



# linea m eco

## Operation Manual

**Dear customer,**

Thank you for choosing our product.

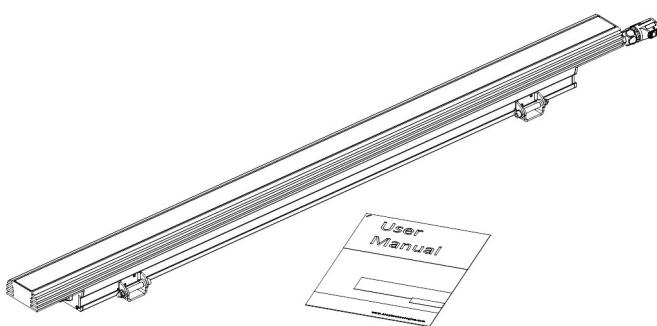
Please read this user manual carefully before using the product. This manual is part of the product and should be kept in a safe place for future reference. If you pass the product on to third parties, please also pass on this operation manual.

### Safety Instructions

## SCOPE OF DELIVERY

### 1x Bion Technologies linea m, as specified

(Note: The actual specification may differ from the image shown on the right.)



### 2x Mounting components, as specified

(Note: The actual specification may differ from the image shown on the right.)

### 1x User manual

If you notice any transport damage or discrepancies between the specified delivery contents and the packaging contents, please notify your point of sale immediately.

## INSTALLATION

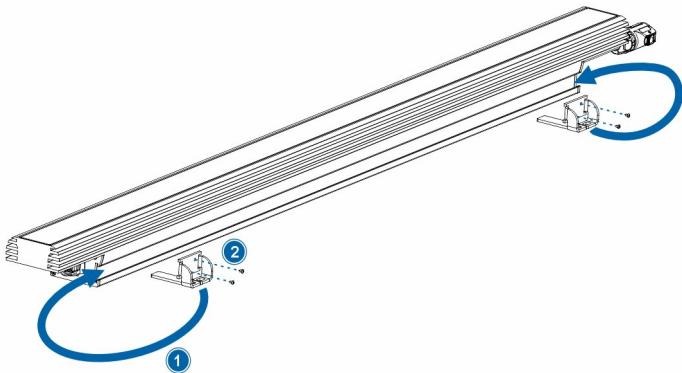
1

Torque Step 2: 2 Nm

Mount the luminaires exclusively using the optionally available accessories.

**IMPORTANT:**

Fastening screws used in façade installations must additionally be secured with a chemical thread locker.

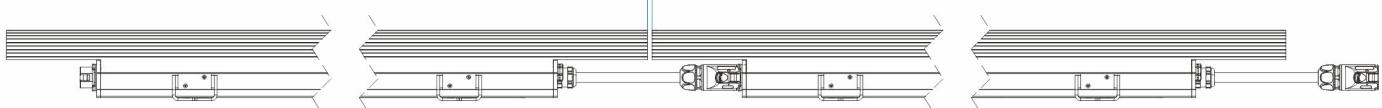


2

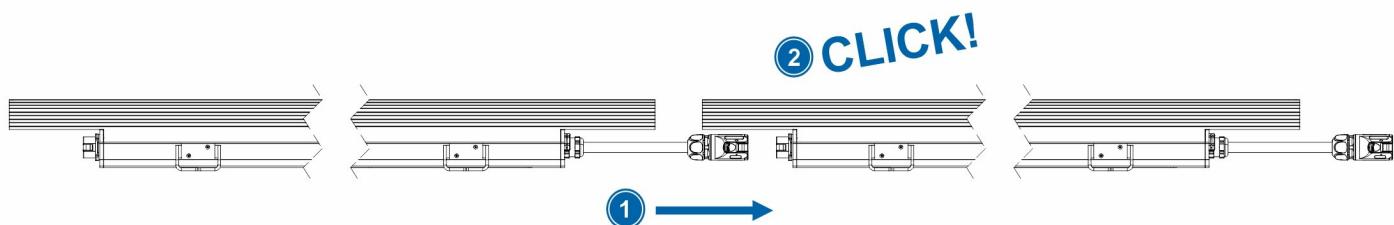
Minimum spacing of luminaires in linear installation

[0.20]  
5

! Minimum spacing requirement between fixtures: 5 mm / 0.2 in  
Erforderlicher Mindestabstand zwischen Leuchten: 5 mm / 0,2 in

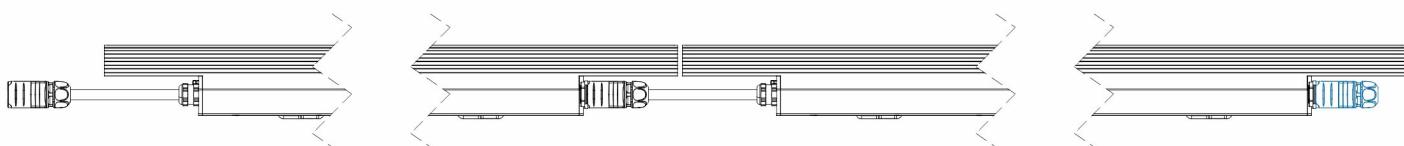


### 3 Checking the connection between the luminaires



The connection between the luminaires is correctly sealed if a clearly audible "click" sound is heard when the connector and socket are plugged together.

### 4 Mounting end plug / Ingress protection IP66



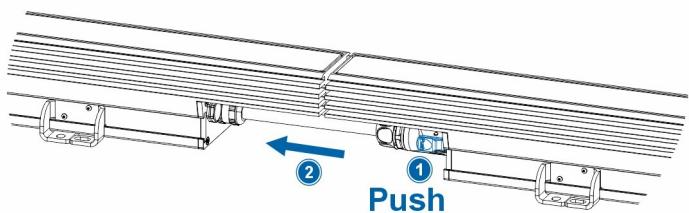
Only with a plugged-in end connector from the linea m leader cable set, protection class IP66 is achieved.

Nur mit gestecktem Endstecker aus dem linea m Anschluss-Set wird die Schutzart IP66 erreicht.

The end cap on the socket only achieves IP44 protection. The end cap can be carefully separated from the luminaire with a side cutter after mounting.

### 5 Disconnecting the mating connection

First press the silver release button, then pull the plug out of the socket.



## COMMISSIONING

## TECHNICAL DATA

## Electrical data

Integrated interface(s) / control: DALI, DMX, IoT

100 - 240, 277 VAC (50 - 60 Hz) | 127 - 431 VDC

Internal power supply

Power Consumption

629 mm | 24.77 in → 26 W

934 mm | 36.78 in → 39 W

1239 mm | 48.78 in → 42 W

Protection class

I

Inrush @ 230 V

629 mm / 24.76 in → 50 A

 (Coldstart,  $t_{width} = 210 \mu s$  measured at 50%  $I_{peak}$ )

934 mm / 36.77 in → 55 A

 (Coldstart,  $t_{width} = 270 \mu s$  measured at 50%  $I_{peak}$ )

1239 mm / 48.78 in → 55 A

 (Coldstart,  $t_{width} = 270 \mu s$  measured at 50%  $I_{peak}$ )

Power factor correction @ 230 V

629 mm / 24.76 in → 0.95

934 mm / 36.77 in → 0.95

1239 mm / 48.78 in → 0.95

Designed and Developed in Bavaria.

Made in Germany.

## WIRING DMX / DALI / 0-10V

## Power + Data:

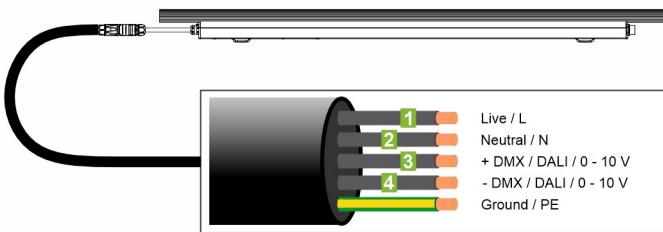
1 =&gt; Live / L

2 =&gt; Neutral / N

3 =&gt; DMX + / DALI + / 0 - 10 V +

4 =&gt; DMX - / DALI - / 0 - 10 V -

Ground / PE



## WIRING IOT / NDIM

## Power:

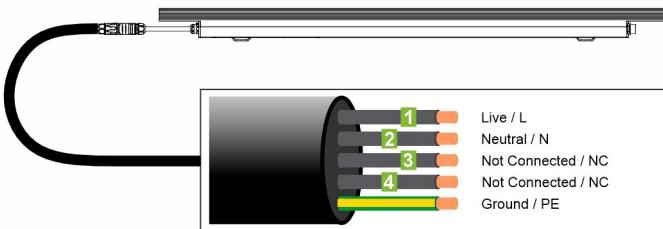
1 =&gt; Live / L

2 =&gt; Neutral / N

3 =&gt; Not Connected / NC

4 =&gt; Not Connected / NC

Ground / PE



## OPERATION

### INFO

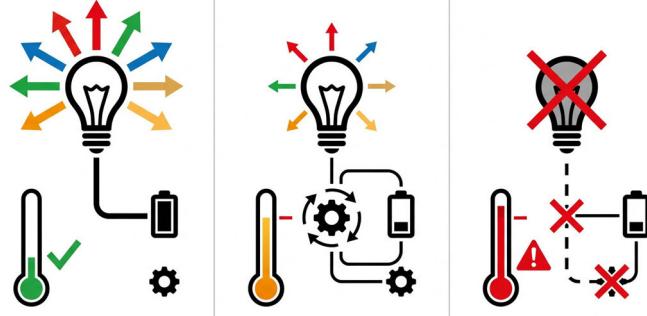
#### Temperature Management

BION Technologies linea m generation 3 luminaires are equipped with an active thermal management system that protects the luminaire from overheating. Integrated sensors continuously monitor the operating condition and automatically adjust the light output as required. Power adjustments are distributed proportionally across all channels by an internal algorithm to maintain the desired light color for as long as possible.

If the power reduction is no longer sufficient to prevent permanent thermal damage, the luminaire will switch off automatically.

**IMPORTANT:**

The shutdown occurs only when the admissible ambient or surface temperature during operation is exceeded.



### DMX / RDM

#### DMX - Modes of operation and DMX-Footprints

Product Name	Modes + DMX Footprints		Resolution	DMX
	Modes			
linea m eco - pureWhite	per Fixture		8bit	1
linea m eco - pureColor	per Fixture		16bit	2
linea m hp - pureWhite	per Fixture			
linea m hp - pureColor	per Fixture			
linea m hpc - pureWhite	per Fixture			
linea m hpc - pureColor	per Fixture			
linea m eco - tunableWhite	per Fixture		8bit	2
linea m hp - tunableWhite	per Fixture		16bit	4
linea m hpc - tunableWhite	per Fixture			
linea m eco - Color Changing	per Fixture		8bit	4
linea m hp - Color Changing	per Fixture		16bit	8
linea m hpc - Color Changing	per Fixture			
linea m hpc - pureWhite	per Length Unit		8bit	1
linea m hpc - pureColor	per Length Unit		16bit	2
linea m hpc - tunableWhite	per Length Unit		8bit	2
linea m hpc - tunableWhite	per Length Unit		16bit	4
linea m hpc - Color Changing	per Length Unit		8bit	4
linea m hpc - Color Changing	per Length Unit		16bit	8

### DMX / RDM

#### RDM - Remote Device Management Protocol

BION Technologies luminaires integrate seamlessly with DMX512 networks, utilizing the RDM (Remote Device Management) protocol defined by ANSI E1.20.

The RDM protocol enables effortless discovery, configuration, monitoring, and management of your luminaires, ensuring precision and efficiency in any setup. RDM elevates lighting control by providing real-time fixture monitoring, customizable settings adjustments, and fast fault diagnosis. BION luminaires support a comprehensive range of RDM Parameter IDs, allowing users to fully harness the potential of their systems.

The following parameters can be read and set via RDM.

Parameter IDs	GET	SET
DISC_UNIQUE_BRANCH	<input checked="" type="checkbox"/>	

Parameter IDs	GET	SET
DISC_MUTE	<input checked="" type="checkbox"/>	
DISC_UN_MUTE	<input checked="" type="checkbox"/>	
SUPPORTED_PARAMETERS	<input checked="" type="checkbox"/>	
DEVICE_INFO	<input checked="" type="checkbox"/>	
DEVICE_MODEL_DESCRIPTION	<input checked="" type="checkbox"/>	
MANUFACTURER_LABEL	<input checked="" type="checkbox"/>	
DEVICE_LABEL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SOFTWARE_VERSION_LABEL	<input checked="" type="checkbox"/>	
DMX_PERSONALITY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DMX_PERSONALITY_DESCRIPTION	<input checked="" type="checkbox"/>	
DMX_START_ADDRESS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SENSOR_DEFINITION	<input checked="" type="checkbox"/>	
SENSOR_VALUE	<input checked="" type="checkbox"/>	
DEVICE_HOURS	<input checked="" type="checkbox"/>	
DEVICE_POWER_CYCLES	<input checked="" type="checkbox"/>	

## GENERAL

### MAINTENANCE

Clean the device regularly to remove dirt and residue.  
 Use solvent-free cleaning agents only, and do not use aggressive chemicals or high-pressure cleaners.  
 Operate the device only after it has completely dried.



### APPROBATION(S):

CE, ETL, FCC

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This Class A digital apparatus complies with Canadian ICES-003.  
 Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

## MANUFACTURER

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