Misconnections may result in device damage, fire or personal injury.

Hazardous voltage in the device can cause electric shock and may result in personal injury or death.

NEVER SERVICE THIS PRODUCT YOURSELF!

This device must not be installed in the systems critical for life (e.g. medical devices, aircrafts, etc.).

If the device is used in a manner not specified by the manufacturer, the degree of protection provided by the equipment may be impaired.

Waste electrical and electronic equipment (WEEE) must be collected separately!

LONGO LPC-2 complies to the following standards:

- EMC: EN 61000-6-3:2007 + A1:2011, EN 61000-6-1:2007, EN 61000-3-2:2006 + A1:2009 + A2: 2009, EN 61000-3-3:2013
- LVD: IEC 61010-1:2010 (3rd Ed.), IEC 61010-2-201:2013 (1st Ed.)

Smarteh d.o.o. operates a policy of continuous development. Therefore we reserve the right to make changes and improvements to any of the products described in this manual without any prior notice.

MANUFACTURER:

SMARTEH d.o.o.
Poljubinj 114
5220 Tolmin
Slovenia



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Longo programmable controller LPC-2.DOL

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1 DESCRIPTION

LPC-2.DOL is a door lock open module, suitable for low current 12 V DC locks. At activation, module provides higher voltage pulse, further holding voltage is applied. LPC-2.DOL door lock open module is able to open door lock even if the required force is high. LPC-2.DOL module is powered from the internal BUS.

Power LED indicates voltage output state (refer to the Table 3).



2 FEATURES

Figure 1: LPC-2.DOL module

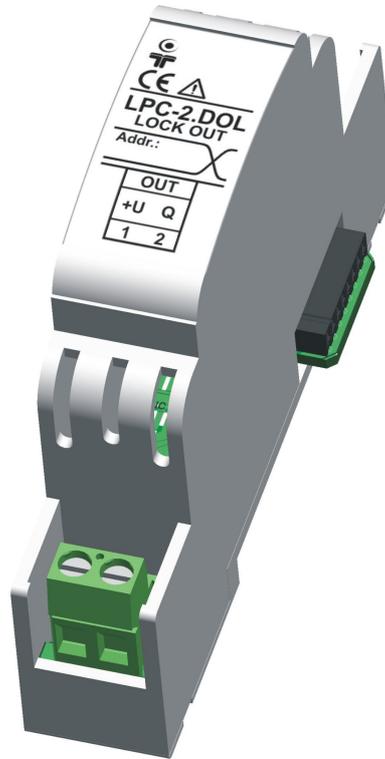


Table 1: Technical data

Door lock open module for 12 V DC low current locks

Standard DIN EN50022-35 rail mounting



3 INSTALLATION

3.1 Connection scheme

Figure 2: Connection scheme

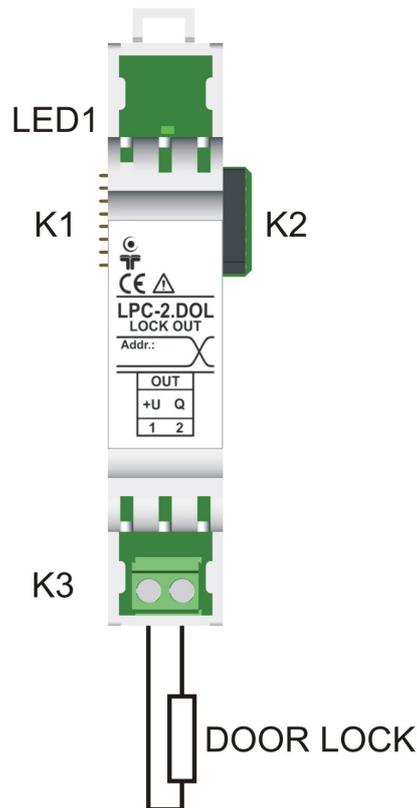


Table 2: OUT1¹

OUT.1 (+U)	Lock Output (+)	Power
OUT.2 (Q)	Lock Output (-)	Transistor switch

Table 3: LED1

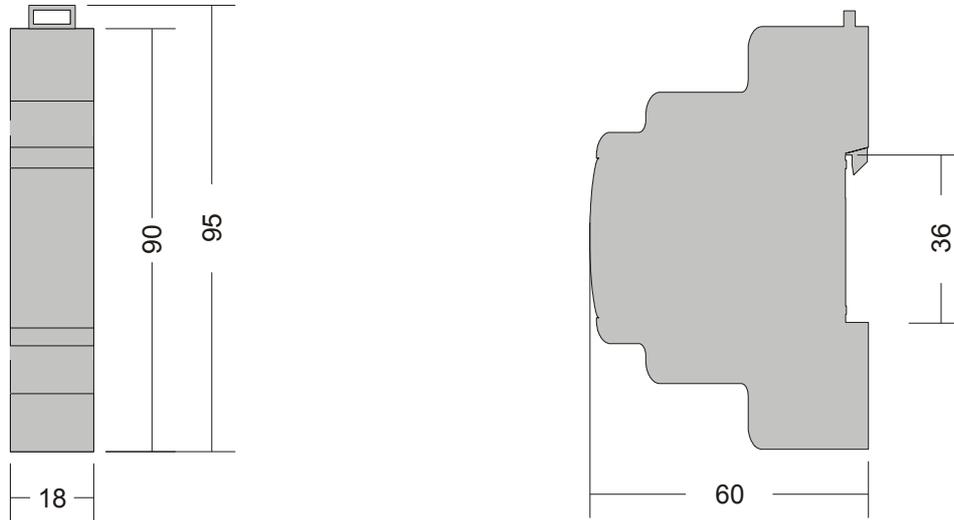
Status	Output state	LED On: Lock output On LED Off: Lock output Off
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¹ Wires connected to the module must have cross sectional area at least 0.75 mm². Minimum temperature rating of wire insulation must be 85 °C.



3.2 Mounting instructions

Figure 3: Housing dimensions



Dimensions in millimeters.

EXTERNAL SWITCH OR CIRCUIT-BREAKER AND EXTERNAL OVERCURRENT PROTECTION: The unit is allowed to be connected to installation with over current protection that has nominal value of 16 A or less.

RECOMMENDATION ON SWITCH OR CIRCUIT-BREAKER PROTECTION: There should be two poles main switch in the installation in order to switch off the unit. The switch should meet the requirements of standard IEC60947 and have a nominal value at least 6 A. The switch or circuit-breaker should be within easy reach of the operator. It should be marked as the disconnecting device for the equipment.



All connections, module attachments and assembling must be done while module is not connected to the main power supply.



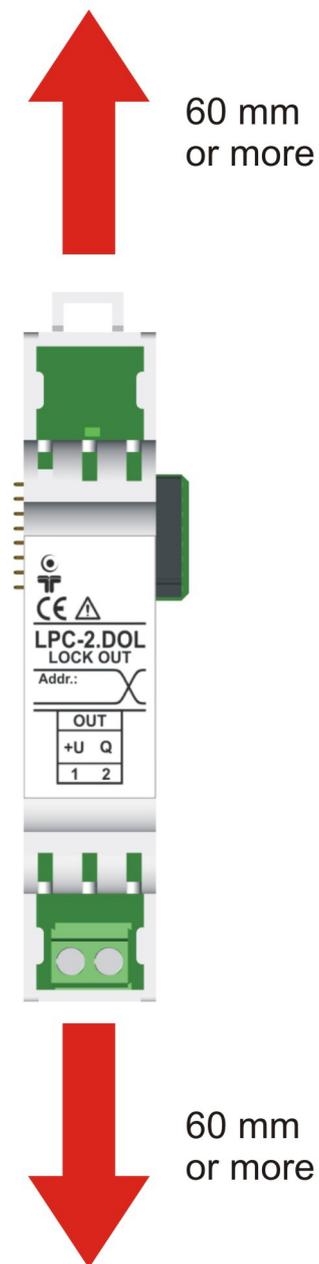
Mounting instructions:

1. Switch OFF main power supply.
2. Mount LPC-2.DOL module to the provided place inside an electrical panel (DIN EN50022-35 rail mounting). It is recommended that this module is the last one - on the right.
3. Mount other LPC-2 modules(if required). Mount each module to the DIN rail first, then attach modules together through K1 and K2 connectors.
4. Connect door lock wires to connectors according to the connection scheme in Figure 2.
5. Switch ON main power supply.
6. Power (PWR) green LED should switch on according to the Table 3.

Dismount in reverse order. For mounting/dismounting modules to/from DIN rail a free space of at least one module must be left on the DIN rail.



Figure 4: Minimum clearances



The clearances above must be considered before module mounting.



3.3 Module labeling

Figure 5: Labels on housing

Label 1(LPC-2.DOL module sample):

LPC-2.DOL
P/N:225DOL10001001
D/C: 08/10

Label 2(LPC-2.DOL module sample):

S/N: DOL-S9-1000000190

Label 1 description:

1. **LPC-2.DOL** is the full product name.
2. **P/N:225DOL10001001** is the part number.
 - **225** - general code for LPC-2 product family,
 - **DOL** - short product name,
 - **10001** - sequence code,
 - **10** - year of code opening,
 - **001** - derivation code,
 - **001** - version code (reserved for future HW and/or SW firmware upgrades).
3. **D/C:08/10** is the date code.
 - **08** - week and
 - **10** - year of production.

Label 2 description:

1. **S/N:DOL-S9-1000000190** is the serial number.
 - **DOL** - short product name,
 - **S9** - user code (test procedure, e.g. Smarteh person xxx),
 - **0500000190** - year and current stack code,
 - **05** - year (last two cyphers),
 - **00000190** - current stack number; previous module would have the stack number 00000189 and the next one 00000191.



4 TECHNICAL SPECIFICATIONS

Table 6: Technical specifications

Power supply	from internal BUS
Max. power consumption	2 W
Lock activation voltage	30 .. 50 V DC
Lock on state voltage	5.5 .. 6.5 V
Max. module load	20 Ohm
Connection type	screw type connectors for stranded wire 0.75 to 2.5 mm ²
Dimensions (L x W x H)	90 x 18 x 60 mm
Weight	40 g
Ambient temperature	0 to 50 °C
Ambient humidity	max. 95 %, no condensation
Transport and storage temperature	-20 to 60 °C
Pollution degree	2
Overvoltage category	II
Electrical equipment	Class II (double insulation)
Protection class	IP 30



5 CHANGES

The following table describes all the changes to the document.

Date	V.	Description
23.2.2010	001	The initial version, issued as <i>LPC-2.DOL door lock module UserManual</i> .





6 NOTES

