

# LUMINO

## alphaHELIX

### INSTALLATION MANUAL

READ BEFORE INSTALLATION AND READ  
ADDITIONAL REFERENCED DOCUMENTS

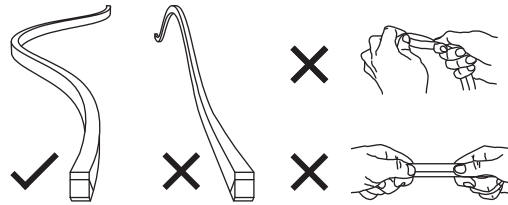


IMHXA1-R1903



## ! HANDLING PRECAUTIONS

The product (alphaHELIX) will be damaged if the following precautions are not fully observed during all stages of handling, installation and use.



### BEND AXIS

The product is flexible in one axis only (side-bend). Bending in the top axis or twisting may cause damage. Gentle twists up to a maximum of 45° per metre are acceptable. If in any doubt contact LUMINO for advice prior to installation.



### BEND RADIUS

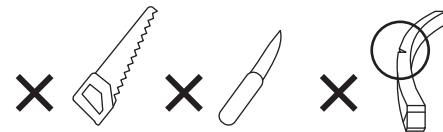
The product can be bent to a minimum diameter of 100mm. Over-bending may cause damage. Support the product during installation (two people recommended) to avoid it overbending under its own weight. Do not power on the product while coiled up or while wound onto a reel.

### STRESS FORCES

The product must not be stressed by pulling, stretching or compressing. Never stand or place weighted items on the product. The product is not vandal resistant and has no IK rating. Do not subject the product to impact forces.

### POWER CABLES

The product end caps and power cables must not be pulled or twisted. Never pull the product by its power cables or hang it from its power cables or end caps.

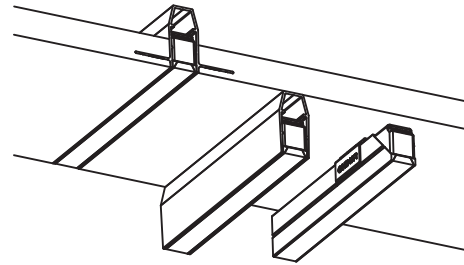


### CUTS & TEARS

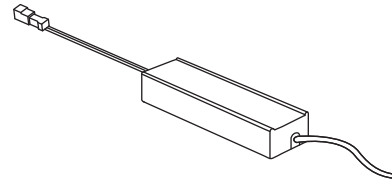
The product must not be cut, sawn or torn in any way. Even small cuts or tears in the silicone rubber can become larger if stressed and result in a failure of the IP rating. If you see any such damage upon unpacking or during installation report this to LUMINO immediately and do not install the product.

## 🔧 INSTALLATION INSTRUCTIONS

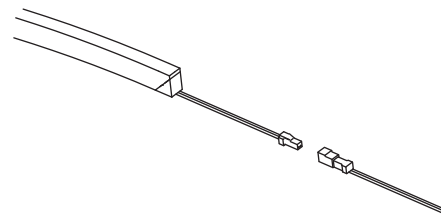
**1** Fix mounting clips or mounting channel in position.  
*See separate alphaHELIX Accessories Installation Manual.*



**2** Install LUMINO or equivalent Driver. Only use maximum output 24VDC SELV power unit for class 3 luminaire.  
*See separate Driver Installation Manual.*



**3** Run 24VDC power cables from driver to a suitable position for connection to alphaHELIX.



**4** Push-fit alphaHELIX carefully into mounting clips or channel. Take care not to cut the silicone rubber alphaHELIX profile on the clips or mounting channel edges. Do not pull or push the alphaHELIX to reposition, remove it and carefully replace.

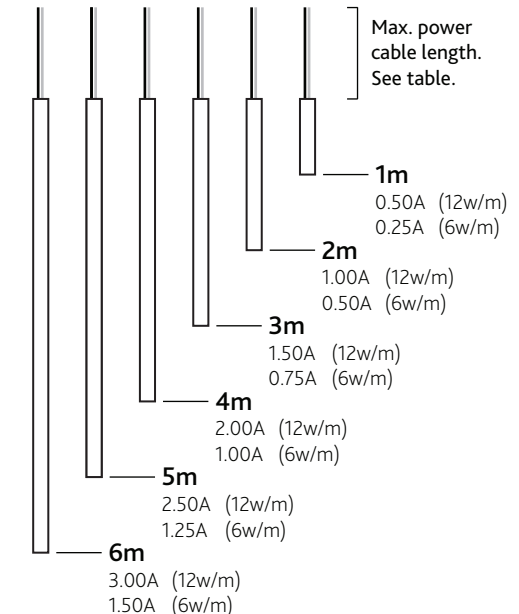
## ⚡ POWER CABLE LENGTH GUIDE

Maximum power cable lengths (from driver to the product) are shown in the table below. Choose the maximum length according to cable gauge and product current. Installers must ensure voltage drop does not exceed 5%.

Cable lengths are based on average resistance for typical copper cables. Cable characteristics may vary according to manufacturer, temperature, copper purity, connections etc.

Installers must ensure EMI emissions do not exceed local regulated limits. Shielded cables and ferrite coils can be used where applicable. Standard alphaHELIX connector cables are 0.34mm<sup>2</sup> (22AWG).

CURRENT AMPS	CABLE GAUGE MM <sup>2</sup>		
	0.34 <sup>22AWG</sup>	0.75 <sup>18AWG</sup>	1.50 <sup>16AWG</sup>
0.25	32m	50m	50m
0.50	16m	50m	50m
0.75	10m	50m	50m
1.00	8m	50m	50m
1.25	6m	42m	50m
1.50	5m	36m	50m
2.00	3m	27m	41m
2.50	2m	20m	33m
3.00	1m	16m	28m



## GUIDANCE

In addition to the guidance below, alphaHELIX Handling Precautions (right) must be carefully followed to avoid product damage.

Failure to observe all installation guidance shown in this document may result in an unsafe installation, cause permanent product damage and void the product warranty.

Installation work must be carried out by a qualified electrician and conducted in accordance with local regulations. Luminaire and driver must not be live wired; always switch off power before work begins.

Use 24VDC driver with overload and short-circuit protection. Constant voltage LED drivers can have high inrush current at power-on. Driver inrush current can be many times the normal operating current. Use a suitable MCB. Type C MCBs are normally suitable but if inrush current is a persistent problem an inrush suppressor may be required.

Do not overload the driver. Damage will be caused by incorrect input voltage, reverse polarity or short circuit. Plan for loads, driver locations, dimming and cabling prior to start of installation work. Shielded cables recommended for dimming control wiring.

Ensure ambient air temperature (Ta) does not exceed 45°C and case temperature (Tc) does not exceed 80°C. Ensure supply voltage does not exceed 24VDC. Ensure suitable access to drivers and luminaires and allow sufficient clear air space for ventilation.

Driver protection circuitry must not be relied upon to protect secondary 24VDC electrical circuits from damage caused by overcurrent or short circuit. DC fuses or DC electronic circuit breakers are recommended to provide additional protection.

Protect luminaire from submersion, dust, paint, solvents and harmful substances during installation and use. Ensure the luminaire is not exposed to VOC volatile organic compounds.

The light source of this luminaire is not replaceable; in case the light source needs to be replaced, the whole luminaire shall be replaced.

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