



PRODUCT SPECIFICATION

PROTEC HIGH OUTPUT



INTRODUCTION

The Protec High Output has been developed with an entirely new heat sink and lens optic allowing for improved distribution of light and allowing us to offer outputs up to 6000 lumen, it is especially well suited to high level applications such as atriums, airport terminals and retail applications where high lux levels are required.

Available in 4000, 5000 and 6000 lumen outputs, the Protec LED High Output is an effective replacement for 70w HID sources and is available in a wide range of dimming and emergency variants as well as three different beam angles, 30 degree, 60 degree and 90 degree. This range is also compatible with a wide range of attachments with different coloured bezels, specular and semi specular attachments, and coloured ring inserts allowing this range to be colour matched to suit a particular theme or corporate brand.

We offer a range of wireless control systems providing localised grouping and control as well as comprehensive wireless solutions allowing both standard and emergency luminaires to be centrally monitored. Dimming variants, integral lithium emergency and a wide range of infill rings are available on request for retrofit applications to ensure suitability for existing ceiling cut outs.



CE IP20 IP44 IP65 TM21: L90>60K HOURS / L80>90K HOURS 3 STEP MACADAM ELLIPSE

APPLICATION

- › Hotel / Leisure
 - › Retail
 - › Transport
-

SPECIFICATION

CONSTRUCTION

- › Housing: Injection moulded ABS
- › Finish: White, grey or black bezels
- › Lens: Injection moulded PMMA lens
- › Reflector: Specular aluminium
- › Reflector: Semi specular aluminium
- › IP20
- › IP44
- › IP65

PERFORMANCE

- › Part L2 compliant
- › 3SCDM Three step Macadams ellipse
- › TM21: L90>60K Hours / L80>90K Hours
- › Up to 144 luminaire lumens per circuit Watt.

ENVIRONMENTAL

- › Designed to allow simple replacement of components with commonly available tools in compliance with the Eco Design Directive, please see the installation leaflet for maintenance instructions.
- › Powered by European branded drivers and emergency modules ensuring replacement parts are easily sourced.
- › Every luminaire is labelled with a unique ID number allowing easy identification of spare parts for the lifetime of the product.
- › Contains no single use plastics or polystyrene packaging.
- › Supplied in plain card boxes with paper tape ensuring packaging is easily recycled.
- › Designed to allow simple disassembly for end of life recycling.
- › UK based manufacturing providing local support throughout the product lifetime and minimising transportation miles.

EMERGENCY

- › Available with optional standard, self test and autotest integral emergency with lithium batteries for extended warranty and lifetime.
- › Optional Reacta-Link wireless emergency for automated centralised reporting.

- Optional Reacta-Control wireless emergency for automated centralised reporting.
- Optional central battery changeover relay

CONTROL

- Optional compatibility with a range of dimming systems including DALI, DSI and Switch Dimming
- Optional integral Reacta-Link for integration with Reacta-Link wireless installations
- Optional integral Reacta-Control for integration with Reacta-Control wireless installations

INSTALLATION

- Suitable for plasterboard installation
- Suitable for mineral fibre ceiling tile installation

VARIATIONS

- Available with a wide range of colour temperatures and renderings
- Available in a range of lumen outputs

IMAGES

PRODUCT IMAGES



Protec High Output



Protec High Output Blue Ring



Protec High Output Green Ring



Protec High Output Clear Ring



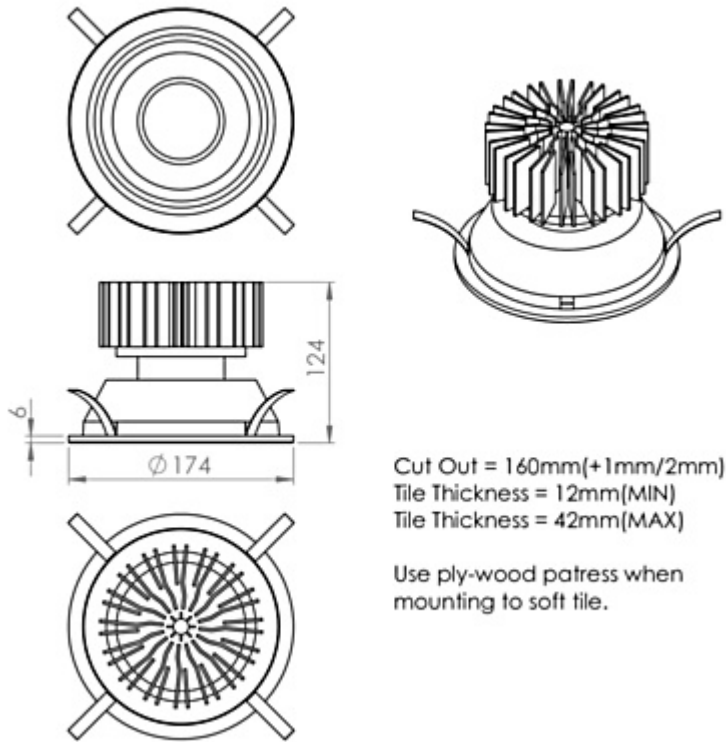
Protec High Output Orange Ring

PROJECT IMAGES



TECHNICAL





Protec High Output

WARRANTY

At Dextra our commitment to service has been at the forefront throughout our history spanning more than forty years in the UK lighting market. Our service ethos extends beyond design and delivery, we believe supporting your installation throughout the warranty period is equally crucial, whilst the strength and longevity of Dextra Group provides peace of mind that our warranty will be supported throughout.

The Dextra range is supplied with a five year warranty commencing from the date of delivery. During the first three years defects will be repaired on site and the warranty will include both parts and labour. For the final two years drivers, emergency modules, wireless modules, sensors and LED circuits will be supplied free of charge to replace defective components, labour and other associated costs are not included.

Certain ranges and components are subject to exemptions:

- Lithium batteries are provided with a five year warranty. During the first three years defects will be repaired on site and the warranty will include both parts and labour. For the final two years replacement batteries will be supplied free of charge to replace defective components. Five year warranty became effective as of 03/02/25, Lithium emergency luminaires supplied prior to this date are supported with a three year on site warranty only. Labour and other associated costs are not included. Nickel Metal Hydride and Nickel Cadmium batteries are provided with a one year warranty for parts and labour.

- Emergency luminaires including AME LED, EXI LED, EXI2 LED, EXI Track, HBE LED, HBE2 LED, OAT2 LED, OEZ LED and Twinspot with Nickel Metal Hydride batteries are supplied with a one year warranty for parts and labour. Lithium variants of these ranges are supplied with a three year warranty for parts and labour with the exception of the AME2, EXI3, HBE3 and TWS IP65 L7 ranges which are supplied with a one year parts and labour warranty. TWS IP65 L7 in autotest and wireless variants are supplied with the standard three year lithium battery warranty.
- Protec Micro, PTECF7 Fire Rated Downlights, Serenus and the Opus Sconce are provided with a five year replacement luminaire only warranty. Protec FR Fire Rated Downlights are provided with a 2 year replacement luminaire only warranty.
- Controls systems such as standalone sensors, switches, marshalling boxes and cabling are provided with a one year warranty for both parts and labour. DALI control systems are provided with a two year warranty for both parts and labour.
- LEDextra ranges are supplied with a three year parts or replacement luminaire only warranty with the exception of the IMPR RGBW, the Runway RGBW, the MOD RGBW, Tanek RGBW and the DexRing. These five ranges are supplied with our standard five year warranty during which defects within the first three years will be repaired on site and the warranty includes both parts and labour. For the final two years free of charge replacement components only will be supplied to rectify any failures but labour and other associated costs are not included.
- LEDEX ranges are supplied with a three year replacement luminaire only warranty.
- The Decorative Pendant ranges, Bebo, Dene, Nova, Fino and Stix are supplied with a 3 year replacement luminaire only warranty.

All warranties are subject to correct use of the product and will be invalidated by misuse, for example incorrect installation, unsuitable environmental conditions or incorrect maintenance. It is the duty of the customer to ensure that all the fault lies with the luminaire prior to requesting replacement parts or site repairs. In the event that no defect is found with the product our costs for attending site will be recharged to the customer and credit will not be issued against returned products. No consequential losses incurred resulting from any defect with our product will be reimbursed.

Given the nature of LED technology a small percentage of LEDs may fail during the lifetime of a luminaire, this does not cause a reduction in lumen output. As such LED luminaires are only deemed to be faulty for warranty purposes when in excess of ten percent of LEDs have failed in a single luminaire.

On site repair of products under warranty will be undertaken during normal working hours, 9am to 5pm Monday to Friday, and will require unrestricted access to luminaires. Where required Dextra will provide access equipment to carry out repairs at height, should luminaires have been installed in locations where reasonable provision for maintenance access has not been made we reserve the right to supply replacement product only. On site warranty repairs will only be undertaken on the mainland of the UK and Ireland, in all other locations replacement product only will be provided.

If you require any assistance with regards to our products please contact our Customer Services department on 01747 858100.

ORDER CODES

LUMINAIRE

Code	Description	Power
PTECDHO L40	Protec High Output, 4,000lm, Fixed Output, Colour 84	23.2W
PTECDHO L50	Protec High Output, 5,000lm, Fixed Output, Colour 84	39.7W
PTECDHO L60	Protec High Output, 6,000lm, Fixed Output, Colour 84	36.4W

Must be sold in conjunction with reflector listed below.

Protec Reflectors

Code	Description
PTECD R *	Specular Reflector, Without Halo
PTECD R * WHI	Specular Reflector, White Halo
PTECD R * GRE	Specular Reflector, Green Halo
PTECD R * BLE	Specular Reflector, Blue Halo
PTECD R * ORA	Specular Reflector, Mango Halo
PTECD SSR *	Semi-Specular Reflector, Without Halo
PTECD SSR * WHI	Semi-Specular Reflector, White Halo
PTECD SSR * GRE	Semi-Specular Reflector, Green Halo
PTECD SSR * BLE	Semi-Specular Reflector, Blue Halo
PTECD SSR * ORA	Semi-Specular Reflector, Mango Halo

Add suffix above in place of * depending on bezel colour required

Bezel Colours

Code	Description
WH	White Bezel
GY	Grey Bezel
BL	Black Bezel

OPTIC

Code	Description
30	30° Lens
60	60° Lens
90	90° Lens

DIMMING

Code	Description
A	DALI Digital Addressable Lighting Interface
S	Switch Dimming
D	DSI Digital Dimming
C	Bi-Level Dimming For Standalone Switched Sensor

CONTROL

Code	Description
RLI	Reacta-Link, Wireless Enabled Luminaire
RC	Reacta-Control, Wireless Enabled Luminaire
RCSS	Reacta-Control Standalone Sensor, Presence & Daylight 2.5-4M, Use with RC Luminaires
RLS REMOTE SENSOR	Reacta-Link Standalone Sensor, Presence, 2.5-4M, Use with RLI Luminaires (sold separately)
RAD	Reacta-Air, Wireless Enabled Luminaire

RASS	Reacta-Air Standalone Sensor, Presence, 2.5-4M, Use with RAD Luminaires (sold separately)
RASSD	Reacta-Air Standalone Sensor, Presence & Daylight, 2.5-4M, Use with RAD Luminaires (sold separately)

Please click [here](#) for full details on our wireless controls.

EMERGENCY

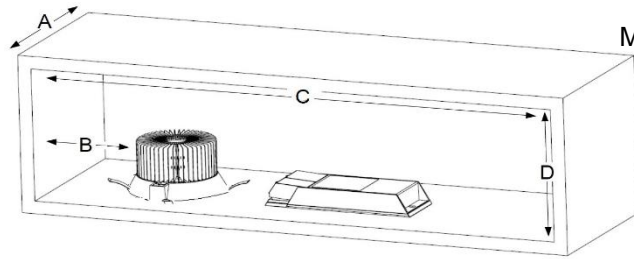
Code	Description
LE3	Lithium Standard Emergency 3 Hour
LS3	Lithium Selftest Emergency 3 Hour
LA3	Lithium Autotest Emergency 3 Hour
LSTR	Lithium Reacta-Link Emergency 3 Hour
LA3RC	Lithium Reacta-Control Emergency 3 Hour
CB	Central Battery, Please Specify 50V, 110V or 230V when Ordering

MISCELLANEOUS

Code	Description
C**	Select Colour Temperature and Rendering: C83, C84, C93, C94
4PM	4 Pole Panel Mount
6PM	6 Pole Panel Mount
INFILL	Infill Rings to Suit Over Size Ceiling Cut Out, Please Specify Size when Ordering.
LSF	Low Smoke Zero Halogen

Infill rings available on request for retrofit applications to ensure suitability for existing ceiling cut outs.

RECESSED L.E.D DOWNLIGHT LUMINAIRE INSTALLATION INSTRUCTIONS

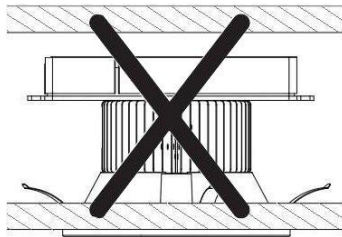


Minimum Void Dimensions (mm)

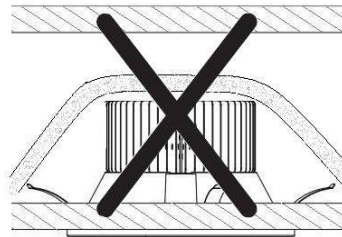
- A = 260 (min)
- B = 100 (min)
- C = 800 (min)
- D = 210 (min)



Ambient Temperature in the ceiling void= Min -20°C Max +35°C



DO NOT Mount Driver on top of Heat sink



DO NOT Cover Heat sink

1 Hole Aperture 160mm (Dia)

Use 3mm ply-wood patress when mounting to soft tiles

Ceiling Depth
3mm Min
30mm Max

2

3

4

Hole Aperture 160mm (Dia)

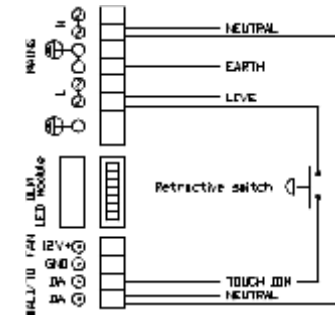
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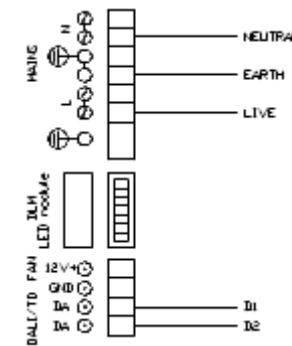
Emergency LED

- Voltage - 230 / 240V 50Hz AC
- Not for use in hazardous areas
- Internal use only
- This luminaire should not be used in areas requiring ingress protection of greater than IP20
- If the maximum operating temperature is exceeded the luminaire will moderate its output accordingly and could result in a cycling effect.
- This luminaire is only suitable for domestic, light industrial and industrial environments which are within the scope of EN55015.
- There are no user serviceable parts other than the battery (for emergency versions). No lamp changes are required with LED products.

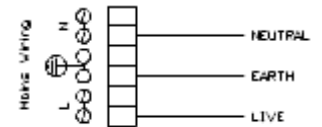
TOUCH DIM WIRING



DALI WIRING



HF WIRING



IF THE FITTING IS MAINTAINED EMERGENCY:

IMPORTANT: When the mains supply is isolated, the output terminals can still be live if the battery is connected. Both mains and batteries must be isolated before servicing.

1. This luminaire is supplied converted for 3 hour maintained emergency operation.
2. Fitting should be installed in the usual way as detailed on the installation instruction leaflet supplied.
3. A secondary unswitched live connection (L2) should be fed to the inline within the fitting to supply a monitor live and for the battery charging circuit. The unswitched supply must be taken from the same phase as the switched luminaire supply.
4. Once installed the unit integral/remote must be commissioned. The battery cells must be connected to the emergency module (left disconnected in packing to avoid possible high voltages at lamp holders) this is done by a plug and socket arrangement.
5. After connecting the unswitched mains supply, the green LED indicator illuminates to indicate the batteries charging. Upon disconnection of this supply the indicator will extinguish and the emergency tube will light.
6. A period of 24 hours should be allowed before a full discharge test is carried out to ensure the battery is fully charged.
7. Batteries should be replaced once the rated duration can no longer be met. The test record card should be completed at specified intervals to indicate that the full 3 hour duration is still being obtained
8. A maintenance sheet showing testing intervals and durations is included and should be filled in by the installation engineer on completion and issued to the customers maintenance department.

WARNING – THIS LUMINAIRE MUST BE EARTHED IF EARTH TERMINAL IS PROVIDED (some Low Voltage fittings do not require an earth).

This luminaire has been tested and is manufactured to comply with BS EN 60598 specification for general requirements and tests. It should be installed by a suitably qualified person in accordance with I.E.E regulations and relevant legislation.

Generic Infill Ring Installation Guide

220-240V / 50-60Hz
IP**



Terminal Labelling:	
Power	
L1	Switched Live
E	Earth
N	Neutral
Emergency	
L2	Unswitched Live
DA/AT3	DALI Autotest
DA/AT3	DALI Autotest
Dimming	
-D1/DA	Analogue/DSI/DALI
+D2/DA	Analogue/DSI/DALI
L3	Switch Dim / Corridor Function

WARNING: Luminaire must be earthed. Risk of electric shock if operated with cover removed. Installation / operation outside of luminaires intended scope invalidates warranty. Suitable only for domestic / light industrial / industrial applications within the scope of EN55015. Tested to compliance with BSEN 60598: specification for general requirements and tests. Must be installed by a suitably qualified person in accordance with all relevant legislation. Ambient operating temperature of 0°C to 25°C. If maximum operating temperature is exceeded luminaire will automatically dim / switch off. Terminal blocks are rated to 16A unless stated otherwise. The light source is non replaceable. **LUMINAIRES WITH EMERGENCY PACK:** When supply is isolated battery output terminals may be live if battery is connected. Isolate mains and battery before servicing. Emergency luminaires require unswitched live connection taken from same phase as switched supply. When unswitched supply is connected status indicator illuminates green, when unswitched supply is disconnected indicator extinguishes and luminaire operates in emergency mode. 24 hour charge period required before undertaking full discharge test. Emergency test sheets provided should be used to record all emergency tests. Batteries should be replaced when 3 hour duration is not met. Excessive switching of permanent live may result in premature battery failure. Battery electrolyte can be harmful to eyes / open wounds, do not puncture, if electrolyte touches skin / eyes flush with water. Do not incinerate batteries.

1. Attach the circular infill ring to the downlight.

2. [Diagram showing the downlight fixture with the circular infill ring attached to its top surface.]

3. Insert the oval infill ring through the aperture in the ceiling and let it rest on the ceiling. The oval infill ring should be narrow enough to fit through your ceiling aperture.

4. Install the downlight into the oval infill ring as if you were installing directly into the ceiling. Refer to the Product specific installation leaflet.

5. The downlight will need to be centralised in the ceiling aperture to ensure no gaps are visible.

6. [Diagram showing the final installation with the downlight centered in the ceiling aperture.]