

THE LIGHTING SPECIALISTS



Introduction





Since being established in 1982, Orbik Electronics Limited has always been at the forefront of innovation and design of emergency lighting & fire detection equipment and is now one of the largest independent manufacturers of this type of equipment in the world. Based at Aldridge in the West Midlands, our four-acre purpose built facility employs nearly 200 people engaged in the design and manufacture of emergency lighting and fire detection equipment and is registered to and audited by BSI for their ISO9001/2008 quality system.





Throughout our long history, Orbik has been an enthusiastic supporter of improving quality standards within the industry and today has over 300 products approved by BSI, proudly carrying the Kite Mark symbol, indicating our continuing compliance for quality, safety and performance. The company are represented on several leading industry standard institutions and can provide Continuous Professional Development approved seminars on most aspects of emergency lighting and the application standards.





To ensure consistent product quality, and to maintain a competitive advantage, Orbik has invested heavily in automatic assembly processes, allowing us to offer world class standards of service to all customers, which has been instrumental in developing substantial sales growth on every continent.



By identifying and responding to individual customer's specific requirements, Orbik have become the first choice supplier to many leading international lighting companies, electrical contractors, local authorities and consultants for their emergency control gear, emergency luminaires, central battery, static inverter systems and fire detection systems.

Orbik has a policy of constant product improvement and therefore reserve the right to modify specifications without prior notice. All details and specifications shown within this brochure are deemed correct at the time of print.

Information

Mission Statement

At Orbik, we are dedicated to providing our customers with the highest quality products and services.

Through continuous investment in new products, staff development and the latest technology we are committed to offering a professional business solution to a rapidly expanding and demanding market place.



All ORBIK's emergency luminaires are designed to operate in an ambient temperature of 25°C, unless otherwise stated, and are fully compliant with EN60598.2.22 and EN55015. Many of our emergency luminaires and modules are subject to ongoing surveillance testing by BSI and are covered by our Kite Mark licence KM31508 and KM21518.









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Facilities

Exhibition and Training Facilities

Orbik's large training suite accommodates up to 30 delegates for seminars and training sessions for both in-house and client training days. The suite is cleverly linked to the large exhibition and demonstration area where clients can see lighting and fire products, both on display and in working conditions, enabling them to gain a better understanding of our product range. Orbik have the experience and expertise to provide the answer for all your training needs both in the fields of fire, lighting and DDA. We believe that we set the standards, rather than follow the competition, with our accreditations and innovative thinking. We design and build our products at our factory in the West Midlands, and are proud to have been doing this for over 30 years.

Our courses are delivered by experts in their fields and can be designed to to suit your needs.

- · Legislation
- · How to use our products to your best advantage
- Fire alarm design training
- · Emergency lighting training
- Disability design training, covering all our ranges
- Commissioning, system set, testing and fault finding







Partnerships



Working Together to Improve Safety

NICEIC Training is focused on 'energising skills' by providing the training needed to face the challenges of the electrical industry. Our courses are developed by leading industry experts with a wealth of experience which helps ensure our training provides clear, up-to-date and above all relevant guidance. We offer a complete range of training in electrical, renewable, gas, water, oil and health & safety courses.

NICEIC Training has been offering fire alarm and emergency lighting courses for over 8 years. The courses are extremely popular with the contractors and have been delivered by one of our qualified design engineers from ORBIK. This partnership has grown significantly over the last few years and we continue looking to provide a better service to our customers. For a complete range of training courses available, please visit **www.niceic.com**



CPD stands for 'Continuing Personal or Professional Development' and is defined as: 'A commitment to structured skills enhancement and personal or professional competence'.

CPD is needed due to the rapid development in new technologies which has led to radical changes in the design and construction processes in an ever-changing construction industry and build environment. In addition, materials, technologies and systems are constantly improving, often overtaking long established practices, and forms of construction learnt during initial training and, in many areas, these are often overruled by new legislation.

How do I obtain CPD?

- Events lectures, seminars, conference and technical visits
- Courses short residential course, evening courses, degree or diploma courses
- Distance learning CPD packages, correspondence courses, Open University, etc
- Personal study properly directed aims with measurable outcomes (e.g. producing a book or technical article)
- Professional affairs voluntary work for your profession. Reviewing technical books for Building Engineer. Participation in working parties, reports, relevant committee meetings of Professional Bodies
- Personal Development Any activity which is intended to help the member to be a more effective person.

Luminaire Overview





Idro p53 Circular die-cast IP65 luminaire



Kehled p32 LED linear luminaire

COMMERCIAL



Iona p54 Square die-cast IP65 luminaire



Kerriled p56 IP65 circular drum luminaire



Ipstones p30/31 IP65 non-corrosive luminaire



Larino p57 Elegant circular luminaire



Jaro p65 Robust IP65 wall-pack luminaire



Lavaine p58 Classically styled luminaire



Practical bulkhead for interior use



Dyode p44 Unique recessed LED luminaire



Holt p52 Rugged IP65 square luminaire



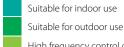
Kandel p55 Circular IP54 luminaire



Layos p33 Recessed modular luminaire

Colour Wheel Key





High frequency control gear as standard Surface mounting

Recessed or recessed version available Suitable for suspension mounting Exit sign or exit version available Mains version available

Emergency version available AC/DC slave version available LED or LED version available Lamps supplied with luminaire



Leah p59 IP65 attractive circular luminaire



Lens p60 Luminaire with a halo back light



Loutra p34 Recessed modular luminaire



Louviers p35 Recessed T5 luminaire



Mead p47 Recessed LED luminaire



Meled p48 Attractive shallow LED downlight



Mezzina p61 IP65 circular utility luminaire



Modra p36 Surface mounted twin luminaire



Monclair p37 Surface mounted twin luminaire



Multia p49 Stylish range of downlights



Napoli p17 Slim polycarbonate exit sign



Neath p38 Attractive T5 or LED luminaire



Norton p62 IP54 cast aluminium bollard



Odet p66 Emergency floodlighting unit





Olten p67 High bay with prismatic refractor



Orbe p39 Attractive shallow LED downlight



Pescara p18 Single or double-sided exit sign



Pescara-G p19



Petina p20



Exit sign with 80m viewing distance Ultra-slim LED exit sign



Pico p21 Low profile single-sided exit box



Retz p22 Decorative curved exit sign



Romney p23 Versatile LED exit sign



Rota p24 Wall/ceiling mounting LED exit sign



Savona p25



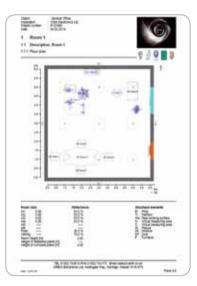
IP65 double-sided exit sign

Suspended or recessed exit sign

Lighting Design

Free of charge lighting design service





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Lighting Design by Orbik

- A free and comprehensive service to provide a complete lighting design solution
- Designs are completed to meet the requirements of the latest British and European standards
- Designs can be tailored to meet your own requirements using dedicated luminaires from the Orbik range or using other luminaire data when used in conjunction with Orbik emergency control gear
- Full UK mainland coverage for site surveys
- Quick and efficient turnaround on lighting schemes
- A comprehensive range of Orbik products are available for download in industry recognised Lumdat format, including supporting data sheets, via our website www.orbik.co.uk

Overview

Creating the right lighting for any space can enhance both the appearance of that space and have positive effects upon the people occupying the space. However it is also of the utmost importance to ensure the safety of those who occupy this space, by providing backup lighting in the case of an emergency. Orbik are able to offer a full lighting design service, which can satisfy the needs of both.

Every lighting project requires correct and careful planning; from defining specific customer needs, through the assessment of building regulations, to the lighting design scheme being undertaken. Orbik's Lighting Industry Association-trained technical staff and area sales team will provide expert assistance, advice and solutions to even the most complex lighting requirements.

Initial Criteria

At the early stages of the design enquiry, Orbik will analyse the project to determine project dimensions, positioning of fixed items, positioning of entrances/exits and whether the client has any specific needs.

Project Design

The criteria is assessed and the characteristics of the installation are taken into account when our technical staff mark drawings with the lighting scheme. Once the design is complete the results can be compiled into an impressive structured report, table results and 3D computer generated visualisations.

Technical Support

For any enquiries relating to central battery units, please contact our technical department who will be able to offer advice and expertise on your application.

Design Guide

Permanent L N

NON-MAINTAINED

The lighting only operates when the normal mains supply fails (emergency lighting only).



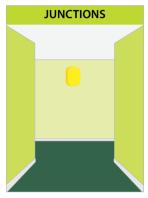
FINAL EXITS

Install externally within 2 metres

horizontal distance of any final exits.

Please note that sufficient light will

To provide illumination of escape routes.



Install within 2 metres of escape route junctions.



Fire alarms, first aid points and fire-fighting equipment, install within 2 metres horizontal distance.



To provide emergency illuminations in all lifts

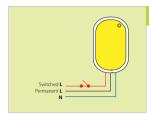
CONTROL ROOMS

Motor generator, control and plant rooms for essential and safety services.

Lighting requirements

When luminaires have been sited to cover the locations above, additional luminaires may be required to ensure minimum lighting levels are achieved.

Escape route corridors etc: 1 lux minimum on the centre line of the escape route. Open Areas: 0.5 lux minimum in the central core to within 0.5m of the walls.



CORRIDORS

Install within 2 metres horizontal distance of a change of direction in an escape route.



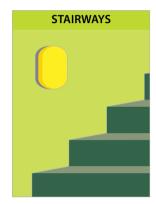
Should not be used as an escape route, but requires the same illumination to protect users on it when the supply fails.



Open rooms either with a particular hazard, an escape route passing through or larger than 60m2.

MAINTAINED

The lighting operates normally and continues to operate when the normal mains supply fails (mains lighting and emergency lighting).



Install within 2 metres horizontal distance of change in floor level or stairs (each tread to receive direct light).



Install in all toilets exceeding 8m² area or where natural light is not present.



Areas of high risk should be illuminated to 10% of normal lighting or 15 lux, whichever is greater.

Exit signs – Signs should apply to the European Signs Directive and be either back illuminated or have an emergency luminaire within 2m of horizontal height. Signs should be of the same format throughout the building.

New Products





Arc

IP65 compact bulkhead luminaire



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
AR8	8 Watt mains	400	0.90kg
AR2X8	2 x 8 Watt mains	800	0.90kg
AR11	11 Watt TC-S mains	900	0.90kg
AR/LED	15 x mains LED	360	0.90kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
AR8/NM3/E	8W NM3 economy output	80	1.20Kg
AR8/NM3 💝	8W NM3 standard output	120	1.20Kg
AR8/NM3/H *	8W NM3 high output	180	1.20Kg
AR8/M3/E	8W M3 economy output	80	1.45Kg
AR8/M3 ♥	8W M3 standard output	120	1.45Kg
AR8/M3/H	8W M3 high output	180	1.45Kg
AR2X8/NM3	2 x 8W NM3 standard output	150	1.70Kg
AR2X8/NM3/H	2 x 8W NM3 high output	250	1.70Kg
AR/LED/M3 *	LED NM3/M3	125	1.20Kg
AR/LED/C3 *	15 x mains LED/5 x emergency LED	125	1.20Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
AR8/#D	8 Watt slave bulkhead	275	0.85Kg
AR/LED/#D	LED slave bulkhead	120	1.20Kg

For fluorescent versions replace # with AC/DC system Voltage **24, 50, 110** or **230** Volts; for LED versions replace # with AC/DC system Voltage **110** or **230** Volts.

Features

- Soft arc linear lens diffuser designed to provide maximum spacings between emergency luminaires
- Flame retardant polycarbonate enclosure and screw-fixing diffuser located with brass threaded inserts
- Hinged steel gear tray, centre rear besa entry and 20mm conduit knockouts at each end for ease of installation
- Can be fitted with a self-adhesive legend kit to create an exit sign
- Non-maintained versions are BSI Kitemarked
- Ideal for use in corridors, exits and escape routes

Options

Add suffix to catalogue number:

/AR/WH White semi-recessing kit

/AD Intelligent addressable luminaire (non-maintained versions only)

/DALI DALI emergency control gear

/HF High frequency ballast

/O Opal Diffuser

/SAL1 Self-adhesive legend kit

/ST Digital self-test luminaire (non-maintained versions only)

/TS Push-to-test switch /VR Anti-tamper screws

Specification

Body

Flame retardant polycarbonate with white finish

Diffuser

Flame retardant polycarbonate as standard (opal polycarbonate diffuser available as an option)

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

8 Watt T5 fluorescent or 11 Watt TC-S compact fluorescent lamp (AR11 only) are supplied complete with the luminaire

LED's

Mains - 15×0.2 W high lumen/watt LED (125 lumens per watt) Emergency - 5×0.2 W high lumen/watt LED (125 lumens per watt)

Dimensions

Luminaire Dimensions

Length 350mm x Width 108mm x Depth 80mm

Cut-Out Dimensions

Length 330mm x Width 90mm (when used with AR/WH semi-recessing kit)

Viewing Distance

18 Metres (when supplied with SAL1 legend kit)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**

* Third party approval applied for.







KM31508

- Tough, flame retardant polycarbonate housing supplied with a white base and clear fresnel lens as standard
- Wide range of options available to suit specific requirements
- Screw-fixing diffuser located with brass threaded inserts
- Hinged steel gear tray, rear centre besa drill-starts and 20mm end entries
- Can be fitted with a self-adhesive legend kit to create an exit sign
- BSI Kitemark on many products
- Ideal for use in corridors, exits and escape routes



Robust IP65 bulkhead for interior or exterior use



Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/BE/WH White semi-recessing kit

/BK Black base

/DALI DALI emergency control gear

/HF High frequency ballast

/M IP65 metal base

/O Opal fresnel diffuser

/SAL2 Self-adhesive legend kit

/ST Digital self-test luminaire

/TS Push-to-test switch

/VR Anti-tamper screws

Specification

Body

Flame retardant polycarbonate with white finish (black base available as an option)

Diffuser

Clear fresnel flame retardant polycarbonate as standard (opal fresnel flame retardant polycarbonate diffuser available as an option)

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

 $8\,\text{Watt}\,\text{T5}$ fluorescent, 11 Watt TC-S or 18W TC-L compact fluorescent lamp are supplied complete with the luminaire

I FD's

Mains - $15 \times 0.2W$ high lumen/watt LED (125 lumens per watt) Emergency - $5 \times 0.2W$ high lumen/watt LED (125 lumens per watt)

Dimensions

Luminaire Dimensions

Length 370mm x Width 140mm x Depth 105mm

Cut-Out Dimensions

Length 365mm x Width 105mm (when used with BE/WH semi-recessing kit) $\,$

Viewing Distance

22 Metres (when supplied with SAL2 legend kit)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
BE1X8	8 Watt mains	400	1.20Kg
BE2X8	2 x 8 Watt mains	800	1.25Kg
BE11	11 Watt TC-S mains	900	1.25Kg
BE2X11	2 x 11 Watt TC-S mains	1800	1.35Kg
BE/LED	LED mains	360	1.35Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
BE8/NM3/E	8W NM3 economy output	80	1.70Kg
BE8/NM3 ♥	8W NM3 standard output	120	1.70Kg
BE8/NM3/H	8W NM3 high output	180	1.70Kg
BE8/M3/E	8W M3 economy output	80	1.90Kg
BE8/M3 ♥	8W M3 standard output	120	1.90Kg
BE8/M3/H	8W M3 high output	180	1.90Kg
BE8/C3	8W C3 (1 lamp mains + 1 lamp NM3)	120	1.90Kg
BE2X8/NM3/E	2 x 8W NM3 economy output	150	2.20Kg
BE2X8/NM3	2 x 8W NM3 standard output	250	2.20Kg
BE/LED/M3	LED NM3/M3	125	1.40Kg
BE/LED/C3	15 x mains LED/5 x emergency LED	125	1.90Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
BE8/#D	8 Watt slave bulkhead	275	1.00Kg
BE8/PVR#	8 Watt mains/slave changeover	275	1.20Kg
BE/LED/#D	LED slave bulkhead	125	1.40Kg

For fluorescent versions replace # with AC/DC system Voltage **24,50,110** or **230** Volts; for LED versions replace # with AC/DC system Voltage **110** or **230** Volts.

Cadiz

Practical bulkhead for interior use



Emergency Luminaires

5)				
Cat No		Lamp & Mode	Emergency Lumens	Weight
CAD8/NM3/E		8W NM3 economy output	80	1.20Kg
CAD8/NM3	⅌	8W NM3 standard output	120	1.20Kg
CAD8/NM3/H		8W NM3 high output	180	1.20Kg
CAD8/M3/E		8W M3 economy output	80	1.45Kg
CAD8/M3		8W M3 standard output	120	1.45Kg
CAD8/M3/H		8W M3 high output	180	1.45Kg
CAD2X8/NM3/E	€	2 x 8W NM3 economy output	150	1.75Kg
CAD2X8/NM3	Ψ,	2 x 8W NM3 standard output	250	1.75Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
CAD8/#D	8 Watt slave bulkhead	275	1.00Kg

Replace # with AC/DC system Voltage $\bf 24, 50, 110$ or $\bf 230$ Volts.

Features

- Simple clip-fit diffuser ensures ease of installation and maintenance
- Hinged clip-out steel gear tray with pre-formed centre rear besa entry
- Flame retardant polycarbonate body and diffuser, which incorporates etched areas to partially obscure the lamp from view
- Can be fitted with a self-adhesive legend kit to create an exit sign
- Non-maintained versions are BSI Kitemarked
- Ideal for use in offices and retail outlets

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire (non-maintained versions only)

/CAD/WH White semi-recessing kit **/DALI** DALI emergency control gear

/SAL1 Self-adhesive legend kit

/ST Digital self-test luminaire (non-maintained versions only)

/TS Push-to-test switch

Specification

Body

Flame retardant polycarbonate with white finish

Diffuser

Clear flame retardant polycarbonate

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

 $8\,\mathrm{Watt}\,\mathrm{T5}$ fluorescent are supplied complete with the luminaire

Dimensions

Luminaire Dimensions

 $Length\ 350mm\ x\ Width\ 108mm\ x\ Depth\ 80mm$

Cut-Out Dimensions

Length 335mm x Width 107mm (when used with CAD/WH semi-recessing kit)

Viewing Distance

18 Metres (when supplied with SAL1 legend kit)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



- Flame-retardant polycarbonate housing
- Low profile elegant design
- Supplied as a surface mounting luminaire as standard but can be semi-recessed using a semi-recessing kit
- Effective light-pipe design enabling the emergency charge LED indicator to be clearly visible
- Luminaire can be transformed into an elegant exit sign using an edge-lit legend panel
- Wide range of options available to suit specific requirements
- Ideal for use in hotels and reception areas

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire (non-maintained versions only)

/DALI DALI emergency control gear

/EX Single-sided exit version

/EX/D Double-sided exit version

/HF High frequency ballast

/R Semi-recessing kit

/ST Digital self-test luminaire (non-maintained versions only)

/TS Push-to-test switch

/SAL2 Self-adhesive legend kit

Specification

Body

Flame retardant polycarbonate with white finish

Diffuser

Clear flame retardant polycarbonate

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

8 Watt T5 fluorescent supplied complete with the luminaire

LED's

5 x 0.2W high lumen/watt LED (125 lumens per watt)

Dimensions

Luminaire Dimensions

Length 355mm x Width 195mm x Depth 70mm

Exit Sign Dimensions

Length 355mm x Width 195mm x Overall Depth 230mm (legend panel is 160mm below the ceiling)

Cut-Out Dimensions

Length 335mm x Width 175mm (minimum ceiling void of 70mm required)

Viewing Distance

24 Metres (when supplied with edge-lit legend panel)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**





Versatile low profile luminaire or exit sign



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
DAL1X8	8 Watt mains	400	1.35Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
DAL8/NM3/E	8W NM3 economy output	80	1.80Kg
DAL8/NM3 ♥	8W NM3 standard output	120	1.80Kg
DAL8/NM3/H	8W NM3 high output	180	1.80Kg
DAL8/M3/E	8W M3 economy output	80	2.00Kg
DAL8/M3	8W M3 standard output	120	2.00Kg
DAL8/M3/H	8W M3 high output	180	2.00Kg
DAL/LED/M3	LED NM3/M3	125	1.80Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
DAL8/#D	8 Watt slave bulkhead	275	1.10Kg
DAL/LED/#D	LED slave bulkhead	125	1.10Kg

For fluorescent versions replace # with AC/DC system Voltage **24, 50, 110** or **230** Volts; for LED versions replace # with AC/DC system Voltage **110** or **230** Volts.

Eden

IP65 compact bulkhead



Features

- Fresnel lens diffuser designed for improved performance and excellent light distribution
- White flame retardant polycarbonate body
- Hinged steel gear tray, centre rear besa entry and 20mm conduit knockouts at each end for ease of installation
- Can be fitted with a self-adhesive legend kit to create an exit sign
- Energy saving LED option available with high quality LED's with extended life expectancy
- Ideal for use in corridors, exits and escape routes

Options

Add suffix to catalogue number:

/ED/WH White semi-recessing kit **/SAL1** Self-adhesive legend kit

Specification

Body

Flame retardant polycarbonate with white finish

Diffuser

Flame retardant polycarbonate fresnel lens

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

 $8\,\mathrm{Watt}\,\mathrm{T5}$ fluorescent lamps are supplied complete with the luminaire

LED's

Economy Output Versions - 27×5 md, total power 0.36W Standard Output Versions - 5×0.2 W high lumen/watt LED (125 lumens per watt)

High Output Versions - 15 x 0.2W mains LED/5 x emergency LED

Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
ED/LED/E	LED mains economy output	90	1.20Kg
ED/LED	LED mains standard output	125	1.20Kg
ED/LED/H	LED mains high output	360	1.20Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
ED8/NM3/E	8W NM3 economy output	80	1.20Kg
ED8/M3/E	8W M3 economy output	80	1.45Kg
ED/LED/M3/E	LED NM3/M3 economy output	70	1.45Kg
ED/LED/M3 *	LED NM3/M3	125	1.45Kg
ED/LED/C3/H *	LED C3 high output	125	1.45Kg

For fluorescent versions replace # with AC/DC system Voltage **24, 50, 110** or **230** Volts; for LED versions replace # with AC/DC system Voltage **110** or **230** Volts.

Dimensions

Luminaire Dimensions

Length 350mm x Width 108mm x Depth 80mm

Cut-Out Dimensions

Length 330mm x Width 90mm (when used with ED/WH semi-recessing kit)

Viewing Distance

18 Metres (when supplied with SAL1 legend kit)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**

* Third party approval applied for.







- Pleasing aesthetic design
- Injection-moulded polycarbonate body
- Clip fixings for quick and simple installation
- IP20 protection ensures suitability for use in sheltered exterior locations
- Supplied complete with specified legend panel
- Ideal for use in corridors, final exits and escape routes



Slim profile injection-moulded polycarbonate exit sign



Specification

Body

Flame retardant polycarbonate

Legend Panel

Flame retardant polycarbonate

Control Gear

Gear is mounted directly onto the back of the housing

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

8 Watt T5 fluorescent are supplied complete with the exit sign

5 x 0.2W high lumen/watt LED (125 lumens per watt)

Dimensions

Exit Sign Dimensions

Length 420mm x Width 221mm x Depth 58mm

Viewing Distance

36 Metres

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk





Mains Exit Signs

Cat No	Lamp & Mode	Mains Lumens	Weight
NA8	8 Watt mains	400	2.30Kg
NA/LED	LED mains	125	2.30Kg

Emergency Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
NA8/NM3/E	8W NM3 economy output	80	2.30Kg
NA8/M3/E	8W M3 economy output	80	2.60Kg
NA8/NM3	8W NM3 standard output	120	2.30Kg
NA8/M3	8W M3 standard output	120	2.60Kg
NA/LED/M3	LED NM3/M3	125	2.30Kg

Slave Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
NA8/#D	8 Watt slave bulkhead	275	2.30Kg
NA/LED/#D	LED slave bulkhead	125	2.30Kg

For fluorescent versions replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts; for LED versions replace # with AC/DC system Voltage 110 or 230 Volts.

Pescara

Versatile exit sign for internal and external use



Mains Exit Signs

Cat No	Lamp & Mode	Mains Lumens	Weight
PES8	8 Watt single-sided mains	400	2.60Kg
PED8	8 Watt double-sided mains	400	2.60Kg

Emergency Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
PES8/NM3 ♥	8 Watt single-sided NM3	120	2.75Kg
PES8/M3 ♥	8 Watt single-sided M3	120	3.00Kg
PES8/C3 ♥	8 Watt single-sided C3 (1 lamp mains + 1 lamp NM3)	120	3.00Kg
PED8/NM3	8 Watt double-sided NM3	120	2.75Kg
PED8/M3	8 Watt double-sided M3	120	3.00Kg
PES/LED/C3	LED single-sided C3	125	3.00Kg
PED/LED/C3	LED double-sided C3	125	3.00Kg

Slave Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
PES8/#D	8 Watt single-sided slave	275	2.50Kg
PED8/#D	8 Watt double-sided slave	275	2.50Kg
PES/LED/#D	LED single-sided slave	125	2.50Kg
PED/LED/#D	LED double-sided slave	125	2.50Kg

Features

- Sheet steel construction in white finish as standard, with black, polished brass and polished chrome finishes available to order
- Hinged steel gear tray, centre rear besa entry and keyhole slots for ease of installation
- Supplied complete with specified legend panel
- Opal threshold illuminates the area below the sign
- IP65 versions are of robust construction to suit a host of exterior applications
- Non-maintained, maintained and combined models are BSI approved to EN60598
- Emergency versions incorporate integral BSI approved emergency control gear
- Legend panel can be removed from either end via removable end-caps so the sign can be fitted closely into corners if required
- Ideal for use in corridors, final exits and escape routes in industrial, commercial and retail applications

Options

Add suffix to catalogue number:

/AD Intelligent addressable exit sign

/BK Black finish

/BR Brass finish

/CH Chrome finish

/DALI DALI emergency control gear

/**HF** High frequency ballast

/IP65 IP65 version (no threshold downlight panel)

/ST Digital self-test exit sign

/TS Push-to-test switch

/VR Anti-tamper screws

Specification

Body

Sheet steel with white gloss powder coated finish (black, polished brass, polished chrome available as options)

Legend Panel

Flame retardant polycarbonate

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

8 Watt T5 fluorescent are supplied complete with the exit sign

LED's

Mains - 15 x 0.2W high lumen/watt LED Emergency - 5 x 0.2W high lumen/watt LED

Dimensions

Single-Sided & Double-Sided Versions

Length 385mm x Width 200mm x Depth 95mm

IP65 Versions

Length 445mm x Width 225mm x Depth 95mm

Viewing Distance

36 Metres

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**





KM31508





- 80 metre viewing ensures suitability to applications where greater viewing distances are required
- · Sheet steel construction in white finish
- 'U' channel geartray ensures even illumination in both single-sided and double-sided versions
- Supplied complete with specified legend panel(s)
- Double panel illuminates directly below the sign to the escape route and door threshold
- IP65 version available to suit exterior applications
- Emergency versions incorporate integral BSI approved emergency control gear
- Ideal for use in supermarkets, car parks and warehouses

Pescara-G

Large exit sign with an 80 metre viewing distance



Options

Add suffix to catalogue number:

/AD Intelligent addressable exit sign /HF High frequency ballast /IP65 IP65 version (LED version only) /ST Digital self-test exit sign

Specification

Sheet steel with white gloss powder coated finish

Legend Panel

Flame retardant polycarbonate

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

18 Watt T8 fluorescent lamps are supplied complete with the exit sign

LED's

70 x 0.2W high lumen/watt LED

Dimensions

Single-Sided & Double-Sided Versions

Length 620mm x Width 455mm x Depth 155mm

IP65 Versions

Length 625mm x Width 520mm x Depth 100mm

Viewing Distances

Standard version - 80 metres IP65 version - 66 metres

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk









Mains Exit Signs

Cat No	Lamp & Mode	Mains Lumens	Weight
PESG/LED	LED single-sided mains	1680	9.30Kg

Emergency Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
PES18/NM3	18 Watt T8 single-sided NM3	320	9.30Kg
PES18/M3	18 Watt T8 single-sided M3	320	9.40Kg
PED18/NM3	18 Watt T8 double-sided NM3	320	9.30Kg
PED18/M3	18 Watt T8 double-sided M3	320	9.40Kg
PESG/LED/M3	LED single-sided M3	490	9.30Kg
PESG/LED/M3/IP65	LED single-sided M3 IP65	490	9.80Kg

Slave Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
PES18/#D	18 Watt T5 single-sided slave	320	9.30Kg
PED18/#D	18 Watt T5 double-sided slave	320	9.30Kg

Petina

Ultra-slim LED single and double-sided exit sign





Petina with brass finish



Petina with chrome finish



Petina with silver-grey finish



Petina with black finish

Emergency Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
PE/M3/WH	LED single-sided M3 white finish	125	2.00Kg
PD/M3/WH	LED double-sided M3 white finish	125	2.60Kg

Slave Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
PE/#D/WH	LED single-sided slave	125	2.30Kg
PD/#D/WH	LED double-sided slave	125	2.30Kg

Features

- Single-sided versions depth is only 30mm
- Sheet steel construction in white finish as standard with black, polished brass, polished chrome and silver-grey finishes available as options
- Flame retardant plasi-glas legend panel utilises advanced optical design, ensuring an even spread of illumination from the sign's LED's
- Double-sided versions can be supplied with wire-suspension kits and end-mounting brackets
- Supplied complete with specified legend panel(s)
- Ideal for use in corridors, final exits and escape routes in retail and commercial applications

Options

Add suffix to catalogue number:

/BK Black finish

/BR Brass finish

/CH Chrome finish

/DALI DALI emergency control gear

/RB Right-angled mounting bracket (double-sided versions only)

/SG Silver-grey finish

/ST Digital self-test exit sign

/WS Wire-suspension kit (double-sided versions only)

Specification

Body

Sheet steel with white gloss powder coated finish as standard (black, polished brass, polished chrome and silver-grey finishes available as options)

Legend Panel

Flame retardant plasi-glass

Charger LED

Constant current with green LED for mains healthy and connected battery

LED's

0.2W high lumen/watt LED

Dimensions

Single-Sided Versions

Length 360mm x Width 235mm x Depth 30mm

Double-Sided Versions

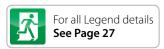
Length 377mm x Width 255mm x Depth 45mm

Viewing Distance

28 Metres

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**





- Sheet steel construction in white finish as standard
- Centre rear besa entry and keyhole slots for ease of installation
- Supplied complete with specified legend panel
- Opal threshold illuminates the area below the sign
- LED version maximises the efficiency of high quality LED's to provide extended life
- Unobtrusive depth of only 65mm
- Legend panel can be removed from either end via removable end-caps
- Ideal for use in corridors, final exits and escape routes in industrial, commercial and retail applications

Pico

Low profile single-sided exit box



Options

Add suffix to catalogue number:

/AD Intelligent addressable exit sign

/HF High frequency ballast

/ST Digital self-test exit sign

/TS Push-to-test switch

Specification

Body

Sheet steel with white gloss powder coated finish (polished brass and polished chrome available as options)

Legend Panel

Flame retardant polycarbonate

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

 $8\,\mbox{Watt}\,\mbox{T5}$ fluorescent are supplied complete with the exit sign

LED's

15 x 0.2W high lumen/watt LED (125 lumens/watt)

Dimensions

Exit Sign Versions

Length 385mm x Width 200mm x Depth 65mm

Viewing Distance

36 Metres

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**





Mains Exit Sign

Cat No	Lamp & Mode	Mains Lumens	Weight
PIC8	8 Watt mains	400	2.50Kg

Emergency Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
PIC8/NM3/E	8W NM3 economy output	80	2.60Kg
PIC8/M3/E	8W M3 economy output	80	2.90Kg
PIC8/NM3	8 Watt NM3 standard output	120	2.60Kg
PIC8/M3	8 Watt M3 standard output	120	2.90Kg
PIC/LED/M3	LED M3	125	2.50Kg

Slave Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
PIC8/#D	8 Watt slave	275	2.30Kg
PIC/LED/#D	LED slave	125	2.30Kg

For fluorescent versions replace # with AC/DC system Voltage **24,50,110** or **230** Volts; for LED versions replace # with AC/DC system Voltage **110** or **230** Volts.

Retz

Decorative curved exit sign



Mains Exit Signs

Cat No	Lamp & Mode	Mains Lumens	Weight
RZ8	8 Watt white single-sided mains	400	1.60Kg
RZ/LED	LED white single-sided mains	125	1.60Kg
RZD8	8 Watt white double-sided mains	400	2.00Kg

Emergency Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
RZ8/NM3	8 Watt white single-sided NM3	120	2.00Kg
RZ8/M3	8 Watt white single-sided M3	120	2.20Kg
RZ/LED/M3	LED white single-sided M3	125	2.20Kg
RZD8/NM3	8 Watt white double-sided NM3	120	2.40Kg
RZD8/M3	8 Watt white double-sided M3	120	2.60Kg

Slave Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
RZ8/#D	8 Watt white single-sided slave	275	2.00Kg
RZ/LED/#D	LED white single-sided slave	125	2.00Kg
RZD8/#D	8 Watt white double-sided slave	275	2.00Kg

For fluorescent versions replace # with AC/DC system Voltage **24, 50, 110** or **230** Volts; for LED versions replace # with AC/DC system Voltage **110** or **230** Volts.

Features

- Sheet steel construction
- Elegant design utilises an attractive curved fascia ensuring suitability to most prestigious applications
- Supplied complete with specified legend panel(s)
- Opal threshold illuminates the area below the sign
- Available in single-sided or double-sided versions
- Emergency versions incorporate integral BSI approved emergency control gear
- Can be supplied with a host of options including integral addressable and self-testing gear
- Ideal for use in corridors, final exits and escape routes in commercial and retail applications

Options

Add suffix to catalogue number:

/AD Intelligent addressable exit sign

/DALI DALI emergency control gear **/HF** High frequency ballast

/ST Digital self-test exit sign

/**ST** Digital self-test exit sign /**WS** Wire-suspension kit

Specification

Body

Sheet steel with white powder coated finish

Legend Panel

Flame retardant polycarbonate

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

8 Watt T5 fluorescent are supplied complete with the exit sign

LED's

0.2W high lumen/watt LED

Dimensions

Single-Sided Versions

Length 440mm x Width 220mm x Depth 65mm

Double-Sided Versions

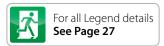
 $Length\ 440mm\ x\ Width\ 250mm\ x\ Depth\ 130mm$

Viewing Distance

36 Metres

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**





- Robust sheet steel construction in white epoxy coated finish
- Specifically engineered to utilise LED technology and offers extended life
- Flame retardant plasi-glas legend panel ensures an even spread of illumination from the sign's LED's
- Range includes a trio of additional mounting options; a wall mounting bracket, a right-angled mounting bracket and a wire-suspension kit
- Supplied complete with specified legend panel
- Legend panel is available in two sizes; 175mm as standard and 135mm legend for areas where height is restricted
- Ideal for use in corridors, final exits and escape routes in retail and commercial applications

Options

Add suffix to catalogue number:

/135MM 135mm legend panel
/D Double sided legend panel
/RAB Right-angled mounting bracket
/ST Digital self-test luminaire
/WMB Wall mounting bracket
/WS Wire-suspension kit

Specification

Body

Sheet steel with white epoxy finish

Legend Panel

Flame retardant plasi-glas

Charger LED

Constant current with green LED for mains healthy and connected battery

LED's

5 x 0.2W high lumen/watt LED (125 lumens/watt)

Dimensions

Exit Sign Dimensions (Without Mounting Option)

Length 300mm x Height (including legend panel) 240mm x Depth 40mm (height is 195mm when using 135mm legend panel)

Exit Sign Dimensions (Fitted with Right-Angled Mounting Bracket)

Length 380mm x Height (including legend panel) 255mm x Depth 40mm (height is 210mm when using 135mm legend panel)

Exit Sign Dimensions (Fitted with Wall Mounting Bracket)

Length 300mm x Height (including legend panel) 255mm x Depth 40mm (height is 210mm when using 135mm legend panel)

Exit Sign Dimensions (Fitted with Wire-Suspension Kit*)

Length 300mm x Height (including legend panel) 765mm x Depth 40mm (height is 645mm when using 135mm legend panel)

* Dimensions are calculated using maximum wire length of 500mm; wire can be adjusted shorter

Viewing Distance

24 Metres with standard legend panel, 20 Metres with 135mm legend panel

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**





Romney

Versatile LED exit sign









Romney with optional right angled mounting bracket

Emergency Exit Sign

wire suspension kit

Cat No	Lamp & Mode	Emergency Lumens	Weight
ROM/LED/M3	LED M3 single sided	125	1.60Kg

Rota

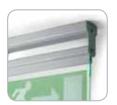
LED exit sign suitable for wall or ceiling mounting





Rota finished in brass

Rota finished in chrome



Rota finished in silver-grey



Rota finished in black

Emergency Exit Sign

Cat No	Lamp & Mode	Emergency Lumens	Weight
RO/LED/M3/WH	LED M3 single sided white finish	125	2.00Kg

Slave Exit Sign

Cat No	Lamp & Mode	Emergency Lumens	Weight
RO/LED/#D/WH	LED slave single sided white finish	125	2.00Kg

Features

- Robust sheet steel construction in white epoxy coated finish as standard with a variety of colour finishes available to order
- Combines long-life LED technology with high quality engineering
- Flame retardant plasi-glas legend panel ensures an even spread of illumination from the sign's LED's
- Versatile design allows the sign to be wall mounted, ceiling mounted or recessed
- Supplied complete with specified legend panel
- Suitable for non-maintained or maintained emergency modes
- Ideal for use in corridors, final exits and escape routes in retail and commercial applications

Rota recessed finished in white

Options

Add suffix to catalogue number:

/BK Black finish

/BR Brass finish

/CH Chrome finish

/D Double sided legend panel

/R Recessed version

/SG Silver-grey finish

/ST Digital self-test luminaire

Specification

Body

Sheet steel with white finish as standard (black, brass, chrome and silver grey finishes available as options)

Legend Panel

Flame retardant plasi-glass

Charger LED

Constant current with green LED for mains healthy and connected battery

LED's

5 x 0.2W high lumen/watt LED (125 lumens/watt)

Dimensions

Exit Sign Dimensions

Length 310mm x Height (including legend panel) 260mm x Depth 40mm

Recessed Exit Sign Dimensions

Length 310mm x Height (including legend panel) 235mm x Depth 40mm (overall height is 265mm but 30mm of Rota body is recessed into the ceiling)

Viewing Distance

24 Metres

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**





- Contemporary design lends itself to many prestigious installations
- Available as a chain-suspended or recessed exit sign finished in white as standard with brass and chrome available as options
- Flame retardant plasi-glas legend panel's light conducting properties ensure even and clear illumination
- Supplied complete with specified single-sided legend panel (double-sided legends available to order)
- In areas where height is restricted, the sign's chain can be removed so legend fits directly onto mounting bar
- Legend is assembled using just two screws for easy installation
- Savona Petite available to offer a compact, unobtrusive and aesthetically pleasing LED emergency exit sign
- Ideal for use in corridors, final exits and escape routes in retail and commercial applications

Options

Add suffix to catalogue number:

/AD Intelligent addressable exit sign

/BR Brass finish

/CH Chrome finish

/DALI DALI emergency control gear

/D Double-sided legend panel

/R Recessed version

/RAB Right-angled mounting bracket (chain-suspended versions only) /ST Digital self-test exit sign

Specification

Body

Sheet steel with white powder coated finish as standard (polished brass and polished chrome finishes available as options)

Legend Panel

Flame retardant plasi-glas

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

8 Watt T5 fluorescent lamps are supplied complete with the exit sign

LED's

5 x 0.2W high lumen/watt LED (125 lumens/watt)

Dimensions

Standard Chain-Suspended Versions (Including Ceiling Bar, Chain & Legend Panel)

Length 445mm x Height* 820mm x Depth 90mm (*height is 380mm if chain is removed)

Recessed Versions (Including Legend Panel)

Length 430mm x Height† 320mm x Depth 45mm († legend is 230mm below the ceiling)

Cut-Out Dimensions (Recessed Versions)

Length 428mm x Width 135mm x Depth 85mm (minimum ceiling void)

Savona Petite Dimensions (Including Ceiling Bar, Chain & Legend Panel)

Length 340mm x Height* 735mm x Width 85mm (*height is 295mm if chain is removed)

Viewing Distance

36 Metres (standard versions)

24 Metres (Savona Petite version)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**





Savona

Edge-lit chain-suspended or recessed exit sign





* 11

Savona recessed finished in brass

Savona finished in chrome

Mains Exit Sign

Cat No	Lamp & Mode	Mains Lumens	Weight
SAV8/WH	8 Watt chain-suspended mains white finish	400	2.90Kg

Emergency Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
SAV8/NM3/WH	8 Watt chain-suspended NM3	120	3.00Kg
SAV8/M3/WH	8 Watt chain-suspended M3	120	3.20Kg
SAV/LED/M3/WH	LED chain-suspended M3	125	3.20Kg
SP/LED/M3	Savona Petite chain-suspended LED M3	125	3.20Kg

Slave Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
SAV8/#D/WH	8 Watt chain-suspended slave	275	2.00Kg
SAV/LED/#D	LED chain-suspended slave	125	2.00Kg

For fluorescent versions replace # with AC/DC system Voltage **24, 50, 110** or **230** Volts; for LED versions replace # with AC/DC system Voltage **110** or **230** Volts.

Tiel

IP65 double-sided exit sign



Mains Exit Sign

Cat No	Lamp & Mode	Mains Lumens	Weight
TI8	8 Watt mains	400	0.90Kg
TI/LED	LED mains	125	0.90Kg

Emergency Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
TI8/NM3/E	8W NM3 economy output	80	1.20Kg
TI8/NM3 ₩	8W NM3 standard output	120	1.20Kg
TI8/NM3/H	8W NM3 high output	180	1.20Kg
TI8/M3/E	8W M3 economy output	80	1.45Kg
TI8/M3	8W M3 standard output	120	1.45Kg
TI8/M3/H	8W M3 high output	180	1.45Kg
TI2X8/NM3	2 x 8W NM3 standard output	150	1.70Kg
TI2X8/NM3/H	2 x 8W NM3 high output	250	1.70Kg
TI/LED/M3 *	LED NM3/M3	125	1.20Kg

Slave Exit Signs

Cat No	Lamp & Mode	Emergency Lumens	Weight
TI8/#D	8 Watt slave bulkhead	275	0.85Kg
TI/LED/#D	LED slave bulkhead	125	0.90Kg

For fluorescent versions replace # with AC/DC system Voltage $\bf 24, 50, 110$ or $\bf 230$ Volts; for LED versions replace # with AC/DC system Voltage $\bf 110$ or $\bf 230$ Volts.

Features

- Robust IP65 polycarbonate housing
- Screw-fixing diffuser located with brass threaded inserts
- Hinged steel gear tray, centre rear besa entry and 20mm conduit knockouts at each end for ease of installation
- Supplied with 2 self-adhesive legend panels to create a double-sided exit sign
- Non-maintained versions are BSI Kitemarked
- Can be surface mounted or semi-recessed using a semi-recessing kit
- Ideal for use in corridors, final exits and escape routes in most public areas

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/DALI DALI emergency control gear /HF High frequency ballast

/ST Digital self-test luminaire

/TI/WH White semi-recessing kit

/TS Push-to-test switch

/VR Anti-tamper screws

Specification

Body

 $\label{polycarbonate} Flame\ retardant\ polycarbonate\ with\ white\ finish$

Diffuser

Flame retardant polycarbonate with opal finish

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

8 Watt T5 fluorescent are supplied complete with the exit sign

LED's

5 x 0.2W high lumen/watt LED (125 lumens/watt)

Dimensions

Luminaire Dimensions

Length 350mm x Width 108mm x Depth 204mm

Cut-Out Dimensions

Length 330mm x Width 90mm (when used with TI/WH semirecessing kit)

Viewing Distance

28 Metres

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**

* Third party approval applied for.





Legends

Flame retardant polycarbonate legend panels in BS5499 and EN7010 formats

BS5499 Format

Suitable for existing installations; cannot be mixed with EN7010 format signage.

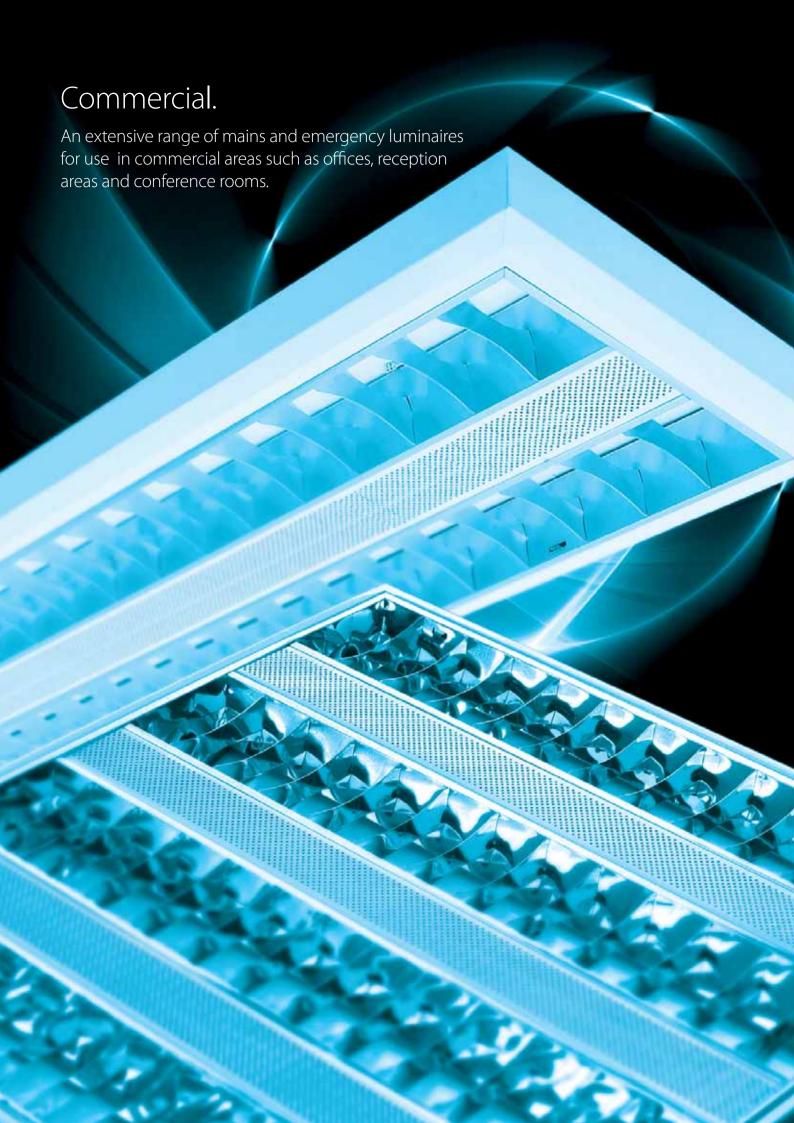


EN7010 Format

Suitable for existing new builds; cannot be mixed with BS5499 format signage L17 $\,$



L20/7010



- Low profile steel base designed to provide enhanced thermal dissipation
- Uniform light distribution across the panel
- High quality LED's with extended life expectancy
- Attractive opal prismatic diffuser
- Designed for maximum controlled lumen output
- Visually comfortable
- Colour temperature 5000k as standard (4800 lumen output)
- Optional colour temperature 3500k (4400 lumen output)
- Ideal for classrooms, offices, meeting rooms and hospitals

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/35K Colour temperature 3500K

/DALI DALI emergency control gear

/DIM Dimmable ballast

/SM Surface mounted version

/ST Digital self-test luminaire

Arriled

Low profile LED panel



Standard recessed version

Specification

Body

Sheet steel with white gloss powder coated finish

Diffuser

Opal prismatic polycarbonate diffuser

Charger LED

Constant current with green LED for mains healthy and connected battery

LED's

Mains - 210 x 0.2W high lumen/watt LED Emergency - 25 x 0.2W high lumen/watt LED



Surface mounted version

Dimensions

Recessed Luminaire Dimensions

 $Length\ 595mm\ x\ Width\ 595mm\ x\ Depth\ 55mm$

Surface Luminaire Dimensions

 $Length\ 600mm\ x\ Width\ 600mm\ x\ Overall\ Depth\ 55mm$

Cut-Out Dimensions

Length 578mm x Width 578mm (minimum ceiling void of 55mm required)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
ARR/LED/E	LED mains economy output	3000	6.00Kg
ARR/LED	LED mains standard output	5050	6.00Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
ARR/LED/M3/E	LED M3 economy output	400	7.20Kg
ARR/LED/M3	LED M3 standard output	400	7.20Kg

Ipstones T5

Surface mounted IP65 T5 non-corrosive luminaire



- Construction consists of an ABS base with a polycarbonate lens and retaining clips
- Steel gear-tray retained on straps for easy installation
- Facilities provided for suspension of luminaire
- Rear or end cable knockouts for ease of installation
- High frequency ballast in mains and emergency versions as standard
- BSI approved emergency gear options available in 28 Watt to 49 Watt single or twin lamp versions
- Ideal for use in changing rooms and industrial areas such as workshops and factories

Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
IPS28/HF	28W T5 high frequency mains	2600	2.00Kg
IPS35/HF	35W T5 high frequency mains	3300	2.20Kg
IPS49/HF	49W T5 high frequency mains	4300	2.20Kg
IPS54/HF	54W T5 high frequency mains	4450	2.00Kg
IPS214/HF	2 x 14W T5 high frequency mains	2400	1.20Kg
IPS228/HF	2 x 28W T5 high frequency mains	5200	2.10Kg
IPS235/HF	2 x 35W T5 high frequency mains	6600	2.30Kg
IPS249/HF	2 x 49W T5 high frequency mains	8600	2.30Kg
IPS254/HF	2 x 54W T5 high frequency mains	8900	2.10Kg

Emergency Luminaires*

Cat No	Lamp & Mode	Emergency Lumens	Weight
IPS28/M3	28W T5 high frequency M3	650	2.70Kg
IPS228/M3	2 x 28W T5 high frequency M3	890	3.00Kg
IPS35/M3	35W T5 high frequency M3	860	3.20Kg
IPS235/M3	2 x 35W T5 high frequency M3	650	2.80Kg
IPS49/M3	49W T5 high frequency M3	890	3.10Kg
IPS249/M3	2 x 49W T5 high frequency M3	860	3.30Kg

^{*} Reverts to one lamp in emergency mode.

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/SCL Stainless steel clip

/ST Digital self-test luminaire

Specification

Body

ABS body

Diffuser

Polycarbonate diffuser

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected

Lamps

28 Watt, 35 Watt, 49 Watt or 54 Watt T5 fluorescent lamps (not supplied)

Dimensions

Single 28 Watt Luminaire Dimensions

Length 1210mm x Width 90mm x Height 80.5mm (retaining clips quantity 10)

Twin 28 Watt Luminaire Dimensions

Length 1210mm x Width 108mm x Height 85mm (retaining clips quantity 10)

Single 35 Watt Luminaire Dimensions

Length 1508.5mm x Width 90mm x Height 80.5mm (retaining clips quantity 12)

Twin 35 Watt Luminaire Dimensions

Length 1508.5mm x Width 108mm x Height 85mm (retaining clips quantity 12)

Single 49 Watt Luminaire Dimensions

Length 1508.5mm x Width 90mm x Height 80.5mm (retaining clips quantity 12)

Twin 49 Watt Luminaire Dimensions

 $Length\ 1508.5mm\ x\ Width\ 108mm\ x\ Height\ 85mm\ (retaining\ clips\ quantity\ 12)$

Single 54 Watt Luminaire Dimensions

Length 1210mm x Width 90mm x Height 80.5mm (retaining clips quantity 10)

Twin 54 Watt Luminaire Dimensions

 $Length\ 1210 mm\ x\ Width\ 108 mm\ x\ Height\ 85 mm\ (retaining\ clips\ quantity\ 10)$

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



- Construction consists of an ABS base with a polycarbonate lens and retaining clips
- Steel gear-tray retained on straps for easy installation
- Facilities provided for suspension of luminaire
- Rear or end cable knockouts for ease of installation
- High frequency ballast in mains and emergency versions as standard
- LED versions available in mains and emergency mode
- BSI approved emergency gear options available in 36 Watt to 70 Watt single or twin lamp versions
- 36 Watt and 58 Watt single and twin lamp 110 Volt site-work versions available to order

• Ideal for use in changing rooms and industrial areas such as workshops and factories



Specification

/SCL Stainless steel clip /ST Digital self-test luminaire

Add suffix to catalogue number:

Body

ABS body

Options

Diffuser

Polycarbonate diffuser

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

18 Watt, 36 Watt, 58 Watt or 70 Watt T8 fluorescent lamps (not supplied)

LED's

0.2W high lumen/watt LED

Dimensions

Single 18 Watt Luminaire Dimensions

Length 660mm x Width 93mm x Height 100mm (retaining clips quantity 6)

Twin 18 Watt Luminaire Dimensions

Length 660mm x Width 140mm x Height 100mm (retaining clips quantity 6)

Single 36 Watt Luminaire Dimensions

Length 1270mm x Width 93mm x Height 100mm (retaining clips quantity 10)

Twin 36 Watt Luminaire Dimensions

Length 1270mm x Width 140mm x Height 100mm (retaining clips quantity 10)

Single 58 Watt Luminaire Dimensions

Length 1565mm x Width 93mm x Height 100mm (retaining clips quantity 12)

Twin 58 Watt Dimensions

Length 1565mm x Width 140mm x Height 100mm (retaining clips quantity 12)

Single 70 Watt Luminaire Dimensions

Length 1870mm x Width 112mm x Height 100mm (retaining clips quantity 12)

Twin 70 Watt Luminaire Dimensions

Length 1870mm x Width 166mm x Height 100mm (retaining clips quantity 12)

Standard Output LED Dimensions

Length 1565mm x Width 94mm x Height 98mm

High Output LED Dimensions

Length 1565mm x Width 138mm x Height 98mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk



Ipstones T8 & LED

Surface mounted IP65 T8 or LED non-corrosive luminaire



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
IPS18/HF	18W T8 high frequency mains	1350	1.40Kg
IPS36/HF	36W T8 high frequency mains	3350	2.20Kg
IPS58/HF	58W T8 high frequency mains	5200	2.35Kg
IPS70/HF	70W T8 high frequency mains	6200	3.60Kg
IPS218/HF	2 x 18W T8 high frequency mains	2700	1.80Kg
IPS236/HF	2 x 36W T8 high frequency mains	6700	3.15Kg
IPS258/HF	2 x 58W T8 high frequency mains	10400	3.50Kg
IPS270/HF	2 x 70W T8 high frequency mains	12400	6.15Kg
IPS/LED	LED mains standard output	3000	2.35Kg
IPS/LED/H	LED mains high output	6000	3.60Kg

Emergency Luminaires*

Cat No	Lamp & Mode	Emergency Lumens	Weight
IPS36/M3	36W T8 high frequency M3	260	3.00Kg
IPS58/M3	58W T8 high frequency M3	520	3.30Kg
IPS70/M3	70W T8 high frequency M3	430	4.65Kg
IPS236/M3	2 x 36W T8 high frequency M3	260	3.95Kg
IPS258/M3	2 x 58W T8 high frequency M3	520	4.45Kg
IPS270/M3	2 x 70W T8 high frequency M3	430	7.20Kg
IPS/LED/M3	LED M3 standard output	300	3.30Kg
IPS/LED/M3/H	LED M3 high output	300	4.65Kg

^{*} Reverts to one lamp in emergency mode.

Kehled

Sleek and elegantly profiled LED luminaire

Features

- Minimalistic low profile design
- Suitable for ceiling and wall mounting
- Available in two body lengths providing versatility for various lighting applications
- Utilises the latest LED arrays to provide impressive light outputs in both mains and emergency modes
- Steel body designed to provide enhanced thermal dissipation
- Attractive opal prismatic diffuser
- Ideal for use in offices, meeting rooms and reception areas





Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/ST Digital self-test luminaire

/WS 4 point wide suspension kit



Body

Sheet steel with white gloss powder coated finish

Diffuser

Opal prismatic polycarbonate diffuser

Charger LED

Constant current with green LED for mains healthy and connected battery

LED's

Size A - 70 x 0.2W high lumen/watt LED Size B - 140 x 0.2W high lumen/watt LED

Mains Luminaires

Kehled size A

Cat No	Lamp & Mode	Mains Lumens	Weight
KEH/LED/A	LED mains size A	1680	4.30Kg
KEH/LED/B	LED mains size B	3360	8.60Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
KEH/LED/M3/A	LED M3 size A	490	5.20Kg
KEH/LED/M3/B	LED M3 size B	490	9.50Kg

Dimensions

Size A

Length 600mm x Width 240mm x Depth 54mm

Size B

Length 1100mm x Width 240mm x Depth 54mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



- High performance high frequency gear as standard
- Powder coated white gloss steel body
- Efficient specular double parabolic louvre with an alternative TP (b) prismatic controller as an option
- All versions are available with integral BSI approved emergency control gear
- Suitable for 15-24mm exposed T ceiling systems
- Ideal for use in offices, shops and schools

Layos

Recessed modular luminaire for T5 and T8 lamps



Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/DALI DALI emergency control gear

/PR Prismatic diffuser

/ST Digital self-test luminaire

Specification

Body

White gloss powder coated sheet steel

Louvre

Double parabolic category 2 louvre (TP (b) prismatic controller available as an option)

Control Gear

All control gear is mounted directly onto the luminaire body

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

14 Watt or 28 Watt T5 fluorescent or 18 Watt or 36 Watt T8 fluorescent lamps (not supplied)

Dimensions

14 Watt T5 & 18 Watt T8 Luminaire Dimensions

Length 595mm x Width 595mm x Depth 86mm (minimum ceiling void)

28 Watt T5 & 36 Watt T8 Luminaire Dimensions

Length 1195mm x Width 595mm x Depth 86mm (minimum ceiling void)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**





Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
LA414/HF	4 x 14 Watt T5 mains	4800	3.50Kg
LA418/HF	4 x 18 Watt T8 mains	5400	3.80Kg
LA428/HF	4 x 28 Watt T5 mains	10400	7.40Kg
LA436/HF	4 x 36 Watt T8 mains	13400	7.60Kg

Emergency Luminaires*

Cat No	Lamp & Mode	Emergency Lumens	Weight
LA414/M3	4 x 14 Watt T5 M3	360	4.80Kg
LA418/M3	4 x 18 Watt T8 M3	140	4.60Kg
LA428/M3	4 x 28 Watt T5 M3	650	8.50Kg
LA436/M3	4 x 36 Watt T8 M3	260	8.40Kg

^{*} Reverts to one lamp in emergency mode

Loutra

Recessed modular luminaire with perforated steel diffuser

Features

- High performance high frequency gear as standard
- Powder coated white gloss steel body
- Perforated steel diffuser enhances direct/indirect light distribution
- All versions are available with integral BSI approved emergency control gear
- Suitable for 15-24mm exposed T ceiling systems
- Ideal for use in offices, reception areas and conference rooms



Mains

Lumens

4850

3500

7000

9700

Emergency

Lumens

575

430

450

575

Weight

6.10Kg

5.90Kg

6.00Kg

7.70Kg

Weight

7.15Kg

6.85Kg

7.05Kg

8.75Kg

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/DALI DALI emergency control gear

/ST Digital self-test luminaire

Specification

White gloss powder coated sheet steel

Perforated steel louvre

Control Gear

All control gear is mounted directly onto the luminaire body

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

40 Watt or 55 Watt TC-L compact fluorescent or 24 Watt T5 fluorescent lamps (not supplied)

Dimensions

Length 595mm x Width 595mm x Depth 95mm (minimum ceiling void)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk



Emergency Luminaires*

Mains Luminaires

Lamp & Mode

Lamp & Mode

55 Watt TC-L mains

2 x 24 Watt T5 mains

2 x 40 Watt TC-L mains

2 x 55 Watt TC-L mains

55 Watt TC-L M3

2 x 24 Watt T5 M3

2 x 40 Watt TC-L M3

2 x 55 Watt TC-L M3

Cat No

LTR55/HF

LTR224/HF

LTR240/HF

LTR255/HF

Cat No

LTR55/M3

LTR224/M3

LTR240/M3

LTR255/M3



- High performance high frequency gear as standard
- Powder coated white gloss steel body and highly efficient polished specular double parabolic louvre
- All versions are available with integral BSI approved emergency control gear
- Impressive 4 lamp linear T5 distribution
- Slim profile allows easier installation with limited ceiling voids
- Suitable for 15-24mm exposed T ceiling systems

Louviers

Recessed 4 lamp T5 luminaire with category 2 louvre



Specification

Body

White gloss powder coated sheet steel

Louvre

Semi-specular double parabolic louvre

Control Gear

All control gear is mounted directly onto the luminaire body

Charger LED

Constant current with green LED for mains healthy and connected battery $% \left(1\right) =\left(1\right) \left(1\right) \left($

Lamps

14 Watt or 28 Watt T5 fluorescent lamps (not supplied)

Dimensions

14 Watt Luminaire Dimensions

Length 595mm x Width 595mm x Depth 61mm (minimum ceiling void)

28 Watt Luminaire Dimensions

Length 1195mm x Width 595mm x Depth 61mm (minimum ceiling void)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
LOU414/HF	4 x 14 Watt T5 mains	4800	3.60Kg
LOU428/HF	4 x 28 Watt T5 mains	10400	7.20Kg

Emergency Luminaires*

•	•		
Cat No	Lamp & Mode	Emergency Lumens	Weight
LOU414/M3	4 x 14 Watt T5 M3	140	4.50Kg
LOU428/M3	4 x 28 Watt T5 M3	650	8.40Kg

^{*} Reverts to one lamp in emergency mode

Modra

Surface mounted twin T8 luminaire with category 2 louvre

Features

- High performance high frequency gear as standard
- Steel body with white semi-gloss steel body
- Highly efficient double parabolic aluminium louvre
- All versions are available with integral BSI approved emergency control gear
- Suitable for surface mounting or suspension
- Quick release clips and retaining straps for louvre simplifies maintenance
- Ideal for use in offices, conference rooms and general commercial use



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
MOD236/HF	2 x 36 Watt T8 mains	6700	6.85Kg
MOD258/HF	2 x 58 Watt T8 mains	10400	8.25Kg
MOD270/HF	2 x 70 Watt T8 mains	12400	9.25Kg

Emergency Luminaires*

Cat No	Lamp & Mode	Emergency Lumens	Weight
MOD236/M3	2 x 36 Watt T8 M3	260	7.65Kg
MOD258/M3	2 x 58 Watt T8 M3	520	9.20Kg
MOD270/M3	2 x 70 Watt T8 M3	430	10.30Kg

^{*} Reverts to one lamp in emergency mode

/ST Digital self-test luminaire

Specification

Body

White gloss powder coated sheet steel

Louvre

Semi-specular double parabolic louvre

Control Gear

All control gear is mounted directly onto the luminaire body

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

36 Watt, 58 Watt or 70 Watt T8 fluorescent lamps (not supplied)

Dimensions

36 Watt T8 Luminaire Dimensions

Length 1280mm x Width 331mm x Depth 65mm

58 Watt T8 Luminaire Dimensions

Length 1580mm x Width 331mm x Depth 65mm

70 Watt T8 Luminaire Dimensions

Length 1880mm x Width 331mm x Depth 65mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk



- Attractive shallow design
- High performance high frequency gear as standard
- Steel body with white semi-gloss finish
- Highly efficient double parabolic aluminium louvre
- All versions are available with integral BSI approved emergency control gear
- Suitable for surface mounting or suspension
- Quick release clips and retaining straps for louvre simplifies maintenance
- Ideal for use in classrooms, offices and general commercial use

Monclair

Surface mounted twin T5 luminaire with category 2 louvre



Specification

Body

White gloss powder coated sheet steel

Louvre

Semi-specular double parabolic louvre

Control Gear

All control gear is mounted directly onto the luminaire body

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

28 Watt, 35 Watt, 49 Watt or 54 Watt T5 fluorescent lamps (not supplied)

Dimensions

28 Watt & 54 Watt Luminaire Dimensions

Length 1231mm x Width 333mm x Depth 55mm

35 Watt & 49 Watt Luminaire Dimensions

Length 1531mm x Width 333mm x Depth 55mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
MON228/HF	2 x 28 Watt T5 mains	5200	6.05Kg
MON235/HF	2 x 35 Watt T5 mains	6600	7.45Kg
MON249/HF	2 x 49 Watt T5 mains	8600	7.65Kg
MON254/HF	2 x 54 Watt T5 mains	8900	7.65Kg

Emergency Luminaires*

	Cat No	Lamp & Mode	Emergency Lumens	Weight
ĺ	MON228/M3	2 x 28 Watt T5 M3	650	7.10Kg
ĺ	MON235/M3	2 x 35 Watt T5 M3	890	8.85Kg
ĺ	MON249/M3	2 x 49 Watt T5 M3	860	9.05Kg
ĺ	MON254/M3	2 x 54 Watt T5 M3	760	9.05Kg

^{*} Reverts to one lamp in emergency mode

Neath

Attractive surface mounted T5 luminaire with controller

Features

- Elegant design
- High performance high frequency gear as standard
- Steel body with white gloss finish with polycarbonate end-caps
- Quality UV stabilised clear reeded polycarbonate controller
- All versions are available with integral BSI approved emergency control gear
- Suitable for surface mounting or suspension
- DALI dimmable, intelligent addressable and digital self-test versions available to order
- Ideal for use in schools, colleges, offices and public sector buildings



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
NEA35/HF	35 Watt T5 mains	3300	3.50Kg
NEA49/HF	49 Watt T5 mains	4300	3.50Kg
NEA54/HF	54 Watt T5 mains	4450	3.50Kg
NEA228/HF	2 x 28 Watt T5 mains	5200	3.50Kg
NEA235/HF	2 x 35 Watt T5 mains	6600	3.70Kg
NEA249/HF	2 x 49 Watt T5 mains	8600	3.70Kg
NE/LED	LED mains standard output	1440	3.50Kg
NE/LED/H	LED mains high output	2880	3.50Kg

Emergency Luminaires*

Cat No	Lamp & Mode	Emergency Lumens	Weight
NEA35/M3	35 Watt T5 M3	890	5.00Kg
NEA49/M3	49 Watt T5 M3	860	5.00Kg
NEA228/M3	2 x 28 Watt T5 M3	890	4.60Kg
NEA235/M3	2 x 35 Watt T5 M3	860	5.20Kg
NEA249/M3	2 x 49 Watt T5 M3	760	5.20Kg
NE/LED/M3	LED M3 standard output	250	5.00Kg
NE/LED/M3/H	LED M3 high output	500	5.00Kg

^{*} Reverts to one lamp in emergency mode

/ST Digital self-test luminaire

Specification

Body

White powder coated sheet steel with polycarbonate end caps

Flame retardant polycarbonate

Control Gear

All control gear is mounted directly onto the luminaire body

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

28 Watt, 35 Watt or 49 Watt T5 fluorescent lamps (not supplied)

0.2W high lumen/watt LED

Dimensions

28 Watt, 54 Watt & LED Luminaire Dimensions

Length 1194mm x Width 172mm x Depth 53mm

35 Watt & 49 Watt Luminaire Dimensions

Length 1494mm x Width 172mm x Depth 53mm

Technical Information



- Robust white powder coated steel body
- Independent switching circuits give the option of switching off two lamps in mains operation offering potential power savings
- High performance high frequency gear as standard
- Optional wire guard and polycarbonate cover provides additional protection in areas where damage may occur
- Polished aluminium reflectors provide broad light distribution
- Suitable for chain suspension, light trunking and BESA fixings
- All versions are available with integral BSI approved emergency control gear
- Controlled optical performance giving impressive and superior spacing data
- Ideal for use in factories, car show rooms, sports halls and warehouses



High performance low bay luminaire



Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire
/CP Clear polycarbonate diffuser
/DALI DALI emergency control gear
/NR Narrow light distribution (T5 lamps only)
/ST Digital self-test luminaire

/WG Wire guard

Specification

Body

Sheet steel with white gloss powder coated finish

Reflector

Polished aluminium

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

55 Watt or 80 Watt TC-L compact fluorescent lamps, 54 Watt or 80 Watt T5 fluorescent lamps (not supplied)

Dimensions

55 Watt & 80 Watt Standard Output Versions (Mains & Emergency)

Length 900mm x Width 605mm x Depth 100mm

54 Watt Standard Output Versions (Mains)

Length 1330mm x Width 510mm x Depth 92mm

54 Watt Standard Output Versions (Emergency)

Length 1430mm x Width 510mm x Depth 92mm

80 Watt Standard Output Versions (Mains)

Length 1630mm x Width 510mm x Depth 92mm 80 Watt Standard Output Versions (Emergency)

Length 1730mm x Width 510mm x Depth 92mm

54 Watt & 55 Watt Economy Output Versions

(Mains & Emergency)

Length 1320mm x Width 464mm x Depth 104mm

80 Watt Standard Output Versions (Mains & Emergency)

Length 1620mm x Width 464mm x Depth 104mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
OR455	4 x 55 Watt TC-L mains standard output	19400	11.50Kg
OR455/ECO	4 x 55 Watt TC-L mains economy output	19400	11.50Kg
OR480	4 x 80 Watt TC-L mains standard output	24600	11.50Kg
OR454/T5	4 x 54 Watt T5 mains standard output	17800	12.50Kg
OR454/T5/ECO	4 x 54 Watt economy T5 mains economy output	17800	12.50Kg
OR480/T5	4 x 80 Watt T5 mains standard output	24600	13.75Kg
OR480/T5/ECO	4 x 80 Watt economy T5 mains economy output	24600	13.75Kg

Emergency Luminaires*

Cat No	Lamp & Mode	Emergency Lumens	Weight
OR455/M3	4 x 55 Watt TC-L M3 standard output	1034	17.00Kg
OR455/M3/ECO	4 x 55 Watt economy TC-L M3 economy output	1034	17.00Kg
OR480/M3	4 x 80 Watt TC-L M3 standard output	1020	17.00Kg
OR454/T5/M3	4 x 54 Watt T5 M3 standard output	760	15.10Kg
OR454/T5/M3/ECO	4 x 54 Watt economy T5 M3 economy output	760	15.10Kg
OR480/T5/M3	4 x 80 Watt T5 M3 standard output	615	16.30Kg
OR480/T5/M3/ECO	4 x 80 Watt economy T5 M3 economy output	615	16.30Kg

^{*} Reverts to one lamp in emergency mode



- Available in white finish as standard, with polished brass and chrome finishes available as options
- Supplied as a fully recessed luminaire as standard, but can be transformed into an attractive recessed exit sign with the use of an edge-lit plasi-glas flame retardant legend panel
- Robust, galvanised rear body requires a ceiling depth of only 90mm
- Hinged, removable steel gear tray facilitates easy fixing and maintenance
- Ideal for use in offices, retail outlets and reception areas

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/BR Brass finish

/CH Chrome finish

/DALI DALI emergency control gear

/EX Single-sided exit version

/EX/D Double-sided exit version

/HF High frequency ballast

/O Opal diffuser

/ST Digital self-test luminaire

Specification

Body

Galvanised steel rear enclosure with sheet steel fascia

Diffuser

Prismatic polycarbonate diffuser (opal polycarbonate diffuser available as an option)

Legend Panel

Flame retardant polycarbonate

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery $% \left(1\right) =\left(1\right) \left(1\right) \left($

Lamp

 $8\,\mathrm{Watt}\,\mathrm{T5}$ fluorescent lamps are supplied complete with the luminaire

LED's

25W chip-on-board LED

Dimensions

Luminaire Dimensions

Length 410mm x Width 155mm x Depth 90mm

Exit Sign Dimensions

Length 410mm x Width 155mm x Overall Depth 250mm (legend panel is 160mm below the ceiling)

Cut-Out Dimensions

Length 325mm x Width 130mm (minimum ceiling void of 90mm required)

Viewing Distance

32 Metres (when supplied with edge-lit legend panel)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**













Fully recessed interior luminaire or exit sign



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
CAL1X8	8 Watt mains	400	2.20Kg
CAL/LED	LED mains	360	2.20Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
CAL8/NM3/E	8W NM3 economy output	80	2.70Kg
CAL8/NM3 💖	8W NM3 standard output	120	2.70Kg
CAL8/NM3/H	8W NM3 high output	180	2.70Kg
CAL8/M3/E	8W M3 economy output	80	2.90Kg
CAL8/M3	8W M3 standard output	120	2.90Kg
CAL8/M3/H	8W M3 high output	180	2.90Kg
CAL2X8/NM3	2 x 8W NM3 economy output	240	3.00Kg
CAL2X8/NM3/H	2 x 8W NM3 standard output	360	3.00Kg
CAL/LED/M3	LED NM3/M3	125	2.20Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
CAL8/#D	8 Watt slave bulkhead	275	2.10Kg
CAL/LED/#D	LED slave bulkhead	125	2.10Kg

For fluorescent versions replace # with AC/DC system Voltage **24, 50, 110** or **230** Volts; for LED versions replace # with AC/DC system Voltage **110** or **230** Volts.

Chella

Stylish recessed polycarbonate luminaire or exit sign



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
CHE1X8	8 Watt mains	400	1.00Kg
CHE/LED	LED mains	360	1.00Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
CHE8/NM3/E	8W NM3 economy output	80	1.50Kg
CHE8/NM3 ♥	8W NM3 standard output	120	1.50Kg
CHE8/NM3/H *	8W NM3 high output	180	1.50Kg
CHE8/M3/E	8W M3 economy output	80	1.80Kg
CHE8/M3	8W M3 standard output	120	1.80Kg
CHE8/M3/H	8W M3 high output	180	1.80Kg
CHE2X8/NM3/E	2 x 8W NM3 economy output	120	1.55Kg
CHE2X8/NM3 *	2 x 8W NM3 standard output	240	1.55Kg
CHE/LED/M3	LED M3	125	1.80Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
CHE8/#D	8 Watt slave	275	1.00Kg
CHE/LED/#D	LED slave	125	1.30Kg

For fluorescent versions replace # with AC/DC system Voltage **24, 50, 110** or **230** Volts; for LED versions replace # with AC/DC system Voltage **110** or **230** Volts.

Features

- Versatile range includes mains, emergency and slave versions, with addressable and self-testing options also available
- Supplied as a fully recessed luminaire as standard, but can be transformed into an attractive recessed exit sign with the use of an edge-lit plasi-glas legend panel
- Effective light-pipe design enabling the emergency charge LED indicator to be clearly visible
- Hinged, removable steel gear tray facilitates easy fixing and maintenance
- Ideal for use in offices, retail outlets and reception areas

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/DALI DALI emergency control gear

/EX Single-sided exit version (ingress rating IP20)

/EX/D Double-sided exit version (ingress rating IP20)

/HF High frequency ballast

/ST Digital self-test luminaire

Specification

Body

Flame retardant polycarbonate with white finish

Diffuser

Clear flame retardant polycarbonate

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

8 Watt T5 fluorescent or 11 Watt TC-S compact fluorescent (CHE11)

LED's

0.2W high lumen/watt LED

Dimensions

Luminaire Dimensions

Length 380mm x Width 150mm x Depth 80mm

Exit Sign Dimensions

Length 380mm x Width 150mm x Overall Depth 250mm (legend panel is 160mm below the ceiling)

Cut-Out Dimensions

Length 335mm x Width 107mm (when used with CAD/WH semi-recessing kit)

Viewing Distance

24 Metres (when supplied with edge-lit legend panel)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**

* Third party approval applied for.







- Comprehensive range including downlights, tiltable downlights and shower lights
- Available in white finish as standard with brass, chrome and satin chrome finishes available as options
- Robust diecast housing
- Twist-and-lock retaining bezel for ease of lamp removal
- Supplied with a fixed and shrouded 3 way terminal block
- Fire tested and approved to a 90 minute rating to BS476 Part2/1987
- Acoustically tested and approved to BSEN150 140-3 1995 and BSEN150 140-6 1998 respectively
- Ideal for use in hotels, retail outlets and domestic dwellings



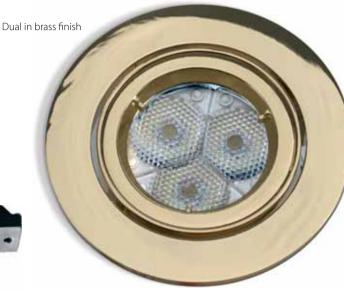
Dual in satin-chrome finish



Dual in white finish

Dual

Fire-rated downlight range





Dual in chrome finish

Options

For emergency options please refer to page 79

Specification

Body

Diecast outer ring and body

Lamps

GU10 LED lamps (not supplied)

Dimensions

Downlight Dimensions

Ø Length 92mm (cut-out 74mm)

Titable Downlight Dimensions

Ø Length 105mm (cut-out 85mm)

Shower Light Dimensions

Ø Length 105mm (cut-out 85mm)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk





Mains Luminaires

Cat No	Lamp & Mode	Weight
DU/WH	White GU10 downlight	0.38Kg
DU/BR	Brass GU10 downlight	0.38Kg
DU/CH	Chrome GU10 downlight	0.38Kg
DU/SC	Satin chrome GU10 downlight	0.38Kg

DU/TD/WH	White GU10 tiltable downlight	0.40Kg
DU/TD/BR	Brass GU10 tiltable downlight	0.40Kg
DU/TD/CH	Chrome GU10 tiltable downlight	0.40Kg
DU/TD/SC	Satin chrome GU10 tiltable downlight	0.40Kg

DU/SL/WH	White GU10 IP65 shower light (35W lamp only)	0.40Kg
DU/SL/BR	Brass GU10 IP65 shower light (35W lamp only)	0.40Kg
DU/SL/CH	Chrome GU10 IP65 shower light (35W lamp only)	0.40Kg
DU/SL/SC	Satin chrome GU10 IP65 shower light (35W lamp only)	0.40Kg

Dyode

Unique fully-recessed LED luminaire



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
DY/LED/230A/OA	LED open area mains	85	0.1Kg
DY/LED/230A/OA/H	LED high output mains	140	0.1Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
DY/LED/NM3/OA	LED open area NM3	85	0.1Kg
DY/LED/NM3/OA/H	LED high output NM3	140	0.1Kg
DY/LED/M3/OA	LED open area M3	85	0.1Kg
DY/LED/M3/OA/H	LED high output M3	140	0.1Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
DY/LED/#D/OA	LED open area slave	85	0.1Kg

Features

- 50mm diameter
- Superbly designed refractor lens assembly
- Specially developed LED driver and advanced thermal engineering techniques reduce LED operating temperatures
- LED life exceeds 50,000 hours
- LED self-test versions available
- Emergency versions utilise Nickel Metal Hydride battery packs
- Supplied as an open area version but corridor versions to illuminate centre lines of escape are available as an option
- Emergency packs can easily pass through a 40mm ceiling cut-out
- Ideal for use in hotels, retail outlets and reception areas
- Unique optical design to optimise the light distribution for emergency lighting applications

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/CR Corridor version

/H High output version (not available with self-test facility)

/ST Digital self-test luminaire

Specification

Body

850°C hot-wire compliant polycarbonate

Diffuser

850°C hot-wire compliant polycarbonate

Charger LED

Constant current with green LED for mains healthy and connected battery

Sleeving

Silicone coated woven glass fibre (temperature range -60°C to +250°C)

LED's

3W high lumen/watt LED

Dimensions

Luminaire Dimensions

Ø 50mm x Depth 32mm (22m above ceiling)

Emergency Pack Dimensions

Ø 75mm x Length 190mm

Cut-Out Dimension

Ø 40mm

Technical Information



- Seamless design to blend into any lighting scheme
- Specially developed LED driver
- High quality LED's with extended life expectancy
- Refractor lens provides efficient light distribution pattern
- LED self-test versions conform to the requirements of BS EN62034:2006
- Emergency versions utilise Nickel Metal Hydride battery packs
- Supplied as an open area version but corridor versions to illuminate centre lines of escape are available as an option
- Wide range of options available including cold store versions, surface trims and semi-recessing kits
- High output versions give a light output equivalent to a 16W 2D fluorescent lamp
- Ideal for use in hotels, retail outlets and reception areas

Elled

Distinctive ceiling mounted LED luminaire





trim and clear diffuser

Elled with chrome surface trim and opal diffuser



Elled with white surface trim and opal diffuser

Options

Add suffix to catalogue number:

/-30°C Cold store version (suitable to ambients down to -30°C)

/BR Brass surface trim (excluding high output versions)

/CH Chrome surface trim (excluding high output versions)

/CR Corridor version

/O Opal diffuser

/R Semi-recessing kit

/ST Digital self-test luminaire

/WH White surface trim (excluding high output versions)

Specification

Body

850°C hot-wire compliant polycarbonate

Diffuser

850°C hot-wire compliant polycarbonate

Charger LED

Constant current with green LED for mains healthy and connected battery

Sleeving

Silicone coated woven glass fibre (temperature range -60°C to +250°C)

3W high lumen/watt LED

Dimensions

Luminaire Dimensions

Ø 120mm x Depth 67mm (35mm above ceiling)

Emergency Pack Dimensions

Ø 75mm x Length 190mm

Cut-Out Dimension

Ø 100mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
ELL/LED/230A/OA	LED open area mains	45	0.50Kg
ELL/LED/230A/OA/H *	LED corridor mains	1150	0.50Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
ELL/LED/NM3/OA	LED open area NM3	45	0.50Kg
ELL/LED/NM3/OA/H*	LED open area NM3 high output	50	0.50Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
ELL/LED/#D/OA	LED open area slave	45	0.50Kg
ELL/LED/#D/CR	LED corridor slave	45	0.50Kg

^{*} High output versions have external control gear and are not suitable for surface mounting. Replace # with AC/DC system Voltage 110 or 230 Volts.

Geneva

Stylish recessed luminaire or exit sign





Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
GN8/NM3	8W NM3 white	120	1.20Kg
GN8/M3	8W M3 white	120	1.50Kg
GN/LED/M3	LED M3 white	125	1.50Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
GN8/#D	8 Watt slave white	275	1.20Kg
GN/LED/#D	LED slave bulkhead	125	1.20Kg

For fluorescent versions replace # with AC/DC system Voltage **24, 50, 110** or **230** Volts; for LED versions replace # with AC/DC system Voltage **110** or **230** Volts.

Features

- Available in white finish as standard, with brass and chrome finishes available as options
- Supplied as a fully recessed luminaire as standard, but can be transformed into an attractive recessed exit sign with the use of an edge-lit plasi-glas legend panel
- Can be supplied as an 8 Watt fluorescent or LED luminaire
- LED versions offer a long life of up to 50,000 hours
- Prismatic lens controller ensures optimised light distribution
- Ideal for use in hotels, conference centres and retail shopping centres
- High frequency control gear as standard

Options

Add suffix to catalogue number:

/BR Brass finish

/CH Chrome finish

/EX Single-sided exit version

/EX/D Double-sided exit version

Specification

Body

Galvanised steel rear enclosure with sheet steel fascia

Diffuser

Prismatic polycarbonate diffuser

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Legend Panel

Flame retardant plasi-glas

Lamps

8 Watt T5 fluorescent lamps are supplied complete with the luminaire (fluorescent versions only)

LED's

 $5 \times 0.2 \text{W}$ high lumen/watt LED (125 lumens/watt)

Dimensions

Luminaire Dimensions

Length 360mm x Width 90mm x Depth 80mm

Exit Sign Dimensions

Length 360mm x Width 90mm x Overall Depth 240mm (legend panel is 160mm below the ceiling)

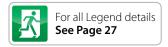
Cut-Out Dimensions

Length 325mm x Width 80mm (minimum ceiling void of 80mm required)

Viewing Distance

24 Metres (when supplied with edge-lit legend panel)

Technical Information





- Spun sheet steel base with white powder coated finish supplied with an opal domed diffuser as standard
- Available in mains, emergency and slave options
- Supplied with high quality LED's for extended life
- Options include intelligent addressable and digital self-testing luminaires
- Removable gear tray and centre besa entry for ease of installation
- Standard 28W equivalent output with high output 38W equivalent available as an option
- Ideal for use in hotels, shops and reception areas

Mead with standard opal dome diffuser

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire /DALI DALI emergency control gear /PR Prismatic diffuser /ST Digital self-test luminaire

Specification

Body

Sheet steel with white finish powder coated finish

Diffuser

Domed opal or clear prismatic polycarbonate as standard

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

LED's

Standard output versions use $81 \times 0.2W$ LED array; high output versions use $121 \times 0.2W$ LED array

Dimensions

Luminaire Dimensions

Ø 330mm x Depth 80mm

Cut-Out Dimension

Ø 305mm x Depth 85mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



Mead

Attractive recessed LED luminaire with dome diffuser



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
MEA/LED	LED mains standard output	2050	1.80Kg
MEA/LED/H	LED mains high output	2850	1.80Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
MEA/LED/M3	LED M3 standard output	107	2.70Kg
MEA/LED/M3/H	LED M3 high output	107	2.70Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
MEA/LED/#D	LED slave standard output	107	1.80Kg
MEA/LED/#D/H	LED slave high output	107	1.80Kg

Meled

Attractive shallow LED downlight

Features

- Shallow die-cast aluminium body for enhanced thermal dissipation
- Spring fixing clips providing quick installation
- High quality LED driver for impressive uniform LED light distribution
- Mains and emergency versions available
- Colour temperature 3200k (1275 lumen mains output)
- Compact white body with attractive opal cover
- Ideal for use in hotels, retail outlets and general circulation



Specification

Body

Die-cast aluminium body with white powder-coated finish

Cover

Opal glass cover

LED Driver

LED driver is external to luminaire

Charger LED

Constant current with green LED for mains healthy and connected battery

Emergency Pack

Silicone coated woven glass fibre sleeving

LED's

0.2W high lumen/watt LED

Dimensions

Luminaire Dimensions

Ø 200mm x Depth 35mm

Cut-Out Dimensions

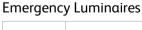
Ø 175mm x Depth 35mm (minimum ceiling void)

Emergency Train Dimensions

Length 740mm x Cut-Out 60mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



LED mains

Mains Luminaires

Cat No

MEL/LED

Cat No	Lamp & Mode	Emergency Lumens	Weight
MEL/LED/M3	LED M3	630	2.50Kg

Lamp & Mode

Mains

Lumens

1275

Weight

1.00Kg



- Comprehensive range supported by a wide range of options provide solutions to many interior applications
- High performance high frequency gear as standard
- LED versions incorporate high quality LED's for extended life
- Unique design enhances thermal dissipation and excellent performance
- All versions are available with integral BSI approved emergency control gear
- Mains, emergency and slave options
- Can be supplied in single or twin lamp versions
- Ideal for use in retail outlets, washrooms, corridors and general circulation areas

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire /L+ Drop legend version /ST Digital self-test luminaire

Replace + with either L16, L17, L18, L19 or L20 legend panel

Trim Options

Supplied with white trim as standard, for alternative colour finish add suffix to catalogue number:

/MU/BR Brass trim /MU/CH Chrome trim

Drop Glass Options

Supplied with white trim as standard, for drop glass options add suffix to catalogue number:

/DG/BR Drop glass with brass trim /DG/CH Drop glass with chrome trim /DG/WH Drop glass with white trim

IP44 Cover Options

Supplied with white trim as standard, for IP44 cover options add suffix to catalogue number:

/IP/BR IP44 cover with brass trim /IP/CH IP44 cover with chrome trim /IP/WH IP44 cover with white trim

Specification

Trim

Metal trim with white finish as standard (see options for trim /cover variants) Spinning

Polished aluminium reflector

Control Gear Box

Polycarbonate gear box (mains only versions); emergency versions consist of the polycarbonate mains gear box plus an additional sheet steel gear box

Constant current with green LED for mains healthy and connected battery Lamps

18 Watt or 26 Watt TC-D compact fluorescent lamps or 32 Watt or 42 Watt TC-T compact fluorescent lamps (not supplied)

25W chip-on-board LED

Dimensions

Luminaire Dimensions

Ø 226mm x Depth 198mm (minimum ceiling void)

Drop Glass Version Dimensions

Ø 226mm x Overall Depth 218mm (drop glass is 20mm below the ceiling)

Drop Legend Version Dimensions Ø 226mm x Overall Depth 318mm (legend panel is 120mm below the ceiling)

Cut-Out Dimensions

Ø 208mm x Depth 198mm (minimum ceiling void)

Viewing Distance

18 metres (when supplied with drop legend)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk







Multia

Stylish range of compact fluorescent or LED downlights











Multia with legend panel

Multia with drop glass

Multia with brass IP44 trim

Multia with chrome trim

Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
MU18	18 Watt TC-D mains	1150	2.42Kg
MU218	2 x 18 Watt TC-D mains	2300	3.25Kg
MU26	26 Watt TC-D mains	1800	2.42Kg
MU226	2 x 26 Watt TC-D mains	3600	3.25Kg
MU32	32 Watt TC-T mains	2200	2.28Kg
MU232	2 x 32 Watt TC-T mains	4400	2.36Kg
MU42	42 Watt TC-T mains	3200	3.25Kg
MU242	2 x 42 Watt TC-T mains	6400	3.25Kg
MU/LED	LED mains	1630	1.60Kg

Emergency Luminaires +

Cat No	Lamp & Mode	Emergency Lumens	Weight
MU18/M3	18 Watt TC-D M3	276	2.42Kg
MU218/M3*	2 x 18 Watt TC-D M3	276	3.25Kg
MU26/M3	26 Watt TC-D M3	324	2.42Kg
MU226/M3*	2 x 26 Watt TC-D M3	324	3.25Kg
MU32/M3	32 Watt TC-T M3	480	2.28Kg
MU232/M3*	2 x 32 Watt TC-T M3	480	3.30Kg
MU42/M3	42 Watt TC-T M3	416	3.25Kg
MU242/M3*	2 x 42 Watt TC-T M3	416	3.40Kg
MU/LED/M3	LED M3	350	2.80Kg

[†] Weights do not include remote emergency gear box, add 2.1Kg to each product

^{*} Reverts to one lamp in emergency mode



- UV stabilised, flame retardant polycarbonate used in each Ecos enclosure
- Sealed to IP65 as standard
- Clear radial lens for enhanced photometric performance
- Versions available with 2D fluorescent lamps, compact fluorescent lamps, T5 circular lamps and long-life LED's
- Wide range of options including intelligent addressable and self-testing luminaires
- Optional microwave presence detectors can be integrally fitted within the luminaire
- Hinged, steel gear tray for easy fixing and maintenance
- Can be supplied with a semi-recessing trim lending it to anti-ligature applications
- Ideal for use in police and magistrates cells, military establishments, schools and public areas



IP65 robust polycarbonate luminaire



Ecos with white bas and clear diffuser

Ecos with white semi-recessing trim and opal diffuser

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/BK Black base

/DALI DALI emergency control gear

/ECR/WH White semi-recessing trim

/HF High frequency ballast

/MD Microwave presence detector

/O Opal diffuser

/ST Digital self-testing luminaire

/TS Push-to-test switch

/VR Anti-tamper screws

Specification

Body

Flame retardant polycarbonate

Diffuser

Flame retardant polycarbonate

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamns

28W and 38W 2D fluorescent; 18W TC-L compact fluorescent; 40W TC-F compact fluorescent; 22W and 40W T5 circular fluorescent

LED's

48 x 0.2W high lumen/watt LED (economy output versions) 81 x 0.2W high lumen/watt LED (standard output versions) 121 x 0.2W high lumen/watt LED (high output versions)

Dimensions

Luminaire Dimensions

Ø 397mm x Width 132mm

Dimensions with Semi-Recessing Trim

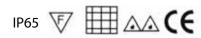
Ø 406mm x Width 86mm (minimum 46mm ceiling void required)

Cut-Out Dimension

Ø 395mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
EC28	28W 2D mains	2050	2.80Kg
EC38	38W 2D mains	2850	2.80Kg
EC/LED/E	LED mains (16W equivalent)	1150	2.80Kg
EC/LED	LED mains (28W equivalent)	2050	2.80Kg
EC/LED/H	LED mains (38W equivalent)	2850	2.80Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
EC28/M3	28W 2D M3	270	3.10Kg
EC38/M3	38W 2D M3	625	3.10Kg
EC/LED/E	LED M3 (16W equivalent)	107	3.10Kg
EC/LED/M3	LED M3 (28W equivalent)	107	3.10Kg
EC/LED/H	LED M3 (38W equivalent)	107	3.10Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
EC28/PVR#D	28W 2D mains/slave	500	2.90Kg
EC38/PVR#D	28W 2D mains/slave	500	2.90Kg

Holt

Rugged IP65 square luminaire



Cat No	Lamp & Mode	Mains Lumens	Weight
HT16B	16 Watt 2D mains	2050	1.10Kg
HT28B	28 Watt 2D mains	2850	1.10Kg
HT211B	2 x 11 Watt TC-S mains	1800	2.00Kg
HT/LED/E	LED mains economy output	1150	1.10Kg
HT/LED	LED mains standard output	2050	1.10Kg
HT/LED/H	LED mains high output	2850	1.10Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
HT16B/M3	16 Watt 2D M3	200	3.00Kg
HT28B/M3	28 Watt 2D M3	270	3.00Kg
HT28B/24/C3	28 Watt mains + 2 x 4W T5 NM3	160	3.00Kg
HT211B/M3	2 x 11 Watt TC-S M3 (1 lamp in emergency)	180	3.00Kg
HT/LED/M3	LED M3 standard output	107	3.00Kg
HT/LED/M3/H	LED M3 high output	107	3.00Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
HT16B/#D	16 Watt 2D slave	400	1.10Kg
HT28B/#D	28 Watt 2D slave	500	1.50Kg

Features

- Tough, all-polycarbonate housing
- Wide range of options available to suit specific requirements
- Screw-fixing diffuser located with brass threaded inserts
- Hinged steel gear tray, rear besa and side conduit entries
- Supplied with a white base and prismatic diffuser as standard with an opal diffuser and black base available as options
- Ideal for use in stairwells, car parks and walkways

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/BK Black base

/DALI DALI emergency control gear

/HF High frequency ballast

/MD Microwave presence detector

/O Opal diffuser

/R Semi-recessing trim

/ST Digital self-test luminaire

/VR Anti-tamper screws

Specification

Body

Flame retardant polycarbonate with white finish (black polycarbonate base available as an option)

Diffuser

Flame retardant clear prismatic polycarbonate as standard (opal polycarbonate diffuser available as an option)

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

Either 16 Watt or 28 Watt 2D fluorescent, 11 Watt TC-S and 4WT5 fluorescent lamps are supplied complete with the luminaire

Dimensions

Luminaire Dimensions

Length 255mm x Width 255mm x Depth 90mm

Technical Information







- Robust IP65 die-cast housing available in black finish as standard, with silver-grey finish as an option
- Can be wall or ceiling mounted and suitable for exterior applications
- Wide range of options including an anti-vandal guard and anti-light pollution eyelid
- Supplied with anti-tamper screws as standard
- Fluorescent and LED versions available in mains and emergency mode
- Toughened polycarbonate diffuser
- Ideal for use in car parks and building perimeters

Idro

Robust and attractive circular aluminium die-cast IP65 bulkhead



Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire **/DALI** DALI emergency control gear

/EY Anti-light pollution eyelid version

/HF High frequency ballast

/SG Silver-grey finish

/ST Digital self-test luminaire



Body

Aluminium die-cast in black finish (silver-grey finish available as an option)

Diffuser

Flame retardant opal polycarbonate diffuser

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

Either 28 Watt or 38 Watt 2D fluorescent, or 11 Watt TC-S compact fluorescent lamps are supplied complete with the luminaire

LED's

Standard output version - 81 x 0.2W high lumen/watt LED High output version - 121 x 0.2W high lumen/watt LED

Dimensions

Ø 360mm x Depth 130mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**









Idro in black with eylid option

Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
IDR28	28 Watt 2D mains	2050	6.00Kg
IDR38	38 Watt 2D mains	2850	6.00Kg
IDR/LED	LED mains standard output	2050	6.00Kg
IDR/LED/H	LED mains high output	2850	6.00Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
IDR28/M3	28 Watt 2D M3	270	7.00Kg
IDR38/M3	38 Watt 2D M3	625	7.00Kg
IDR211B/M3	2 x 11 Watt TC-S M3 (1 lamp in emergency)	390	7.00Kg
IDR/LED/M3	LED M3 standard output	107	7.00Kg
IDR/LED/M3/H	LED M3 high output	107	7.00Kg

For fluorescent versions replace # with AC/DC system Voltage **24, 50, 110** or **230** Volts; for LED versions replace # with AC/DC system Voltage **110** or **230** Volts.

lona

Robust and attractive square aluminium die-cast IP65 bulkhead



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
ION28	28 Watt 2D mains	2050	6.00Kg
ION38	38 Watt 2D mains	2850	6.00Kg
ION/LED	LED mains standard output	2050	6.00Kg
ION/LED/H	LED mains high output	2850	6.00Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
ION28/M3	28 Watt 2D M3	270	7.00Kg
ION38/M3	38 Watt 2D M3	625	7.00Kg
ION/LED/M3	LED mains standard output	107	7.00Kg
ION/LED/M3/H	LED mains high output	107	7.00Kg

For fluorescent versions replace # with AC/DC system Voltage $\bf 24, 50, 110$ or $\bf 230$ Volts; for LED versions replace # with AC/DC system Voltage $\bf 110$ or $\bf 230$ Volts.

Features

- Robust IP65 die-cast housing available in black finish as standard, with silver-grey finish as an option
- Suitable for most exterior applications
- Anti-vandal guard and anti-light pollution eyelid available as options
- Can be wall or ceiling mounted
- Fluorescent and LED versions available in mains and emergency mode
- Toughened polycarbonate diffuser and anti-tamper screws as standard
- Ideal for use in building perimeters and car parks

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/DALI DALI emergency control gear

/EY Anti-light pollution eyelid version

/GU Anti-vandal guard version

/HF High frequency ballast

/SG Silver-grey finish

/ST Digital self-test luminaire

Specification

Body

Aluminium die-cast in black finish (silver-grey finish available as an option)

Diffuser

Opal polycarbonate diffuser

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

Either 28 Watt or 38 Watt 2D fluorescent, or 11 Watt TC-S compact fluorescent lamps are supplied complete with the luminaire

LED's

Standard output version - 81 x 0.2W LED High output version - 121 x 0.2W LED

Dimensions

Length $360 mm \times Width 360 mm \times Depth 125 mm$

Technical Information







- White all-polycarbonate housing
- Available in 2D fluorescent, compact fluorescent and LED versions
- Attractive surface trims available in white, polished brass and polished chrome finishes
- Can be ceiling or wall mounted
- Twist-and-lock diffuser for simple installation and maintenance
- Wide range of options include intelligent addressable and digital self-test luminaires
- Ideal for use in stairwells, corridors, toilets and changing rooms

Kandel

Circular surface or semi-recessed IP54 luminaire



Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire /DALI DALI emergency control gear /HF High frequency ballast

/HF High frequency ballast /KN/BR Brass surface trim

/KN/CH Chrome surface trim

/KN/WH White surface trim /MD Microwave presence detector

/R Semi-recessing trim

/ST Digital self-test luminaire



Kandel with white surface trim and opal diffuser

Specification

Body

Flame retardant polycarbonate with white finish

Diffuse

Flame retardant opal polycarbonate as standard (clear flame retardant polycarbonate diffuser available as an option)

Gear Trav

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

Either 28 Watt or 38 Watt 2D fluorescent and are supplied complete with the luminaire

LED's

Standard output version - 81 x 0.2W LED High output version - 121 x 0.2W LED

Dimensions

Luminaire Dimensions

Ø 360mm x Depth 85mm

Cut-Out Dimensions

Ø 335mm (minimum 50mm ceiling void required)

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
KN28	28 Watt 2D mains	2050	0.50Kg
KN38	38 Watt 2D mains	2850	0.50Kg
KN/LED	LED mains standard output	2050	0.50Kg
KN/LED/H	LED mains high output	2850	0.50Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
KN28/NM3	28 Watt 2D NM3	280	3.00Kg
KN28/M3	28 Watt 2D M3	280	3.00Kg
KN28/24/C3	28 Watt mains + 2 x 4W T5 NM3	160	2.70Kg
KN/LED/M3	LED M3 standard output	107	2.30Kg
KN/LED/M3/H	LED M3 high output	107	2.70Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
KN28/#D	28 Watt 2D slave	650	2.30Kg
KN38/#D	38 Watt 2D slave	650	2.30Kg

Kerriled

Stylish circular LED drum luminaire



Suspended Kerriled with oval diffuser

Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
KER/LED	LED mains standard output	2050	2.10Kg
KEH/LED/B	LED mains high output	2850	2.10Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
KER/LED/M3	LED M3 standard output	107	3.00Kg
KEH/LED/M3/H	LED M3 high output	107	3.00Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
KER/LED/#D	LED slave standard output	107	2.10Kg
KER/LED/#D/H	LED slave high output	107	2.10Kg

Features

- Spun sheet steel base with white powder coated finish supplied with an opal or prismatic domed diffuser as standard
- Available in mains, ermergency and slave options
- Supplied with high quality LED's for extended life
- Luminaire options include intelligent addressable control gear and microwave presence detectors
- Removable gear tray and centre besa entry for ease of installation
- Standard 28W equivalent output with high output 38W equivalent available as an option
- Ideal for use in foyers, corridors and stairwells

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire /DALI DALI emergency control gear /MD Microwave presence detector /ST Digital self-test luminaire /WS Wire suspension kit

Specification

Body

Spun steel body with white powder coated finish

Diffuser

Flame retardant polycarbonate opal or prismatic diffuser

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

LED's

Standard output version - 81 x 0.2W LED High output version - 121 x 0.2W LED

Dimensions

Ø 430mm x Depth 75mm

Technical Information



- Spun steel base containing control gear and energy saving LED's or fluorescent lamp
- Available in 3 diameter sizes; 330mm, 430mm and 525mm
- Supplied with white finish as standard with brass and chrome available as options
- Available as mains, emergency and slave options
- Supplied with an opal diffuser as standard with a clear prismatic diffuser as an option
- Wide range of options include intelligent addressable and digital self-test luminaires
- Ideal for use in foyers, corridors and stairwells





Larino finished in brass

Larino finished in chrome

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/BR Brass finish

/CH Chrome diffuser

/DALI DALI emergency control gear

/HF High frequency ballast

/PR Prismatic diffuser

/ST Digital self-test luminaire

Specification

Body

Spun steel with white epoxy coated finish as standard brass or chrome plated finish available as options)

Diffuser

Opal polycarbonate as standard (prismatic polycarbonate diffuser available as an option)

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

Either 16 Watt, 28 Watt or 38 Watt 2D fluorescent; 26 Watt TC-D compact fluorescent; or 40 Watt or 55Watt T5c circular fluorescent lamps are supplied complete with the luminaire

LED's

Standard output version - 81 x 0.2W LED High output version - 121 x 0.2W LED

Dimensions

Size A Dimensions

Ø 330mm x Depth 105mm

Size B Dimensions

Ø 430mm x Depth 105mm

Size C Dimensions

Ø 525mm x Depth 105mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



Larino

Elegant circular lighting range



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
LAR16	16 Watt 2D mains size A	1050	1.10Kg
LAR28	28 Watt 2D mains size B	2050	2.10Kg
LAR38	38 Watt 2D mains size B	2850	2.10Kg
LAR40	40 Watt T5c circular mains size B	3500	2.60Kg
LAR226	2 x 26 Watt TC-D mains size C	3600	2.60Kg
LAR55T5C	55 Watt T5c circular mains size C	4200	2.60Kg
LAR/LED	LED mains standard output size B	2050	2.10Kg
LAR/LED/H	LED mains high output size B	2850	2.10Kg

Emergency Luminaires

		Emergency	
Cat No	Lamp & Mode	Lumens	Weight
LAR16/M3	16 Watt 2D M3 size A	200	2.70Kg
LAR28/M3	28 Watt 2D M3 size B	270	3.00Kg
LAR38/M3	38 Watt 2D M3 size B	625	3.00Kg
LAR40/M3	40 Watt T5c circular M3 size B	370	3.70Kg
LAR226/M3	2 x 26 Watt TC-D M3 size C	324	3.70Kg
LAR55T5C/M3	55 Watt T5c circular M3 size C	530	3.70Kg
LAR/LED/M3	LED M3 standard output size B	107	3.00Kg
LAR/LED/M3/H	LED M3 high output size B	107	3.00Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
LAR16/#D	16 Watt 2D slave size A	400	1.10Kg
LAR28/#D	28 Watt 2D slave size B	500	2.00Kg
LAR38/#D	38 Watt 2D slave size B	500	2.00Kg
LAR40/#D	40 Watt T5c circular slave size B	990	2.00Kg

For fluorescent versions replace # with AC/DC system Voltage **24, 50, 110** or **230** Volts; for LED versions replace # with AC/DC system Voltage **110** or **230** Volts.

Lavaine

Classically styled decorative luminaire



Features

- Classic styling consisting of a steel gallery with either polished brass or polished chrome finish and an opal glass diffuser
- Diffuser is held in place by 3 knuckle screws finished to match the gallery colour finish
- Simple installation and maintenance aided by the simple, screw
 -fixing diffuser and the gear being located directly onto the
 gallery, eradicating the need for separate, removable gear-trays
- Can be ceiling or wall mounted
- Options include intelligent addressable and digital self-test luminaires
- Ideal for use in churches, libraries, reception areas and most decorative applications

Lavaine with brass finish



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
LV28C/BR	28 Watt 2D mains brass finish	2050	4.60Kg
LV28C/CH	28 Watt 2D mains chrome finish	2050	4.60Kg
LV38C/BR	38 Watt 2D mains brass finish	2850	4.60Kg
LV38C/CH	38 Watt 2D mains chrome finish	2850	4.60Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
LV28C/M3/BR	28 Watt 2D M3 brass finish	280	4.80Kg
LV28C/M3/CH	28 Watt 2D M3 chrome finish	280	4.80Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
LV28C/#D/BR	28 Watt 2D slave brass finish	500	3.80Kg
LV28C/#D/CH	28 Watt 2D slave chrome finish	500	3.80Kg
LV38C/#D/BR	38 Watt 2D slave brass finish	500	3.80Kg
LV38C/#D/CH	38 Watt 2D slave Chrome finish	500	3.80Kg

Replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts.

Options

Add suffix to catalogue number:

 $\begin{tabular}{ll} \textbf{/AD} & \textbf{Intelligent addressable luminaire} \end{tabular}$

/DALI DALI emergency control gear **/HF** High frequency ballast

/ST Digital self-test luminaire

Specification

Body

Steel gallery with brass finish as standard (chrome finish available as an option)

Diffuser

Glass opal

Control Gear

All control gear is mounted directly onto the gallery (does not have a removable gear tray)

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

 $28\,\mbox{Watt}$ or $38\,\mbox{Watt}$ 2D fluorescent lamps are supplied complete with the luminaire

Dimensions

Ø 390mm x Depth 180mm

Technical Information



- Suitable for most interior and exterior applications
- Available in 2D fluorescent, compact fluorescent and LED versions
- Hinged steel gear tray and centre rear besa entry for ease of installation
- Optional elegant trims with an opal base create halo impressive diffused halo effects
- Can be semi-recessed when using the narrow version of the two optional trims
- Wide range of options include intelligent addressable and digital self-test luminaires
- Ideal for use in hotels, universities, shower areas and stairwells



Attractive and robust IP65 circular polycarbonate luminaire



Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/DALI DALI emergency control gear

/HF High frequency ballast

/MD Microwave presence detector

/NT Narrow trim

/OP Opal halo effect base

/R Semi-recessing trim

/ST Digital self-test luminaire

/WT Wide trim

Specification

Body

Flame-retardant polycarbonate with white finish

Diffuser

Opal flame-retardant polycarbonate

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

Either 28 Watt or 38 Watt 2D fluorescent, 11 Watt TC-S or 40 Watt T5c circular fluorescent lamps are supplied complete with the luminaire

LED's

Standard output version - 81 x 0.2W LED High output version - 121 x 0.2W LED

Dimensions

Standard Luminaire Dimensions (without Trim)

Ø 395mm x Depth 120mm

Luminaire Dimensions with Narrow Trim

Ø 440mm x Depth 120mm

Luminaire Dimensions with Wide Trim

Ø 520mm x Depth 120mm

Cut-Out Dimensions

Ø 357mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
LE28	28 Watt 2D mains	2050	2.70Kg
LE38	38 Watt 2D mains	2850	2.70Kg
LE40	40 Watt T5c circular mains	3500	2.70Kg
LE211	2 x 11 Watt TC-S mains	1800	2.70Kg
LE/LED	LED mains (28W equivalent)	2050	2.70Kg
LE/LED/H	LED mains (38W equivalent)	2850	2.70Kg

Leah with narrow white trim

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
LE28/M3	28 Watt 2D M3	384	3.60Kg
LE38/M3	38 Watt 2D M3	625	3.60Kg
LE40/M3	40 Watt T5c circular M3	370	3.60Kg
LE211/M3	2 x 11 Watt TC-S M3 (1 lamp in emergency)	390	3.60Kg
LE/LED/M3	LED M3 (28W equivalent)	107	3.60Kg
LE/LED/M3/H	LED M3 (38W equivalent)	107	3.60Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
LE28/#D	28 Watt 2D slave	500	2.60Kg
LE38/#D	38 Watt 2D slave	500	2.60Kg
LE40/#D	40 Watt T5c circular slave	990	2.60Kg
LE211/#D	2 x 11 Watt TC-S slave	380	2.60Kg

Replace # with AC/DC system Voltage 24, 50, 110 or 230 Volts.

Lens

Contemporary circular luminaire with a halo effect back light





Lens with brass curved trim

Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
LN28	28 Watt 2D mains	2050	2.70Kg
LN38	38 Watt 2D mains	2850	2.70Kg
LN/LED	LED mains (28W equivalent)	2050	2.70Kg
LN/LED/H	LED mains (38W equivalent)	2850	2.70Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
LN28/M3	28 Watt 2D M3	384	3.60Kg
LN38/M3	38 Watt 2D M3	625	3.60Kg
LIVLED/M3	LED M3 (28W equivalent)	107	3.60Kg
LIVLED/M3/H	LED M3 (38W equivalent)	107	3.60Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
LN28/#D	28 Watt 2D slave	500	2.60Kg
LN38/#D	38 Watt 2D slave	500	2.60Kg

For fluorescent versions replace # with AC/DC system Voltage **24, 50, 110** or **230** Volts; for LED versions replace # with AC/DC system Voltage **110** or **230** Volts.

Features

- Supplied as standard with an opal backlight and white straight-sided clip-on trim
- Available in 2D fluorescent and LED versions
- Elegant range of clip-on trims available to suit many applications
- Available in mains, emergency and slave versions
- Wide range of options include intelligent addressable and digital self-test luminaires
- Ideal for use in hotels, universities, stairwells and most decorative lighting applications

Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire

/DALI DALI emergency control gear

/HF High frequency ballast

/MD Microwave presence detector

/ST Digital self-test luminaire

Metal Trim Options

Supplied with white straight-sided trim as standard, for other options add suffix to catalogue number:

/C/BR Brass curved trim

/C/CH Chrome curved trim

/C/GM Black chrome curved trim

/C/WH White curved trim

/S/BR Brass straight-sided trim

/S/CH Chrome straight-sided trim **/S/GM** Black chrome straight-sided trim

Specification

Body

Flame-retardant polycarbonate with white finish

Diffuser

Opal flame-retardant polycarbonate

Trims

Metal trim with white finish as standard (brass, chrome and black chrome finishes available as options)

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected hattery

Lamps

Either 28 Watt or 38 Watt 2D fluorescent lamps are supplied complete with the luminaire

LED's

Standard output version - 81 x 0.2W LED High output version - 141 x 0.2W LED

Dimensions

Luminaire Dimensions (with straight-sided trim)

Ø 490mm x Depth 105mm

Luminaire Dimensions (with curved trim)

Ø 500mm x Depth 105mm

Luminaire Dimensions (with broad deluxe trim)

Ø 525mm x Depth 105mm

Technical Information



- Robust screw-fit diffuser sealed to the luminaire body with a closed-cell neoprene gasket for durability
- Suitable for most interior and exterior applications
- Steel gear tray, centre rear besa entry and 20mm conduit knockouts at each end for ease of installation
- Can be wall or ceiling mounted
- Fluorescent and LED versions available in mains and emergency mode
- Supplied with white body and clear diffuser with technoradial lens technology as standard; black base and opal diffuser available as options
- Ideal for use in stairwells, walkways and car parks

Mezzina

IP65 circular polycarbonate utility luminaire

Standard Mezzina with white base



Options

Add suffix to catalogue number:

/AD Intelligent addressable luminaire /BK Black base

/DALI DALI emergency control gear /HF High frequency ballast

/MD Microwave presence detector /MZR/WH White semi-recessing trim

/O Opal diffuser

/ST Digital self-test luminaire

/VR Anti-tamper screws



Mezzina with white recessing trim

Specification

Flame retardant polycarbonate in white finish (black finish available as an option)

Clear polycarbonate diffuser (opal polycarbonate diffuser available as an option)

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Either 16 Watt, 28 Watt or 38 Watt 2D fluorescent, or 11 Watt TC-S compact fluorescent lamps are supplied complete with the luminaire

Standard output version - 81 x 0.2W LED High output version - 141 x 0.2W LED

Dimensions

Luminaire Dimensions

Ø 290mm x Depth 79mm

Luminaire Dimensions with Semi-Recessing Trim

Ø 345mm x Depth 50mm (below ceiling)

Cut-Out Dimensions

Ø 295mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from www.orbik.co.uk







Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
MZ16	16 Watt 2D mains	1050	1.10Kg
MZ28	28 Watt 2D mains	2050	1.10Kg
MZ38/HF	38 Watt 2D high frequency mains	2850	1.10Kg
MZ/LED28	LED mains (28W equivalent)	2050	1.10Kg
MZ/LED38	LED mains (38W equivalent)	2850	1.10Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
MZ16/M3	16 Watt 2D M3	200	2.70Kg
MZ28/M3	28 Watt 2D M3	270	3.00Kg
MZ211/M3	2 x 11 Watt TC-S M3 (1 lamp in emergency)	1800	2.80Kg
MZ/LED/M3	LED mains (28W equivalent)	107	2.70Kg
MZ/LED/M3/H	LED mains (38W equivalent)	107	2.70Kg

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
MZ16/#D	16 Watt 2D slave	400	1.10Kg
MZ28/#D	28 Watt 2D slave	500	1.10Kg

Norton

IP54 cast aluminium bollard



Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
NOR500	E27 lamp holder (500mm above ground)	*	3.75Kg
NOR750	E27 lamp holder (750mm above ground)	*	4.25Kg
NOR1000	E27 lamp holder (1m above ground)	*	4.75Kg
NOR1000/70WSON	70 Watt SON (1m above ground)	*	6.25Kg
NOR1000/70WHQI	70 Watt HQI (1m above ground)	*	6.25Kg

^{*} Dependent on lamp used.

Features

- Attractive aluminium body
- Strengthened detachable base plate for easy installation and accurate positioning
- Tamper proof corrosion resistant fixings
- Supplied in black finish as standard, with a silver-grey finish available as an option
- Optional J-Bolt fixing kit available for solid mounting
- Controlled light distribution via louvre stack
- E27 lamp holder versions can use compact fluorescent lamps up to a maximum of 32 Watts
- Ideal for use in car parks, amenity areas, paths, driveways and gardens

Options

Add suffix to catalogue number:

/**JB** J-Bolt fixing kit /**SG** Silver grey finish

Specification

Body

Powder coated cast aluminium body with black finish (silver grey finish available as an option)

Reflector

Louvered polished aluminium anti-glare reflector

Diffuser

Acrylic glare-proof diffuser

Gear Tray

Sheet steel gear tray

Lamps

E27 lamps (up to 32 Watts maximum), 70W SON lamps or 70W HQI lamps (not supplied)

Dimensions

Luminaire Dimensions (500mm above Ground)

Ø 150mm x Depth 500mm

Luminaire Dimensions (750mm above Ground)

Ø 150mm x Depth 750mm

Luminaire Dimensions (1m above Ground)

Ø 150mm x Depth 1m

Technical Information





Baleni

IP65 LED floodlight range

Features

- High quality aluminium extruded body
- Supplied with toughened glass cover and tamper-proof screws
- Adjustable bracket supplied
- Symmetric light distribution
- High quality LED with extended lamp life
- Colour temperature 5500k as standard
- High quality integral driver
- Operating temperature between -40°C to +40°C
- Ideal for use in factories and warehouses



70W Baleni floodlight



Specification

Body

Aluminium extruded body with black finish

Cover

Toughened glass cover

I FD's

50W, 70W and 140W LED array

Dimensions

50W Versions

Length 287mm x Width 237mm x Depth 156mm

70W Versions

Length 396mm x Width 280mm x Depth 287mm

140W Versions

Length 596mm x Width 280mm x Depth 210mm

Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
BAL/LED/50	50W IP65 LED floodlight	3300	4.60Kg
BAL/LED/70	70W IP65 LED floodlight	3500	7.40Kg
BAL/LED/140	140W IP65 LED floodlight	7000	11.20Kg

Technical Information







- Effective design offers maximum efficiency and reduced light pollution
- Available in 70 Watt HQI and LED mains versions
- LED versions available with integral BSI approved emergency gear
- Certified ingress protection to IP65
- Robust construction for a long service life
- Rear and side conduit entries to aid easy installation
- Ideal for use in tunnels, on pathways and building perimeters

Jaro

Robust IP65 vandal-resistant wall-pack luminaire



Specification

Body

Polycarbonate body in black finish

Diffuser

Clear polycarbonate diffuser

Gear Tray

Sheet steel gear tray

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

 $\stackrel{\cdot}{\text{70}}$ Watt HQI lamps (not supplied), 42W TC-T and LED

LED's

12W chip-on-board LED

Dimensions

Length 295mm x Width 265mm x Depth 185mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**







Mains Luminaires

Cat No	Lamp & Mode	Mains Lumens	Weight
JA70	70W HQI mains	5800	2.60Kg
JA/LED	LED mains	1780	2.40Kg
JA42	42W TC-T mains	3200	2.60Kg

Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
JA/LED/M3	LED M3	500	3.60Kg

Odet

Emergency floodlighting unit



Emergency Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
ODS20/NM3/TH	2 x 20 Watt Tungsten Halogen NM3	2 x 340	7.00Kg
ODS21/NM3	2 x 21 Watt Tungsten NM3	2 x 280	7.00Kg
ODS55/NM1/TH	2 x 55 Watt Tungsten Halogen NM1	2 x 900	7.50Kg
ODS55/NM3/TH*	2 x 55 Watt Tungsten Halogen NM3	2 x 900	16.00Kg
ODS/DELUXE†	Deluxe version (for use with Dichroic halogen lamps)	N/A	7.00Kg

- * Batteries for ODS55/NM3/TH are packed separately
- † ODS/DELUXE lamps are not supplied but use either 20 Watt (giving 3 hour emergency back-up) or 50 Watt dichroic halogen lamps (giving 1 hour emergency back-up)

Slave Luminaires

Cat No	Lamp & Mode	Emergency Lumens	Weight
ODS20/#D/TH	2 x 20 Watt Tungsten Halogen slave	2 x 340	3.00Kg
ODS21/#D	2 x 21 Watt Tungsten slave	2 x 280	3.00Kg
ODS55/#D/TH	2 x 55 Watt Tungsten Halogen slave	2 x 900	3.00Kg

Features

- BSI approved constant Voltage charger fitted with thermal, current and short circuit protection devices
- Low Voltage disconnect circuit prevents batteries entering deep discharge state in the event of prolonged power failure
- Maintenance-free, 5 year life valve regulated lead acid batteries
- 21 Watt tungsten, 20 Watt and 55 Watt tungsten halogen versions are all available with 3 hours emergency back-up
- Deluxe version utilising 20 Watt and 50 Watt dichroic halogen lamps available for use in prestigious applications
- Swivel/tilt heads enable the client to tailor light distribution to highlight specific areas
- IP65 enclosures available
- Ideal for use in shopping centres, factories, warehouses and production areas

Options

Add suffix to catalogue number:

/3MTR Remote heads fitted on 3m loom (for use in cold store applications)
/AD Intelligent addressable luminaire (not available for ODS/DELUXE)
/IP65 IP65 weatherproof enclosure

/ST Digital self-test luminaire (not available for ODS/DELUXE)
/TM14 14 minute timer delay (for use with discharge lamp schemes)

Specification

Body

Mild sheet steel with light grey finish

Projectors

Tungsten versions have a polycarbonate lens and tungsten halogen versions have a glass lens

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

12 Volt 21 Watt tungsten lamps or 12 Volt 20 Watt or 55 Watt tungsten halogen lamps are all supplied with the luminaire. ODS/DELUXE lamps are not supplied but use either 20 Watt (giving 3 hour emergency back-up) or 50 Watt dichroic halogen lamps (giving 1 hour emergency back-up)

Dimensions

Luminaire Dimensions

(20 Watt NM3, 21 Watt NM3 $\&\,55$ Watt NM1 Versions)

Length 315mm x Height 310mm x Depth 110mm

Luminaire Dimensions (55 Watt NM3 Versions)

Length 320mm x Height 440mm x Depth 110mm

Luminaire Dimensions (IP65 Versions)

Length 400mm x Height 400mm x Depth 135mm

Luminaire Dimensions (Deluxe Versions)

 $Length\ 315mm\ x\ Height\ 200mm\ x\ Depth\ 75mm$

Technical Information



- Can be surface mounted or suspended
- Mains versions are available with LED, compact fluorescent and HQI discharge light source
- Supplied with a high performance polycarbonate refractor as standard
- Additional light diffusion can be provided with optional lens covers
- Robust all polycarbonate gear housing
- Ideal for use in retail stores, car show rooms, production areas and warehouses

Olten

High bay with prismatic refractor



Options

Add suffix to catalogue number:

/LCA Lens cover size A (mains and emergency luminaires)

/LCB Lens cover size B

/SK Suspension kit

Specification

Body

Die-cast steel emergency body

Refractor/Lens Covers

Polycarbonate refractor and lens covers

Charger LED

Constant current with green LED for mains healthy and connected battery

Lamps

70 Watt, 150 Watt, 250 Watt or 400 Watt HQI discharge lamps, 42 Watt or 57 Watt TC-T compact fluorescent lamps or 120 Watt PL-H compact fluorescent lamps (not supplied)

LED's

25W chip-on-board LED

Dimensions

Luminaire Dimensions (Size A)

Ø 410mm x Height 470mm

Luminaire Dimensions (Size B)

Ø 570mm x Height 570mm

Luminaire Dimensions (Size A Emergency Versions)

Ø 410mm x Height 550mm

Technical Information

Photometric data and further lighting design information, including luminaire data files, are available from our technical department or from **www.orbik.co.uk**



Mains Luminaires

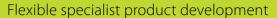
Cat No	Lamp & Mode	Mains Lumens	Weight
OLT242A	2 x 42 Watt TC-T mains size A	6400	4.00Kg
OLT70A	70 Watt HQI mains size A	5800	4.50Kg
OLT150A	150 Watt HQI mains size A	13000	8.00Kg
OLT250B	250 Watt HQI mains size B	20000	9.20Kg
OLT400B	400 Watt HQI mains size B	27000	10.80Kg
OLT/LED	LED mains size A	3650	4.00Kg

Emergency Luminaires

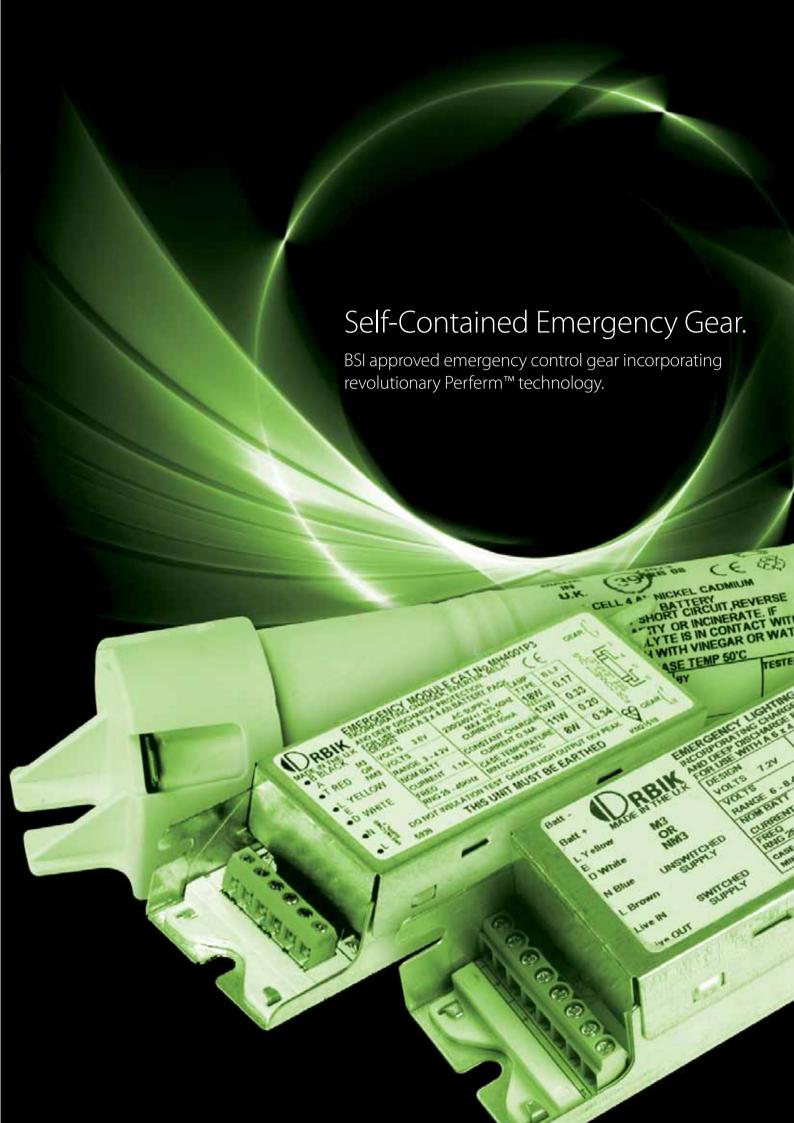
Cat No	Lamp & Mode	Emergency Lumens	Weight
OLT242A/M3*	2 x 42 Watt TC-T M3 emergency size A	580	5.80Kg
OLT/LED/M3	LED M3 emergency size A	620	5.80Kg

^{*} Reverts to one lamp in emergency mode

Bespoke Products







LED Modules

Emergency conversion modules to suit LED arrays



Features

- A range of conversion modules to enable single LED or multiple LED arrays to be operated in the event of a lighting circuit failure
- Available as low power options to operate a single source or low power array of LED's at 3.6V 350mA - 800mA total
- Mid range power options to operate at 32V 120mA suitable for a wide range of LED arrays
- High power options to operate 60V 120mA suitable for wide range LED arrays
- Designed and manufactured to in accordance with the requirements of EN 61347-2-13
- Low power options available as maintained including the mains LED driver
- Mid and high power options with change over relay for use with external LED drivers
- Options available as self-test in accordance with the requirements of EN 62034

Emergency Luminaires

Cat No	Battery	Mode & Duration	Min LED Voltage	Max Voltage Out	Max Constant LED Current	Max LED Wattage	Size
LDY005	3 x 1.5Ah	Non-maintained 3 hours	-	3.6V	400mA	1.5W	А
LDY010	3 x 4Ah	Non-maintained 3 hours	-	3.6V	800mA	2.5W	С
LDY003	3 x 1.5Ah	Non-maintained 3 hours inc LED driver	-	3.6V	350mA	1W	В
LDY003/ST	3 x 1.5Ah	Maintained 3 hours inc self-test	-	3.6V	350mA	1W	В
LCM5125*	5 x 4Ah	Maintained 3 hours	8V	38V	120mA	-	D
LCM3350*	5 x 4Ah	Maintained 3 hours inc self-test	8V	32V	120mA	-	D
LCM10125*	10 x 4Ah	Maintained 3 hours	15V	60V	150mA	-	D

^{*} Requires external mains LED driver.

Dimensions

Size A

Length 200mm x Width 30mm x Height 28mm (fixing centres 185mm)

Size B

 $Length\ 185mm\ x\ Width\ 30mm\ x\ Height\ 28mm\ (fixing\ centres\ 180mm)$

Size C

Length 185mm x Width 30mm x Height 30mm (fixing centres 180mm)

Size D

Length 216mm x Width 42mm x Height 28mm (fixing centres 206mm)

Technical Information

Perferm[™] Modules

Conversion modules suitable for low mercury dosage lamps

Perferm[™] Technology

Lamp manufacturers are committed to reducing or eliminating the mercury used in fluorescent lamps to lessen the impact on the environment when these lamps require disposal at the end of their usable life. These actions are being driven in Europe by the WEEE and RoHS directives, which impose ever lower levels of the potentially hazardous mercury used in lamps.

To help combat some of the problems introduced by these lower mercury levels, including severely reduced life and blackening of the lamp cathodes in fluorescent lamps, Perferm™ modules employ enhanced lamp striking technology combined with a high level of continuous lamp cathode heating throughout the emergency operation period.

Features

- Removes 'pink limbs' on certain compact fluorescent lamps
- Combats severely reduced life or premature blackening of the lamp cathodes in all fluorescent lamps
- Enhanced lamp striking technology
- High level of continuous lamp cathode heating throughout the emergency duration
- Versions available to operate with both switch start and high frequency gear
- All Perferm™ modules are BSI Kitemarked
- Tested and approved to EN61347-2-7
- EMC compliant to EN55015 and CE marked where applicable
- Incorporates over temperature and charger short circuit protection
- Available as standard in 3 hours duration, with other durations available to order
- All modules have battery over discharge protection as standard (DDP) to prevent discharge below 1 Volt per cell
- Reverse battery polarity protected
- All modules are supplied with a green LED to indicate correct charging conditions

Technical Information

Further information is available from our technical department or from **www.orbik.co.uk**





Technical Specification



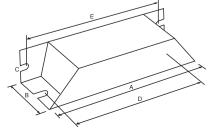
Self contained emergency gear conversion kits

Ballast lumen factors for control gear incorporating Perferm™ technology (suitable for all lamps including low Mercury & Amalgam lamps)

			T8 T5														
		1]				-[
MODULE OPTIONS	BATTERY																
	CELL	18W	36W	58W	70W	100W	8W	14W	21W	24W	28W	35W	39W	49W	54W	80W	
PH4001P3 PL4001P3 PLR5001P3	3 x 4AH	12															
PH4003P3 PL4003P3 PLR5003P3	3 x 4AH		9														
PH4007P3 PL4007P3 PLR5007P3	4 x 4AH			10													
PH4009P3 PL4009P3 PLR5009P3	5 x 4AH				7												
PH4013P3 PL4013P3 PLR5013P3	3 x 4AH						25										
PH4018P3 PL4018P3 PLR5018P3	3 x 4AH																
MT5414P3	4 x 4AH							32									
PH4418P3 PL4418P3 PLR5418P3	4 x 4AH	23					42										
PH4005P3 PL4005P3 PLR5005P3	4 x 4AH	11	10					30		21							
MT5528P3	5 x 4AH								28	25	26						
PH4506P3 PL4506P3 PLR5506P3	5 x 4AH	13							28	25							
PH4008P3 PL4008P3 PLR5008P3	5 x 4AH		11								21						
PH4011P3 PL4011P3 PLR5011P3	5 x 4AH																
MT5635P3	6 x 4AH											22					
PHR5607P3	6 x 4AH		18														
PHR5608P3	6 x 4AH			11	10												
MT5854P3	8 x 4AH											27	24	20	17		
PHR5809P3	8 x 4AH			15	14	9						27	24	20	17		
PHR5108P3	10 x 4AH				17	10										10	

Very Low Mercury Lamp Range

Low Mercury Lamp Range			PL-Q	!			PL-L				PL	S			PL	C		PL	R			PL-T		
		16W	28W	36W	18W	24W	36W	40W	55W	5W	7W	9W	11W	10W	13W	18W	26W	14W	17W	13W	26W	32W	42W	57W
PLRM5005P3	4 x 4AH	20			24					45	41	34	30	33	27	25		24	26	26				
PLRM5506P3	5 x 4AH		18			21											21				22			
PHRM5607P3	6 x 4AH			17			18															20		
PHRM5809P3	8 x 4AH							23															21	
PHRM5108P3	10 x 4AH								21															20



Dimensions

Module	Α	В	C	D	E	Kg
PH	154	42	35	144	138	0.33
PL/PLS	203	42	28 193		187	0.34
PLR/PLRM	216	42	28	206	200	0.35
PHR/PHRM	216	42	35	206	200	0.54
MT5	345	32	28	336	-	0.34

Very Low Mercury Lamp Range

With the increased concern regarding the environmental impact of mercury on the environment, the lighting industry is constantly reducing the amount of mercury in fluorescent lamps. Typical levels are currently 3mg. However, there are some fluorescent lamps with levels of <1.5mg. Orbik Electronics has developed a range of products specifically aimed at these types of fluorescent lamps.

T:	5 CIR	CUL	AR		2	D				TC-	-L			TC-	S/E	Т	C-D/	E		1	C-T/I	E AM	ALG	AM		
			ı				I														=					
22W	40W	55W		16W	28W	38W	55W	18W	24W	34W	36W	40W	55W	9W	11W	13W	18W	26W	13W	14W	17W	18W	26W	32W	42W	57W
														25	22	30										
10				16	12											30										
														40	42	30										
12				25	17			18	13		12						17	16	25	23	21					
					15	12	11	2.4	20	1.4	1.5	1.4	11			28	25	22				22	20			
14	11	9				13	11	24	29	14	15	14	11													
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					16	15					13	14												20		
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												30	15												18	
																										4.0
																										13

- Perferm™ technology is an ongoing development involving the latest lamp technology and as such is subject to change as and when further lamps/data become available
- We strongly recommend that modules incorporating Perferm™ technology are used in all emergency luminaires and conversions to provide the ultimate future proofing against lamp evolution
- Most modules and PCB's are tested and approved to EN61347-2-7. They are EMC compliant to EN55015, CE marked where applicable and carry the British Standard Kitemark
- They incorporate over temperature and charger short circuit protection
- Mains supply 230V 6% + 10% 50/60 Hz power consumption 8VA (other supply Voltages available on request)
- Output circuitry uses a high efficiency sinusoidal inverter, with nominal operating current of 1.1 Amps

- Available as standard in 3 hour operation (other durations to order)
- All modules have battery over discharge protection as standard (DDP) to prevent discharge below 1 Volt per cell
- · Reverse battery polarity protected
- All connections are via terminal blocks with a green light emitting diode (LED), to indicate correct charging conditions. All products are supplied with LED indicators
- Operating temperature range module 0 to 70°C (centre side of case)
- Printed circuit boards 0 to 90°C (coil/core of charging transformer)
- All ballast lumen factors are shown as worst case
- All figures are based on an ambient temperature of 25°C

All figures quoted assume integral conversions.

Because of the variability of fluorescent lamps, this lamp and module compatibility chart is for guidance purposes only and does not cover all of the available lamp types. If you require information on lamps not shown in this table or connection diagrams for our conversion modules please refer to our website or contact our technical department on: technical@orbik.co.uk

Combined Module/Ballast

Combined mains ballast and emergency module



Features

- Incorporates Perferm™ technology to ensure optimum operation of low mercury and amalgam construction lamps from both 'cold start' and warm start applications
- The electronic ballast circuit has a lamp failure protection circuit to prevent damage occurring to the ballast when a lamp fails
- Sine-wave output in emergency prevents unpleasant visual lamp effects and ensures maximum lamp cathode lamp
- Advanced battery charging exploits energy absorption charging technology and reduces power losses in the unit
- Reverse polarity protected to provide stable charge conditions to maximise battery life

Fixing Centres

120mm along centre line

Cat No	Cells	16W 2D	Single 18W TC-D	22W T5C	Single 26W TC-D	28W 2D	36W TC-F	38W 2D	40WT5C
MCP4100P3	3 x 4Ah	15	-	-	-	-	-	-	-
MCP4097P3	3 x 4Ah	-	19	-	-	12	-	-	-
MCP4099P3	4 x 4Ah	21	-	-	18	-	-	-	-
MCP4098P3	4 x 4Ah	-	21	17	-	15	-	-	-
MCP4101P3	5 x 4Ah	-	-	-	-	-	10	13	12

Remote Emergency Boxes

Pre-wired emergency control boxes for use adjacent to mains luminaire





Size Length Width Height Up to 3 cell 290mm 95mm 40mm Up to 5 cell 425mm 100mm 45mm Up to 10 cell 430mm 150mm 50mm

Ordering Information

Prefix the required emergency module with RB, for example PL4003P3 becomes RBPL4003P3

Features

- All remote boxes incorporate BSI Kitemarked Perferm[™] modules
- Ideal for use with compact luminaires where space is restricted
- Enhanced lamp striking technology
- High level of continuous lamp cathode heating throughout the emergency duration
- Can operate both switch start and high frequency gear
- Tested and approved to EN61347-2-7
- Eradicates over-heating and failure of luminaires due to lack of heat circulation where control gear is over-crowded
- Available as standard in 3 hours duration, with other durations available to order
- Battery over discharge protection as standard (DDP) to prevent discharge below 1 Volt per cell
- Reverse battery polarity protected
- All remote boxes are supplied with a green LED to indicate correct charging conditions
- Connection to the mains luminaire is by way of a simple flexible 0.5m flame-retardant loom
- Galvanised steel constuction

6V & 12V DC Charger Board

PCB's to operate 12V tungsten halogen lamps in the event of a power failure

Features

- Tailored to give users full flexibility with their choice of housings, batteries and maintaining components
- BSI approved
- 10A terminal block on each PCB
- Suitable for use with control gear fitted in remote housings or twin-spot floodlighting units
- Available in maintained or non-maintained modes
- 10 to 100W lamp range

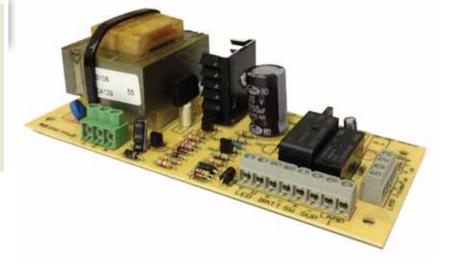
Dimensions

Length 147mm x Width 68mm x Depth 45mm

Fixing Centres

Length 135mm x Width 50mm





Cat No.	Voltage	Outlets	Battery Type	Mode	Lamp Range
CB106	6V	2	VRLA 25Ah max	NM3 or M3	10-100W
CB112	12V	2	VRLA 25Ah max	NM3 or M3	10-100W

Printed Circuit Boards

A range of printed circuit boards to suit self-contained luminaires

Features

- Cost-effective
- Approved to British/European standard EN60924/60925
- Available as standard in 3 hours duration (other durations available to order)
- Operating temperature range of 0 to 90°C (coil/core of charging transformer)
- Incorporates over temperature and charger short circuit protection
- All printed circuit boards are supplied complete with a green LED to indicate correct charging conditions

Dimensions

Length 123mm x Width 40mm x Depth 30mm (Weight 50g)

Fixing Centres

120mm along centre line

* Suitable for switch start circuits only





Cat No	Cells	Mode	4W T5	6W T5	7W TC-S	8W T5	9W TC-S	16W 2D	28W 2D	38W 2D
P400/3/TL	2x4Ah	NM3	45	22	30	26	-	-	-	-
P226/3/TL	3x4Ah	NM3	45	33	33	37	28	-	-	-
P404/3/TL*	2x4Ah	МЗ	45	22	30	26	-	-	-	-
P232/3/TL*	3x4Ah	МЗ	45	33	33	37	28	-	-	-
P1028/3/TL	3x4Ah	МЗ	-	-	-	-	-	20	13	-
P1038/3/TL	5x4Ah	МЗ	-	-	-	-	-	-	-	13

Nickel Cadmium Batteries

Nickel Cadmium batteries for use with Perferm™ emergency modules



Features

- High quality, high temperature cells manufactured by Worldclass companies
- Graded to the demanding standards of IEC285
- When installed and operated in accordance with EN60598.2-22, the batteries meet the requirements for a 4 year life
- Many standard battery configurations are available but we can offer special configurations to assist in the layout of components within luminaires with restricted space
- 1.5Ah Nicad cells give 1 hour of emergency back-up, 4Ah cells give 3 hours of emergency back-up
- In-line versions are supplied with tag connections and dual in-line and plate versions are supplied with non-reversible plugs

Nickel Metal Hydride Batteries

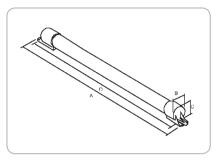
Environmentally friendly alternative to Nickel Cadmium

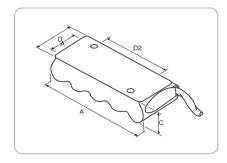


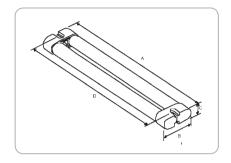
Features

- Economic and practical alternative to Nickel Cadmium
- Kinder to the environment than Nickel Cadmium batteries
- Cheaper to dispose of at end of life
- Nickel Metal Hydride batteries have a better power density than Nickel Cadmium batteries
- Can be used in products where space is limited
- High temperature Nickel Metal Hydride batteries are particularly designed for emergency lighting applications, which some alternative battery technologies cannot provide
- Nickel Metal Hydride batteries have a lower cost and longer active life than Lithium batteries
- Nickel Metal Hydride battery technology is advancing all the time and therefore Nickel Metal Hydride is an investment into the future

Standard Battery Formations







In-Line Plate (Side by Side)

Dual In-Line

Technical Details

Cat No	Cells	Battery Type	Battery Style	Duration	Length A	Width B	Depth C	Fixing Centres D	Weight
BH164	2 x 4Ah	Nickel Metal Hydride	In-Line	3 Hours	140mm	20mm	20mm	70mm	0.14Kg
BH167	3 x 4Ah	Nickel Metal Hydride	In-Line	3 Hours	210mm	20mm	20mm	70mm	0.21Kg
B163/215	2 x 1.5Ah	Nickel Cadmium	In-Line	1 Hour	125mm	27mm	25mm	113mm	0.10Kg
B164/24	2 x 4Ah	Nickel Cadmium	In-Line	3 Hours	164mm	36mm	36mm	149mm	0.29Kg
B161/2X4	2 x 4Ah	Nickel Cadmium	Side by Side	3 Hours	65mm	72mm	36mm	-	0.28Kg
B165/315	3 x 1.5Ah	Nickel Cadmium	In-Line	1 Hour	167mm	27mm	25mm	155mm	0.15Kg
B166/3X4	3 x 4Ah	Nickel Cadmium	Plate	3 Hours	99mm	65mm	34mm	40mm x 33mm	0.47Kg
B167/34	3 x 4Ah	Nickel Cadmium	In-Line	3 Hours	226mm	36mm	36mm	214mm	0.43Kg
B168/415	4 x 1.5Ah	Nickel Cadmium	In-Line	1 Hour	209mm	27mm	25mm	197mm	0.20Kg
B169/4X4	4 x 4Ah	Nickel Cadmium	Plate	3 Hours	130mm	65mm	34mm	40mm x 65mm	0.59Kg
B702/4X4	4 x 4Ah	Nickel Cadmium	Dual In-Line	3 Hours	123mm	75mm	36mm	108mm	0.58Kg
B170/44	4 x 4Ah	Nickel Cadmium	In-Line	3 Hours	285mm	36mm	36mm	270mm	0.57Kg
B171/515	5 x 1.5Ah	Nickel Cadmium	In-Line	1 Hour	251mm	27mm	25mm	239mm	0.25Kg
B172/5X4	5 x 4Ah	Nickel Cadmium	Plate	3 Hours	163mm	65mm	34mm	40mm x 97mm	0.78Kg
B173/54	5 x 4Ah	Nickel Cadmium	In-Line	3 Hours	346mm	36mm	36mm	331mm	0.70Kg
B174/615	6 x 1.5Ah	Nickel Cadmium	In-Line	1 Hour	293mm	27mm	25mm	281mm	0.30Kg
B176/64	6 x 4Ah	Nickel Cadmium	In-Line	3 Hours	406mm	36mm	36mm	391mm	0.83Kg
B701/6X4	6 x 4Ah	Nickel Cadmium	Dual In-Line	3 Hours	182mm	75mm	36mm	167mm	0.84Kg
B878/84	8 x 4Ah	Nickel Cadmium	In-Line	3 Hours	525mm	36mm	36mm	510mm	1.00Kg
B879/8X4	8 x 4Ah	Nickel Cadmium	Dual In-Line	3 Hours	242mm	75mm	36mm	227mm	1.35Kg
B177/1015	10 x 1.5Ah	Nickel Cadmium	Dual In-Line	1 Hour	451mm	54mm	25mm	239mm	0.50Kg
B178/104	10 x 4Ah	Nickel Cadmium	In-Line	3 Hours	648mm	36mm	36mm	633mm	1.40Kg
B179/10X4	10 x 4Ah	Nickel Cadmium	Dual In-Line	3 Hours	300mm	75mm	36mm	285mm	1.35Kg

Cells

1.5Ah Nickel Cadmium cells are used with 1 hour duration modules/PCB's; 4Ah Nickel Cadmium cells are used with 3 hour duration modules/PCB's.

Permitted cell temperature

Minimum 0°C and maximum 54°C to give the specified performance for an expected life of 4 years.

Battery connections

Batteries are supplied with a non-reversible plug with the exception of in-line versions, which are fitted with tag connections. The appropriate connections are supplied with the batteries.

Battery fixing

Batteries are supplied with plastic end-caps or metal plates with provision for screw fixings.

Low Voltage Emergency Lighting

Emergency lighting kits to operate 12 volt tungsten halogen lamps in the event of a power failure



Features

- Robust white epoxy coated sheet steel enclosure incorporating a BSI approved charger circuit to maximise battery life
- Supplied with deep discharge protection as standard, essential for lead acid batteries.
- All batteries within the units are 5 year life valve regulated lead acid

Emergency Modes

- Non-maintained (NM), where lamp is only illuminated when the power fails
- Maintained (M), where the unit is supplied with an integral transformer and is permanently lit, whether mains healthy or in emergency conditions. Can be switched on and off as if a standard mains light
- Remote maintained, where a separate transformer is used, ideal for dimming installations or where matching mains operations characteristics are critical

Economy Low Voltage Emergency Boxes (Ballast Lumen Factor 20W 6%, 50W 10%)

Cat No.	Mode	Duration 1 Hour	Duration 2 Hours	Duration 3 Hours	Length	Width	Depth	Fixing Centres	Weight
R931/50	Non-Maintained	2 x 20W 5 x 20W	1 x 50W 3 x 20W	1 x 50W 2 x 20W	250mm	230mm	72mm	187mm	4.0Kg
R932/50	Maintained with Maintaining Transformer	1 x 50W 2 x 20W	1 x 50W 2 x 20W	1 x 50W 2 x 20W	250mm	230mm	72mm	187mm	5.0Kg
R942/50	Maintained without Maintaining Transformer	2 x 50W 5 x 20W	1 x 50W 3 x 20W	1 x 50W 2 x 20W	250mm	230mm	72mm	187mm	5.0Kg

Low Voltage Emergency Boxes (Ballast Lumen Factor 100%)

Cat No.	Mode	Duration 1 Hour	Duration 2 Hours	Duration 3 Hours	Length	Width	Depth	Fixing Centres	Weight
R939/50	Non-Maintained	1 x 50W 2 x 20W	1 x 20W	1 x 20W	250mm	230mm	72mm	187mm	5.2Kg
R940/50	Maintained with Maintaining Transformer	1 x 50W 2 x 20W	1 x 20W	1 x 20W	250mm	230mm	72mm	187mm	6.7Kg
R943/50	Maintained without Maintaining Transformer	1 x 50W 2 x 20W	1 x 20W	1 x 20W	250mm	230mm	72mm	187mm	5.5Kg
R760/50	Non-Maintained	1 x 50W 2 x 20W	1 x 20W	1 x 20W	315mm	270mm	110mm	120mm	5.2Kg
R759/50	Non-Maintained	2 x 50W 5 x 20W	1 x 50W 3 x 20W	1 x 50W 2 x 20W	315mm	270mm	110mm	120mm	10.7Kg
R757/50	Maintained without Maintaining Transformer	1 x 50W 2 x 20W	2 x 20W	1 x 20W	315mm	270mm	110mm	120mm	6.7Kg
R758/50	Maintained without Maintaining Transformer	1 x 50W 2 x 20W	1 x 50W 2 x 20W	1 x 50W 2 x 20W	315mm	270mm	110mm	120mm	12.2Kg
R700/50	Maintained with 2 x 50W Maintaining Transformer	2 x 50W 5 x 20W	-	-	315mm	270mm	110mm	120mm	13.5Kg
R700/100/M3	Maintained with Maintaining Transformer	-	-	2 x 50W 5 x 20W	350mm	320mm	110mm	240mm	13.5Kg
R835/50	Maintained without Maintaining Transformer	1 x 50W 2 x 20W	1 x 20W	1 x 20W	315mm	270mm	110mm	120mm	5.2Kg
R836/50	Maintained without Maintaining Transformer	2 x 50W 5 x 20W	1 x 50W 2 x 20W	1 x 50W 2 x 20W	315mm	270mm	110mm	120mm	10.9Kg

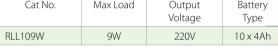
GU10 LED Emergency Pack

Lighting train to operate GU10 LED luminaires in emergency mode

Features

- Lighting train to operate a wide range of loads up to 9 Watts at 220 Volts dc
- Ideal for use with difficult-to-convert GU10 downlights
- Incorporates battery deep discharge protection and changeover device for operation from a local lighting supply
- Enclosed in silicon coated woven glass fibre sleeving
- Suitable for hole cut-outs of 60mm or above with ceiling voids of 320mm or above
- Gives 3 hours emergency back-up

Cat No.	Max Load	Output Voltage	Battery Type
RLL109W	9W	220V	10 x 4Ah



Emergency Pack Dimensions

Overall Length 930mm

Cut-Out Dimensions

Ø 60mm (320mm minimum ceiling void)

* Please note that the RLL109W is not suitable for use with dimmable control gear



Modules for LED Tubes

Emergency module to convert self ballasted LED tubes to emergency

Features

- Low profile
- 3 hours emergency back-up
- 100% emergency ballast lumen factor
- Suitable for use with self-ballasted 600mm 9 Watt and 1200mm 18 Watt LED tubes
- · Deep discharge protection as standard

Cat No.	Max Load	Output Voltage	Battery Type
LL109W	9W	220V	10 x 4Ah
LL1618W	18W	220V	16 x 4Ah

Dimensions

Length 216mm x Width 42mm x Height 28mm



Low Voltage Lighting Train

Low Voltage lighting train for 12 Volt lamps up to 50 Watts





DimensionsOverall Length 800mm **Cut-Out Dimensions**60mm or above

Features

- Enables 12 Volt tungsten halogen lamps to operate in the event of a power failure
- Can be fed easily through aperture cut-outs of 60mm or above
- Features high quality high temperature Nickel Cadmium battery cells for 1 hour duration and Nickel Metal Hydride cells for 3 hours duration
- Utilises a silicone coated woven glass fibre sleeving to comply with BS/EN60924 and EN60598.2.22

Cat No.	Mode	12V Lamp	Duration 1 x 20W	Duration 1 x 50W	Ballast Lumen Factor (50W)	Ballast Lumen Factor (20W)
R960/50/NM1	Non-Maintained	20 or 50W	3 Hours	1 Hour	10%	6%
R960/50/M1	Maintained with Transformer	20 or 50W	3 Hours	1 Hour	10%	6%
R961/50/M1	Maintained without Transformer	20 or 50W	3 Hours	1 Hour	10%	6%
R962/50/NM3	Non-Maintained	20 or 50W	3 Hours	3 Hours	10%	6%
R962/50/M3	Maintained with Transformer	20 or 50W	3 Hours	3 Hours	10%	6%
R963/50/NM3	Maintained without Transformer	20 or 50W	3 Hours	3 Hours	10%	6%

MR16 Lighting Train

Low Voltage lighting train for 12 Volt MR16 LED lamps up to 6 Watts





Dimensions Overall Length 800mm

Cut-Out Dimensions 60mm or above

Features

- Enables 12 Volt MR16 LED lamps to operate in the event of a power failure
- Can be fed easily through aperture cut-outs of 60mm or above.
- Features high quality high temperature Nickel Cadmium battery cells for 1 hour duration and Nickel Metal Hydride cells for 3 hours duration
- Utilises a silicone coated woven glass fibre sleeving to comply with EN61347.2.13 and EN60598.2.22
- Supplied as standard in maintained mode but can be used as non-maintained
- Features an integral driver which operates the lamp in mains healthy and in the event of a power failure

Cat No.	Max Load	Lamp/Duration
RL5012/6/M3	Maintained with Integral Mains Driver	5W/3 Hours

Central System Inverters & LED Drivers

Inverters & LED Drivers for use with Central Systems

We produce a range of inverter units suitable for operating fluorescent lamps from low voltage AC or DC supplies, including central battery systems of 24 Volts, 50 Volts and 110 Volts and fluorescent lamps from 4 Watts to 100 Watts.

All PV fluorescent lamp version inverters incorporate our PERFERM™ technology to ensure good lamp life and correct operation with low mercury fluorescent lamps and sine-wave output to prolong lamp cathode life and prevent unpleasant visual lamp effects.

They are designed to comply with the European product standards EN50172, EN55015, EN 61547 and EN 61000.3.2 and are produced in our UK manufacturing plant which is registered to BS EN ISO9001:2000 by BSI.

Two types of operation are normally encountered in low voltage systems being:

1. Slave inverters - where the lamp is operated only from the inverter unit. Typical of this type of use is vehicles where there is no mains supply or an emergency lighting system that is separate to the normal lighting luminaires. An example of a slave inverter of this type is our PV289.

2. Inverter units with an AC hold-off relay are used to convert normal mains luminaires to emergency luminaires by switching the lamp from the normal mains control gear to the inverter output when the un-switched monitored mains supply fails. An example of this type of inverter unit is our PVR110.

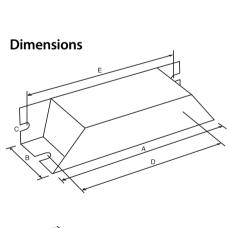
To compliment our low Voltage inverter range, we now produce a range of LED drivers suitable for use on low Voltage 24V, 50V and 110V AC/DC systems.

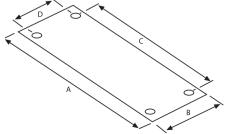
All LED drivers are suitable for a wide range of LED loads, ranging from 3V to 38V DC, single source or parallel arrays. Supplied as standard with a 240V AC hold-off relay, allowing the mains luminaire to be converted to emergency by switching the LED from the mains control gear to the low Voltage output when the unswitched mains supply fails.

Technical details for inverters

- Inverters are designed to conform to EN60924/60925. They are EMC compliant and carry the CE mark.
- · Output circuitry uses a high efficiency sinusoidal inverter.
- Operating temperature range Inverter 0 to 70°C (centre side of case).
- DC Inverter Supply Range Nominal Supply 16% + 25%
- AC/DC Inverter Supply Range Nominal Supply 16% + 25% DC supply +/- 10% AC supply
- LED drivers are designed to conform to EN61347 2 13

Sizes	Α	В	С	D	E	Kg
Lamps up to 20W	154	42	35	144	138	0.25
Inverters with relay	216	42	28	206	200	0.35
Open PCB versions	131	40	114	31	-	-
LED version	216	42	28	206	200	0.35





Technical Specification

Technical Specification Inverters for Fluorescent and LED Lamps

No Relay		24 Volt AC/DC				50 Volt AC/DC			110 Volt AC/DC			
Canned Unit		PV288			PV289			PV290				
PCB Version		19288		19289			19290					
	Power Input BLF		Power Input BLF		LF	Power	r Input	ВІ	LF			
	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC
4W (150mm)	11VA	4.3W	0.44	0.36	14VA	3.96W	0.56	0.34	15VA	4.6W	0.50	0.43
5WTC-S	12VA	4.7W	0.68	0.40	14VA	4.73W	0.46	0.34	1VA	5.2W	0.65	0.51
6W (225mm)	13VA	5.0W	0.56	0.41	16VA	5.2W	0.58	0.53	17VA	5.6W	0.85	0.71
7WTC-S	13VA	5.5W	0.39	0.38	16VA	5.2W	0.44	0.40	18VA	5.9W	0.62	0.49
8W (300mm)	15VA	6.3W	0.60	0.47	18VA	6.3W	0.80	0.60	20VA	6.9W	0.70	0.57

No Relay		24 Volt AC/DC				50 Volt AC/DC			110 Volt AC/DC			
Canned Unit		PV190				PV*	191		PV192			
PCB Version	19720			197	721			193	722			
	Power Input BLF		Power	r Input	В	LF	Power	Input	ВІ	LF		
	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC
9W TC-S	20VA	11W	0.60	0.40	23VA	11W	0.54	0.45	26VA	9W	0.51	0.42
11WTC-S	22VA	13W	0.40	0.31	29VA	14W	0.49	0.41	32VA	11W	0.49	0.41
13W TC-D, TC-T	21VA	13W	0.51	0.41	30VA	15W	0.54	0.44	317VA	11W	0.61	0.48
16W 2D	22VA	16W	0.42	0.32	32VA	16W	0.49	0.38	33VA	12W	0.49	0.35
14WT5	22VA	15W	0.50	0.45	31VA	16W	0.50	0.41	35VA	13W	0.49	0.39
18W TC-D, TC-L	20VA	13W	0.49	0.40	28VA	14W	0.37	0.31	32VA	12W	0.41	0.37
18/20WT8	21VA	14W	0.29	0.19	33VA	17W	0.35	0.29	35VA	13W	0.27	0.21

Technical Specification for LED Lamps

Cat No.	Max Constant LED Current	Min Voltage	Drivers Output	
LVR24/LED	170mA	3V	38V	
LVR50/LED	170mA	3V	38V	
LVR110/LED	170mA	3V	38V	

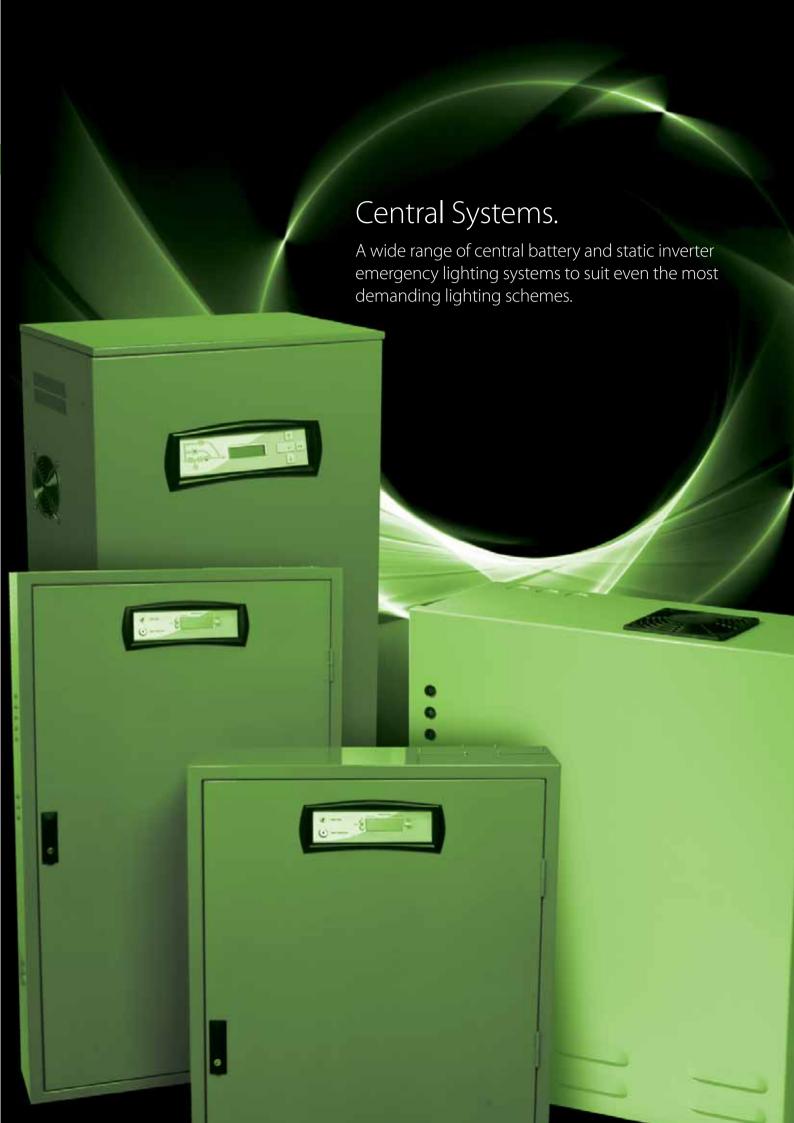
LED versions incorporate AC hold-off relay.



Incorporating		24 Vol	t AC/DC			50 Volt AC/DC				110 Volt AC/DC			
mains holdoff		PVR24				PVR50			PVR110				
Relay	Power	Power Input		BLF		Power Input		BLF		Power Input		BLF	
	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	
7W TC-S	15VA	7W	0.38	0.28	18VA	7W	0.47	0.35	20VA	8W	0.53	0.40	
8W T5	15VA	7W	0.45	0.56	19VA	8W	0.60	0.45	21VA	9W	0.57	0.43	
9W TC-S	15VA	8W	0.42	0.35	19VA	8W	0.58	0.48	21VA	9W	0.58	0.46	
11WTC-S	16VA	8W	0.40	0.29	20VA	8W	0.55	0.43	22VA	9W	0.61	0.49	
13WT5	16VA	8W	0.62	0.48	20VA	8W	0.64	0.50	22VA	9W	0.58	0.46	
14W T5	16VA	9W	0.36	0.27	21VA	9W	0.50	0.36	23VA	9W	0.42	0.33	
16W 2D	17VA	9W	0.45	0.38	21VA	9W	0.60	0.46	23VA	9W	0.56	0.44	
18W/20W T8	18VA	8W	0.20	0.14	21VA	8W	0.24	0.20	23VA	9W	0.24	0.18	
18WTC-D	19VA	9W	0.31	0.24	23VA	10W	0.45	0.35	24VA	10W	0.42	0.32	
21WT5	19VA	10W	0.32	0.24	24VA	11W	0.44	0.34	25VA	11W	0.40	0.32	
22W T5 Circular	19VA	10W	0.28	0.25	26VA	11W	0.40	0.33	26VA	11W	0.38	0.30	
24W TC-L	19VA	9W	0.25	0.20	21VA	9W	0.43	0.28	24VA	10W	0.36	0.25	
26W TC-D	20VA	11W	0.24	0.18	27VA	11W	0.35	0.22	26VA	11W	0.30	0.25	
28W 2D T5	19VA	9W	0.24	0.19	27VA	11W	0.36	0.27	25VA	11W	0.33	0.24	
28W T5	22VA	12W	0.31	0.23	31VA	13W	0.46	0.35	30VA	13W	0.42	0.35	
32W TC-T	21VA	12W	0.37	0.28	28VA	12W	0.51	0.40	29VA	12W	0.49	0.38	
35W T5	25VA	14W	0.31	0.23	36VA	16W	0.45	0.33	34VA	15W	0.41	0.34	
36W TC-L	22VA	11W	0.22	0.16	26VA	11W	0.30	0.25	29VA	12W	0.29	0.21	
36WT8	21VA	11W	0.17	0.14	27VA	11W	0.27	0.20	28VA	11W	0.22	0.18	
38W 2D T5	19VA	11W	0.16	0.13	27VA	11W	0.24	0.19	30VA	13W	0.23	0.17	
39W T5	22VA	12W	0.15	0.12	30VA	13W	0.24	0.18	30VA	13W	0.22	0.17	
40W T5 Circular	24VA	13W	0.30	0.23	33VA	14W	0.45	0.35	30VA	13W	0.43	0.34	
40W TC-L	24VA	13W	0.29	0.21	30VA	13W	0.39	0.28	31VA	14W	0.36	0.28	
42W TC-T	23VA	13W	0.23	0.13	32VA	14W	0.39	0.24	32VA	13W	0.36	0.24	
49W T5	26VA	15W	0.29	0.22	37VA	17W	0.44	0.28	35VA	16W	0.33	0.26	
54W T5	27VA	15W	0.18	0.14	36VA	16W	0.26	0.20	35VA	16W	0.24	0.20	
55W T5 Circular	26VA	14W	0.25	0.20	35VA	15W	0.39	0.29	33VA	15W	0.33	0.27	
55W 2D	23VA	12W	0.17	0.13	30VA	12W	0.26	0.19	30VA	13W	0.21	0.17	
55W TC-L	26VA	14W	0.22	0.18	32VA	13W	0.31	0.24	33VA	15W	0.30	0.25	
58W T8	24VA	13W	0.13	0.11	34VA	14W	0.29	0.22	33VA	14W	0.22	0.18	
70W T8	27VA	15W	0.12	0.09	38VA	16W	0.10	0.08	36VA	17W	0.10	0.08	
80W T5	30VA	17W	0.17	0.14	41VA	19W	0.28	0.22	39VA	19W	0.25	0.21	
100W T12	27VA	14W	0.09	0.06	37VA	16W	0.15	0.10	35VA	16W	0.13	0.11	

Emergency Conversions





Low Power CBU's

A range of 24 Volt AC/DC Central Battery Units for smaller applications



Catalogue Numbers

Cat No	Mode	Watts	Volts	Duration	Size
24/15/NM3/86/S	NM3	86W	24V	3 hours	А
24/15/M3/86/S	M3	86W	24V	3 hours	А
24/24/NM3/138/S	NM3	138W	24V	3 hours	В
24/24/M3/138/S	M3	138W	24V	3 hours	В
38/24/NM3/218/S	NM3	218W	24V	3 hours	В
38/24/M3/218/S	M3	218W	24V	3 hours	В
48/24/NM3/275/S	NM3	275W	24V	3 hours	С
48/24/M3/275/S	M3	275W	24V	3 hours	С
65/24/NM3/373/S	NM3	373W	24V	3 hours	D
65/24/M3/373/S	M3	373W	24V	3 hours	D

Features

- Designed and manufactured to in accordance with the requirements of EN50171
- Easy maintenance, Monitoring, control and battery replacement when necessary
- Supplied with 5 year life valve regulated lead acid batteries as standard
- Robust, wall mounting steel cabinet with lockable, hinged front door
- Anti-surge fuses to input and charger
- HRC fuses to output
- Low Voltage disconnect
- Volt-free charge fail relay contacts

Options

Add suffix to catalogue number:

/AV Analogue Ammeter/Voltmeter

/DM Digital Ammeter/Voltmeter

/EF Earth fault monitor

/ET Engineers test key

/FA Fire alarm relay

/HL High/low Volts monitor

/MI MCB on mains input (single pole)

/MM MCB on maintained circuit (single pole)

/MR Maintained control relay

/NW Night watchman's switch

/PF Phase failure relay

/TS Solar dial time switch

/RA Remote alarm unit

/SR Sub-circuit relay

Specification

Enclosure

Sheet steel cabinet finished in grey RAL-7032 with lockable, hinged front door and top gland plate

Batteries

5 year nominal valve regulated lead acid battery

Voltage

230 Volts 50Hz single phase input; 24 Volts output

Charger

Constant Voltage temperature compensated

Indicators

Mains healthy neon and charge fail LED

Alarms

Volt-free charge fail relay contacts

Protection

Anti-surge fuses to input and charger, HRC fuses to ouput and low Voltage disconnect

Dimensions

Size A

Height 500mm x Width 400mm x Depth 200mm

Size E

Height 600mm x Width 500mm x Depth 250mm

Size

Height 700mm x Width 500mm x Depth 250mm

Size D

Height 800mm x Width 600mm x Depth 250mm

Technical Support

For any enquiries relating to central battery units, please contact our technical department who will be able to offer advice and expertise on your application.

Features

- Designed and manufactured to in accordance with the requirements of EN50171
- Easy maintenance, Monitoring, control and battery replacement when necessary
- Supplied with 10 year life valve regulated lead acid batteries as standard
- Lockable, lift-off covers for easy installation and maintenance
- Separate battery and gear compartments
- Dual output for system flexibility
- Recessed instrument panel
- Flexible manufacturing facility allows maximum customer specific options

Options

Add suffix to catalogue number:

/DM Digital Ammeter/Voltmeter

/EF Earth fault monitor

/ET Engineers test key

/FA Fire alarm relay

/HL High/low Volts monitor

/MI MCB on mains input (single pole)

/MM MCB on maintained circuit (single pole)

/MR Maintained control relay

/NW Night watchman's switch

/PF Phase failure relay

/TS Solar dial time switch

/RA Remote alarm unit

/SR Sub-circuit relay

Specification

Enclosure

Sheet steel cabinet finished in grey RAL-7032 with lockable, lift-off cover

Batteries

10 year nominal valve regulated lead acid battery. The battery Voltage at the end of a rated discharge shall not be less than 85% of the nominal system Voltage as defined in BS5266

Voltage

230 Volts 50Hz single phase or 415 Volts 50Hz 3 phase input; 24 Volts, 50 Volts or 110 Volts output

Charger

Thyristor controlled constant Voltage type with electronic current limit and optional boost facility. Protected against short circuit, low battery Voltage and reverse battery connection

Indicators

Mains healthy neon, charge Ammeter, battery Voltmeter and charge fail LED

Recharge Time

Chargers rated to give 90% recharge within 12 hours and full recharge within 24 hours

Transformers

Double wound with earth screen

Dimensions

Size 1

Height 1000mm x Width 600mm x Depth 440mm

Size 2

Height 1250mm x Width 800mm x Depth 540mm

Size 3

Height 1250mm x Width 1000mm x Depth 640mm

Size 4

Height 1250mm x Width 1050mm x Depth 700mm

High Power CBU's

Floor standing high power Central Battery Units



Catalogue Numbers

Cat No	Watts	Volts	Duration	Size
24/#3/420/AV/LV/S	420W	24V	3 hours	1
24/#3/545/AV/LV/S	545W	24V	3 hours	1
24/#3/635/AV/LV/S	635W	24V	3 hours	1
24/#3/780/AV/LV/S	780W	24V	3 hours	1
50/#3/270/AV/LV/S	270W	50V	3 hours	1
50/#3/380/AV/LV/S	380W	50V	3 hours	1
50/#3/600/AV/LV/S	600W	50V	3 hours	1
50/#3/840/AV/LV/S	840W	50V	3 hours	1
50/#3/1090/AV/LV/S	1090W	50V	3 hours	2
50/#3/1270/AV/LV/S	1270W	50V	3 hours	2
50/#3/1560/AV/LV/S	1560W	50V	3 hours	2
50/#3/1960/AV/LV/S	1960W	50V	3 hours	3
110/#3/610/AV/LV/S	610W	110V	3 hours	2
110/#3/870/AV/LV/S	870W	110V	3 hours	2
110/#3/1350/AV/LV/S	1350W	110V	3 hours	2
110/#3/1900/AV/LV/S	1900W	110V	3 hours	3
110/#3/2450/AV/LV/S	2450W	110V	3 hours	3
110/#3/2850/AV/LV/S	2850W	110V	3 hours	4
110/#3/3500/AV/LV/S	3500W	110V	3 hours	4

Static Inverter Systems

A comprehensive range of static inverter systems to meet BS EN50171



Catalogue Numbers (LPAC Range)

Cat No	Phase Input/ Output	VA Output	Watts Output	Duration	Cabinet Size
LPAC10/3	Single Phase	150VA	120W	3 hours	1
LPAC20/3	Single Phase	300VA	240W	3 hours	1
LPAC30/3	Single Phase	450VA	360W	3 hours	1
LPAC40/3	Single Phase	600VA	480W	3 hours	2
LPAC50/3	Single Phase	750VA	600W	3 hours	2
LPAC60/3	Single Phase	950VA	750W	3 hours	2
LPAC80/3	Single Phase	1250VA	1000W	3 hours	2
LPAC100/3	Single Phase	1500VA	1200W	3 hours	3

Catalogue Numbers (HPAC Range)

Cat No	Phase Input/ Output	VA Output	Watts Output	Duration	Cabinet Size
HPAC2.0/1/1/3	Single Phase	2000VA	1600W	3 hours	3
HPAC2.5/1/1/3	Single Phase	2500VA	2000W	3 hours	3
HPAC3.2/1/1/3	Single Phase	3200VA	2400W	3 hours	4
HPAC4.8/1/1/3	Single Phase	4800VA	3200W	3 hours	5
HPAC5.6/1/1/3	Single Phase	5600VA	4200W	3 hours	6
HPAC6.0/1/1/3	Single Phase	6000VA	4800W	3 hours	7
HPAC8.0/1/1/3	Single Phase	8000VA	6400W	3 hours	8
HPAC10/1/1/3	Single Phase	10000VA	8000W	3 hours	7
HPAC12/1/1/3	Single Phase	12000VA	8750W	3 hours	7
HPAC14/1/1/3	Single Phase	14000VA	11900W	3 hours	TBC
HPAC16/1/1/3	Single Phase	16000VA	13600W	3 hours	TBC
HPAC20/1/1/3	Single Phase	20000VA	14000W	3 hours	TBC
HPAC10/3/3/3	Three Phase	10000VA	8000W	3 hours	9
HPAC15/3/3/3	Three Phase	15000VA	12000W	3 hours	10
HPAC20/3/3/3	Three Phase	20000VA	16000W	3 hours	11
HPAC30/3/3/3	Three Phase	30000VA	24000W	3 hours	12
HPAC40/3/3/3	Three Phase	40000VA	32000W	3 hours	13
HPAC50/3/3/3	Three Phase	50000VA	42500W	3 hours	14
HPAC60/3/3/3	Three Phase	60000VA	48000W	3 hours	15
HPAC80/3/3/3	Three Phase	80000VA	64000W	3 hours	TBC
HPAC100/3/3/3	Three Phase	100000VA	80000W	3 hours	TBC
HPAC120/3/3/3	Three Phase	120000VA	96000W	3 hours	TBC

For 1 hour versions replace 3 at the end of each catalogue number with 1, e.g. LPAC10/3 becomes LPAC10/1

Features

- Designed and manufactured to the latest European EN50171 specification
- Capable of 120% continuous overload to meet European emergency lighting regulations
- LCD panel providing accurate detailed information about load, batteries and inverter with advanced diagnostics
- Inverter stage output galvanic isolation transformer
- Up to 91% efficiency
- Large charger for faster recharge of batteries
- Unique inverter design to suit high inrush lighting loads
- RS232 and dry contacts for communication and remote monitoring
- Maintenance bypass for complete isolation of the inverter during maintenance

Specification

Enclosure

Sheet steel cabinet with lockable, hinged front door

Batteries

Maintenance-free valve regulated lead acid battery

Voltage

230Vac single phase or 400Vac three phase

Battery Test

Weekly automatic battery test

Short Circuit Protection

Electronic short circuit protection

Ambient Operating Temperature

0°C to 40°C

Dimensions

Size 1: Height 850mm x Width 750mm x Depth 250mm

Size 2: Height 1250mm x Width 750mm x Depth 250mm

Size 3: Height 1250mm x Width 750mm x Depth 400mm

Size 4: Height 1220mm x Width 1140mm x Depth 755mm

Size 5: Height 1220mm x Width 1010mm x Depth 755mm Size 6: Height 1220mm x Width 1010mm x Depth 855mm

Size 7: Height 1220mm x Width 1660mm x Depth 855mm

Size 8: Height 1220mm x Width 2040mm x Depth 725mm

Size 9: Height 1701mm x Width 2160mm x Depth 855mm

Size 10: Height 1180mm x Width 2000mm x Depth 855mm

Size 11: Height 1287mm x Width 1790mm x Depth 780mm

Size 12: Height 1752mm x Width 2630mm x Depth 1055mm

Size 13: Height 2652mm x Width 2640mm x Depth 1055mm

Size 14: Height 1809mm x Width 3760mm x Depth 880mm

Size 15: Height 1752mm x Width 2830mm x Depth 1055mm

Mini-Sine

Mini static inverter unit for loads up to 150 Watts

Features

- Designed to operate loads up to 150 Watts at 230 Volts
- Available in either 1 hour or 3 hours emergency duration
- Charger features short circuit and battery reversal protection
- Thermal shutdown protected
- Addition cooling for the charger during early charging stages provided by a quiet chassis mounted fan
- Sine wave inverter includes over temperature and short circuit protection and is suitable for operation in an ambient of up to 30°C
- Front panel indicators display healthy supply, power failure battery disconnect/charger failure and over charge indicator
- High quality robust steel enclosure
- Ideal for use with GU10 and discharge lighting schemes

Catalogue Numbers

Cat No	Cat No Description	
MS150/1	150W 1 hour static inverter unit	21Kg
MS150/3	150W 3 hours static inverter unit	30Kg

 $^{^{*}}$ Unit weight includes batteries (1 hour version 2 x 12V 12Ah; 3 hours version 2 x 12V 25Ah VRLA).



DimensionsLength 375mm x Width 440mm x Depth 160mm

Change-Over Relay

Change-over and sub-circuit monitor relay for use with static inverter operated systems

Features

- Can be used with either maintained or non-maintained luminaires powered from a static inverter.
- Provides local sub-circuit monitoring to comply with EN50171, the European Standard for centrally supplied emergency systems
- The DRM415AC is available with a number of options such as a steel remote housing and addressable versions
- The DRM415AC can be factory fitted in many 'free-issued' luminaires
- For non-maintained operation, the static inverter supply is connected to the DRM415AC together with the local lighting circuits' unswitched supply
- For maintained operation, the switched supply is also connected to the DRM415AC allowing the luminaire to be switched on and off as though it were a normal mains luminaire
- In the event of the unswitched supply failing, the relay changes over and the luminaire is operated by the static inverter



Catalogue Numbers

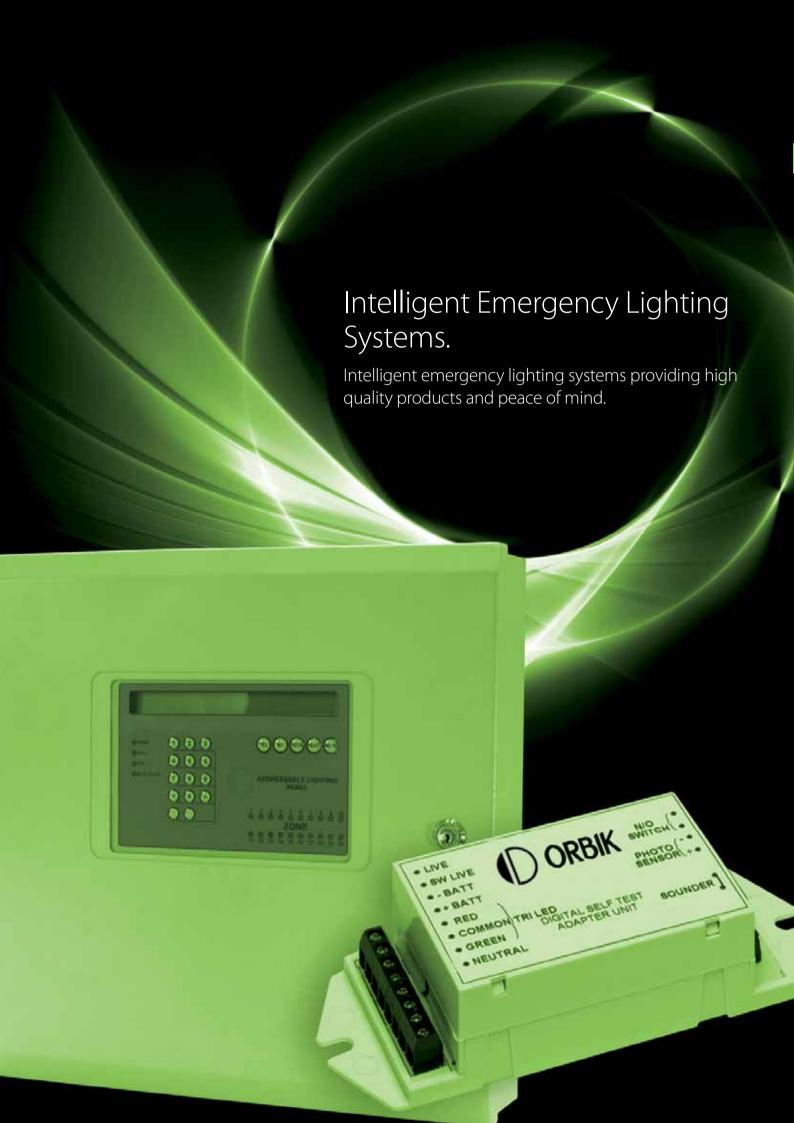
Cat No	Description	Weight*
DRM415AC	1250VA static inverter change-over relay	0.3Kg

Dimensions

Length 203mm x Width 42mm x Depth 28mm

Fixing Centres

193mm along centre line



Features

- Fully automatic
- Complies with the requirements of BS5266 and IEC62034
- Suitable for use with most nickel cadmium, nickel metal hydride and valve regulated lead acid self-contained emergency luminaires
- Carries out the thorough monthly, 6 monthly and annual tests contained within BS5266 without the need for manual intervention
- Provides both a visual and audible alarm indication when a fault is detected
- Audible alarm can be disabled if required
- Non-volatile memory ensures the clock is suspended during a power failure but the test sequence will remain unaltered.
 When power is restored, DST™ will proceed from the point at which the power failed
- On power-up, the DST™ enters a battery pre-conditioning mode to ensure batteries are in a suitable condition to supply sufficient power for emergency operation
- Testing, initiation and clock resetting are carried out via a single discrete push button

Dimensions

Dimensions

Length 130mm x Width 50mm x Depth 30mm (Weight 80g)

Fixing Centres

120mm along centre line

Technical Information

Installation

The external test switch requires a 7mm mounting hole and needs to be accessible for initial programming, manual tests and clock resetting

The monitor LED bezel requires a 6.25mm mounting hole and should always be visible with the luminaire in its installed condition.

The lamp sensor needs to be located adjacent to and pointing at the emergency lamp.

Wiring

The shrouded screw terminal connections to the DST™ unit are suitable for wires up to 1.8mm diameter. Wiring connections between the batteries and the DST™ unit need to be kept as short as possible to reduce Voltage drops.

Commissioning & Testing

24 hours after initial power-up, the DST™ enters a battery pre-conditioning phase. If the battery charge allows less than 5 minutes of emergency operation a fault indication will occur. The test is repeated 24 hours later and if less than 1 hour of emergency operation occurs, a fault indication will be given. 60 hours after initial power up, the DST™ exits the battery-conditioning mode and commences the test regime with a 5 minute monthly test.

At any time a momentary push on the test switch will invoke a 12 second functional test, which is indicated by the monitoring LED changing to red, accompanied by a single bleep from the internal sounder (if enabled).

To reset the internal clock and thus restart the test timing cycle, the test button needs to be pushed and held in for at least 5 seconds. A successful clock reset is indicated by a double bleep from the sounder. Following a clock reset the DST™ unit will re-enter the battery pre-conditioning phase.

DST™ units incorporate a sounder, which can be muted by removing the black shorting link located below the test switch and sensor terminals.

Further technical information is available from our technical department or from **www.orbik.co.uk**



Unique fully automatic self-testing module



Performance

DST™ standard testing programme conforms to the requirements of BS5266-1

Monthly

1 minute, functional test

6 Monthly

1 minute, duration test

Annually

3 hour, full rated duration test

DST™ LED status reports are made via a single tri-colour LED



Continuous green LED

Mains, battery, charger and previous test correct



Continuous red LED

Test in progress



Flashing amber LED (with optional sound alarm)*

Test fail alarm



Unlit LED

Mains failure or faulty battery

* If a fault is detected the sounder will enter a cycle where it emits an optional audible alarm and sound every 10 seconds until 4 hours have elapsed. If during this time the test is not reinitiated or the DST is not reset, the alarm cycle will be repeated. A single bleep will only be emitted during manually initiated tests.

Catalogue Numbers

Cat No	Lamp & Mode
DST-2CELL	Suitable for all modules using 2 cell batteries
DST-3CELL	Suitable for all modules using 3 cell batteries
DST-4CELL	Suitable for all modules using 4 cell batteries
DST-5CELL	Suitable for all modules using 5 cell batteries
DST-6CELL	Suitable for all modules using 6 cell batteries
DST-8CELL	Suitable for all modules using 8 cell batteries
DST-10CELL	Suitable for all modules using 10 cell batteries
DST-12V	Suitable for tungsten lamps using 12V VRLA batteries

PALSTM

Addressable emergency lighting





Specification

Mains Supply

230V 50Hz AC

Standby

Integral charger for 12V 6Ah valve regulated lead acid battery (battery not supplied)

Auxiliary Relay

1 Volt-free change over output (contacts rated at 5A 250V maximum per relay)

Sensor Circuit

Two-wire addressable loop

Loop Protection

Short circuit protection on-board (without isolators in loop)

Signalling Lines/Devices Per Line

5 plug-in line driver circuits

Up to 126 luminaires per line driver

Controls

Alpha-numeric key pad

Indicators

20 test zone LED's and audible buzzer

Display

2 line by 40 characters backlit LCD

20 LED zone test indicators

20 LED zone fault indicators

2 LED common fault indicators

Communications

1 x RS485 serial port (OEL-485 plug-in module required)

1 x on-board RS232 port

Recommended Cable

For signalling line circuits Beldon 8762, 8760 or 8719 is recommended

Dimensions

Panel: Length 375mm x Height 375mm x Depth 80mm (Weight 7.8kg excl. batteries) Interface: Length 130mm x Width 50mm x Depth 30mm (Weight 80g)

Addressable Emergency Lighting

Regular testing and maintenance of emergency lighting is essential and is now a legal requirement in many countries. It is possible to carry out testing manually but this can be expensive and time consuming and accurate record keeping can be difficult to arrange.

PALS™ is a programmable addressable light system that will automatically test and monitor the emergency lighting system and produce accurate reports of test results and system events.

It ensures building owners and occupiers are informed promptly of any problems affecting the emergency lighting system.

PALS™ Panel Features

- Each PALS™ panel is fully expandable from 1 to 5 loops using plug-in line drivers
- A maximum of 126 devices can be supported by each line driver card allowing one panel to monitor and test 630 devices. However, 100 devices should be specified to allow for future expansion.
- 95 PALS™ can be networked to allow a total system size of 59,850 devices
- A range of interface units allow the system to operate with most types of emergency luminaires including selfcontained, central battery and static inverter systems
- User-friendly software with auto-learn device and data loop status for trouble-free setting-up, commissioning and faultfinding
- Constant communication with luminaires to prove system integrity
- Reports charger or mains supply failure within 60 seconds of the event
- Carries out weekly, quarterly and annual tests, either fully automatically or to customers own requirements up to a maximum of 500 tests per year
- Full system and luminaires test can be manually activated at any time
- Reports luminaire number, location and nature of fault detected
- On-board power supplies on the panel to maintain system memory in the event of power failure
- Easy to use, tab-style question for programming and operating, on-board alpha numeric keyboard for easy updates and modifications
- Multi-panel networking, PC report and control
- Complies with the requirements of EN62034

PALS™ Self-Contained and Central System Interface Unit Features

OEL-302 monitors and tests for:

- Unswitched mains supply is present at all times
- Battery is connected and charging
- Light output from the lamp in emergency operation (PALS™ monitors the actual lamp light output as current monitoring can be unreliable)
- Data loop integrity at all times

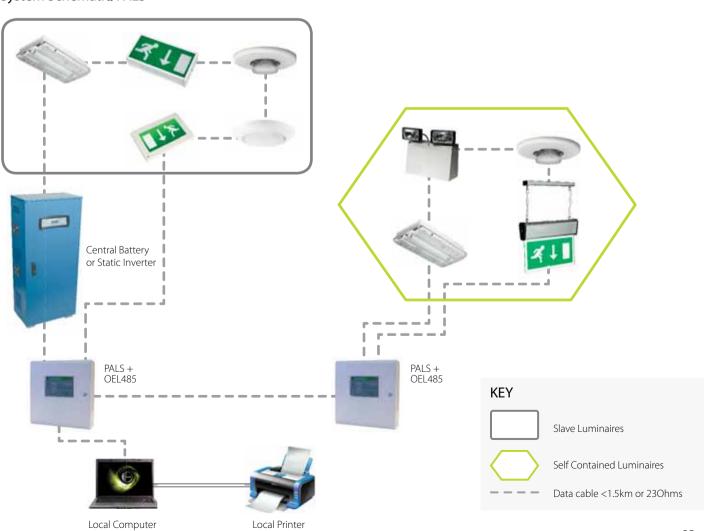
OEL-307 central system interface unit features:

- Light output from the lamp in emergency operation
- Data loop integrity at all times

Catalogue Numbers

Cat No	Description	Function/Information
OELCA1	PALS™ control panel	Each panel requires at least 1 x OEL001 driver, with a maximum of 5
OEL001	PALS™ line driver	To allow for future expansion, specify 100 devices per driver (maximum of 126)
OEL003	9 pin-25 pin D type cable	For serial printer connection
OEL004	RS232 cable and gland	Internal cable and gland for local printer and RS232 panel communications
OEL008	PC-Net 001 upload software	To allow easy on-site description and test changes via external computer
OEL009	PC-Net 002 light logger software	Allows full off-site system monitoring, testing facilities and record keeping
OEL108	RS232-RS485 converter	Converter for use with local RS232 printers
OEL302	Lighting interface	One required for each emergency luminaire, monitors charge, mains and light output
OEL304/20	12V 20W Tungsten interface	Monitors the current in 10W and 20W non-maintained Tungsten luminaires
OEL304/40	12V 50W Tungsten interface	Monitors the current in 20W and 50W non-maintained Tungsten luminaires
OEL305	Central system interface	One required for each static inverter or central battery unit
OEL307	Light sensor interface	Monitors only the lamp light output, one required for each luminaire used on central systems
OEL485	RS485 network card	One required for each panel for local and modem networking of PALS™ panels
OEL308	LED lighting interface	Monitors LED current (selectable load up to 1A)
16-508	12V 7Ah valve regulated lead acid battery	Must be installed in each PALS™ panel to ensure back-up in the event of a power failure (1 battery per panel)

System Schematic/PALS™





Conditions of Sale

- GENERAL
 (a) In these General Conditions of Sale (the "Conditions"), the "Company" means Oblik Electronics Limited, the "goods" means any item of whatsoever nature which is to be supplied to the Purchaser by the Company in accordance with these Conditions, including any installment or parts of the goods and the "Purchaser" means the person, firm or company who purchases or agrees to purchase the goods from the Company.
 (b) These Conditions shall apply to and form part of every contract of sale entered into by the Company. The Company shall sell and the Purchaser shall purchase the goods in accordance with the Company's written quotated in if accepted by the Purchaser) or the Purchaser's written order (if accepted by the Company), subject in either case to these Conditions, which shall govern the contract to the exclusion of any other terms and conditions subject to which any such quotation is accepted to purported to be accepted. Or any such order is made or purported to be made by the Purchaser.
 (c) No variation of these Conditions shall be brinding unless agreed in writing between the authorised representatives of the Purchaser and the Company.

- 2. LMITS OF CONTRACT
 (a) No order submitted by the Purchaser shall be deemed to be accepted by the Company until a written acknowledgment of order is issued by the Company or (if earlier) the Company delivers the goods to the Purchaser.
 (b) Any quotation is given by the Company on the basis that no contract will come into existence until the Company dispatches an acknowledgment of order to the Purchaser.
 (c) The Purchaser shall be responsible to the Company for ensuring the accuracy of the terms of any order (including any applicable specification) submitted by the Purchaser, and for giving the Company any necessary information relating to the goods within a sufficient time to enable the Company to perform the contract in accordance with its terms.
- in accordance with its terms.

 The quantity, quality and description of the goods and any specification for them shall be as set out in the Company's quotation (if accepted by the Purchaser) or the Purchaser's order (if accepted by the Company).
- The Furnaser's vicine in inexpense, yet an arrival for the Furnaser's vicine in inexpense, yet and in the case of an order for deleting of the price payable for goods shall unless otherwise stated by the Company in writing be the Company's quoted price or, where no price has been quoted (or a quoted price is no longer valid), the list price of the Company current at the date of delivery or desended delivery and in the case of an order for deleting installments the price payable for each installment table the Company guited price or, where no price has been quoted (or a quoted price is no longer valid), the list price of the Company current at the date of delivery of such installment. Any prices guited by the Company are valid for a period of 30 days only from the date of the quoted not represent the price of the Company prices quoted by the Company are valid for a period of 30 days only from the date of the quoted or the top the Purchaser, the price of the expense withdrawn by the Company, after which is due to any factor beyond the reasonable corntiol of the Company (such as without limitation, significant increases in the cost to the Company which is due to any factor beyond the reasonable corntiol of the Company (such as without limitation, significant increases in the cost of albour, materials and other costs of munificuted price (such the Sittle Sectorechmical As Blied Mindacrusers Association (SeMAM) contract price and other costs of albour, materials and other costs of munificuted calculated by using the British Sectorechmical As Blied Mindacrusers Association (SeMAM) contract price and other costs of albour, materials and other costs of munificuted calculated by using the British Sectorechmical As Blied Mindacrusers Association (SeMAM) contract price of the goods accordingly.

 (b) The Company reserves the right, by giving written notice to the Purchaser at any time before delivery, to increase the price of the goods accordingly increase in costs to the Company after giving many of the company after givi

- price.

 (e) All invoiced price discrepancies must be notified by the Purchaser to the Company within 7 days of the date of invoice
- PAYMENT In this softenise agreed in writing between the Purchaser and the Company, the Company may invoice the Purchaser for the price of goods on or at any time after delivery of the goods, unless the goods are to be collected by the Purchaser or the Purchaser wrongfully fails to take delivery of the goods, in which event the Company shall be entitled to invoice the Purchaser for the process and effect the Company has notified the Purchaser that the goods. Collection or (as the case may be) the Company has tendered delivery of the goods.

 Whiles otherwise agreed in writing, payment of the full price for the goods is due on or before the last working day of the month following the date of the
- voice.

 me for payment of the price shall be of the essence of the contract. Receipts for payment will only be issued on request.

 payments payable to the Company under the contract shall become due immediately upon termination of the contract, despite any other provision of these

- Immotor payment or the pixer shall be of the searned or the contract shall become due immediately upon termination of the contract, despite any other provision of these Alp payments payable to the Company under the contract shall become due immediately upon termination of the contract, despite any other provision of these Alp payments payable to the Company on such sum from the due date for payment at the annual ater of 7% above the base rate of FSDE SAR ICE from time to time, accruding on a daily basis until payment is made, whether before or after any judgment. The Company also reserves the right to claim interest under the Late Payment of Commercial Debts (interest) Act 1998. Additionally and without prejudice to its other rights the Company shall be entitled to recover all direct expenses reasonably incurred by the Company in collecting or attempting to collect amounts of the price outstanding.

 If the Purchaser falls to make any payment when due in accordance with these Conditions, the Company reserves the right in its absolute discretion and without prejudice to any of its other rights to remedies to suspend all further debieness until such payment has been made in full together with any other amounts of wing to the Company whether the due date for payment has been reached or not, if so requised by the Company or, at the Company's option, to cancel the balance of the code: in effect cache the Company shall hold the Princhese related for not, if so requised by the Company or, at the Company's option, to cancel the balance of the code: in after cache the Company shall hold the Princhese related for not delivery or deemed delivery his taken place and whether or not the property in the goods has passed.

- BYMENT DSPUTES AND DEBT NOTES

 If the Purchaser operates a debit note system, debit notes will only be accepted by the Company if raised in respect of the following matters and otherwise in accordance with the provisions of this Condition S; incorrect goods sypplied, subject to the provisions of Condition 3; delivery shortings, subject to the provisions of Condition 3; delivery shortings, subject to the provisions of Condition 6; on ordelivery, subject to the provisions of Condition 8; damaged goods, subject to the provisions of Condition 8; damaged goods, subject to the provisions of Condition 8; faulty goods, subject to the provisions of Condition 8; faulty goods, subject to the provisions of Condition 13; and provided that if goods returned by the Purchaser have not been opened by the Purchaser, they will be returned to the furchaser and no credit not well the Issued by the Company; or consent to such cancellation is attached for the area of the provision of Condition 15, and provided that if neach case, written evidence of the Company's consent to such cancellation is attached for the provision of Condition 15, and provided that in each case, written evidence of the Company's consent to such cancellation is attached for the area of the provision of Condition 15, and provided that in each case, written evidence of the Company's consent to such cancellation is attached for the provision of Condition 15, and provided that in each case, written evidence of the Company's consent to such cancellation is attached for the area of the case of the company's consent to such cancellation is attached for the area of the case of the case of the company's consent to such cancellation is attached for the case of the

- to the relevant debit note.

 All requests to return goods to the Company must be agreed in writing by the Company before any debit note is raised by the Purchaser. Debit notes will only be accepted by the Company if:
 they include details of the Company's invoice to which they relate;
 they are received by the Company within 7 days of the date on which the invoice is due for payment by the Purchaser;
 they are received to the Company on the day what they are raised, and
 they relate to the value of goods in dispute and not the value of the whole invoice (except where the value of the whole invoice is in dispute),
 In no circumstance will debit note she accepted by the Company in relation to invoices with these either been subject to a prompt payment discount or which are the subject of a dispute raised by the Purchaser more than 5 days after the date on which the invoice is due for payment by the Purchaser.

- DELIVERY
 Delivery of the goods shall be made by the Purchaser collecting the goods at the Company's premises within 14 days of the Company giving notice to the
 Purchaser that the goods are ready for collection or, if some other place for delivery is agreed by the Company, by the Company delivering goods to that place.
 Unless accepted by the Company in writing, all times or dates quoted for delivery of agreed part in good faith but are approximate only and time for
 delivery shall not be of the essence of the contract. If no dates are so specified, delivery will be within a reasonable time. The goods may be delivered by the
 Company in advance of the quoted delivery date on giving reasonable notice to the Purchaser.
 All times or dates for follewery shall be calculated from the date of acceptance by the Company of the order of the Purchaser, or from the date of receipt by the
 Company from the Purchaser of all information, instructions and drawings as shall be necessary to enable the Company to carry out the order, whichever shall be
 the later.

- the later.

 (6) If the Company delivers to the Purchaser a quantity of goods of up to 5% more or less than the quantity ordered, the Purchaser shall not be entitled to object to or reject the goods or any of them by reason of the surphus or shortfall and shall pay for such goods at the pror tata contract rate. (2) Unless otherwise stated in writing the Company shall be entitled to make partial deliverse of the goods (delivery by instalments), provided that where goods are delivered in instalments, each delivery shall constitute a separate contract and failure by the Company to deliver any one or more of the instalments in accordance with these Conditions or any claim by the Purchaser in respect of any one or more instalments shall not entitle the Purchaser for the threatment of any one or more instalments shall not entitle the Purchaser for the threatment of any one or more instalments shall not entitle the Purchaser for the order of any one or more instalments.)
- whole as repudated.

 Any contract shall be subject to the Company being satisfied as to the Purchaser's credit references, and without prejudice to the generality of the foregoing, the Company may finite absolute discretion), having informed the Purchaser that the goods are ready for dispatch, and notwithstanding any other provision of these Conditions, refrain from deleveing the exposult units such time as the Purchaser tenders the purchase money to the Company together with any outstanding amounts which may be due to the Company on any account whatsoever.
- PACKING AND CARRAGE
 The costs of cates, cases, pallets, stillages, skids or other such returnable packing will be charged to the Purchaser in addition to the price of the goods. Unless otherwise specified, full credit will be given to the Purchaser provided such packaging is returned, undamaged to the Company (carriage paid), before the Purchaser's the personer date. No charger will be made by the Company by any other form of packaging and no credit will be allowed for its return. Where the value of any order exceeds £500.00 the cost of delivery of the goods to the Purchaser's permises on the mainland of Great Britain shall be included in the contract price. In all other cases, contract prices are exclusive of carriage and insurance to the Purchaser's permises.

- the contract price. In all other cases, contract prices are exclusive of carriage and insurance to the Purchaser's premises.

 8. NON-DELVERY OR DAMAGE IN TRANSIT

 (3) The quantity of any consignment of goods as recorded by the Company upon dispatch from the Company's place of business shall be conclusive evidence of the quantity received by the Purchaser on delivery unless the Purchaser can provide conclusive proof to the contrary.

 (5) The Company shall not be labled for any non-delivery of goods unless written notice is gone to the Company within 7 days of the date when the goods would in the ordinary course of events have been received.

 (6) Any liability of the Company for non-delivery of the goods shall be limited to replacing the goods within a reasonable time or issuing a credit note at the pro-rata contract rate against any invoice raised for such goods.

 (6) If the Purchaser falls to take delivery of the goods when they are ready for collection or the Company is unable to deliver the goods on time because the Purchaser has not provided appropriate delivery instructions, licences or authorisations, then, without limiting any other right or remedy available to the Company, the goods will be deemed to have been delivered and the Company may.

 (8) store the goods at the Company's own premises or elsewhere on the Purchaser shealf until actual delivery and charge the Purchaser for the reasonable costs including junuance) of storage, and the storage of the process of the process of the goods will be designed includes delivery. The Company shall repair or replace fire of charge goods dathed between the contract.

 (8) When the price quoted includes delivery, the Company shall repair or replace fire of charge goods dathed includes delivery and charge with 7 days of the received within 7 days of the received of the goods with the historian of such diamage within 7 days of the received of the goods with the horizon of conditions of Conditions and differ deducting all responsible the Company prophytic tolerity the
- SWRETES.
 The Company shall provide samples of goods to the Purchaser on request. Samples will be charged for under the Company's normal terms. With the prior written agreement of the Company, samples may be returned to the Company and provided they are returned in good condition (in the reasonable opinion of the Company, the Purchaser will be credited in full for such samples.
- 10. VARIATIONS
 (a) The Company shall be under no obligation to alter or vary any part of the contract or any work connected therewith. Any alteration to or addition to or amendment or other variation of the specification, including any increase or decrease in the quantity of the goods or any alteration to any drawings or to the quality, performance, weight or measurements of any goods or any alteration or variation of advised delivery schedules, shall, if requested by the Purchaser, be subject to the agreement of the Company, with such alteration or addition to the price and to delivery date or schedules as may be required by the Company, and shall not be binding upon the Company unless and until accepted by the Company in writing.
 (b) In the event of any variation or suppersion of the work by the Purchaser's instructions or lack of instructions the Company shall be entitled to adjust the contract price to reflect any additional costs incurred, and to adjust delivery dates or schedules.

- 11. PERFORMANCE, INSPECTION AND TESTS
 (a) Any data, technical information or performance figures provided by the Company are based on tests performed under standard conditions at the Company's premises. They are believed to be accruate but cannot be guaranteed under different conditions.
 (b) The Company's products are carefully inspected, and, where practicable, submitted to its standard tests at the Company's place of business before dispatch. If tests other than those specified or tests in the presence of the Purchaser is are required, these will be charged for. In the event of any delay or the Purchaser's part in attending tests after the Purchaser days received 7 days notice that the Company is ready to perform the tests, the tests will proceed in the Purchaser's part in attending tests after the Purchaser days received and part of such tests at if they had been performed in the Archaser's before and the Purchaser's part in attending tests after the Purchaser days received and part of the tests at the Purchaser's been performed in the Archaser's been performed in the A

- Company.

 It is the policy of the Company to endeavour to develop and improve its products, and accordingly the Company reserves the right to change all specification without prior notification or public announcement pursuant to such policy, provided that nothing in this Condition 12 shall oblige the Purchaser to accept go that do not reasonably comply with the contract.
- 13. WARRANTY

 (a) The Company will make good by repair, or at the Company's option by the supply of a replacement, defects which, under proper storage and use appear in the goods within the period of twelve calendar months after the goods have been delivered and arise solely from faulty design (other than design made or furnished by the Purchaset, materials or workmanship.

 (b) The Warranty when in this clause is subject to the following provisor, namely:

 (i) that the Purchaset shall have followed all instructions issued by the Company in relation to the goods:

 (ii) The following provisor of the defects of the following provisor, namely:

 (ii) The following provisor of the defects of the following provisor, namely:

 (ii) The Warranty of the defects of the following provisor, namely:

 (ii) The Warranty of the Company of the defects of the following within fourteen working days of the defects of the defects of the defects of the Warranty of the

- becomes apparent.

 14. LIABILITY
 (a) Subject as expressly provided in these Conditions, and except where the goods are sold to a person dealing as a consumer (within the meaning of the Unfair Contract Terms Act 1977), all warranties, conditions or other terms implied by statute or common law are excluded to the fullest extent permitted by law.

 (b) A claim by the Purchaser which is based on any defect in the quality or condition of the goods or their failure to correspond with specification shall whether or not delivery is refused by the Purchaser) be notified to the Company within 7 days from the date of delivery or where the delect or failure was not apparent on reasonable in specific account of the company within 7 days from the date of delivery or where the delect or failure was not apparent on reasonable in specification is considered to the full representation of the purchaser.

 (b) Except in respect of death or personal injury caused by the Company's head post of the purchaser of the purchaser.

 (c) Except in respect of death or personal injury caused by the Company's head post of the purchaser.

 (d) Except in respect of death or personal injury caused by the Company's head post of the purchaser of the purchaser.

 (d) Except in respect of death or personal injury caused by the Company's head post of the purchaser of the purchaser
- Unless otherwise agreed in writing, and subject to Condition 13 hereof, goods rejected as not complying with the contract must be rejected within 7 days of collection of the goods from the Company's premises or if some other place for delivery is agreed by the Company, delivery to that place.
- 16. CANCELLATION
 (a) No order which has been accepted by the Company may be terminated by the Purchaser (whether by way of cancellation or otherwise) except with the prior written agreement of the Company (at the Company's sole discretion) and on terms that the Purchaser shall indemnify the Company in full against all loss (including loss of profit, costs, damages, charges and expenses incurred by the Company as a result of the cancellation.
 (b) The provisions of Conditions 8(a) and 8(d) shall apply in relation to any goods which are the subject of a contract which is purportedly terminated by the Purchaser otherwise than in accordance with this Condition 15.

- 17. BETURN OF GOODS

 (a) Subject to Conditions 8 and 13 hereof, in no circumstances may goods supplied in accordance with a binding contract for sale be returned without the Purchaser first having applied for and obtained the written consent of the Company, provided that of all goods returned must be in a realisable condition, with undranged cantons and must be in complete box quantities or minimum sales quantities;

 (i) goods that are specialised or that have been modified in any way from standard will not be eligible to be returned;

 (ii) the Company will not collect pools from the Purchaser, and

 (iv) a handling charge (to cover the Company's costs of restocking transport and administration) will be deducted from any credit allowed by the Company, the handling charge will be calculated on the basis of 30 for the value of the returned goods, subject to a minimum handling charge in all cases of £100.

 (v) Luminaires that are sold within the UK when it reaches the end of its useful life, may be returned for recycling, subject to our Conditions of Sale.
- NTELLECTUAL PROPERTY

 The Purchaser will indimembly the Company against all damages, penalties, costs, losses and expenses suffered by the Company, or for which it may become liable, in respect of the infringement of any intellectual property including flow without liation any part on posters, to represent the company, and present of the property of the company of movement of the property of the company of t

- The Company shall be entitled without liability on its part and without prejudice to its other rights, to terminate the contract or any unfulfilled part thereof or at its option to suppend or make partial deliveries or extend the time or times for delivery, if the manufacture of the goods by the Company or the Company's suppliers, or the delivery of the goods or the performance by the Company of any of its obligations under the contract is inideated or delayed whether directly or indirectly by reason of the Purchase falling to furnish necessary instructions or information or by war or other hostilities, acts of ferontism, protests, riot, civil commotion, act of Good, government action or legislation, interruption of transport, strike, fire, explosion, flood, epidemic lockout or other form of industrial action influeding, without limitation, blood registres with the Company's or any subcontractor's employees, accidencies or stoppages to works, shortage of labour, materials, equipment, field or power, breakdown of machinery or any other cause whatsoever beyond the reasonable control of the Company or its subcontractors, whether or not such cause exists at the date of the order provided that if the event in question continues for a continuous period in excess of [90] days, the Purchaser shall be entitled to give notice in writing to the Company to terminate the contract.

- Risks of damage to or loss of the goods shall pass to the Purchaser: in the case of goods to be delivered at the Company's premises, at the time when the Company notifies the Purchaser that the goods are available for collection;

- INDUCATE. Or TURLINGER

 This Condition against either that with the properties of the purposes of amalgamation or reconstruction); or the Purchaser becomes involved or makes any voluntary arrangement with its creditors or becomes subject to an administration order or (being an individual or firm) becomes barkupt or (being a company) goes into liquidation (otherwise than for the purposes of amalgamation or reconstruction); or an encumbrancer takes possession, or a receiver or administrative receiver is appointed, of any of the property or assets of the Purchaser, or the Purchaser sease, or therate not socials, contributed to the purchaser, or the Company reasonably apprehends that any of the events mentioned above is about to occur in relation to the Purchaser and notifies the Purchaser accordingly.

- the Company reasonably apprehends that any or the events into fuse of account of the Company shall be entitled to cancel the contract or suspend any further deliveries without prejudice to any other right or remedy available to the Company, the Company shall be entitled to cancel the contract or suspend any further deliveries under the contract without any lability to the Purchaser, and if the goods have been delivered but not paid for, the price shall become immediately due and payable notwithstanding any previous agreement or arrangement to the contrary, and the Purchaser shall have a duty to immediately bring to the notice of any receiver, administrator or any such person or persons appointed the existence and content of Condition 19 of these Conditions (Passing of Property and Risk) and the rights of the Purchaser to use or trade on the Company's goods shall immediately terminate and any such receiver, administrator or other person or persons appointed will not be entitled to use or to trade on the Company's goods that the administrator of the Company's goods that t
- ABBITATION.

 ABBITATION by many question, dispute or difference whatsoever shall arise between the Purchaser and the Company upon or in relation to or in connection with the contract, either party may give the other notice in writing of the existence of such question, dispute or difference, and the same shall be referred to the arbitration of a person to be mutually agreed upon or, falling agreement within 30 days of receipt of such notice, of some person appointed by the Person dear for the time being of the Arbitration of the Contract of Section 2018 of the Arbitration of th

- MCSCLIVECUSE

 Each night or remedy of the Company under the contract is without prejudice to any other right or remedy of the Company whether under the contract or not.
 A notice required or permitted to be given by either party to the other under these Conditions shall be in writing and addressed to that other party at its
 registred office or principal place or binnises or such other address as may at the relevant time have been notified pursuant to this provision to the party giving
 the notice. Notices shall be deemed to have been received (i) if sent by prepaid first class post, 2 days after posting, (ii) if delivered by hand on a vorting right
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