

SWITCHED ON FOR YOUR  
LIGHTING SOLUTIONS



LED LIGHTING



EMERGENCY  
LIGHTING



UPGRADES



COMPONENTS

2018

SMARTSYSTEMSUK

▶ SWITCHED ON LIGHTING SOLUTIONS

[www.smartsystemsuk.com](http://www.smartsystemsuk.com)

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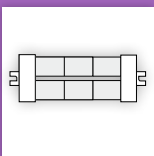


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# WELCOME

Welcome to our 2018 product catalogue and thank you for considering **Smart Systems** for your lighting and fire alarm requirements. Following 17 years of growth we are pleased to reveal many new products which have been launched to meet the needs of an ever-changing market place.



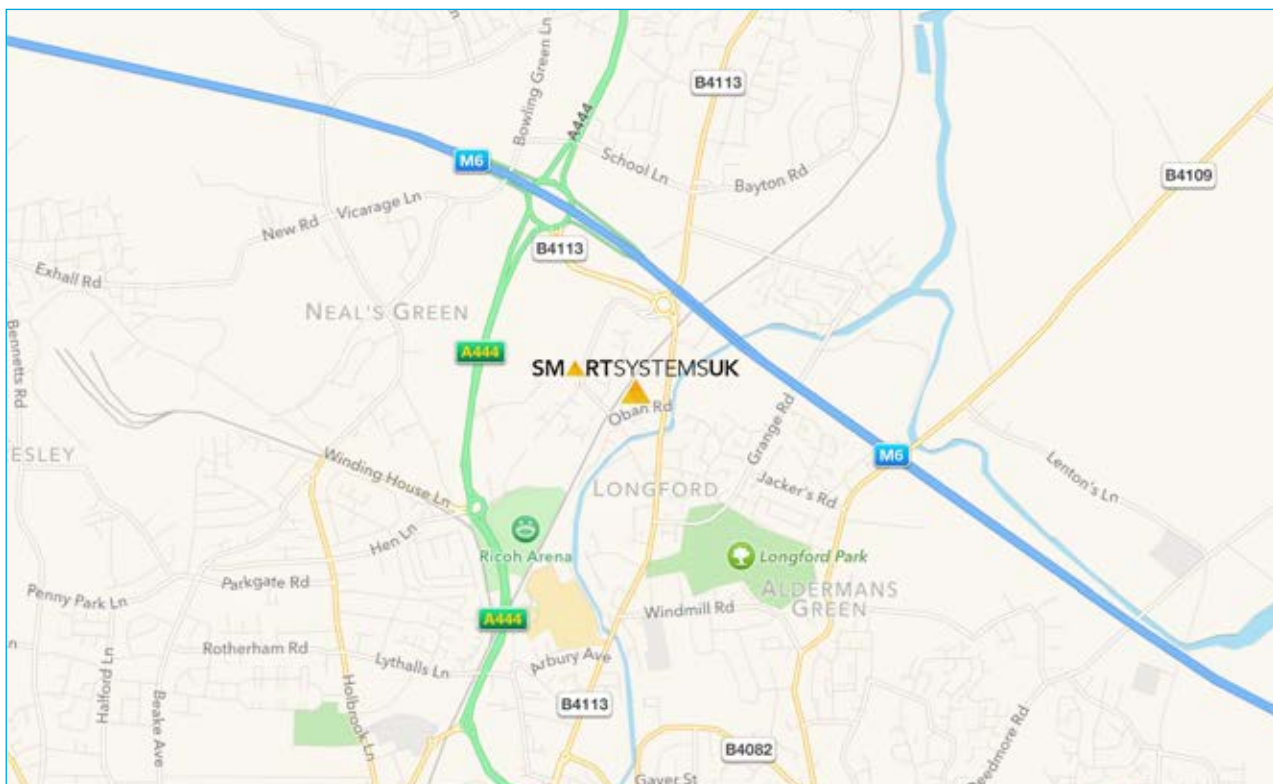
Smart Systems UK Ltd was formed in 2000

Our main areas of expertise are:

- LED lighting and bespoke solutions
- Emergency lighting
- Emergency conversions and dimming upgrades
- Lighting control gear and spares
- ▲ Fire alarm equipment and systems



Products and services are available via a network of electrical wholesalers, manufacturing and distribution is carried out in Coventry, West Midlands.



## OUR FACTORY

Our 10,000sq ft factory is home to sales, distribution and warehousing, we are also proud to be able to carry out manufacturing and assembly on this site. We are located in Coventry, a short distance from the M6/M1 motorway network.

SMARTSYSTEMSUK  
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# LED LIGHTING





# LED LIGHTING

The market for led products is evolving dramatically and we have forged close relationships with the leading manufacturers of the components to ensure that we can offer the best available solutions.

Our offer is split into two distinct areas.

## Luminaires

Many of our led fittings are manufactured in house and are assembled using leading edge components from Tridonic and other major brands, in addition we have a range of commodity products that we import directly from approved suppliers.

## Bespoke upgrades

Our natural approach when looking at an existing installation is to see if we can upgrade existing luminaires rather than simply offer new fittings. Often the light fittings are in good condition and can be upgraded with new led gear trays and we have a very extensive range that may be used in most types of fittings. The result is reduced energy consumption and ongoing maintenance costs for a lower capital outlay than installing new light fittings, the installation costs will also be significantly lower.

# Zalex

Zalex is a high quality led plate for use in new bulkhead luminaires or for upgrading existing fittings from CFL to LED.

Zalex will consume up to 50% less energy as compared to 2D Lamps for a similar performance and has a life of 50,000 hours with a five year warranty on the led plate and driver.

The components are manufactured by a world leading supplier of lighting components.

- LED upgrade plate
- 5 year system guarantee
- Upgrade 16, 28, 38 and 55 Watt 2D lamps
- Up to 4,100 board lumens
- Separate led's for 3 hour emergency
- Colour Temperature - 3000k and 4000k
- Corridor function option
- Dali, 1-10V, DSI Dim, Switch Dim, Phase Dim Options
- Available with Microwave Sensor / PIR



Dimensions	
ZXG312 / ZXG318 On geartray	215mm x 195mm x 40mm (fixing centres - 200mm)
ZXG322 / ZXG331 On geartray	320mm x 240mm x 40mm (fixing centres - 305mm)

Option 1	
ZXG312W30	ZALEX GT 12W LED COLOUR 830 1360LM
ZXG312W40	ZALEX GT 12W LED COLOUR 840 1510LM
ZXG318W30	ZALEX GT 18W LED COLOUR 830 1860LM
ZXG318W40	ZALEX GT 18W LED COLOUR 840 2060LM
ZXG322W30	ZALEX GT 22W LED COLOUR 830 2600LM
ZXG322W40	ZALEX GT 22W LED COLOUR 840 2870LM
ZXG331W30	ZALEX GT 31W LED COLOUR 830 3720LM
ZXG331W40	ZALEX GT 31W LED COLOUR 840 4100LM

Option 2	
01	LED Standard
02	c/w Microwave
03	c/w Corridor Function
04	c/w Microwave & Corridor Function
05	c/w Emergency M3
06	c/w Emergency & Microwave
07	c/w Emergency & Corridor Function
08	c/w Emergency, Microwave & Corridor Function

**Ordering Part no. Format :-**  
 Option1-Option2  
 Example:  
**ZXG312W830-02**  
 Zalex 12w LED Col 830 c/w Microwave

*\*Other options may be available on request*





## Zalex Linear

Upgrading installed luminaires from fluorescent to LED is possible with the Zalex Linear product.

Zalex linear is built up in lengths from 140mm and supplied on steel gear trays with an option of clear and semi transparent diffusers.

A very wide range of lumen outputs from 600-1700 lumens per 280mm provides the opportunity to match up with the installed systems that require upgrading.

Selecting a driver to work with the Zalex Linear is a simple process and offers a choice of fixed output and dimmable.

	Using Tridonic lle16 lp 16mm Low Power	Using Tridonic lle16 hp 16mm High Power	Using Tridonic lle24 lp 24mm Low Power	Using Tridonic lle24 hp 24mm High Power
Lumens	600lm-1100lm p/280mm	800lm-1600lm p/280mm	400lm-910lm p/280mm	800lm-1700lm p/280mm
Power	3.5w-6.9w p/280mm	5w-9.2w p/280mm	2.5w-5.9w p/280mm	5w-10w p/280mm
Diffuser Options	Clear Frosted Opal	Clear Frosted Opal	Clear Frosted Opal 60° lens 90° lens	Clear Frosted Opal 60° lens 90° lens

### Case study

## Bespoke LED Lighting Solution for Blackrock Investments

### Opportunity for LED Lighting

Lighting consumes a significant amount of electricity for a multi-story building. The 13 story building had, what was considered, efficient T5 fluorescent fittings. With a 24/7 run time totalling 8760h/year, the existing fittings used 904,032kWh per year. The £0.105/kWh electricity rate resulted in a lighting cost of £94,923 per year, and estimated annual lamp/ballast replacement maintenance costs of £24,480

This ensured that the installation time of each tray was kept to a minimum. This was critical as the upgrade had to be installed during night time working hours.

The replacement LED gear trays each consumed a total of 20w, resulting in a savings of 53%. The Tridonic LED modules and driver provide a 5-year 50,000 hour warranty.

### LED Case Study Results:

By reducing the total fitting wattage from 43w to 20w the total annual energy saving is 483,552kWh, totalling £50,773 per year. Over the minimum 50,000 hour 5 year life of the LED lighting, at 24h/day the minimum lifetime energy savings is £253,865. In addition, over the same period, there will be a £122,400 saving on lamp and ballast replacement, giving a total saving of £376,265.

### LED Lighting Solution:

Smart Systems UK Ltd provided a strategy to upgrade the existing 2,400 x 39W T5 fittings, (43w total load each, including ballast), with a new bespoke LED gear tray. The geartray was designed to replicate the performance of the existing T5 fluorescent tube while reducing both energy consumption and latent heat output from the fittings.

Smart Systems developed the design of the replacement LED gear tray in conjunction with the installing electrical contractor.





# TDL

- LED downlighter with on board driver
- 1000lm (11w) & 2000lm (22w) versions, 3000K or 4000K
- ClickDIM function option - 10 %, 50 % and 100 %
- LED's and Electronics manufactured by Tridonic
- Light engine operating with 230 V AC
- High system efficacy up to 90 lm/W at  $t_p = 65^\circ\text{C}$
- Nominal life-time 30,000 h (L70/B50)
- 3-year guarantee

Dimensions	
TDL1	Cut Out 102mm
TDL2	Cut Out 140mm
Option 1	
TDL1	11w, 1000lm, 102mm Cut-Out
TDL2	22w, 2000lm, 140mm Cut-Out
Option 2	
30	LED Colour 3000K
40	LED Colour 4000K
Option 3	
60	60° Reflector Angle
90	90° Reflector Angle
Option 4	
CD	Optional ClickDIM Function if Required
<b>Ordering Part no. Format :-</b> Option1-Option2-Option3-Option42	
Example: TDL1-30-60-CD	
TDL, 11w, 3000k, 60° Reflector Angle, ClickDim	



# MDL

- Die-cast twist and lock bezel with interchangeable accessories
- Satin etched reflector
- Optimised thermal management system
- Dimming and emergency conversion options
- Life >60,000 hours (L70B10)
- Warranty: 5 Years

Dimensions			
195mm dia, 176mm cut-out			
Code	Power	Lumens	Colour
MDL/11W/30	11W	942lm	830
MDL/11W/40	11W	1000lm	840
MDL/21W/30	21W	1800lm	830
MDL/21W/40	21W	1950lm	840
MDL/30W/30	30W	2670lm	830
MDL/30W/40	30W	2900lm	840
MDL/48W/30	48W	4178lm	830
MDL/48W/40	48W	4500lm	840
Options			
/DALI	Dali		
/WH/CH/BA	Bezel Options (White/Chrome/Brushed Aluminium)		
/65	IP65 Bezel Option		
/EM	Emergency		
/ST	Self-Test		

Please see data sheet for ACCESSORIES



with Chrome Bezel



with Drop Glass



IP65 Bezel option



## VDL

A range of LED downlights for commercial installations offering a range of lumen outputs, colour temperatures and accessories.

- 5 year guarantee
- COB technology
- High efficiency of up to 140 lm/W
- Slim design for easy installation in low false ceiling
- High colour rendering index CRI:  $\geq 85$
- Emergency & dimming options available
- Made in Europe

Dimensions		
Wattage	Overall Diameter	Cut-Out size
17w	145mm	125mm
25w	196mm	170mm
31w	242mm	210mm

Option 1	
VDL/17W	17w led downlight (1820lm-2265lm)
VDL/25W	25w led downlight (2445lm-3040lm)
VDL/31W	31w led downlight (3760lm-4670lm)

Option 2	
/30	Colour 3000K
/40	Colour 4000K
/50	Colour 5000K

Option 3	
/C	Clear glass
/F	Frosted glass
/HF	Half frosted glass

Emergency version	
/M3	3 hour emergency

**Ordering Part no. Format :-** Option1Option2Option3  
 Example: VDL/17W/40/F  
 17w 4000K downlight c/w frosted glass

Please contact our sales office for other options



## LED66

ST

- 30w Edge Lit LED Panel
- 3450LM, 115LM/W
- 5 year warranty
- UGR<19 version available
- Tridonic driver
- Surface Mount Kit Available
- Suspension Kit Available
- Dimming options available

Dimensions	
595mm x 595mm x 10mm	

Code	Description
MOD6630W40WH-01-C	30w Edge Lit LED Panel,4000K
MOD6630W40WH-05-C	30w Edge Lit LED Panel,4000K, Emergency
MOD6630-FRAME-C	Surface Mount Box
MOD6630-SUS-C	Suspension Kit

\*Please speak to our sales office for dimming & other options.

ST



# Eden LED

- IP65 polycarbonate luminaire
- 350mm and 430mm diameter
- 18 and 24 watt led versions

Dimensions	
Small	350mm x 125mm
Large	430mm x 135mm
Option 1	
ED3LED50	EDEN 18W LED IP65 COL 5000K
ED4LED50	EDEN 24W LED IP65 COL 5000K
Option 2	
001	Led Standard
002	c/w Microwave
003	c/w Corridor Function
004	c/w Microwave & Corridor Function
005	c/w Emergency M3
006	c/w Emergency & Microwave
007	c/w Emergency & Corridor Function
008	c/w Emergency, Microwave & Corridor Function
<b>Ordering Part no. Format :-</b> Option1/Option2	
Example: ED3LED50/005	
EDEN 18W LED IP65 COL 5000K C/W EMERGENCY	

Please contact our sales office for other options

# SC Downlight

- Discreet LED downlighter
- Ideal for shallow ceiling voids
- Self Test & Dali emergency options
- IP20
- 3 year warranty
- Dimming options available
- 50% + energy saving on fluorescent downlights

Dimensions		
Wattage	Overall Diameter	Cut-Out size
6w	120mm	105mm
12w	170mm	155mm
15w	190mm	175mm
18w	225mm	210mm
24w	295mm	280mm
Option 1		
SC6W40WH	6W 4000K White Downlight 400LM	
SC12W40WH	12W 4000K White Downlight 960LM	
SC15W40WH	15W 4000K White Downlight 1200LM	
SC18W40WH	18W 4000K White Downlight 1440LM	
SC24W40WH	24W 4000K White Downlight 2040LM	
Option 2		
-01	LED Mains	
-05	c/w Emergency M3	
-1-10V	1-10V Dimming	
-DIM	Dali/DSI Dimming	
<b>Ordering Part no. Format :-</b> Option1Option2		
Example: SC12W40WH-05		
12W 4000K WHITE DOWNLIGHT C/W EMERGENCY		

Please contact our sales office for other options





## Kontour LED

Stylish alternative to 600 x 600 modular panels

- Efficiency of up to 95lm/W
- Long life, energy efficient LEDs
- Low profile recessed body
- Simple universal recessed installation
- Emergency & dimming options available

Code	Description
KT/6X6/O	Kontour LED 600mm X 600mm open curved front
KT/6X6/W	Kontour LED 600mm X 600mm shallow wedge curved front
KT/6X6/R	Kontour LED 600mm X 600mm shallow rod curved front
Options	
/M3	3 hour emergency pack

Please contact our sales office for dimming & other options



## MOD66FY

- Mounting: Ceiling Recessed
- Light Source: LED
- Optical System: Diffuser Microprisma (mcd)
- Light Distribution: Direct
- Housing Material: Sheet Steel
- Diffuser Material: PMMA
- Service Lifetime 50,000 hours / L80
- Ambient Operating Temperature from -20°C to +35°C (from 0°C with EM unit)
- IP20, optical part IP40
- 220-240v 50-60hz
- Emergency and Dimming options available

Dimensions			
595mm x 595mm			
Option 1			
MOD66FY22W		22W, 3000lm, 136lm/w	
MOD66FY31W		31W, 4100lm, 132lm/w	
Option 2			
30		3000K	
40		4000K	
Option 3			
-01	Mains Only	-05	c/w Emergency M3
-02	c/w Microwave	-06	c/w Emergency & Microwave
-03	c/w Corridor Function	-07	c/w Emergency & Corridor Function
-04	c/w Microwave & Corridor Function	-08	c/w Emergency, Microwave & Corridor Function
<b>Ordering Part no. Format :-</b> Option1Option2Option3			
Example: MOD66FY22W40-01			
Mod 600 x 600, 22W, Col 4000K, Mains Only			

\*Please contact our sales office for other options

# Lume LED

ST

Exterior surface mounted amenity bulkhead. Ideal for wall mounting in corridors, stairwells, public areas etc

- Die cast aluminium bulkhead round body
- 12 and 18 watt LED versions
- Integral emergency & dimming versions

Dimensions	
360mm x 145mm	

Option 1	
LME3G312W30	Lume 12W LED 3000K 1150lm
LME3G312W40	Lume 12W LED 4000K 1280lm
LME3G318W30	Lume 18W LED 3000K 1580lm
LME3G318W40	Lume 18W LED 4000K 1751lm

Option 2	
BLK	Black Finish
AL	Aluminium/Silver Grey finish

Option 3			
-01	Mains Only	-05	c/w Emergency M3
-02	c/w Microwave	-06	c/w Emergency & Microwave
-03	c/w Corridor Function	-07	c/w Emergency & Corridor Function
-04	c/w Microwave & Corridor Function	-08	c/w Emergency, Microwave & Corridor Function

**Ordering Part no. Format :-** Option1Option2Option3  
 Example: LME3G318W40BLK-02  
 Lume 360mm 18w LED 4000K Black finish c/w Microwave

*\*please contact our sales office for dimming & other options*



# Grille LED

ST

Constructed of die cast aluminium housing and front 3 bar grille cover with UV stabilised polycarbonate vandal resistant diffuser, available in White, Black or Silver finish with opal diffuser. Ideal for wall mounting in corridors, stairwells, public areas etc.

- Die cast aluminium bulkhead round body
- 12 and 18 watt LED versions
- Integral emergency & dimming versions

Dimensions	
360mm x 145mm	

Option 1	
GRL3G312W30	Grille 12W LED 3000K 1150lm
GRL3G312W40	Grille 12W LED 4000K 1280lm
GRL3G318W30	Grille 18W LED 3000K 1580lm
GRL3G318W40	Grille 18W LED 4000K 1751lm

Option 2	
BLK	Black Finish
AL	Aluminium/Silver Grey finish

Option 3			
-01	Mains Only	-05	c/w Emergency M3
-02	c/w Microwave	-06	c/w Emergency & Microwave
-03	c/w Corridor Function	-07	c/w Emergency & Corridor Function
-04	c/w Microwave & Corridor Function	-08	c/w Emergency, Microwave & Corridor Function

**Ordering Part no. Format :-** Option1Option2Option3  
 Example: GRL3G318W40BLK-02  
 Grille 360mm 18w LED 4000K Black finish c/w Microwave

*\*please contact our sales office for dimming & other options*





## Eyelid LED

Exterior surface mounted amenity bulkhead. Ideal for wall mounting in corridors, stairwells, public areas etc

- Die cast aluminium bulkhead round body
- 12 and 18 watt LED versions
- Integral emergency & dimming versions

### Dimensions

360mm x 145mm

### Option 1

ELD3G312W30	Eyelid 12W LED 3000K 690lm
ELD3G312W40	Eyelid 12W LED 4000K 768lm
ELD3G318W30	Eyelid 18W LED 3000K 948lm
ELD3G318W40	Eyelid 18W LED 4000K 1050lm

### Option 2

BLK	Black Finish
AL	Aluminium/Silver Grey finish

### Option 3

-01	Mains Only	-05	c/w Emergency M3
-02	c/w Microwave	-06	c/w Emergency & Microwave
-03	c/w Corridor Function	-07	c/w Emergency & Corridor Function
-04	c/w Microwave & Corridor Function	-08	c/w Emergency, Microwave & Corridor Function

Ordering Part no. Format :- Option1Option2Option3

Example: ELD3G318W40BLK-02

Eyelid 360mm 18w LED 4000K Black finish c/w Microwave

*\*please contact our sales office for dimming & other option*



## Eyelid Mini

- Cast aluminium and polycarbonate construction
- Photocell activation
- Attractive and robust vandal resistant design to IP65
- Simple installation
- 14 watt, 1240 lumens LED, 5000K
- Ideal for interior & exterior environments
- Emergency version available

### Dimensions

265mm x 95mm

Code	Description
ELDM/P/BLK	Eyelid Mini Mains c/w Photo cell, Black finish
ELDM/P/M3/BLK	Eyelid Mini c/w Photo cell, Black finish- Emergency

*\*Other options may be available on request*

# Osprey 22

- Slim Profile
- High impact IK Rating
- Vandal Proof
- IP65 rated
- Zero Maintenance
- 50,000 Hours
- Robust Construction

Dimensions	
Height: 305mm, Width: 255mm, Projection: 101mm	
Specification	
Wattage	22 Watts
Lumen Output	1500lm
Lumens / Watts	68 L/W
Colour Temperature	4000K
Main Housing	Polycarbonate
Diffuser	Polycarbonate (Opal)
Code	Description
OS22	OSPREY 22W

Please contact our sales office for other options



# Osprey 40/6

- Slim Profile
- High impact IK Rating
- Vandal Proof
- IP65 rated
- Zero Maintenance
- 50,000 Hours
- Robust Construction

Dimensions	
Height: 305mm, Width: 255mm, Projection: 101mm	
Specification	
Wattage	40 Watts
Lumen Output	2550lm
Lumens / Watts	62.5L/W
Colour Temperature	6000K
Main Housing	Die-Cast Aluminium
Diffuser	Polycarbonate (Opal)
Code	Description
OS40/6	OSPREY 40W

Please contact our sales office for other options



# SAT LED

The popular SAT product is now available in LED using industry leading Tridonic control gear offering a five year warranty. Integral 3 hour maintained emergency versions along with microwave presence detection and dimming control provide a complete solution for stairwells and corridors.

- LED bulkhead with 5 year warranty
- UK designed and developed
- Emergency options available
- High output diffuser
- Approved to BS EN60598-2-22
- Various sizes and finishes
- IP20
- Dali & other dimming options available



Dimensions	
SAT3G3	325mm x 95mm
SAT4G3	425mm x 95mm
SAT5G3	525mm x 105mm
Option 1	
SAT3G3	Saturn 325mm x 95mm
SAT4G3	Saturn 425mm x 95mm
SAT5G3	Saturn 525mm x 105mm
Option 2	
12W30	12W LED 3000K 1150lm
12W40	12W LED 4000K 1280lm
18W30	18W LED 3000K 1580lm
18W40	18W LED 4000K 1751lm
22W30	22W LED 3000K 2210lm (not available in SAT3 size)
22W40	22W LED 4000K 2440lm (not available in SAT3 size)
31W30	31W LED 3000K 3162lm (not available in SAT3 size)
31W40	31W LED 4000K 3500lm (not available in SAT3 size)
Option 3	
WH	White Base - Opal LED Diffuser
CH	Chrome Base - Opal LED Diffuser
BR	Brass Base - Opal LED Diffuser
Option 4	
-01	LED Mains
-02	c/w Microwave
-03	c/w Corridor Function
-04	c/w Microwave & Corridor Function
-05	c/w Emergency M3
-06	c/w Emergency & Microwave
-07	c/w Emergency & Corridor Function
-08	c/w Emergency, Microwave & Corridor Function
<b>Ordering Part no. Format :-</b> Option1Option2Option3Option4	
Example: SAT4G318W40WH-02	
Saturn 425mm Generation 3 18w 4000k white c/w microwave	

*\*Please contact our sales office for Dimming & other options*



# Mercury

- Up to 70% energy saving compared to standard CFL
- 40,000 hours
- 120° wide beam angle
- CCT: 4000K
- No UV/IR light
- Warranty: 3 years for the fitting, 1 year for the batteries



Dimensions	
MER12W40WH	Dia 250mm x 48mm
MER18W40WH	Dia 300mm x 40mm
Option 1	
MER12W40WH	Mercury 12w, 4000K, White, 1260lm
MER18W40WH	Mercury 18w, 4000K, White, 1620lm
Option 2	
-01	Mains Only
-02	c/w Microwave Sensor
-05	c/w 3 Hour Emergency
-06	c/w Emergency & Microwave
Ordering Part no. Format: Option1-Option2	
Example: MER12W40WH-02	
Mercury 12w, 4000K, White, 1260lm c/w Microwave Sensor	

# Eye

- Die cast aluminium IP65 bulkhead round body with IK10 Impact Rating
- 9 or 15 Watt LED (both 1100lm)
- Ideal for surface conduit systems
- Lumax high output, low glare diffuser
- Tridonic control gear with 5 year warranty
- Available with Photocell
- Slave, static and central battery options



Dimensions			
330mm x 176mm			
Option 1			
EYEH9W	Eye, Heavy Duty, 9w LED		
EYEH15W	Eye, Heavy Duty, 15w LED		
Option 2			
40	Colour 840		
30	Colour 830		
Option 3			
BL	Black Finish		
AL	Aluminium/Silver Grey Finish		
WH	White Finish		
Option 4			
01	LED Standard	05	c/w Emergency M3
02	c/w Microwave	06	c/w Emergency & Microwave
03	c/w Corridor Function	07	c/w Emergency & Corridor Function
04	c/w Microwave & Corridor Function	08	c/w Emergency, Microwave & Corridor Function
Ordering Part no. Format :- Option1Option2Option3-Option4			
Example: EYEH15W40BL-05			
Eye heavy duty, 15w LED Colour 840, Black finish, c/w 3 hour emergency			

\*Other dimming options available e.g. DALI, DSI, SWITCH DIM, 1-10V and Phase Dim

\*Available in other RAL colours on request.

\*Emergency options available - Self Test and DALI EMPRO

\*Daylight Sensing available - Automatic lighting control from unswitched feed.

Off with adequate ambient light, on at dusk - 10% with no presence, 100% with presence

# Halo LED

- Contemporary luminaire with choice of halo attachments
- Emergency & dimming options available

Option 1	
HLG312W30	Halo 12W LED 3000K 1150lm
HLG312W40	Halo 12W LED 4000K 1280lm
HLG318W30	Halo 8W LED 3000K 1580lm
HLG318W40	Halo 18W LED 4000K 1751lm
HLG322W30	Halo 22W LED 3000K 2210lm
HLG322W40	Halo 22W LED 4000K 2440lm

Option 2	
-01	LED Mains
-02	c/w Microwave
-03	c/w Corridor Function
-04	c/w Microwave & Corridor Function
-05	c/w Emergency M3
-06	c/w Emergency & Microwave
-07	c/w Emergency & Corridor Function
-08	c/w Emergency, Microwave & Corridor Function

Option 3 (to be ordered separately)	
HL4/TRIM/WH	Derwent Trim White
HL4/TRIM/SS	Derwent Trim Satin Silver
HL4/TRIM/CH	Derwent Trim Chrome

Or

HL5/TRIM/WH	Thames Trim White
HL5/TRIM/SS	Thames Trim Satin Silver
HL5/TRIM/CH	Thames Trim Chrome

**Note:** Dimensions using Halo5 Trim = 525mm x 110mm

**Ordering Part no. Format:** - Option1Option2 + Option3 (Order Option 3 separately)  
 Example: HLG312W40-03  
 Halo Led 12w col 840 c/w Corridor function +  
**HL4/TRIM/WHITE**  
 Derwent Trim White

*\*Please contact our sales office for Dimming & other options*

# Lobby

- Decorative LED wall light
- Extruded acrylic diffuser
- Incorporating Tridonic CLE
- Integral LED driver
- Life 50,000 hours (L70)
- Emergency options available

Code	Description
LB/830/LO	LOBBY COL 830 LOW OUTPUT (221lm)
LB/830/HO	LOBBY COL 830 HIGH OUTPUT (304lm)
LB/840/LO	LOBBY COL 840 LOW OUTPUT (241lm)
LB/840/HO	LOBBY COL 840 HIGH OUTPUT (332lm)

Options	
/M3	3 hour emergency pack

*Please contact our sales office for dimming & other options*



# Mini-Tuff LED

ST

- IP65 robust bulkhead
- Polycarbonate base and diffuser
- Metal Base option
- Led diffuser to remove glare
- Emergency approved to BS EN 60598-2.22
- 5 year warranty on led and driver
- Dimming options available



Option 1	
MTG312W30	Mini-Tuff 12W LED 3000K 1150lm
MTG312W40	Mini-Tuff 12W LED 4000K 1280lm
MTG318W30	Mini-Tuff 18W LED 3000K 1580lm
MTG318W40	Mini-Tuff 18W LED 4000K 1751lm
MTHDG312W30	Mini-Tuff Heavy Duty 12W LED 3000K 1150lm
MTHDG312W40	Mini-Tuff Heavy Duty 12W LED 4000K 1280lm
MTHDG318W30	Mini-Tuff Heavy Duty 18W LED 3000K 1580lm
MTHDG318W40	Mini-Tuff Heavy Duty 18W LED 4000K 1751lm
Option 2	
R	Round
S	Square
Option 3	
W	White Base - Opal Led Diffuser
B	Black Base - Opal Led Diffuser
Option 4	
-01	LED Standard
-02	c/w Microwave
-03	c/w Corridor Function
-04	c/w Microwave & Corridor Function
-05	c/w Emergency M3
-06	c/w Emergency & Microwave
-07	c/w Emergency & Corridor Function
-08	c/w Emergency, Microwave & Corridor Function
<b>Ordering Part no. Format:</b> Option1Option2Option3Option4	
Example: <b>MTHDG312W40RW-01</b>	
Heavy Duty Metal base generation 3 12W LED Colour 4000K Round White Opal	
Available in 16w 2D & 28w 2D	

\*Please contact our sales office for Dimming & other options

## Walsall Housing Group

WHG are responsible for the upkeep of a significant number of residential tower blocks in the borough. The lighting consists of compact lamp bulkheads in both mains and emergency variants in communal areas specifically stairwells and corridors. Two challenges face the engineering team, the luminaires are ageing and repairs including lamp replacement are costly and with increasing energy prices the ownership costs are increasing. Our team considered the types of existing bulkhead fittings and engineered a simple retro-fit gear tray with led low

energy long life control gear. Not only is the energy consumption of each fitting halved but with the components coming with a five year 50,000 hour rating the maintenance costs are reduced dramatically.

As the gear trays have been purpose built the installation times are fast and both the mains and emergency versions are offered on the same gear tray assembly with further options including dimming and presence detection available. For further information see the Zalex product range.

## Case study





## Vanguard

- Anti Ligature Surface IP44 (IP65 Gasket option)
- Available in two sizes: 410mm & 520mm
- Clear prismatic or Opal polycarbonate diffuser option
- Emergency, Microwave and Dimming option
- Stainless Steel security screws
- Night light option available
- 5 years warranty

Dimensions	
VG4	410mm x 100mm
VG5	520mm x 140mm

Option 1	
VG4G312W30WH	Vanguard, 410mm, 12W LED 3000K, White, 1150lm
VG4G312W40WH	Vanguard, 410mm, 12W LED 4000K, White, 1280lm
VG4G318W30WH	Vanguard, 410mm, 18W LED 3000K, White, 1580lm
VG4G318W40WH	Vanguard, 410mm, 18W LED 4000K, White, 1751lm
VG5G322W30WH	Vanguard, 520mm, 22W LED 3000K, White, 2210lm
VG5G322W40WH	Vanguard, 520mm, 22W LED 4000K, White, 2440lm
VG5G331W30WH	Vanguard, 520mm, 31W LED 3000K, White, 3162lm
VG5G331W40WH	Vanguard, 520mm, 31W LED 4000K, White 3500lm

Option 2	
30	COL 830
40	COL 840

Option 3	
-01	LED Standard
-02	c/w Microwave
-03	c/w Corridor Function
-04	c/w Microwave & Corridor Function
-05	c/w Emergency M3
-06	c/w Emergency & Microwave
-07	c/w Emergency & Corridor Function
-08	c/w Emergency, Microwave & Corridor Function

Ordering Part no. Format :- Option1Option2  
 Example: VG4G312W40WH-02  
 Vanguard 410mm 12w Led Col 4000 c/w Microwave

*\*Please contact our sales office for dimming and other options*



## Pathfinder

- Luminaire lumens 1,280
- Power 20W
- 4000K
- Flange plated or root mounted
- Symmetrical distribution
- Emergency option
- 50,000 hrs L70
- IP65

Code	Description
PF/LED/20/BLK	Pathfinder LED 20w Black finish
PF/LED/20/M3/BLK	c/w Emergency

*\*Other options may be available on request*

# Neptune

The features on the IP65 Decorative Bulkhead Neptune make it stand out from the crowd. Three Diffuser fixing points, ensures the IP rating is achieved and allows the option to use anti-tamper screws for appropriate applications. The enclosure options are flexible, allowing the ability to Metallize the Rim and offer a glare reducing Halo Effect to suit application requirements.

- IP65 and IK10 rated
- Base available with a Halo Effect in a range of colours
- Three screw points fixing Diffuser to the Base
- Available with Lumax Diffuser
- Ability to use anti-tamper screws
- Ability to Metallize the Bezel in Brass, Chrome or Satin Silver
- Fully manufactured here in the UK
- Hinged Gear Tray for easy maintenance
- Tridonic gear with a 5 year warranty
- Available with Microwave and Corridor Function
- Dali and other dimming options available

Dimensions	
380mm x 122.5mm	

Option 1	
NEPG312W30	Neptune 12W LED 3000K 1090lm
NEPG312W40	Neptune 12W LED 4000K 1210lm
NEPG318W30	Neptune 18W LED 3000K 1500lm
NEPG318W40	Neptune 18W LED 4000K 1660lm
NEPG322W30	Neptune 22W LED 3000K 2090lm
NEPG322W40	Neptune 22W LED 4000K 2300lm
NEPHG312W30	Neptune Halo 12W LED 3000K 1090lm
NEPHG312W40	Neptune Halo 12W LED 4000K 1210lm
NEPHG318W30	Neptune Halo 18W LED 3000K 1500lm
NEPHG318W40	Neptune Halo 18W LED 4000K 1660lm
NEPHG322W30	Neptune Halo 22W LED 3000K 2090lm
NEPHG322W40	Neptune Halo 22W LED 4000K 2300lm

Option 2	
WH	White Trim & Lumax Diffuser
BR	Brass Trim & Lumax Diffuser
SS	Satin Silver & Lumax Diffuser
CH	Chrome Trim & Lumax Diffuser

Option 3	
-01	LED Standard
-02	c/w Microwave
-03	c/w Corridor Function
-04	c/w Microwave & Corridor Function
-05	c/w Emergency M3
-06	c/w Emergency & Microwave
-07	c/w Emergency & Corridor Function
-08	c/w Emergency, Microwave & Corridor Function

**Ordering Part no. Format :-** Option1Option2-Option3  
 Example: NEPG312W40WH-02  
 NEPTUNE, 12W, Col 4000K, White C/W Microwave

*\*Please contact our sales office for dimming and other options*



Neptune with Chrome Lumax



Neptune with Satin Silver Lumax



Neptune with Brass Lumax



# Vesper-2



- IP Rating: IP66
- Polycarbonate housing and diffuser IK08
- Tridonic LED Driver
- Dimming options available
- Stainless Steel Clips
- -20°C ~ +35°C ambient temperature for mains
- 5 year warranty
- Up to 135LM/W

Option 1	
VS41/20W	4FT 20W LED, 2700LM
VS42/45W	4FT 45W HO LED, 5100LM
VS51/36W	5FT 36W LED, 4800LM
VS52/54W	5FT 54W HO LED, 6300LM
VS61/54W	6FT 54W LED, 7200LM
VS62/80W	6FT 80W HO LED, 9800LM
Option 2	
01	LED Mains
02	c/w Microwave
03	c/w Corridor Function
04	c/w Microwave & Corridor Function
05	c/w Emergency M3
06	c/w Emergency & Microwave
07	c/w Emergency & Corridor Function
08	c/w Emergency, Microwave & Corridor Function
<b>Ordering Part no. Format:</b> Option1-Option2	
Example: VS41/20W-02	
Vesper-2 4ft 20w c/w Microwave	

*\*Please contact our sales office for Dimming & other options*

## Case study

### The Oracle Shopping Centre in Reading

The Oracle shopping centre in Reading, the largest in Berkshire has a huge underground car park with space for over 2000 vehicles.

Lighting was provided by twin 58 w T8 corrosion resistant linear fittings and was in need of replacement mainly to reduce energy but also to cut maintenance costs.

We were tasked with providing a solution and specified the "Vesper" 54 watt LED fitting. The car park lighting runs 15 hours per day due to the lack of natural light and for health and safety reasons. This is obviously very expensive in terms of running costs and lamp replacement maintenance.

Vesper has the option of Corridor Function, which is a perfect fit for this particular installation as it provides light when required and using integral controls it dims and switches off when not required.

We specified two versions so that some of the luminaries dimmed down to 10% light level when absence was detected and stayed at this level providing a comfortable low level light for visitors coming into an unlit car park. The second option again dimmed down to 10% on absence but after a preprogrammed time switched off completely, anyone entering the area automatically and swiftly activates the integral sensors and Vesper is back up to full output.

Energy savings are significant as even without factoring in the sensors the LED product consumes more than 50% less energy than its fluorescent equivalent and with a 5 year warranty backed by industry leading component suppliers maintenance and tube changes are a thing of the past.



# Longford

- High efficiency led high bay available in different sizes & wattages
- 5000K, Silver finish
- Meanwell led driver
- 5 Years warranty
- 50,000 Hours working lifetime



Option 1			
Part Number	Wattage	Lumen Output (lm)	Dimensions (LxWxH)
LF/50W	50W	6,000lm	353mm x 115mm x 144mm
LF/100W	100W	12,000lm	620mm x 115mm x 144mm
LF/150W	150W	18,000lm	887mm x 115mm x 144mm
LF/200W	200W	24,000lm	1154mm x 115mm x 144mm
LF/250W	250W	30,000lm	1421mm x 115mm x 144mm
LF/300W	300W	36,000lm	947mm x 230mm x 173mm
LF/400W	400W	48,000lm	1214mm x 230mm x 173mm
LF/500W	500W	60,000lm	1481mm x 230mm x 173mm

Option 2	
/30	30 Degree Beam Angle lens
/60	60 Degree Beam Angle lens
/90	90 Degree Beam Angle lens

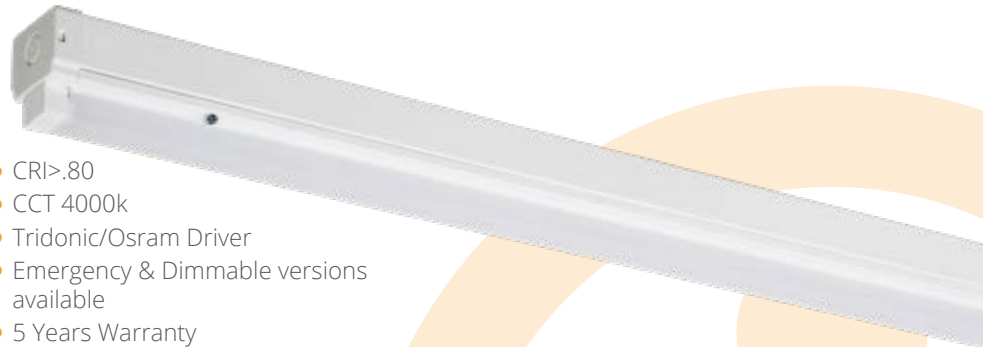
**Ordering Part no. Format:** Option1Option2  
 Example: LF/50W/30  
 Longford 50W, 30° beam angle lens

*\*Please contact our sales office for other options*



# Zeta

- Suitable for many different applications
- Three sizes available- 4ft, 5ft & 6ft
- Standard and high output versions
  - 4ft 30w, 3285lm
  - 4ft High Output - 55w, 6470lm
  - 5ft 40w, 4650lm
  - 5ft High Output - 65w, 7120lm
  - 6ft 50w, 5725lm
  - 6ft High Output - 75w, 8370lm
- CRI > .80
- CCT 4000k
- Tridonic/Osram Driver
- Emergency & Dimmable versions available
- 5 Years Warranty



Option 1	
ZE41/40	Zeta 4ft 30w, 3285lm, 840
ZE42/40	Zeta 4ft HO 55w,6470lm, 840
ZE51/40	Zeta 5ft 40w,4650lm, 840
ZE52/40	Zeta 5ft HO 65w, 7120lm, 840
ZE61/40	Zeta 6ft 50w, 5725lm, 840
ZE62/40	Zeta 6ft HO 75w, 8370lm, 840

Option 2	
01	Standard Mains
02R	C/W Remote Batten Mount Microwave
03	C/W Corridor Function
04R	C/W Remote Batten Mount Microwave & Corridor Function
05	C/W 3hr Emergency
06R	C/W Emergency & Remote Batten Mount Microwave
07	C/W Emergency & Corridor Function
08R	C/W Emergency, Remote Batten Mount Microwave & Corridor Function

**Ordering Part no. Format:-** Option1-Option2  
 Example: ZE51/40-05  
 Zeta 5ft LED Mains 840 C/W Emergency

*\*Please contact our sales office for other options*

# LIGHTING CONTROLS

## Scene Set 60

Dimming control system for up to 60 luminaires

This system is ideal for small function suites and meeting rooms it is very simple to install and does not require the services of an expensive commissioning engineer.

It offers switching and dimming control of up to 60 Dali light fittings via a programmable scene set switch.

- simple to install
- up to 60 Dali luminaires
- dimming and scene setting
- no external commissioning needed.



Code	Description
LD/DALI/125/PS/W	The boxed DALI power supply unit measures 250mm x 200mm x 100mm
SWITCH/W	The switch fits on a standard single gang 35mm deep back box

The Smart Scene-Set 60 unit is supplied with a DALI Power supply unit (boxed) with the relevant DIN termination for ease of installation.

Also supplied is a 7 button switch; this has the option of 4 programmable scene options, plus a raise and lower function and an off key.

This kit allows all the DALI compatible fittings to be scene set at all the same levels and the 4 levels to be set to the client's requirements without the need of any outside commissioning, if more complex scenes are required these can be programmed by one of our engineers on site.

### Capacity

Up to 60 luminaires with Dali ballasts may be connected to the system.

## Case study

Our customer, an electrical contractor contacted us regarding a new installation in a gold club that required lighting control.

His client wanted to be able to control the lighting at a central point and create individual settings due to the changing use of the club during a typical week. Importantly they wanted a simple system that could be programmed and modified without the need to bring in expensive external resource every time changes were required.

We specified **Scene Set 60** as it ticked all of the boxes and the installation is straightforward and fast. All of the lights that were specified are required to be Dali compatible, we added dimmable Dali drivers to a number of the non Dali fittings so that even the decorative wall lights could be included in the scheme. Installing the system is straightforward, a 2-core BUS control cable is connected

to all of the luminaries on the system from the Dali power supply and to the scene set switches, mains is required at each fitting but the control and switching is carried out by the 2-core BUS so switch wires are not needed. Light fittings are then simply programmed in rooms or "groups" so that a simple push of a switch provides the lighting level required for the time of day or use of the area.

When it came to setting up the system the golf club manager was given a demonstration of a single switch providing up to seven settings or "scenes" with the option of simple on/off with dimming. They selected a basic morning and daytime programme and an evening setting with a lower level of lighting in bar areas. The room used for functions included a setting for meetings and presentations.





SMARTSYSTEMSUK  
▶ SWITCHED ON LIGHTING SOLUTIONS

# EMERGENCY LIGHTING





# EMERGENCY LIGHTING



Above all else emergency lighting should be functional but that does not mean it has to be ugly. This sector has probably been the fastest to adopt the huge explosion in led technology and a new range of stylish, long life, high power luminaires is the result.

Product	Exit	External	LED	Discreet	Page
Wayout	●		●		25
Versex	●		●		25
Hang-Ex	●		●		26
Blade LED	●		●		26
LED-Ex	●		●	●	26
Weatherex	●	●	●		27
Walkway LED		●	●		27
Margin LED	●		●	●	27
Twinspot LED		●	●		28
Twinspot Mini			●	●	28
Escape			●	●	29
LDLEM3			●	●	29
Minituff LED		●	●		30
Powersmart			●		31
R/KIT/OL55			●		31
Powersmart LED			●	●	32
SK200/4/M3/240V			●	●	32
Mini-Sine			●	●	32
M3Connec			●		33



# EXIT SIGNS

## Wayout

- Maintained
- 220V-240V~50/60Hz
- 5W LED
- 3.6V1.5Ah Ni-Cd battery
- Duration Time: >3hrs
- IP20 Metal case
- Opal Legend panel with screen printing (different legends available)
- Slave versions available
- Automatic Self-Test version available
- Legends for other directions available



Dimensions	
390mmx190mmx60mm	
Code	Description
WEXLED/M3/WH-C1	Dual circuit 5W led M3/NM3 in white finish c/w Arrow Down Legend
Options	
/BR	Brass finish
/CH	Chrome finish
/BL	Black finish
/ST	Automatic self test operation
/AD	Arrow down legend
/AU	Arrow up legend
/AL	Arrow left legend
/AR	Arrow right legend
WEX/M3/DS/WH	Double sided version arrow left/right

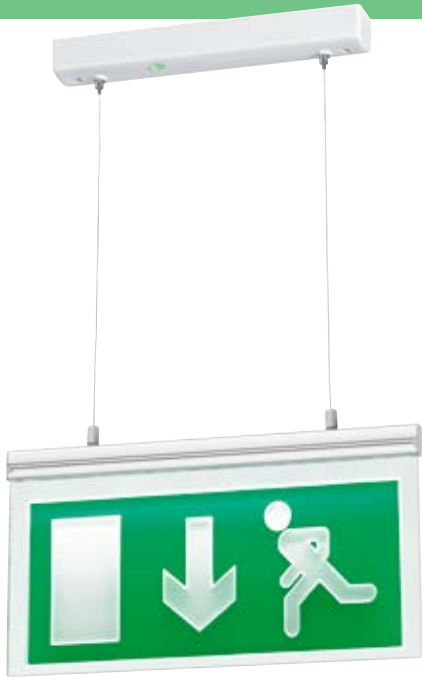
## Versex

- Compact versatile LED exit sign
- Surface or suspended option
- 28 metre viewing distance



Dimensions	
300mm x 50mm x 220mm	
Code	Description
VX/LED/M3/SL	LED exit sign, maintained silver
VX/LED/CBRK	Ceiling mounting bracket
VX/LED/WBRK	Wall mounting bracket
VX/LED/EBRK	End fixing wall bracket (flag style)
VX/LED/WIRE	Wire suspension kit
Options	
/BR	Brass finish
/WH	White finish
/ST	Automatic self test operation





## Hang-Ex

ST

- Suspended led exit sign
- Complies to EN60598.2.22
- IP20 rated

Code	Description
HX/LED/M3/WH/AD	Hang-Ex LED exit sign suspended blade - Arrow Down
HX/LED/M3/WH/AL/R	Hang-Ex LED exit sign suspended blade - Arrow Left/Right



## Blade LED

ST

- Fully recessed EXIT sign
- 28 metre viewing distance
- Arrow down legend supplied as standard
- IP20

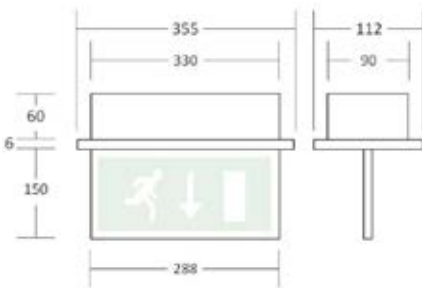
- 3 year warranty
- Dimming options available
- Complies with BS60598.2.22
- Slave versions available



Code	Description
BL/LED/M3/AD/PLE	BLADE LED M3 C/W ARROW DOWN LEGEND

Options	
VX/LEG/LR-EC	ARROW LEFT/RIGHT LEGEND ONLY
VX/LEG/AU-EC	ARROW UP LEGEND ONLY
ST	SELF TEST
DALI	DALI DIM

\*please contact our sales office for other options



## LED-EX

ST

- Surface mounted LED EXIT sign
- Available in textured silver grey or white finish
- 25 metre viewing distance



Dimensions	
Length	315mm
Height	190mm
Depth	30mm

Code	Description
LED/EX/M3	Maintained led exit sign arrow down
/WH	Textured white finish
/SG	Textured silver grey finish
/AL	Arrow left legend
/AR	Arrow right legend
/ST	Automatic self test operation



# Weatherex

- IP65 EXIT
- Double sided
- 28 metre viewing distance

ST



Dimensions	
350mm x 108mm x 204mm	

Code	Description
WET/NM3	8 watt non maintained
WET/M3	8 watt maintained
WET/LED/M3	LED Maintained
WET/LG	Self adhesive legend kit

Options	
/ST	Automatic self test operation

Slave versions available

# Walkway LED

- IP65 polycarbonate construction
- 4 watt led

ST



Dimensions	
350mm (L) x 110mm (W) x 60mm (H)	

Code	Description
WK/LED/M3-C	IP65 5W LED DUAL MAINTAINED/NON-MAINTAINED
WK/LED/NM3-C	IP65 5W LED NON-MAINTAINED
WK/LEGEND	SELF ADHESIVE LEGEND KIT

\*Please call our sales office for other options

# Margin LED

- High Output 120lm led
- IP65 rated
- Compliant with EN60598.2.22
- Optional hanging blade exit panel

ST



Dimensions	
L x W x H	240 x 130 x 50

Code	Description
MAR/LED/M3	Margin Led Maintained emergency
MAR/230	Margin Led Mains only

\*choice of self adhesive legend available to be ordered separately

Options	
/DALI	Dali or Self-Test emergency operation
/BLADE	As above but with hanging blade Exit Panel

\*choice of legend available for Blade version



## Twinspot LED

ST

- IP65 Polycarbonate Construction
- 2 x 4.5 watt led

### Dimensions

300mm x 70mm x 294mm

Code	Description
TS/LED/IP65-C	TWINSLOT LED NM3 2X4.5W IP65
TS/20/NM3	3 hour twin 20 watt
TS/55/NM3	3 hour twin 55 watt
TS/55/NM1	1 hour twin 55 watt
/WP	IP65 version
/DT	Delay on timer
/ST	Automatic self test option



## Twinspot Mini

- 2 x 110lm
- IP20
- Cable Entry 20mm knock-outs top and back
- 5000k
- Available with corridor lens or open area lens

### Dimensions

186mm x (W) x 108mm (H) x 55mm (D)

Code	Description
TS/MINI/C/M3	2 x 2 Watt LED Narrow Spot maintained with 3 hour duration-Corridor
TS/MINI/OA/M3	2 x 2 Watt LED Wide Flood maintained with 3 hour duration-Open Area





# Escape

powered by  
**TRIDONIC**

- Up to 217 lm (dependant on lens used)
- 5 year warranty on electronic components
- 3 year warranty on batteries
- Complete solution ready to apply with integrated electronics, LED module, heat sink, optics and battery
- Includes click-in multi-lens option for anti-panic, escape route and spot illumination
- Emergency lighting function for manual testing, Self-Test and Dali
- Small size ceiling hole, 40 – 43 mm diameter, 80 mm height
- Very low stand-by power consumption
- Maintained and non-maintained variants
- Black Box technology - Retains whole life performance history



Part Number	Rated duration (h)	Operation	Number of cells	Output power (W)
ESCAPE2WNM	3	Non-maintained	2	1.50
ESCAPE2WNM-STEST	3	Non-maintained Self-Test	2	1.50
ESCAPE2WNM-PRO	3	Non-maintained EMPRO	2	1.50

\*Available as Maintained

# LDLEM3

LED

- 3w LED downlight c/w inverter and battery pack
- Supplied with Silver trim and White trim
- Open Area or Corridor Lens option

Dimensions
40mm dia and 34mm cut-out

Code	Description
LDLEM3/OA-C	3W LED Downlight Open Area Lens
LDLEM3/C-C	3w LED Downlight Corridor Lens





ST

# Minituff LED



- IP65 robust bulkhead
- Polycarbonate base and diffuser
- Metal Base option
- Led diffuser to remove glare
- Emergency approved to BS EN 60598-2.22
- 5 year warranty on led and driver
- Dimming options available

Option 1	
MTG312W30	Mini-Tuff 12W LED 3000K 1150lm
MTG312W40	Mini-Tuff 12W LED 4000K 1280lm
MTG318W30	Mini-Tuff 18W LED 3000K 1580lm
MTG318W40	Mini-Tuff 18W LED 4000K 1751lm
MTHDG312W30	Mini-Tuff Heavy Duty 12W LED 3000K 1150lm
MTHDG312W40	Mini-Tuff Heavy Duty 12W LED 4000K 1280lm
MTHDG318W30	Mini-Tuff Heavy Duty 18W LED 3000K 1580lm
MTHDG318W40	Mini-Tuff Heavy Duty 18W LED 4000K 1751lm
Option 2	
R	Round
S	Square
Option 3	
W	White Base - Opal Led Diffuser
B	Black Base - Opal Led Diffuser
Option 4	
-01	LED Standard
-02	c/w Microwave
-03	c/w Corridor Function
-04	c/w Microwave & Corridor Function
-05	c/w Emergency M3
-06	c/w Emergency & Microwave
-07	c/w Emergency & Corridor Function
-08	c/w Emergency, Microwave & Corridor Function
<b>Ordering Part no. Format:</b> Option1Option2Option3Option4	
Example: MTHDG312W40RW-01	
Heavy Duty Metal base generation 3 12W LED Colour 4000K Round White Opal	
Available in 16w 2D & 28w 2D	

*\*Please contact our sales office for Dimming & other options*







# Powersmart

- Emergency back up for 12V halogen lamps
- 6 volt or full output (12 volt) output
- 20 watts up to 100 watts 3 hour duration



Dimensions	
PS 50	250mm x 230mm x 72mm
Weight	5.5kg
PS 100	385mm x 395mm x 90mm
Weight	19kg

Code	Description
PS/50/6/NM3	6v output 20-50 W no transformer
PS/50/12/NM3	12v output 20-50 W no transformer
PS/50/6/M3	6v output 20-50 W including transformer
PS/50/12/M3	12v output 20-50 W including transformer
PS/100/6/NM3	6v output up to 100 W no transformer
PS/100/12/NM3	12v output up to 100 W no transformer
PS/100/6/M3	6v output up to 100 W including transformer
PS/100/12/M3	12 v output up to 100 W including transformer.

# R/KIT/OL55

- Ideal for use with LED panels or downlights
- External battery connector for simple isolation
- 3 pole isolation of lamp & mains driver power during emergency
- Conforms to EN60598-1 & EN60598-2-22
- Driver complies with: EN61347-1, EN61347-2, EN55015, EN61000-3-2, EN61547
- Mating panel plug & socket connections available on request
- 5 year warranty
- UK made



Dimensions	
320(l) x 88(w) x 42(h)	
Code	Description
R/KIT/OL55	LED CONVERSION KIT



## Powersmart LED

- Emergency back up for 240v lamps
- LED or halogen lamps

Dimensions	
Box Version	380mm x 240mm x 90mm
SOK Version	2 pcs - 230mm x 40mm x 35mm
Battery	36mm x 700mm
Code	
Description	
PS-40-240-BX	Emergency back up for up to 40w 240v lamps - enclosure type
PS-9-240-SOK	Emergency back up for up to 9w 240v lamps flexible sock type

**Note:** please ensure that lamps being run off these units are able to operate on D.C



## SK200/4/M3/240V

- 3 hour emergency duration using 4 x 4Ah Nickel Cadmium high temperature cells.
- Driver complies with: EN61347-1, EN61347-2-7, EN55015, EN61000-3-2, EN61547.
- Deep discharge protection (DDP) to protect cells from over discharge.
- Designed and manufactured in the UK.

Dimensions	
650mm(l) x 40mm(d) (not inc. flying leads)	
Minimum Ceiling Cut-Out Size - 40mm Diameter	
Code	
Description	
SK200/4/M3/240V	LED GU10 Emergency Sock Pack

## Mini-Sine

Compact static Inverter unit for lighting loads up to 150 Watts

- 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 LED and tungsten lighting schemes

Dimensions		Battery cabinet
Length 375mm x Width 440mm x Depth 160mm		
Code		Description
M150/1	150W 1 hour mini static inverter	
M150/3	150W 3 hours mini static inverter	



# AUTOMATIC TESTING SYSTEM

## M3Connec

The new M3Connec is ideal for medium to large single or multi site installations either as a new or retro-fit solution.

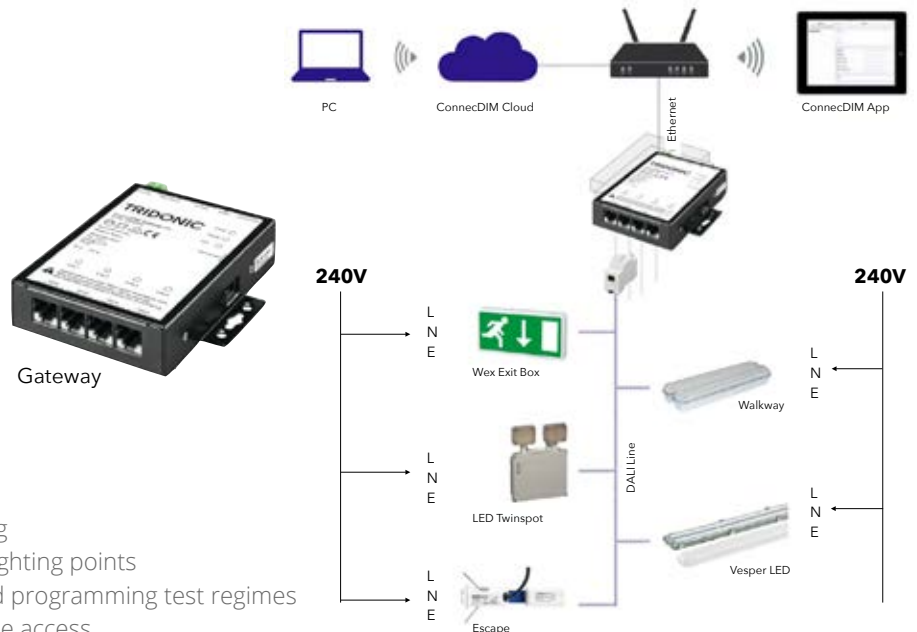
Any self contained Dali emergency lighting unit may be connected to M3Connec via a Dali Gateway. The Gateway is then connected to cloud storage via a traditional wireless interface.

Control wiring between the Dali points to the Gateway is via a 2 core cable.

Access to interrogate and retrieve reports is via a P.C, tablet or smart phone using a free downloadable App.

### Features:

- Automatic testing of emergency lighting
- Unlimited number of Dali emergency lighting points
- Free downloadable App for control and programming test regimes
- Cloud storage of test results with simple access
- Compatible with all Dali emergency lighting products
- Each luminaire provides a failure email if a fault occurs between tests. Email is sent to chosen recipients.



## Law Courts for Ministry of Justice

The testing and result recording of emergency lighting tests is mandatory and in large buildings this can be an onerous task regularly taking up several hours each week for end users or F.M companies. The courts in question are large complex buildings with stringent requirements for health and safety. Each building has over 1000 emergency fittings a number of which are in areas of restricted access.

We selected the M3 Connec, a Dali self-test emergency communications system by Tridonic as it provided all of the requirements specified by the client.

Any Dali self contained emergency lighting product may be connected to the system so flexibility in terms of style and function was easy to provide. The fittings are wired as normal with an additional 2 core communication cable linking them together and wired back to the control module or "Gateway". The Gateway is capable of monitoring and reporting up to 256 emergency

points across 4 Dali output lines. Numerous Gateways may be connected together so, in theory, any number of emergency lights could be connected and controlled.

Monitoring and controlling of the system is by the use of a free downloadable APP and storage is cloud based, the Gateway is connected to the Cloud by ethernet or a traditional wireless interface and the operator may use a P.C, tablet or Smartphone for the interface.

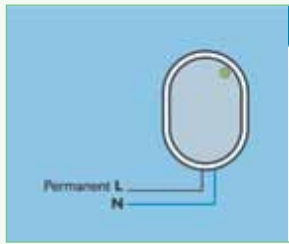
The tests are setup in line with regulatory requirements but may be programmed to suit the end user in terms of times of the tests and grouping of the emergency lightpoints. M3 Connec is extremely flexible and adaptable to match specific building and client needs. In this specific case the system was programmed to send an email alert to the external F.M company to detail any faults on the system.

## Case study



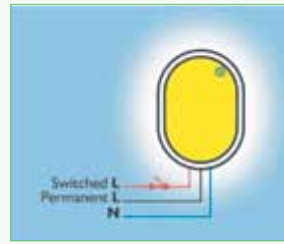
# DESIGN GUIDE

This guide should be read in conjunction with current standards



## NON-MAINTAINED

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



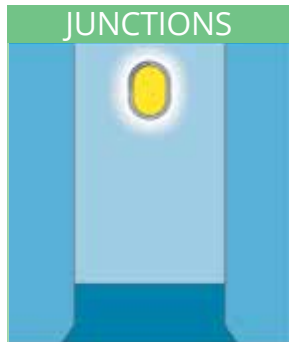
## MAINTAINED

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



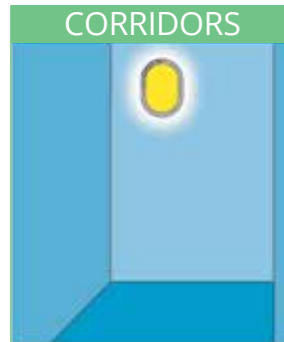
### FINAL EXIT

- To provide illumination of escape routes.



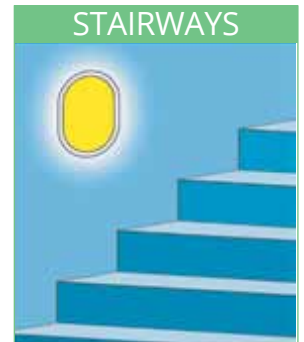
### JUNCTIONS

- Install within 2 metres of escape route junctions.



### CORRIDORS

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



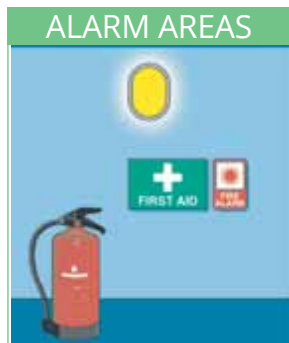
### STAIRWAYS

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



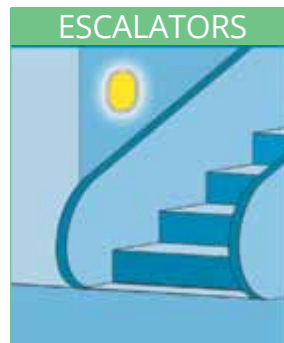
### FINAL EXITS

- Install externally within 2 metres horizontal distance of any final exits. Please note that sufficient light will be needed to muster a roll call.



### ALARM AREAS

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



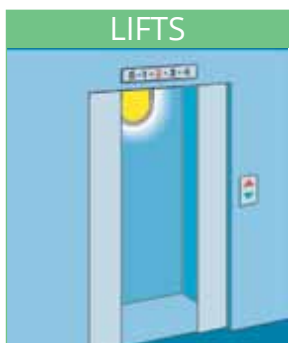
### ESCALATORS

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



### TOILETS

- Install in all toilets exceeding 8m<sup>2</sup> area or where natural light is not present.



### LIFTS

- To provide emergency illuminations in all lifts.



### CONTROL ROOMS

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



### OPEN AREAS

- Open rooms either with a particular hazard, an escape route passing through or larger than 60m<sup>2</sup>.



### HAZARDOUS AREAS

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

## Lighting requirements

When luminaires have been sited to cover the locations above, additional luminaires may be required to ensure minimum lighting levels are achieved. We provide spacing tables for this purpose. Spacing tables advise how far to locate the first luminaire, then how far apart other luminaires should be located for a given mounting height. Installation to the spacings will ensure the lighting levels will be 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.  
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.



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# FACILITIES MANAGEMENT





# FACILITIES MANAGEMENT



It is mandatory to test emergency lighting to a full duration annually. If products fail it is likely that the batteries will need to be replaced. This section details a wide range of batteries and replacement control gear

Smart Systems provide a conversion and modification service to upgrade most lighting fittings to emergency use or/and dimming.

We have expanded our current product range and now stock Lighting Control Gear, Lamp Holders and Accessories from the industries leading manufacturers

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**EXISTALITE**  
EMERGENCY LIGHTING

**mackwell**

**liteplan**  
emergency lighting

**ORBIK**

**YUASA**

# Emergency Lighting Battery Configurations

'D' Cell High Temperature 4Ah, 1.2V/Cell

- All batteries complete with flying lead and polarised 'amp' connector
- Other configurations available on request

2 Cell			3 Cell			4 Cell (4.8v)			5 Cell (6v)			6 Cell (7.2v)		
SM/02/ST			SM/03/ST			SM/04/ST			SM/05/ST			SM/06/ST		
2 CELL STICK			3 CELL STICK			4 CELL STICK			5 CELL STICK			6 CELL STICK		
L	H	D	L	H	D	L	H	D	L	H	D	L	H	D
153mm	35mm	35mm	212mm	35mm	35mm	271mm	35mm	35mm	329mm	35mm	35mm	387mm	35mm	35mm
Fixing Centres 139mm			Fixing Centres 198mm			Fixing Centres 257mm			Fixing Centres 316mm			Fixing Centres 374mm		
SM/02/PL			SM/03/PL			SM/04/PL			SM/05/PL			SM/06/PL		
2 CELL PLATE			3 CELL PLATE			4 CELL PLATE			5 CELL PLATE			6 CELL PLATE		
L	H	D	L	H	D	L	H	D	L	H	D	L	H	D
65mm	62mm	35mm	98mm	62mm	35mm	130mm	62mm	35mm	163mm	62mm	35mm	198mm	60mm	37mm
						SM/2+2/LINE			SM/3+2/LINE			SM/3+3/LINE		
						2 x 2 CELL STICKS			1 x 3 + 1 x 2 CELL STICKS			2 x 3 CELL STICKS		
L (2 off)	H	D	L (2 off)	H	D	L (2 off)	H	D	L	H	D	L (2 off)	H	D
154mm	37mm	37mm	213mm	37mm	37mm	213mm	37mm	37mm	213mm	37mm	37mm	213mm	37mm	37mm
Fixing Centres 145mm			Fixing Centres 200mm			Fixing Centres 200mm			Fixing Centres 143mm			Fixing Centres 200mm		
						SM/2+2/DEC			SM/2+3/DEC			SM/3+3/DEC		
						2 x 2 CELL STICKS (Double End Caps)			1 x 3 + 1 x 2 CELL STICKS (Double & Single End Caps)			2 x 3 CELL STICKS (Double End Caps)		
L	H	D	L	H	D	L	H	D	L	H	D	L	H	D
169mm	37mm	71mm	221mm	37mm	71mm	221mm	37mm	71mm	228mm	37mm	71mm	228mm	37mm	71mm
Fixing Centres 157mm			Fixing Centres 208mm			Fixing Centres 208mm			Fixing Centres 216mm			Fixing Centres 216mm		

## Nickel Metal Hydride Batteries

Nickel metal hydride batteries are becoming more popular for two main reasons.

- Nimh batteries have a higher energy density than the equivalent Nickel Cadmium battery meaning a smaller physical cell can be specified where space is limited.
- Importantly, Nimh batteries are also kinder to the environment in terms of production and disposal.



Dimensions	
2 cell 2.4v	Diameter 19mm x 147mm Length
3 cell 3.6v	Diameter 19mm x 216mm Length
Code	Description
SM/02/ST/NIMH	2 cell 2.4v
SM/03/ST/NIMH	3 cell 3.6v



# Emergency Conversions



Almost all light fittings can be modified to operate as an emergency luminaire by fitting a conversion pack.

A conversion kit works by operating the tube under battery power at a reduced output (generally between 5 and 10% of the normal output) for up to 3 hours.

As fitting styles have evolved and become slimmer to suit the development of T5 then so have the conversion kits and slimmer nickel metal hydride cells are becoming more popular with the added benefit that they are kinder to the environment than the traditional nickel cadmium battery.

Even fittings with discharge lamps may be adapted to have an emergency function by installing an auxiliary lamp adjacent to the mains lamp which operates from an emergency power supply.

## L.E.D.

LED luminaires are developing at a rapid pace and customers are now specifying them in many different applications.

It is possible to convert LED fittings for emergency use and new emergency kits are being quickly developed to keep up with the dramatic development of the light engines.

## Dimming

Controlling lighting using sensors and dimming is a very economical and simple way of saving energy.

Most luminaires can be modified to work in dimming mode by simply upgrading the ballast.

## Dimming types

### Analogue dimming

- Also known as high frequency regulating or 1-10 volt.
- This offers a dimming range of 100% down to 3% and the control method is generally with a rotary or slider potentiometer.
- The light fitting requires a 3 core mains supply and an additional 2 core control cable for the 1-10 V signal cable which is looped around the fittings that are being controlled. This method is gradually being replaced by digital dimming systems.

### Digital DSI dimming

- Ideal for larger installations this ballast works by taking a signal from a remote device such as a PIR sensor or scene-set controller. The dimming range is 100% down to 1%.
- Each light fitting requires a 3 core mains supply and a 2 core signal cable.
- SWITCH DIM is a variant of DSI and provides the simplest form of dimming. All that is required is a push to make retractive switch to operate the light fittings. Holding the switch down will dim the lighting and a brief press will switch them off.
- Each light only requires a 4 core cable which includes a permanent live feed.

### DALI dimming

- DALI- (Digital addressable lighting interface) is an international protocol recognised by all of the leading manufacturers of ballasts. As well as offering a versatile control in terms of switching and dimming it also provides monitoring and feedback of lamp and ballast failure.
- DALI control extends beyond fluorescent lighting and a number of manufacturers offer HID and LED dimming products.
- Each light requires a 3 core mains supply and 2 core signal cable.







# Corridor Function

The principle of the 'corridor function' is simple. Light is only produced when it is needed.

By using a dimmable led driver with a motion sensor it enables a light fitting to be more than just a straightforward on/off fixture.

When a person enters an area the luminaire produces full illumination instantly. Only when the sensor detects absence will the lighting slowly dim down, typically to 10% of the nominal light output.

The lighting can then be set to stay on at 10% until presence is detected or, depending on the specification of the ballast, it may be programmed to switch off completely after one minute or 30 minutes absence.

This has a number of benefits for the client. Considerable savings will be realised as lights will only be on when they need to be on. In addition, areas will not be quickly plunged into darkness so users will feel more comfortable when using routes in corridors and car parks as an example.

Corridor function may be specified on most new led installations and also lends itself to retro-fit project as it provides lighting control without the need for additional wiring.



## Bank - Canary Wharf

Our client, a huge International bank, has a large underground carpark beneath its offices in London. Much of the lighting is left on permanently even when areas are unoccupied due to the lack of natural light.

We surveyed the areas and specified "Corridor Function" as it ticked all of the boxes for the client. Our proposal was to upgrade the existing T8 58W dust and vapour proof to LED and fit an integral microwave sensor and dimming ballast. In this particular case the fittings had only been in service for 5 years so replacing them for new would have been expensive and unnecessary.

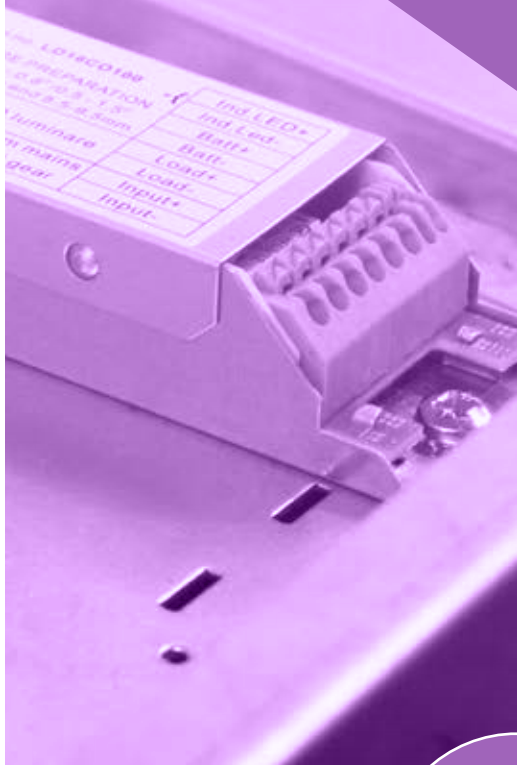
Instead we built a replacement retrofit gear tray with the new components that could quickly be fitted, and involved no additional wiring; in fact it took less than 5 minutes to upgrade each fitting.

Furthermore we modified the fittings in batches of 50 so once the first batch had been installed we retained the original "old" gear trays and refurbished them for the next 50, and so on through the project. This further reduced wastage. Over one thousand fittings have been upgraded.

The lights in the area operate at just 10% of the full output when the areas are unoccupied and quickly switch up to 100% when a person enters the area, providing a significant saving in energy whilst retaining a comfortable lighting level in terms of health and safety. The payback on investment is under 2 years.

The scheme is now being extended through corridors and stairwells with modified 2D style bulkheads using the same concept.

Case study



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