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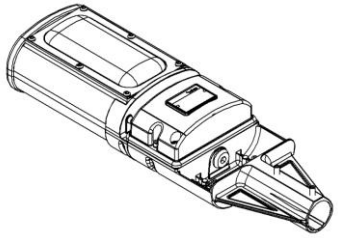
SPI WARRIOR

Conveyor Range - Installation Guide

This installation guide provides instructions for installing WARRIOR series of industrial Conveyor luminaires.

Text in italics is specific for emergency variants.

Overview



1 Safety Instructions

2 Installation

3 Maintenance

4 Technical Specification

Important information

The WARRIOR series of industrial luminaires are specialist devices, for use in specific operating environments.

The units must be installed in accordance with these instructions and must be installed by suitably qualified personnel.

If you have any queries about the installation or the certification of the unit - please contact Raytec for immediate assistance and advice.

0480-D-00002 Rev 1

1. Safety instructions

1. Read this leaflet carefully before commencing to install the WARRIOR unit and retain it for future use. Installation can only be carried out by suitably qualified personnel.

2. Check the certification to ensure that the, mains supply and ambient temperature present is suitable for the environment the unit is being installed in.

3. Externally the WARRIOR unit housing is constructed from marine grade aluminium and polycarbonate outer optic, stainless steel brackets/fasteners and silicone gaskets, internally there are many non metallic components. The end user must ensure that these materials are suitable for the environment the WARRIOR unit will be installed in.

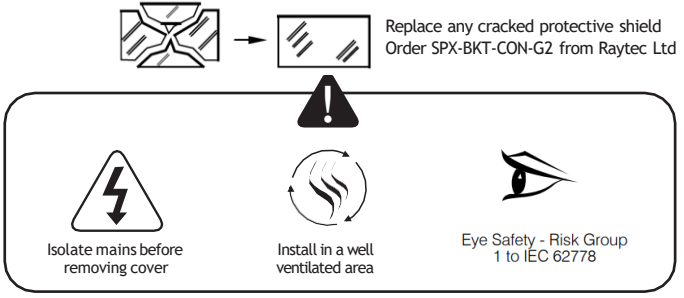
4. Plastic components may be cleaned with water containing a small amount of detergent, followed by a clean water wash. Chemicals/ oils that come into contact with plastic parts may cause stress cracking and premature component failure.

5. Check certification label on cover of luminaire to ascertain type of threaded cable entry on the luminaire. Select suitably certified cable glands and stopper plugs, these must be parallel thread, have a minimum of 5 full thread engagement and be of a medium/fine tolerance to ISO965-1 and ISO965-3. The cable entry devices selected must maintain the IP rating of the luminaire

6. The incoming mains cable should not exceed a temperature rise of 27°C above the ambient conditions; select suitable cable.

7. When the unit is installed correctly and in accordance with these installation instructions it will not harm humans or animals.

8. The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.



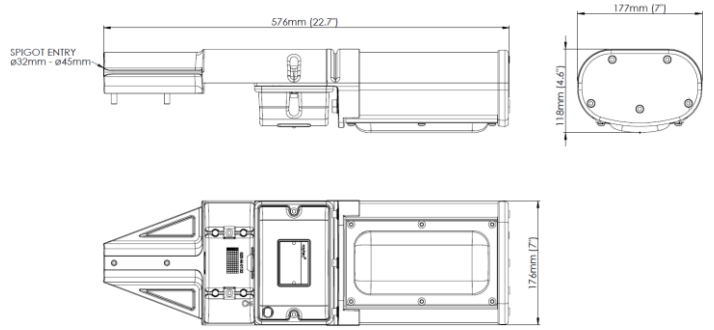
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2. Installation

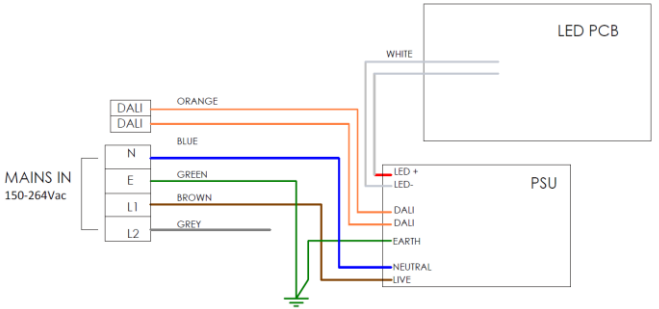
Mounting WARRIOR Unit

1. To meet the requirements of certification a **MINIMUM** of 2 fixing points must be used, the fixing points must be suitable for the conditions of use.
2. The product is provided with a pole mount system and 2xM8 A4 SS Grub Screws for mounting onto 32-45mm diameter poles. Once mounted tighten grub screws to 17Nm.

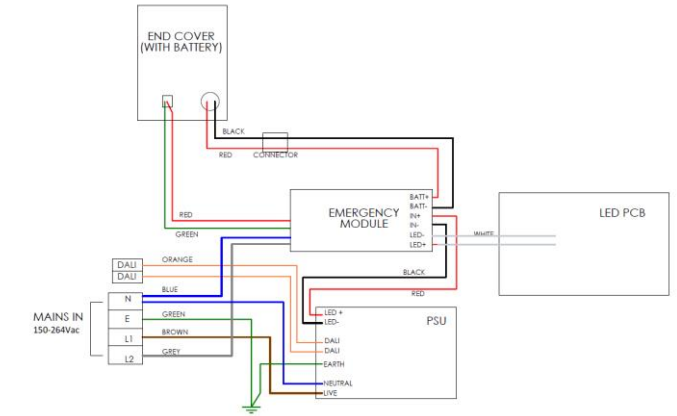
Dimensional Diagrams



Wiring Diagram – Standard Version



Wiring Diagram – Emergency Version



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4. Open the terminal block enclosure. Wire the Mains cable into the terminal block. Provision has been made for this and identified as the E (Earth), L1 (Live switched), L2 (Live permanent) and N (Neutral) terminals. The L2 terminals on a standard unit is not electrically connected but allows them to be used on the same circuits as *emergency luminaires.*

5. Installer may also earth the unit separately – an internal and external earth point are provided as standard.

6. Connect wires to mains supply.

7. If the unit is opened for any reason, disconnect mains – *On emergency luminaires there may be more than one mains supply*

8. All WARRIOR luminaires have terminal blocks suitable for looping at least 4mm2 cable, only one cable should be connected to each terminal block connection

9. *The battery connector is located in the compartment that contains the battery, the battery is disconnected after final manufacturing testing. When installing the Conveyor the battery will need to be reconnected*

10. *If a 4 core cable is used on emergency luminaires – L1, L2, N and E the link cable at the front of the terminal block between L1 and L2 should be removed*

11. To use DALI Dimming Interface connect DALI to the 2 way terminal block provided. Terminals are polarity free

12. Once wiring is complete replace terminal enclosure covers. Ensure gasket is located neatly in channel and no wires are trapped between cover and body. Tighten screws to 3Nm.

WARRIOR Intelligent Emergency Operation Guide

The Emergency version is equipped with a self-test functionality according IEC62034.

- *28 days after power-up the driver will perform a functional test of 30 seconds.*
- *Every 6th test (after half a year) will be a duration test. This test will run until the battery is fully discharged and the driver will verify if the capacity of the battery is sufficient to provide 3hrs emergency time.*
- *A duration test will only be performed if the battery is fully charged AND when the external lamp driver is off for 2 hrs. I.e.: in an office, the duration test will generally take place in the nightly hours. A 24/7 lighting situation will be detected as such if the lighting has been on for at least 72 hrs. In that case the duration test will be performed once its timer has elapsed.*
- *Generally, in case of a failure, an error will be indicated by the LED status indicator. See below for details.*

LED status indicator

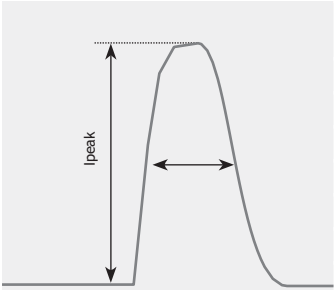
LED indicator *(color / flashing)*	***Error condition***	***Cause***	***Solution***
Green / no flashing		*System OK, battery fully charged*	
Off		*Mains off, EM mode, Rest mode, test in progress*	
Green / slow (0.25s on, 1.25s off)		*System OK, battery is charging*	
Green / fast (0.25s on, 0.25s off)		*System OK, recently tested (< 5 days, Australia mode only)*	
Red / no flashing	*Battery voltage too high or too low*	*No battery connected*	*Connect battery*
		Wrong or bad battery connected	*Replace battery*
		Battery pack replaced with different type	*Reset the driver (see p.23)*
Red / fast (0.25s on, 0.25s off)	*Output voltage too low or too high*	*Wrong LED load connected*	*Connect right load and perform functional test*
	No load connected or output shorted	*Wrong connection*	*Connect right load and perform functional test*
Red / slow (0.25s on, 1.25s off)	*Failed test due to battery*	*Battery end of life*	*Replace battery and perform duration test.*
		Charger failure	*Replace driver*
Red-green / fast *Fast flashing: (on-time = 0.25s, off-time = 0.25s)* *Slow flashing: (on-time = 0.25s, off-time = 1.25s)*		*DALI device identification*	
Green / short *on-time = 50ms, off-time = 0.95s)*		*Battery detection*	

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4. Technical Specification

Input Voltage	150-264V AC
Input Current (230Vac, full load)	0.13A
Consumption	31W STD / 34W EM
Power Factor (230Vac, fullload)	>0.92
Mains Frequency	50/60Hz
Inrush Current (I_{peak} @50%)	20A, Δt < 300µs
Total Harmonic Distortion (230Vac, full load)	<10%
IP Rating	IP66/67
Weight (std)	4.5Kg Std, 5.5kg EM
Dimensions	See previous pages for line diagrams
Ambient Range	-40°C to +55°C -20°C to +50°C (EM versions)

Inrush Current Typical Curve



Max number of fittings allowed per MCB
(Based on 230V)

MCB Type	Rating	
B	10A	18
B	16A	30
B	20A	37
B	32A	60
C	10A	30
C	16A	50
C	20A	60
C	25A	78



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