

# LPN Lighting Bridge

---

## Technical Handbook

---

# V 0.00

comtac AG

## Content

1	History of this document .....	2
2	Introduction .....	3
2.1	General .....	3
3	Power Supply .....	3
3.1	LoRa Lighting Bridge .....	3
3.2	General technical data .....	3
3.3	USB.....	3
3.4	Custom built Inputs.....	3
3.5	DALI.....	4
3.6	Input push button .....	4
3.6.1	Connection example .....	4
3.7	AC power supply .....	4
3.8	Indicator.....	5
4	Mechanics / Assembly .....	5
	Installation specifications.....	6
5	Contact person.....	7

---

### 1 History of this document

Date	Description
2017-04-11-Mc	First version, V0.00

Changes are added to this history when a new version has been issued.

## 2 Introduction

### 2.1 General

The LoRa Lighting Bridge is a device that can connect a DALI device to the LoRa wireless network. The DALI bus can be controlled via LoRa.

## 3 Power Supply

### 3.1 LPN Lighting Bridge



### 3.2 General technical data

Parameter	Value	Description
Power supply	230 VAC	+/-10%
Current consumption	0.01A	@ 230 VAC
Operating temperature	-5°C to +45°C	
Storage temperature	-40°C to +85°C	
Operating time	Continuous duty	
Degree of protection	IP20	
Degree of contamination	2	
Protection class	II	
Humidity	Max. 95% r.F.	Not condense
Dimension	220mm x 30mm x 25mm	LxWxH
Weight	76g	
EMV	EN 60950-1	
Safety standard	EN 60950-1	

### 3.3 USB

Parameter	Value	Description
Connection reference	X2	USB mini type B
Interface	USB	

### 3.4 Custom built Inputs

Parameter	Value	Description
Connection reference	X3	Erni 284697
Interface	Custom projects	

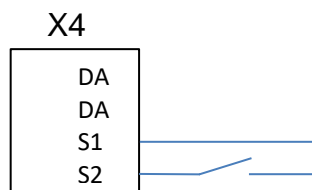
### 3.5 DALI

Parameter	Value	Description
Connection reference	X4	235-104/330-000
Interface	DALI	
Strip length	9 mm / 10 mm	
Wire width	min. / max.	
stiff	0.5mm <sup>2</sup> / 1.5mm <sup>2</sup>	
flexible with wire termination <u>without</u> plastic sleeve	0.25mm <sup>2</sup> / 0.75mm <sup>2</sup>	
flexible with wire termination <u>with</u> plastic sleeve	0.25mm <sup>2</sup> / 0.75mm <sup>2</sup>	

### 3.6 Input push button

Parameter	Value	Description
Connection reference	X4	235-104/330-000
Interface	push button	
Strip length	9 mm / 10 mm	
Wire width	min. / max.	
stiff	0.5mm <sup>2</sup> / 1.5mm <sup>2</sup>	
flexible with wire termination <u>without</u> plastic sleeve	0.25mm <sup>2</sup> / 0.75mm <sup>2</sup>	
flexible with wire termination <u>with</u> plastic sleeve	0.25mm <sup>2</sup> / 0.75mm <sup>2</sup>	

#### 3.6.1 Connection example



### 3.7 AC power supply

Parameter	Value	Description
Connection reference	X1	235-502
Interface	Power supply	230VAC +/-10%
Strip length	9 mm / 10 mm	
Wire width	min. / max.	
stiff	0.5mm <sup>2</sup> / 2.5mm <sup>2</sup>	
flexible with wire termination <u>without</u> plastic sleeve	0.25mm <sup>2</sup> / 1.5mm <sup>2</sup>	
flexible with wire termination <u>with</u> plastic sleeve	0.25mm <sup>2</sup> / 1.5mm <sup>2</sup>	

### 3.8 Indicator

Element	Description	Description
LED blue	On with uplink	LoRa state
LED yellow	On with downlink	LoRa state

## 4 Mechanics / Assembly

Parameter	Wert	Hinweis
Dimensions housing	220mm x 30mm x 25mm	LxWxH
Distance of mounting holes	200 mm	
Diameter mounting holes	4.5 mm	

Note: The LPN Lighting Bridge must be installed in a closed housing (e.g. control cabinet, luminaire) otherwise the mains voltage is not insulated)

## Installation specifications



### Technical Handbook

The information, limits, introductions and instructions in this technical manual must be considered and observed accordingly.



### Users

The installation and connection of the device, as well as the making of operations and settings, may only be carried out by trained specialists. The devices are delivered exclusively to system integrators for building automation and not directly to end users.

The valid electrical installation regulations for House installations.



### General safety instructions

There are voltage-carrying elements in the device and in the connection terminals. Touching such elements can be dangerous if the system is not disconnected from the mains.

The device is only allowed to be opened by the manufacturer.



### External voltage

Always disconnect all connections to the mains voltage when servicing the device or the connected peripherals.

The mains voltage must not be applied to the terminals as long as the earth connection point is not properly grounded.



### Installation instructions

The device is designed for stationary operation and must be installed in such a way that it is not possible to touch the voltage-conducting elements in normal operation.

\*Description mounting / integration\*

ESD and safety regulations must always be observed during installation. The device may only be connected in the voltage-free state of the infeed.

The specified ambient conditions must be observed during installation and during operation.

Since the device, itself does not have any strain relief on the connection cables, this must be implemented accordingly during the installation.

## 5 Contact person

comtac AG  
Allenwindenstrasse 1  
CH-8247 Flurlingen

Tel: 052-647 30 30      Fax: 052-647 30 50

General mails to all  
Whole team

[team@comtac.ch](mailto:team@comtac.ch)

Project management, Hard- und Software  
Stefan Zimmermann

[stefan.zimmermann@comtac.ch](mailto:stefan.zimmermann@comtac.ch)

Project staff SW  
Daniel Koller

[daniel.koller@comtac.ch](mailto:daniel.koller@comtac.ch)

Project staff SW  
Oliver Macher

[oliver.macher@comtac.ch](mailto:oliver.macher@comtac.ch)

Project staff HW  
Céline Mathis

[celine.mathis@bettschen.ch](mailto:celine.mathis@bettschen.ch)