FRS

PRODUCT CATALOGUE

JULY 2019

CABLE COVERS

VENTILATION

DISTRIBUTION BOXES

LIGHTING

ADAPTABLE BOXES

PHOTOCELLS

COMPETITIVE PRICES • QUALITY PRODUCTS • FAST DELIVERY

FRS

Supplying the **electrical and ventilation wholesale** trade since 1970

Formed in 1970, primarily as agents selling on behalf of quality manufacturers supplying the electrical wholesale trade, Frank Russell & Son (FRS) has emerged as a leading distributor of a diverse and quality range of products put together to meet the changing needs of today's competitive wholesale market.

FRS are constantly evaluating and sourcing new products to add to the FRS range, and are fully committed to quality and service.

The partners at FRS share over sixty years' experience, supplying electrical wholesalers with their everyday needs, passing on valuable and expert knowledge.

Operating from extensive premises, and using a computerised stock control system, all telephone sales enquiries can usually be answered 'on the spot', and as we offer an overnight delivery service, all our orders could be with you by the next day. Fast Responsive Service (FRS).

Competitive prices, quality products and fast delivery

Expert knowledge and the latest range of products

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Downlights

The choice is endless, but remember these three points to consider are; lamp type, colour render and the application. When planning positioning of downlights make sure you have adequate illumination.

- Lamp type
- Led colour render
- Down light application fire rated or open backed
- Fixed, tilt, rotate, IP rated

FIXED, TWIST & LOCK DOWNLIGHTS

Satin

Chrome

White

Brass

GU10, MAINS 240v DOWNLIGHTS

Code:	Description:
FR50HCSN/1	Satin nickel GU10 downlight
FR50HCCH/1	Chrome GU10 downlight
FR50HCWH/1	White GU10 downlight
FR50HCBR/1	Brass GU10 downlight

See page 19 for GU10 LED lamps

MR16, LOW VOLTAGE 12v DOWNLIGHTS

FR50DCSN/1	Satin nickel MR16 downlight
FR50DCCH/1	Chrome MR16 downlight
FR50DCWH/1	White MR16 downlight
FR50DCBR/1	Brass MR16 downlight

Die-cast aluminium fixed downlights
Twist & lock lamp retaining ring for easy lamp replacement
Lamp type: GU10 Halogen lamps 50watt max or LED retro fit lamps
Lamp type: Low voltage MR16 halogen 50watt max

Cut out: 66mm / Bezel dia: 80mm / Depth: 5mm / Void height: 90mm. Not supplied with lamps.

TILT, TWIST & LOCK DOWNLIGHTS

Satin

Chrome

White

GU10, MAINS 240v DOWNLIGHTS

Code:	Description:
FR50HTSN/1	Satin nickel GU10 tilt downlight
FR50HTCH/1	Chrome GU10 tilt downlight
FR50HTWH/1	White GU10 tilt downlight

See page 19 for GU10 LED lamps

MR16, LOW VOLTAGE 12v DOWNLIGHTS

FR50DTSN/1	Satin nickel MR16 tilt downlight
FR50DTCH/1	Chrome MR16 tilt downlight
FR50DTWH/1	White MR16 tilt downlight

Die-cast aluminium tilt downlights
Twist & lock lamp retaining ring for easy lamp replacement
Lamp type: GU10 Halogen 50watt max or LED retro fit lamps
Lamp type: Low voltage MR16 halogen 50watt max. 30 deg tilt

Cut out: 83mm / Bezel dia: 95mm / Depth: 6-18mm / Void height: 110mm. Not supplied with lamps.

Chrome

Satin

White

Brass

GU10, MAINS 240v DOWNLIGHTS

Code:	Description:
FR501CSDSCH/1	Satin nickel, IP65 GU10 downlight
FR501CSDCH/1	Chrome, IP65 GU10 downlight
FR501CSDWH/1	White, IP65 GU10 downlight
FR501CSDBR/1	Brass, IP65 GU10 downlight

See page 19 for GU10 LED lamps

MR16, LOW VOLTAGE 12v DOWNLIGHTS

FR501CSDSCH	Satin nickel, IP65 MR16 downlight
FR501CSDCH	Chrome, IP65 MR16 downlight
FR501CSDWH	White, IP65 MR16 downlight
FR501CSDBR	Brass, IP65 MR16 downlight

Die-cast aluminium fixed downlights with clear glass
Fixed bezel with twist & lock lamp retaining ring for easy lamp replacement
Lamp type: GU10 Halogen 50watt max or LED retro fit lamps
Lamp type: Low voltage MR16 halogen 50watt max

Cut out: 70mm / Bezel dia: 84mm / Depth: 7mm / Void height: 98mm. Not supplied with lamps.

SQUARE TILT, TWIST & LOCK DOWNLIGHTS

Satin

Chrome   **White**

GU10, MAINS 240v DOWNLIGHTS

Code:	Description:
FR0609SN	Satin square GU10 tilt downlight
FR0609CH	Chrome square GU10 tilt downlight
FR0609WH	White square GU10 tilt downlight

See page 19 for GU10 LED lamps

MR16, LOW VOLTAGE 12v DOWNLIGHTS

FR0510SN	Satin square MR16 low voltage tilt downlight
FR0510CH	Chrome square MR16 low voltage tilt downlight
FR0510WH	White square MR16 low voltage tilt downlight

Die-cast aluminium square tilt downlights
Twist & lock lamp retaining ring for easy lamp replacement
Lamp type: GU10 Halogen 50watt max or LED retro fit lamps
Lamp type: Low voltage MR16 halogen 50watt max

Cut out: 82mm / Bezel: 96x96mm / Depth: 4-16mm / Void height: 98mm / Tilt: 45°. Not supplied with lamps.

CAST WALL WASH DOWNLIGHTS

Satin

Chrome

White

MR16, LOW VOLTAGE 12v DOWNLIGHTS

Code:	Description:
FR0509SN	Satin wall wash downlight. MR16 low voltage
FR0509CH	Chrome wall wash downlight. MR16 low voltage
FR0509WH	White wall wash downlight. MR16 low voltage

Die-cast aluminium wall wash downlights
Spring clip lamp retaining ring for easy lamp replacement
Lamp type: Low voltage MR16 halogen 50watt max
Note these fitting cannot be used with GU10 lamps

Cut out: 95mm / Bezel dia: 110mm / Depth: 3-67mm / Void height: 100mm / Tilt: 90° / Rotate: 350°
Not supplied with lamps.

ADJUSTABLE, TWIST & LOCK DOWNLIGHTS

Chrome

White

Brass

GU10, MAINS 240v DOWNLIGHTS

Code:	Description:
FR50HACH	Chrome GU10 adjustable downlight
FR50HAWH	White GU10 adjustable downlight
FR50HABR	Brass GU10 adjustable downlight

See page 19 for GU10 LED lamps

MR16, LOW VOLTAGE 12v DOWNLIGHTS

FR50DACH	Chrome MR16 adjustable downlight
FR50DAWH	White MR16 adjustable downlight
FR50DABR	Brass MR16 adjustable downlight

Die-cast aluminium adjustable downlights
These fitting rotate & tilt to get the perfect angle when Illuminating walls & features
Twist & lock lamp retaining ring for easy lamp replacement
Lamp type: GU10 Halogen 50watt max or LED retro fit lamps
Lamp type: Low voltage MR16 halogen 50watt max

Cut out: 92mm / Bezel dia: 100mm / Depth: 4-55mm / Void height: 125mm / Tilt: 45° / Rotate: 350°
Not supplied with lamps.

ROUND DROP GLASS DOWNLIGHTS

Satin

Chrome

White

GU10, MAINS 240v DOWNLIGHTS

Code:	Description:
FR0607SN	Satin, GU10 drop glass downlight
FR0607CH	Chrome, GU10 drop glass downlight
FR0607WH	White, GU10 drop glass downlight

See page 19 for GU10 LED lamps

MR16, LOW VOLTAGE 12v DOWNLIGHTS

FR0511SN	Satin, MR16, low voltage drop glass downlight
FR0511CH	Chrome, MR16 low voltage drop glass downlight
FR0511WH	White, MR16 low voltage drop glass downlight

Die-cast aluminium fixed downlights with drop glass centre etched to stop glare
Twist & lock lamp retaining ring for easy lamp replacement
Lamp type: GU10 Halogen lamps 50watt max or LED retro fit lamps
Lamp type: Low voltage MR16 halogen 50watt max

Cut out: 62mm / Bezel dia: 78mm / Depth: 25mm / Void height: 98mm / Glass dia: 80mm
Not supplied with lamps.

SQUARE DROP GLASS DOWNLIGHTS

Chrome

Satin

White

GU10, MAINS 240v DOWNLIGHTS

Code:	Description:
FR0608SN	Satin, GU10 drop glass downlight
FR0608CH	Chrome, GU10 drop glass downlight
FR0608WH	White, GU10 drop glass downlight

See page 19 for GU10 LED lamps

MR16, LOW VOLTAGE 12v DOWNLIGHTS

FR0512SN	Satin, MR16, low voltage drop glass downlight
FR0512CH	Chrome, MR16 low voltage drop glass downlight
FR0512WH	White, MR16 low voltage drop glass downlight

Die-cast aluminium fixed downlights with drop glass centre etched to stop glare
Twist & lock lamp retaining ring for easy lamp replacement
Lamp type: GU10 Halogen lamps 50watt max or LED retro fit lamps
Lamp type: Low voltage MR16 halogen 50watt max

Cut out: 62mm / Bezel dia: 75x75mm / Depth: 25mm / Void height: 98mm / Glass: 78x78mm
Not supplied with lamps.

FIRE RATED FIXED, TWIST & LOCK DOWNLIGHTS

Chrome

Satin

White

GU10, FIXED TWIST & LOCK 240V DOWNLIGHTS

Code:	Description:
FR1101SN	Satin nickel. Cast, fixed, fire rated downlight
FR1101CH	Chrome. Cast, fixed, fire rated downlight
FR1101WH	White. Cast, fixed, fire rated downlight

See page 19 for GU10 LED lamps

Die-cast aluminium fixed downlights
Twist & lock lamp retaining ring for easy lamp replacement
Lamp type: GU10 Halogen lamps 50watt max or LED retro fit lamps
Lamp type: Low voltage MR16 halogen 50watt max
Halogen lamp holder on request

Cut out: 71mm / Bezel dia: 86mm / Depth: 5mm / Void height: 108mm. Not supplied with lamps.

FIRE RATED, IP65 FIXED TWIST & LOCK DOWNLIGHTS

White

Satin   **Chrome**

GU10, IP65 240V DOWNLIGHTS

Code:	Description:
FR1103SN	Satin nickel. Cast, IP65 fire rated downlight
FR1103CH	Chrome. Cast, IP65 fire rated downlight
FR1103WH	White. Cast, IP65 fire rated downlight

See page 19 for GU10 LED lamps

Die-cast aluminium fixed downlights with clear glass
Fixed bezel with twist & lock lamp retaining ring for easy lamp replacement
Lamp type: GU10 Halogen 50watt max or LED retro fit lamps
Lamp type: Low voltage MR16 halogen 50watt max
Halogen lamp holder on request

Cut out: 74mm / Bezel dia: 87mm / Depth: 5mm / Void height: 123mm. Not supplied with lamps.

DOWNLIGHTS

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LOW VOLTAGE LIGHTING TRANSFORMERS & LED LIGHTING DRIVERS

LX060C

LX060/3

Code:	Description:
LX060C	10-60va transformer, with cables
LX060/3	10-60va transformer, with 3 way amp connector

Length: 105mm / Depth: 30mm / Height: 21mm

LX105T

LX105/6

Code:	Description:
LX105T	20-105va transformer, with terminals
LX105/6	20-105va transformer, with 6 way amp connector

Length: 111mm / Depth: 38mm / Height: 28mm

LED DRIVERS

Code:	Description:
LED0601/02	LED driver, 0-6 watt with AMP connection block
LED0602/02	LED driver, 1-15 watt with AMP connection block

LIGHTING SPARES

FRHL

FRGUL

FRSTBHL

FRSTBGU10

FRSTB

AMP06

FRCP

FRTB

AMP03

Code:	Description:
FRHL	MR16 halogen lamp holder. Length 150mm
FRGUL	GU10 lamp holder. Length 170mm
FRSTBHL	MR16 lamp holder, stirrup bar & terminal block
FRSTBGU10	GU10 lamp holder, stirrup bar, terminal block & earth point
FRSTB	Stirrup bar & terminal block
FRTB	Porcelain terminal block
FRCP	Spring clip, lamp retaining ring
AMP03	3 way amp connector
AMP06	6 way amp connector

Lamps

G4 LED RETRO FIT LAMP

Code:	Description:
LAMP01	Warm white G4 LED lamp - 3000K, 100 Lumen
LAMP02	Cool white G4 LED lamp - 4500K, 110 Lumen

GU10 COB LAMP

Code:	Description:
LAMP1208	GU10 LED COB 5w lamp, warm white. 3000-3500K
LAMP1209	GU10 LED COB 5w lamp, cool white. 6000-6500K
LAMP 1212	GU10 LED COB 6w lamp, warm white. Dimmable 3000-3500K
LAMP 1213	GU10 LED COB 6w lamp, cool white. Dimmable 6000-6500K

GX53 LAMPS

| Code:	Description:
LAMP05	LED GX53, 3.5 watt, cool white lamp - 4500K, 320 Lumen
LAMP07	LED GX53, 3.5 watt, warm white lamp - 3000K, 300 Lumen

Kitchen Lighting

The range of products to illuminate your kitchen is very extensive, as are the areas from the floor all the way to the ceiling. You should always illuminate work top surfaces well, ensuring that there is quality and approved lighting for the area. This is important for a surface where you will be preparing food. Kitchen units and flooring can be enhanced by background lighting; this will give a professional effect to the space.

Remember that kitchen lighting products must be fitted with the utmost care. Safety is paramount and if you are unsure about installing kitchen lighting, consult a professional.
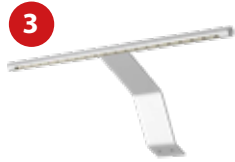
Some key features of this section include:

- Plinth lighting for background effects
- Inner cabinet lights for convenience
- Under unit lights – ideal when preparing food
- Over unit lights for show
- Spotlights and linear lighting

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4 **3**

1

4

2

1
UNDER UNIT LIGHTS

2
PLINTH LIGHTS

3
OVER UNIT LIGHTS

4
LINEAR LIGHTING
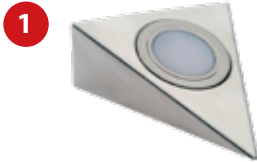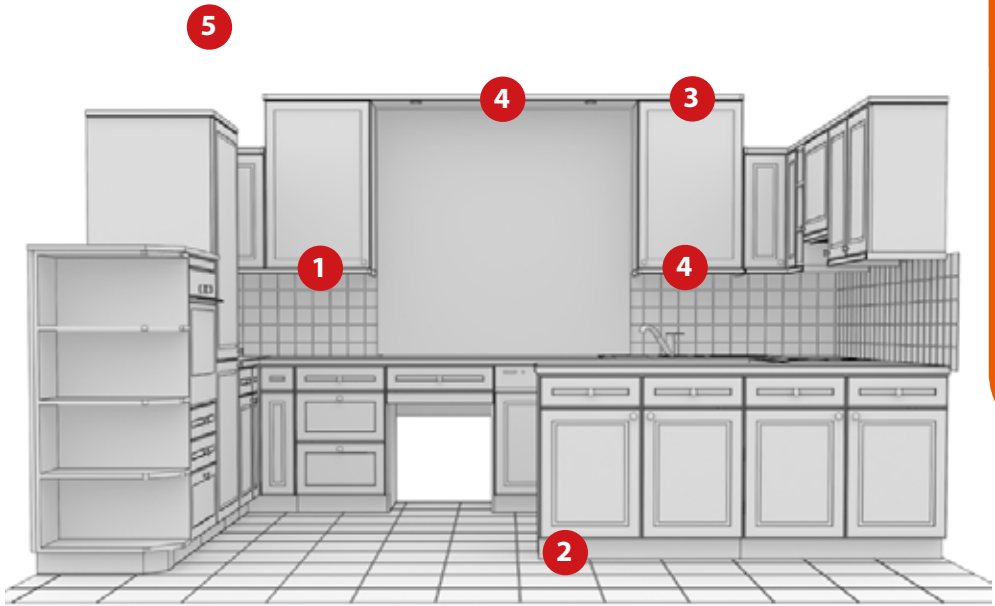
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DOWNLIGHTS

Our range of lighting products to illuminate your kitchen is very extensive, from the plinth to the ceiling we can provide you with quality products.
The five key areas to illuminate are under unit which focus light on work tops where food preparation takes place, over unit for general illumination, plinth lighting to set mood & back ground lighting, over cabinets lighting increases overall illumination & ceiling lights whether Fire rated or open back downlights for general illumination.

LED DECK/PLINTH LIGHT KITS

Code:	Description:
LED2601	5 light plinth light kit, warm white. Each light 0.4w – 7 Lumens IP67. Supplied as a plug and play fit system Supplied with 13Amp plug in driver

Code:	Description:
LED2602	10 light plinth light kit, warm white. Each light 0.4w – 7 Lumens IP67. Supplied as a plug and play fit system Supplied with 13Amp plug in driver

SMD LED technology
Walk over only 100 kgs max pressure
15mm bezel dia, 14mm cut out
Cable length on each light is 500mm lead in/500mm lead out
Cable length BS 13 amp plug to driver 1700mm then driver to first plug 400mm
Non dimmable
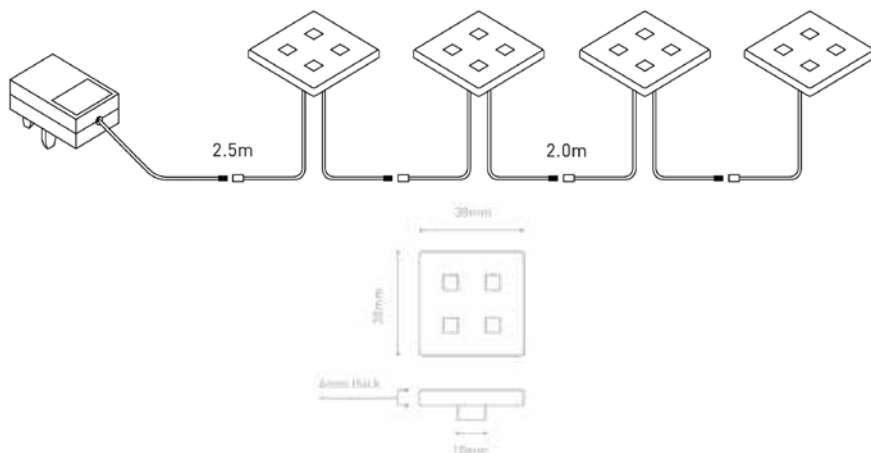
Code:	Description:
LED1800	Satin silver 4 light plinth kit with driver

LED satin finish plinth light kit of 4 c/w plug in driver
Each per fitting has 4 LEDs per fitting

White LED, 0.5w per light, 13A plug in transformer – driver.
Cut out: 10mm / Bezel: 38x38mm / Bezel depth: 6mm.

SATIN LED MAINS VOLTAGE UNDER UNIT LIGHTS

LED0701 or LED0702

LED0705 or LED0706

LED0703 or LED0704

Code:	Description:
LED0701SN	Satin mains voltage recessed LED spotlight with 1.5m lead and HV connector. Dia:66mm x 14mm - Cut out: 55mm Lamp ref 3000K Warm White 3Watts
LED0702SN	Satin mains voltage recessed LED spotlight with 1.5m lead and HV connector. Dia: 66mm x 14mm - Cut out: 55mm Lamp ref 4000K Cool White 3Watts
LED0703SN	Satin mains voltage LED spotlight with 1.5m lead and HV connector & surface mounting round base. Dia: 68 x15mm Lamp ref 3000K Warm White 3Watts
LED0704SN	Satin mains voltage LED spotlight with 1.5m lead and HV connector & surface mounting round base. Dia: 68 x15mm Lamp ref 4000K Cool White 3watts
LED0705SN	Satin mains voltage LED spotlight with 1.5m lead, HV connector & stainless steel triangle base. Size: 125mm width max 48mm height max x 138mm length Lamp Ref 3000K Warm White 3Watts
LED0706SN	Satin mains voltage LED spotlight with 1.5m lead, HV connector & stainless steel triangle base. Size: 125mm width max 48mm height max 138mm length Lamp Ref 4000K Cool White 3Watts

Mains voltage under cabinet lights with cool white or warm white LED
Each fitting is supplied with HV plugs for quick installation
We recommend using our 6-way multi connector c/w 13a BS plug as this will aide quick installation time
No transformer or driver required

IP20 120º angle light. SMD 2835 LED technology. 200 Lumens, power 3 watt. Energy efficiency claim A+

SWITCHES & ACCESSORIES
FOR LED MAINS VOLTAGE UNDER UNIT LIGHTS

LED0708

LED0711

LED0712

LED0713

SWITCHES & ACCESSORIES

Code:	Description:
LED0707	HV 1.0m extension cable
LED0708	HV 6-way connection cable with 1.5m cable + 13amp BS plug
LED0711	Surface switch - dia 66mm - depth 15mm
LED0712	Recessed switch - cutout 55mm - dia 66mm - depth 12mm
LED0713	HV 6-way connection cable with 1.5m cable + 13amp BS plug & master switch connection in red

SWITCH

240V

13AMP BS PLUG

LED LIGHT

240V

13AMP BS PLUG

LED LIGHT

CHROME LED MAINS VOLTAGE UNDER UNIT LIGHTS

LED0703CH or LED0704CH

LED0705CH or LED0706CH

Code:	Description:
LED0703CH	Chrome mains voltage LED spotlight with 1.5m lead and HV connector & surface mounting round base. Dia: 68 x15mm Lamp ref 3000K Warm White 3Watts
LED0704CH	Chrome mains voltage LED spotlight with 1.5m lead and HV connector & surface mounting round base. Dia: 68 x15mm Lamp ref 4000K Cool White 3watts
LED0705CH	Chrome mains voltage LED spotlight with 1.5m lead, HV connector & triangle base. Size: 125mm width max 48mm height max x 138mm length Lamp Ref 3000K Warm White 3Watts
LED0706CH	Chrome mains voltage LED spotlight with 1.5m lead, HV connector & triangle base. Size: 125mm width max 48mm height max 138mm length Lamp Ref 4000K Cool White 3Watts

Mains voltage under cabinet lights with cool white or warm white LED
Each fitting is supplied with HV plugs for quick installation
We recommend using our 6-way multi connector c/w 13a BS plug as this will aide quick installation time
No transformer or driver required

IP20 120° angle light. SMD 2835 LED technology. 200 Lumens, power 3 watt. Energy efficiency claim A+

SWITCHES & ACCESSORIES
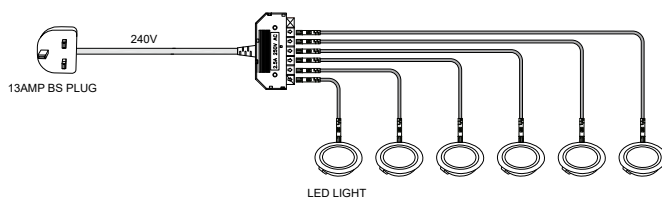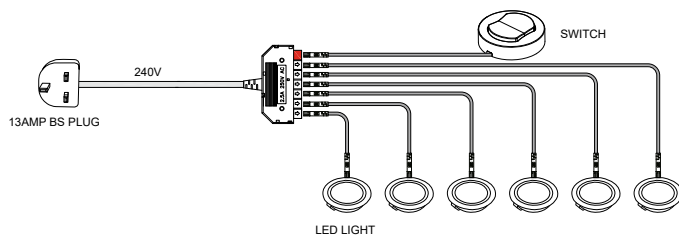## FOR LED MAINS VOLTAGE UNDER UNIT LIGHTS

LED0708

LED0711

LED0712

LED0713

SWITCHES & ACCESSORIES

Code:	Description:
LED0707	HV 1.0m extension cable
LED0708	HV 6-way connection cable with 1.5m cable + 13amp BS plug
LED0711	Surface switch - dia 66mm - depth 15mm
LED0712	Recessed switch - cutout 55mm - dia 66mm - depth 12mm
LED0713	HV 6-way connection cable with 1.5m cable + 13amp BS plug & master switch connection in red

SWITCH

240V

13AMP BS PLUG

LED LIGHT

240V

13AMP BS PLUG

LED LIGHT

WHITE LED MAINS VOLTAGE UNDER UNIT LIGHTS

LED0703WH or LED0704WH

LED0705WH or LED0706WH

Code:	Description:
LED0703WH	White mains voltage LED spotlight with 1.5m lead and HV connector & surface mounting round base. Dia: 68 x15mm Lamp ref 3000K Warm White 3Watts
LED0704WH	White mains voltage LED spotlight with 1.5m lead and HV connector & surface mounting round base. Dia: 68 x15mm Lamp ref 4000K Cool White 3watts
LED0705WH	White mains voltage LED spotlight with 1.5m lead, HV connector & triangle base. Size: 125mm width max 48mm height max x 138mm length Lamp Ref 3000K Warm White 3Watts
LED0706WH	White mains voltage LED spotlight with 1.5m lead, HV connector & triangle base. Size: 125mm width max 48mm height max 138mm length Lamp Ref 4000K Cool White 3Watts

Mains voltage under cabinet lights with cool white or warm white LED
Each fitting is supplied with HV plugs for quick installation
We recommend using our 6-way multi connector c/w 13a BS plug as this will aide quick installation time
No transformer or driver required

IP20 120º angle light. SMD 2835 LED technology. 200 Lumens, power 3 watt. Energy efficiency claim A+

SWITCHES & ACCESSORIES
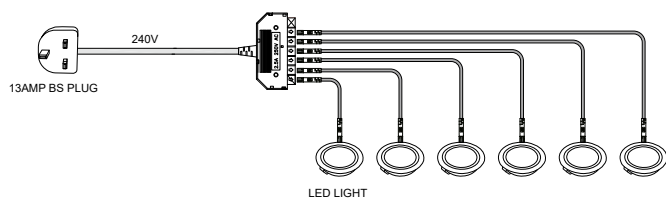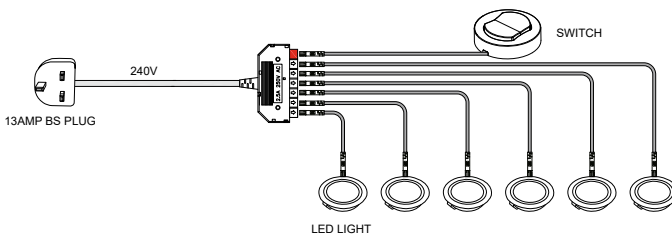## FOR LED MAINS VOLTAGE UNDER UNIT LIGHTS

LED0708

LED0711

LED0712

LED0713

SWITCHES & ACCESSORIES

Code:	Description:
LED0707	HV 1.0m extension cable
LED0708	HV 6-way connection cable with 1.5m cable + 13amp BS plug
LED0711	Surface switch - dia 66mm - depth 15mm
LED0712	Recessed switch - cutout 55mm - dia 66mm - depth 12mm
LED0713	HV 6-way connection cable with 1.5m cable + 13amp BS plug & master switch connection in red

SWITCH

240V

13AMP BS PLUG

LED LIGHT

240V

13AMP BS PLUG

LED LIGHT

TRIANGULAR SURFACE GX53 UNDER UNIT LIGHTS
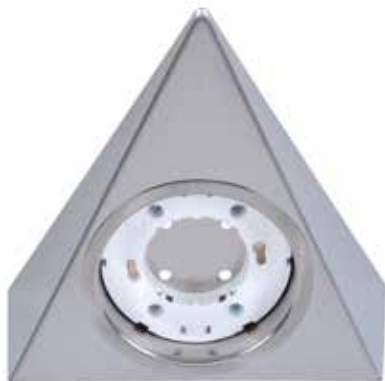
FR0211SN/B

FR0211SN/L - L1

TRIANGULAR SURFACE FITTING, BASE ONLY

Code:	Description:
FR0211SN/B	Satin GX53 triangular surface fitting, base only

TRIANGULAR SURFACE FITTING C/W GX53 LED LAMP 3.5 WATT

FR0211SN/L	Satin GX53 triangular fitting with cool white LED lamp – 4500K, 320 Lumen
FR0211SN/L1	Satin GX53 triangular fitting with warm white LED lamp – 3000K, 300 Lumen

GX53 Triangular Stainless-steel cabinet light
Surface fitting quick & simple to install
Lamps easy to replace
No transformer or driver required

Width max: 155mm / Length: 170mm / Height max: 50mm / Lamp: GX53 / Voltage: 240v / Cable size: 1.5m
These fittings do not require a driver.

GX53 LAMPS

Code:	Description:
LAMP05	LED GX53, 3.5 watt, cool white lamp - 4500K, 320 Lumen
LAMP07	LED GX53, 3.5 watt, warm white lamp - 3000K, 300 Lumen

ROUND SEMI-RECESSED GX53 UNDER UNIT LIGHTS
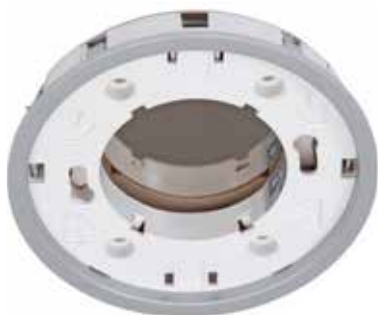
FR0201SR/B

FR0201SR/L - L1

ROUND SEMI RECESSED FITTING, BASE ONLY

Code:	Description:
FR0201SR/B	Silver GX53 recessed fitting, base only

ROUND SEMI RECESSED FITTING C/W GX53 LED LAMP 3.5 WATT

FR0201SR/L	Silver GX53 recessed fitting with cool white LED lamp – 4500K, 320 Lumen
FR0201SR/L1	Silver GX53 recessed fitting with warm white LED lamp – 3000K, 300 Lumen

GX53 Satin Silver finish cabinet light
Recessed fitting quick & simple to install
Lamps easy to replace
No transformer or driver required

Cut out: 78mm / Dia: 84mm / Cut out depth: 13mm / Height: 15mm / Lamp: GX53 / Voltage: 240v / Cable size: 1.5m. These fittings do not require a driver

GX53 LAMPS

Code:	Description:
LAMP05	LED GX53, 3.5 watt, cool white lamp - 4500K, 320 Lumen
LAMP07	LED GX53, 3.5 watt, warm white lamp - 3000K, 300 Lumen

ROUND SURFACE GX53 UNDER UNIT LIGHTS

FR0202SR/B   **FR0202SR/L - L1**

ROUND SURFACE FITTING, BASE ONLY

Code:	Description:
FR0202SR/B	Silver GX53 surface fitting, base only

ROUND SURFACE FITTING C/W GX53 LED LAMP 3.5 WATT

FR0202SR/L	Silver GX53 surface fitting with cool white LED lamp – 4500K, 320 Lumen
FR0202SR/L1	Silver GX53 surface fitting with warm white LED lamp – 3000K, 300 Lumen

GX53 Satin Silver finish cabinet light
Surface fitting quick & simple to install
Lamps easy to replace
No transformer or driver required

Dia: 100mm / Height: 26mm / Lamp: GX53 / Voltage: 240v / Cable size: 1.5m.
These fittings do not require a driver

GX53 LAMPS

Code:	Description:
LAMP05	LED GX53, 3.5 watt, cool white lamp - 4500K, 320 Lumen
LAMP07	LED GX53, 3.5 watt, warm white lamp - 3000K, 300 Lumen

ROUND SURFACE GX53 UNDER UNIT LIGHTS

FR0203SR/B

FR0203SR/L

ROUND SURFACE FITTING, BASE ONLY

Code:	Description:
FR0203SR/B	Silver GX53 surface fitting, base only

ROUND SURFACE FITTING C/W GX53 LED LAMP 3.5 WATT

FR0203SR/L	Silver GX53 surface fitting with cool white LED lamp – 4500K, 320 Lumen
FR0203SR/L1	Silver GX53 surface fitting with warm white LED lamp – 3000K, 300 Lumen

GX53 Satin Silver finish cabinet light
Surface fitting quick & simple to install
Lamps easy to replace
No transformer or driver required

Dia: 82mm / Height: 28mm / Lamp: GX53 / Voltage: 240v / Cable size: 1.5m

GX53 LAMPS

Code:	Description:
LAMP05	LED GX53, 3.5 watt, cool white lamp - 4500K, 320 Lumen
LAMP07	LED GX53, 3.5 watt, warm white lamp - 3000K, 300 Lumen

ROUND LOW VOLTAGE UNDER UNIT LIGHTS SURFACE OR RECESS

SINGLE SURFACE OR RECESS G4 UNDER UNIT LIGHTS

Code:	Description:
FR20CSCH	Single satin round fitting
FR20CCH	Single chrome round fitting

Dia: 74mm / Height: 24mm / Lamp: G4, 20w max, 12v / Cable: 1.5m with amp plug.
Cut out 58mm (for recessing only). These products require LV transformers

3 LIGHT UNDER UNIT LIGHT KITS

Code:	Description:
K320CSC	Satin under unit light kit, 3 lights c/w transformer.
K320CCH	Chrome under unit light kit, 3 lights c/w transformer

Metal surface or recessed cabinet lights
G4 12v halogen fittings. Low voltage transformer must be used

Dia: 74mm / Height: 24mm / Lamp: G4, 20w max, 12v / Cable: 1.5m with amp plug.
Cut out 58mm (for recessing only). These products require LV transformers

ROUND LED UNDER UNIT LIGHTS
SURFACE OR RECESS

3 LIGHT LED UNDER UNIT LIGHT KITS

Code:	Description:
LED1600	3 Chrome round kit, cool white LED, c/w driver
LED1600WW	3 Chrome round kit, warm white LED, c/w driver
LED1601	3 Satin round kit, cool white LED, c/w driver
LED1601WW	3 Satin round kit, warm white LED, c/w driver

Dia: 74mm / Height: 24mm / Lamp: G4, 1.5w LED / Cable: 1.5m with amp plug.
Cut out 58mm (for recessing only). These fittings require drivers

SINGLE LED UNDER UNIT LIGHTS

Code:	Description:
LED1602	Single chrome round light, cool white LED
LED1602WW	Single chrome round light, warm white LED
LED1603	Single satin round light, cool white LED
LED1603WW	Single satin round light, warm white LED

Dia: 74mm / Height: 24mm / Lamp: G4, 1.5w LED / Cable: 1.5m with amp plug.
Cut out 58mm (for recessing only). These fittings require drivers

LED DRIVERS

Code:	Description:
LED0601/02	LED driver, 0-6 watt with AMP connection block
LED0602/02	LED driver, 1-15 watt with AMP connection block

Metal surface or recessed cabinet lights
G4 LED fittings. LED drivers must be used. ***Do not use LV transformer***

TRIANGULAR LOW VOLTAGE UNDER UNIT LIGHTS

SINGLE TRIANGULAR G4 UNDER UNIT LIGHTS

Code:	Description:
FR20TCSCH	Single satin triangular fitting
FR20TCCH	Single chrome triangular fitting

Length: 145mm / width max: 130mm / Height max: 40mm / Lamp: G4, 20w max, 12v / Cable: 1.5m with amp plug. These products require LV transformers

3 LIGHT UNDER UNIT LIGHT KITS

Code:	Description:
K320TSC	Satin under unit light kit, 3 lights c/w transformer
K320TCH	Chrome under unit light kit, 3 lights c/w transformer

Metal surface cabinet lights
G4 12v halogen fittings. Low voltage transformer must be used

Length: 145mm / width max: 130mm / Height max: 40mm / Lamp: G4, 20w max, 12v / Cable: 1.5m with amp plug. These products require LV transformers

TRIANGULAR LED UNDER UNIT LIGHTS

3 LIGHT LED UNDER UNIT LIGHT KITS

Code:	Description:
LED1500	3 Chrome triangular kit, cool white LED, c/w driver
LED1500WW	3 Chrome triangular kit, warm white LED, c/w driver
LED1501	3 Satin triangular kit, cool white LED, c/w driver
LED1501WW	3 Satin triangular kit, warm white LED, c/w driver

Length: 145mm / width max: 130mm / Height max: 40mm / Lamp: G4, 1.5w LED/ Cable: 1.5m with amp plug. These products require drivers

SINGLE LED UNDER UNIT LIGHTS

LED1502	Single chrome triangular light, cool white
LED1502WW	Single chrome triangular light, warm white
LED1503	Single satin triangular light, cool white
LED1503WW	Single satin triangular light, warm white

Length: 145mm / width max: 130mm / Height max: 40mm / Lamp: G4, 1.5w LED/ Cable: 1.5m with amp plug. These products require drivers

LED DRIVERS

LED0601/02	LED driver, 0-6 watt with AMP connection block
LED0602/02	LED driver, 1-15 watt with AMP connection block

Metal surface cabinet lights
G4 LED fittings. LED drivers must be used. *Do not use LV transformer*

T5 LINK LIGHTS & ACCESSORIES

T5 LINK LIGHTS

Code	Watts	L/mm	H/mm	D/mm
FR0106T5	6	267	24	44
FR0108T5	8	343	24	44
FR0113T5	13	571	24	44
FR0114T5	14	605	24	44
FR0121T5	21	904	24	44
FR0128T5	28	1204	24	44

T5 LINK LEADS

Code	Description:
FR0201T5	250mm link lead
FR0202T5	500mm link lead
FR0203T5	1000mm link lead

FR0301T5   FR0302T5   FR0304T5

T5 PLUGS & CONNECTORS

Code	Description:
FR0301T5	Male wireable plug
FR0302T5	Female wireable plug
FR0304T5	Corner connector

Linear link lights Switched
Linkable up to 6 fittings. Supplied with fixing brackets for Horizontal or vertical Installation
Mains cable and butt connection

LED ULTRA SLIM LINK LIGHTS

WARM WHITE LED LINK LIGHTS

Code	L/mm	H/mm	D/mm	Watts	Lumens	Volts
FR0102LL	296	37	23	5.4	450	240
FR0103LL	525	37	23	8.6	810	240
FR0104LL	904	37	23	12	1170	240

Warm white 3000k (colour ref)

COOL WHITE LED LINK LIGHTS

Code	L/mm	H/mm	D/mm	Watts	Lumens	Volts
FR0202LL	296	37	23	5.4	510	240
FR0203LL	525	37	23	8.6	870	240
FR0204LL	904	37	23	12	1230	240

Cool white 6000 - 6500k (colour ref)

LINK LEADS

Code:	Description:
FR0201T5	250mm link lead
FR0202T5	500mm link lead
FR0203T5	1000mm link lead

FR0301T5   FR0302T5   FR0304T5

PLUGS & CONNECTORS

Code	Description:
FR0301T5	Male wireable plug
FR0302T5	Female wireable plug
FR0304T5	Corner connector

Linear LED link lights Switched
Low power consumption high lumen output. Linkable up to 6 fittings
Supplied with fixing brackets for Horizontal or vertical Installation
Mains cable and butt connection

Wall Lighting

General and background lighting must be accurate, with much consideration taken. After all, you wouldn't want to create the wrong effect.

PLAIN QUARTER SPHERE UPLIGHTER

Code:	Description:
QSP101	Plain quarter sphere uplighter

E14 lamp holder. 40w max.
Width: 280mm / Depth: 140mm / Height: 140mm / 240v
Adaptor available E14 to E27

EDGE QUARTER SPHERE UPLIGHTER

Code:	Description:
QSP102	Edge quarter sphere uplighter

Ceramic uplighters with clip in base & lamp holder
For easy lamp replacement. Can be painted or left as the natural colour

E14 lamp holder. 40w max.
Width: 320mm / Depth: 170mm / Height: 120mm / 240v
Adaptor available E14 to E27

G9 PICTURE LIGHTS

Brass

Antique brass

Chrome

Satin

G9 PICTURE LIGHTS

Code:	Description:
FR2101BR	Brass G9 picture light. Supplied with lamps
FR2102AT	Antique brass G9 picture light. Supplied with lamps
FR2103CH	Chrome G9 picture light. Supplied with lamps
FR2104SN	Satin G9 picture light. Supplied with lamps

Traditional style picture light
2x 25watt G9 lamps supplied. 240v Supply

Width: 360mm / Depth: 210mm / Base dia: 82mm / Lamp: 2 x G9 / Wattage: 25w max / Voltage: 240v

LED PICTURE LIGHTS

Brass

Antique brass
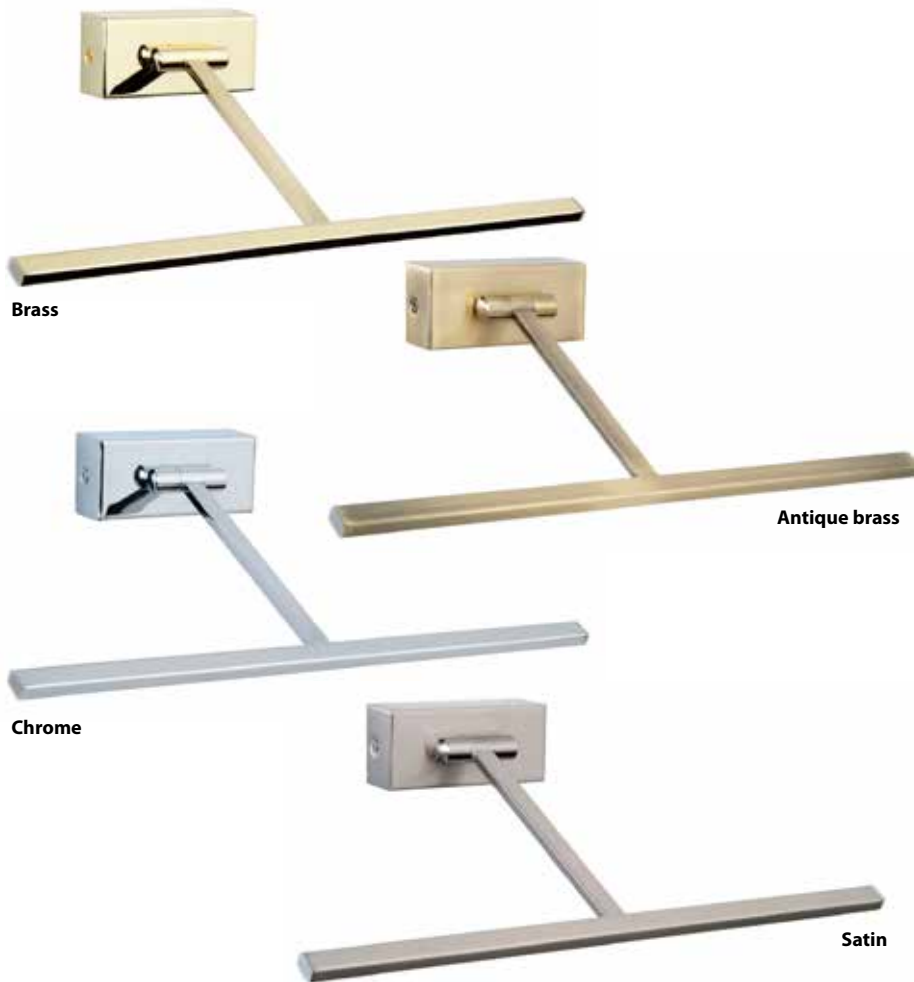
Chrome

Satin

LED MODERN STYLISH PICTURE LIGHT

Code:	Description:
FR2113BR	Brass LED picture light. Warm white
FR2113AT	Antique LED picture light. Warm white
FR2113CH	Chrome LED picture light. Warm white
FR2113SN	Satin LED picture light. Warm white

LED picture lights
LED driver built in, 240V supply

Width: 340mm / Depth: 210mm / Base: 100x50mm / Wattage: 5.4w / 3000K / Lumen: 304 / Voltage: 240v

WHITE GU10 TRACK SPOTS

MT13WH   **MT16WH**

Code:	Description:
MT13WH	White single mesh track spot
MT16WH	White single round track spot

Mains voltage track system
Available in white, silver & black
GU10 halogen lamps or retro fit LED lamps can be used
Rotate or tilt to illuminate all areas when using spot or flood lamps

WHITE 9 WATT DIMMABLE LED TRACK SPOT

Code:	Description:
MT31WH	9 watt dimmable LED track spot c/w built in driver

Beam angle 38º / lumens 730 @ 3000K.
Size: Length 95mm: Dia 56mm: Height 110mm

WHITE TRACK & ACCESSORIES

MT01WH

MT03WH

MT04WH

MT11WH

MT17WH

Code:	Description:
MT01WH	1 Metre White track (Not supplied with live & dead ends)
MT03WH	2 Metre White track (Not supplied with live & dead ends)
MT04WH	White mini straight connector
MT11WH	White dead end
MT17WH	White live end feed

Mains voltage track system
Available in white, silver & black
GU10 halogen lamps or retro fit LED lamps can be used
Rotate or tilt to illuminate all areas when using spot or flood lamps

WHITE TRACK & ACCESSORIES

MT05WH

MT06WH

MT07WH

MT08WH

MT09WH

MT10WH

MT12WH

MT19WH

MT20WH

Code:	Description:
MT05WH	White L connector
MT06WH	White T connector
MT07WH	White cross connector
MT08WH	White flexi connector
MT09WH	White ceiling connector
MT10WH	White suspension kit 3m
MT12WH	White support – top
MT19WH	White centre live feed
MT20WH	White track adaptor

SILVER GU10 TRACK SPOTS

MT13SV

MT16SV

Code:	Description:
MT13SV	Silver single mesh track spot
MT16SV	Silver single round track spot

Mains voltage track system
Available in white, silver & black
GU10 halogen lamps or retro fit LED lamps can be used
Rotate or tilt to illuminate all areas when using spot or flood lamps

SILVER TRACK & ACCESSORIES

MT01SV

MT03SV

MT04SV

MT11SV

MT17SV

Code:	Description:
MT01SV	1 Metre Silver track (Not supplied with live & dead ends)
MT03SV	2 Metre Silver track (Not supplied with live & dead ends)
MT04SV	Silver mini straight connector
MT11SV	Silver dead end
MT17SV	Silver live end feed

Mains voltage track system
Available in white, silver & black
GU10 halogen lamps or retro fit LED lamps can be used
Rotate or tilt to illuminate all areas when using spot or flood lamps

SILVER GU10 TRACK & ACCESSORIES

MT05SV

MT06SV

MT07SV

MT08SV

MT09SV

MT10SV

MT12SV

MT19SV

MT20SV

Code:	Description:
MT05SV	Silver L connector
MT06SV	Silver T connector
MT07SV	Silver cross connector
MT08SV	Silver flexi connector
MT09SV	Silver ceiling connector
MT10SV	Silver suspension kit 3m
MT12SV	Silver support – top
MT19SV	Silver centre live feed
MT20SV	Silver track adaptor

MT13BL

MT16BL

Code:	Description:
MT13BL	Black single mesh track spot
MT16BL	Black single round track spot

Mains voltage track system
Available in white, silver & black
GU10 halogen lamps or retro fit LED lamps can be used
Rotate or tilt to illuminate all areas when using spot or flood lamps

BLACK 9 WATT DIMMABLE LED TRACK SPOT

Code:	Description:
MT31BL	9 watt dimmable LED track spot c/w built in driver

Beam angle 38º / lumens 730 @ 3000K.
Size: Length 95mm: Dia 56mm: Height 110mm

MT01BL

MT03BL

MT04BL

MT11BL

MT17BL

Code:	Description:
MT01BL	1 Metre Black track (Not supplied with live & dead ends)
MT03BL	2 Metre Black track (Not supplied with live & dead ends)
MT04BL	Black mini straight connector
MT11BL	Black dead end
MT17BL	Black live end feed

Mains voltage track system
Available in white, silver & black
GU10 halogen lamps or retro fit LED lamps can be used
Rotate or tilt to illuminate all areas when using spot or flood lamps

BLACK TRACK & ACCESSORIES

MT05BL

MT06BL

MT07BL

MT08BL

MT19BL

MT20BL

Code:	Description:
MT05BL	Black L connector
MT06BL	Black T connector
MT07BL	Black cross connector
MT08BL	Black flexi connector
MT19BL	Black centre live feed
MT20BL	Black track adaptor
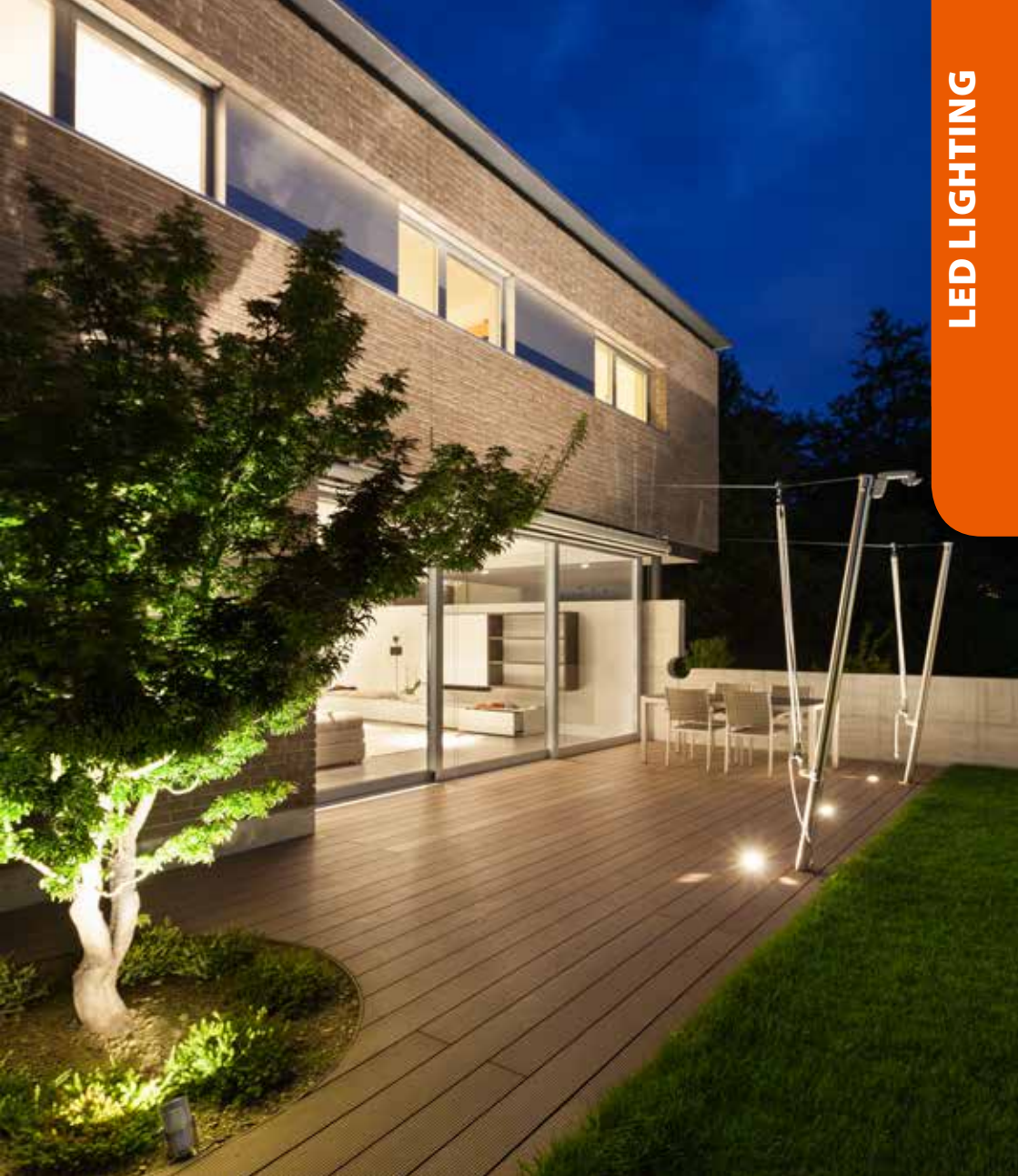
LED Lighting

LED LIGHT KITS

Code:	Description:
LED2601	5 light plinth light kit, warm white. Each light 0.4w – 7 Lumens IP67. Supplied as a plug and play fit system Supplied with 13Amp plug in driver

Code:	Description:
LED2602	10 light plinth light kit, warm white. Each light 0.4w – 7 Lumens IP67. Supplied as a plug and play fit system Supplied with 13Amp plug in driver

SMD LED technology
Walk over only 100 kgs max pressure
15mm bezel dia, 14mm cut out
Cable length on each light is 500mm lead in/500mm lead out
Cable length BS 13 amp plug to driver 1700mm then driver to first plug 400mm
Non dimmable

IP68 LED CIRCULAR WALK OVER LIGHTS

Code:	Description:
LED0101	IP68 circular in-ground walk over light. White
LED0102	IP68 circular in-ground walk over light. Red

• LED Type: 5mm • LED Q'TY: 6 • Beam Angle: 15° • Minimum luminous flux(lm): 30 • Voltage: 220~240V
• LED Watt: 0.5W • Safety Class: II • Safety Type: IP65 • Material: Aluminium • Driver: Included

Body die-cast aluminium with stainless steel bezel
Suitable for pedestrian traffic only
Integral driver 240v supply

Please see page 60 for our range of water proof connectors

IP65 Aluminium body, spring wing clips
Bezel dia: 63mm / Body dia: 46mm / Body dia at cable gland: 67mm / Depth: 74mm / Cut out: 58mm

IP67 LED WALK & DRIVE OVER LIGHTS

Code:	Description:
LED0201	IP67 White LED circular in-ground walk & drive over light
LED0202	IP67 White LED square in-ground walk & drive over light

• LED Type: 5mm • LED Q'TY: 15 • Beam Angle: 15° • Minimum luminous flux(lm)75 • Voltage: 220~240V
• LED Watt: 1.2W • Safety Class: II • Safety Type: IP67 • Material: ST304+Aluminium • Driver: Included

Body die-cast aluminium with stainless steel bezel
Plastic box supplied for first fix
Loop in loop out for easy wiring
Suitable for cars & pedestrian traffic only
Integral driver 240v supply

Please see page 60 for our range of water proof connectors

Tempered glass, aluminium body, plastic mounting sleeve, max weight: 2500kg, 240v.
Bezel dia: 108mm / Bezel height: 5mm / Body dia top: 90mm / Body dia base: 57mm / Depth: 74mm

IP65 LED 5 LIGHT WALK OVER KITS

5 LIGHT KITS

Code:	Description:
LED0401CW	Cool White, 5 light LED walk over kit
LED0401WW	Warm White, 5 light LED walk over kit

• LED Type: 5mm • LED Q'TY: 5*6 • Beam Angle: 15° • Minimum luminous flux(lm): 5*30
• LED Watt: 5*0.5W • Safety Class: III • Safety Type: IP65 • Material: Aluminium+PC • Driver: Exterior incl

Walk over decking LED lights
Each light & Driver is supplied with water proof connectors

IP65 walk over lights, suitable for internal & external installations.
Bezel dia: 40mm / Bezel height: 3mm / Cut out: 35mm / Fitting depth: 50mm
240V supply - 12v output

IP68 WATERPROOF CONNECTORS
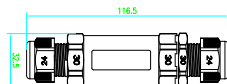
Code: **Description:**

FR00205 IP68, 5 core inline waterproof connector
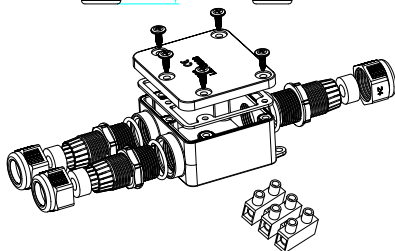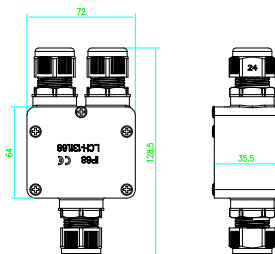
Code: **Description:**

FR00206 IP68, loop in / out waterproof connector

Inline & loop in loop out water proof connecters for lighting circuits

LED SIGN LIGHT

Code:	Description:
FR9LEDBLSL	Sign Light 9Watt Black

**LED Sign light 9watt, 4000k, 850lm, IP65, 240v,
Size's, total length 850mm, bracket length 580mm, bracket base 110mm x 110mm,
cable length 450mm**

SIGN & MENU LIGHTS

FR6BLSL

FR6SNSL

Code:	Description:
FR6BLSL	Powder coated black sign light
FR6SNSL	Powder coated silver sign light

A classic design of sign and menu lighting perfect for pubs, restaurants and shops

Metal sign lights
Power coated finish black & silver colours
White reflector for more illumination

13" arm / 6" cowl / Besa fixing plate / 48W E27 lamp holder.

CLASSIC SWAN NECK SIGN LIGHTS

FR9BLSL

FR9SNSL

Code:	Description:
FR9BLSL	Powder coated black sign light
FR9SNSL	Powder coated silver sign light

A classic design of sign lighting perfect for pubs, restaurants and shops

Metal sign lights
Power coated finish black & silver colours
White reflector for more illumination

20" arm / 9" cowl / Besa fixing plate / 100W ES lamp holder.

Photocells
(dusk to dawn sensors)

Why use photocells?

Firstly, photocells are an economical way of switching lights on and off by using dusk and dawn as the triggers to switch lights on when required and off when not. There are a few points to remember when selecting photocells; after all, it's always good to save on energy costs.

Burning hours: How long are the lights on for?

Standard photocells come on at dusk and switch off at dawn (FRP3 70 Lux on and 105 Lux off). Some of the reasons for having lights on during the night include meeting health and safety requirements and for security reasons. For anyone who doesn't require lights to be switched on for the entire night, you may want to consider a Part-night Photocell. These units switch on at dusk and off at midnight. If required, they can be set to come back on in the early hours of the morning up to 5am.

In the summer your lights might not come on very often due to the brightness of the summer months. However, in the winter, you could expect them to be on a lot more.

Another option is a Night Owl; these can be set to switch off a number of hours after dusk. You can also go for a lower LUX level, this means the lights come on later in the night and go off earlier in the morning, reducing the burning hours.

The next step is to spec the correct photocell to ensure that it can handle the load it is switching. One example is LED flood lights, where the wattages used might be low but the 'inrush' current can be fairly high. This is due to the control gear not having full power-factor corrected gear.

This is only a short summary of photocells & types. If you require any more information, or if you are in any doubt over what photocell you require, please contact our sales office.

FRS PHOTOCELL HEADS & KITS

FRPEC01

FRPEC01KT

FRP3

FRP3KT

Code:	Description:
FRPEC01	Photocell head only
FRPEC01KT	Photocell kit
FRP3	Photocell head only
FRP3KT	Photocell kit

Code:	Max load	Amps	Voltage	Lux on	IP rating
FRPEC01	1 x 250w	5	240v	70	IP65
FRPEC01KT	1 x 250w	5	240v	70	IP65
FRP3	2 x 250	5	240v	70	IP65
FRP3KT	2 x 250	5	240v	70	IP65

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

FRS MINITURE PHOTOCELLS

FRPEC02

FRPEC02R

Code:	Description:
FRPEC02	Miniture photocel
FRPEC02R	Remote miniture photocell

Code:	Max load	Amps	Voltage	Lux on	IP rating
FRPEC02	1 x 250w	5	240v	70	IP65
FRPEC02R	1 x 250w	5	240v	70	IP65

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE PHOTOCELL HEAD & KITS

S300

S300KT/S300KT110V

S300C

Code:	Description:
S300	Photocell head only
S300KT	Photocell kit
S300C	Conduit photocell
S300KT11V	110V Photocell kit

Reference	S300
Sensor Type	Phototansistor
Sensor Control	Discrete components
Std Switching level	70 Lux ON Within 1:1.5 Lux OFF
Operating Voltage Range	220-270 VAC 50/60 Hz
Max Lamp Load	2 x 250W inductive (60uF) 2000w Res
Zero crossover voltage switching	No
Power consumption	0.6w
Operating Temp range	-20 to + 60°C
Ingress protection	IP65
Dimensions Dia x D	85.5 x 72mm
MOV Surge Protection	No
Options 1 - Positive & Negative Differential	Positive only
Options 2 - Kit	Yes
Options 3 - Conduit	Yes
Options 4 - 110Vac	Yes
Options 5 - 48Vac	Yes (dc only)
Options 6 - 24Vac	(dc only)
Options 7- Reverse Acting	Yes
Options 8 - Part Night	No

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE PHOTOCELL KITS

Code:	Description:
MONOSTAR1000KT	Photocell kit

Reference	**Monostar 1000**
Sensor Type	Filtererd silicon photodiode
Sensor Control	Microprocessor
Std Switching level	70 Lux on / 35 Lux off
Operating Voltage Range	198-270 VAC 50/60 Hz
Max Lamp Load	2 x 250W Inductive (60uF)
Zero crossover voltage switching	Yes
Power consumption	0.5w
Operating Temp range	-20 to + 60°C
Ingress protection	IP65
Dimensions Dia x D	85.5 x 72mm
MOV Surge Protection	No
Options 1 - Positive & Negative Differential	Yes
Options 2 - Kit	Yes
Options 3 - Conduit	Yes
Options 4 - 110Vac	No
Options 5 - 48Vac	No
Options 6 - 24Vac	No
Options 7- Reverse Acting	No
Options 8 - Part Night	See Nightstar

Code:	Description:
MONOSTAR2000KT	Photocell kit

Reference	**Monostar 2000**
Sensor Type	Filtererd silicon photodiode
Sensor Control	Microprocessor
Std Switching level	70 Lux on / 35 Lux off
Operating Voltage Range	198-270 VAC 50/60 Hz
Max Lamp Load	2 x 400W Inductive (60uF)
Zero crossover voltage switching	Yes
Power consumption	0.5w
Operating Temp range	-20 to + 60°C
Ingress protection	IP67
Dimensions Dia x D	85.5 x 72mm
MOV Surge Protection	Yes
Options 1 - Positive & Negative Differential	Yes
Options 2 - Kit	Yes
Options 3 - Conduit	Yes
Options 4 - 110Vac	No
Options 5 - 48Vac	No
Options 6 - 24Vac	No
Options 7- Reverse Acting	No
Options 8 - Part Night	See Nightstar

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE PHOTOCELL HEAD & CONDUIT

OASIS1000

OASIS1000KT / OASIS1000KT110V

OASIS1000C

Code:	Description:
OASIS1000	Photocell head only
OASIS1000 KT	Photocell kit
OASIS1000C	Conduit photocell
OASIS1000 KT110V	110V Photocell kit

This range of photo-cells are suitable for LED flood lights

Reference	**OASIS 1000**
Sensor Type	Filtererd silicon photodiode
Sensor Control	Microprocessor
Std Switching level	70 Lux on / 35 Lux off
Operating Voltage Range	198-270 VAC 50/60 Hz
Max Lamp Load	3 x 400W Inductive (96uF) 8A
Zero crossover voltage switching	Yes
Power consumption	0.25w
Operating Temp range	-20 to + 60°C
Ingress protection	IP65
Dimensions Dia x D	85.5 x 72mm
MOV Surge Protection	No
Options 1 - Positive & Negative Differential	Yes
Options 2 - Kit	Yes
Options 3 - Conduit	Yes
Options 4 - 110Vac	Yes
Options 5 - 48Vac	Yes
Options 6 - 24Vac	Yes
Options 7- Reverse Acting	Yes
Options 8 - Part Night	See Nightstar

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE PHOTOCELL HEADS & CONDUIT

OASIS2000

OASIS2000C

OASIS2000KT / OASIS2000KT110V

Code:	Description:
OASIS2000	Photocell head only
OASIS2000 KT	Photocell kit
OASIS2000C	Conduit photocell
OASIS2000 KT110V	110V Photocell kit

This range of photo-cells are suitable for LED flood lights

Reference	OASIS 2000
Sensor Type	Filtererd silicon photodiode
Sensor Control	Microprocessor
Std Switching level	70 Lux on / 35 Lux off
Operating Voltage Range	110-270 VAC 50/60 Hz
Max Lamp Load	3 x 400W Inductive (96uF) 10A
Zero crossover voltage switching	Yes
Power consumption	0.25w
Operating Temp range	-20 to + 60°C
Ingress protection	IP67
Dimensions Dia x D	85.5 x 72mm
MOV Surge Protection	Yes
Options 1 - Positive & Negative Differential	Yes
Options 2 - Kit	Yes
Options 3 - Conduit	Yes
Options 4 - 110Vac	Yes
Options 5 - 48Vac	Yes
Options 6 - 24Vac	Yes
Options 7- Reverse Acting	Yes
Options 8 - Part Night	See Nightstar

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE MINIATURE PHOTOCELLS

Code:	Description:
P12H	Miniature photocell

P12HE

Reference	P12HE
Sensor Type	Phototansistor
Sensor Control	Discrete components
Std Switching level	70 Lux ON Within 1:1.5 Lux OFF
Operating Voltage Range	220-270 VAC 50/60 Hz
Max Lamp Load	2 x 250W inductive (60uF) 2000w Res
Zero crossover voltage switching	No
Power consumption	0.6w
Operating Temp range	-20 to + 60°C
Ingress protection	IP65 Lens / IP54 Casing
Dimensions Dia x D	57 x 31 x 25mm
MOV Surge Protection	No
Options 1 - Positive & Negative Differential	Positive only
Options 2 - Kit	N/A
Options 3 - Conduit	N/A
Options 4 - 110Vac	Yes
Options 5 - 48Vac	Yes (dc only)
Options 6 - 24Vac	Yes (dc only)
Options 7- Reverse Acting	Yes
Options 8 - Part Night	Nightstar Mini

Code:	Description:
P12R	Remote miniature photocell

P12R

Reference	P12RE
Sensor Type	Phototansistor
Sensor Control	Discrete components
Std Switching level	70 Lux ON Within 1:1.5 Lux OFF
Operating Voltage Range	220-270 VAC 50/60 Hz
Max Lamp Load	2 x 250W inductive (60uF) 2000w Res
Zero crossover voltage switching	No
Power consumption	0.6w
Operating Temp range	-20 to + 60°C
Ingress protection	IP65 Lens / IP54 Casing
Dimensions Dia x D	57 x 31 x 25mm controller. 25 x 26mm det.
MOV Surge Protection	No
Options 1 - Positive & Negative Differential	Positive only
Options 2 - Kit	N/A
Options 3 - Conduit	N/A
Options 4 - 110Vac	Yes
Options 5 - 48Vac	Yes (dc only)
Options 6 - 24Vac	Yes (dc only)
Options 7- Reverse Acting	Yes
Options 8 - Part Night	Nightstar Mini

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE MINIATURE PHOTOCELLS

MICROSTAR 2000

This range of photo-cells are suitable for LED flood lights

Code:	Description:
MICROSTAR2000	Miniature photocell

Reference	Microstar 2000
Sensor Type	Filtered silicon photodiode
Sensor Control	Microprocessor
Std Switching level	70 Lux on / 35 Lux off
Operating Voltage Range	198-270 VAC 50/60 Hz
Max Lamp Load	3 x 400W Inductive (96uF) 10A
Zero crossover voltage switching	Yes
Power consumption	0.25w
Operating Temp range	-20 to + 60°C
Ingress protection	IP65 Lens / IP54 Casing
Dimensions Dia x D	57 x 31 x 25mm
MOV Surge Protection	On request
Options 1 - Positive & Negative Differential	Yes
Options 2 - Kit	N/A
Options 3 - Conduit	N/A
Options 4 - 110Vac	Yes
Options 5 - 48Vac	Yes
Options 6 - 24Vac	Yes
Options 7- Reverse Acting	Yes
Options 8 - Part Night	Nightstar Mini

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE MINIATURE PHOTOCELLS

MICROSTAR ULTRA HT

This range of photo-cells are suitable for LED flood lights

Code:	Description:
MICROSTAR ULTRA-HT	Miniature photocell

Reference	Microstar Ultra HT
Sensor Type	Filtered silicon photodiode
Sensor Control	Microprocessor
Std Switching level	70 Lux on / 35 Lux off
Operating Voltage Range	198-270 VAC 50/60 Hz
Max Lamp Load	3 x 400W Inductive (96uF) 10A
Zero crossover voltage switching	Yes
Power consumption	0.25w
Operating Temp range	-20 to + 60℃
Ingress protection	IP65 Lens / IP54 Casing
Dimensions Dia x D	57 x 31 x 25mm controller
MOV Surge Protection	On request
Options 1 - Positive & Negative Differential	Yes
Options 2 - Kit	N/A
Options 3 - Conduit	N/A
Options 4 - 110Vac	Yes
Options 5 - 48Vac	Yes
Options 6 - 24Vac	Yes
Options 7- Reverse Acting	Yes
Options 8 - Part Night	Nightstar Mini

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE PART NIGHT PHOTOCELLS

NIGHTSTAR

Code:	Description:
NIGHTSTAR	Part night photocell kit

Reference	Nightstar
Sensor Type	Filtererd silicon photodiode
Sensor Control	Microprocessor
Std Switching level	70 Lux on / 35 Lux off - 0:00 Off - 05:30 On
Operating Voltage Range	198-270 VAC 50/60 Hz
Max Lamp Load	2 x 400W Inductive (60uF)
Zero crossover voltage switching	Yes
Power consumption	0.25w
Operating Temp range	-20 to + 60°C
Ingress protection	IP67
Dimensions Dia x D	85.5 x 72mm
MOV Surge Protection	Yes
Options 1 - Positive & Negative Differential	Yes
Options 2 - Kit	Yes
Options 3 - Conduit	Yes
Options 4 - 110Vac	Yes
Options 5 - 48Vac	Yes
Options 6 - 24Vac	Yes
Options 7- Reverse Acting	N/A
Options 8 - Part Night	Yes

ENERGY SAVING ✓

Cut your electricity bill by using Part Night Photo-cells

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE MINIATURE PART NIGHT PHOTOCELL

NIGHTSTAR MINI

Code:	Description:
NIGHTSTAR/M	Part night miniature photocell

Reference	Nightstar Mini
Sensor Type	Filtered silicon photodiode
Sensor Control	Microprocessor
Std Switching level	70 Lux on / 35 Lux off - 0:00 Off - 05:30 On
Operating Voltage Range	198-270 VAC 50/60 Hz
Max Lamp Load	2 x 400W Inductive (96uF)
Zero crossover voltage switching	Yes
Power consumption	0.25w
Operating Temp range	-20 to + 60°C
Ingress protection	IP65 Lens / IP54 Casing
Dimensions Dia x D	57 x 31 x 25mm controller
MOV Surge Protection	On request
Options 1 - Positive & Negative Differential	Yes
Options 2 - Kit	N/A
Options 3 - Conduit	N/A
Options 4 - 110Vac	Yes
Options 5 - 48Vac	Yes
Options 6 - 24Vac	Yes
Options 7- Reverse Acting	Yes
Options 8 - Part Night	Yes

ENERGY SAVING ✔

Cut your electricity bill by using Part Night Photo-cells

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE 2 PART PHOTOCELLS

P42E

Code:	Description:
P42E	2 Part photocell

Reference	P42E
Sensor Type	Phototransistor
Sensor Control	Discrete components
Std Switching level	70 Lux ON Within 1:1.5 Lux OFF
Operating Voltage Range	198-270 VAC 50/60 Hz
Max Lamp Load	2 x 250W inductive (60uF) 2000w Res
Zero crossover voltage switching	No
Power consumption	0.25w
Operating Temp range	-20 to + 60°C
Ingress protection	IP65 Lens / IP54 Casing
Dimensions Dia x D	77x75x74 mm (Controller). 20x52 mm (Detector)
MOV Surge Protection	No
Options 1 - Positive & Negative Differential	Positive only
Options 2 - Kit	N/A
Options 3 - Conduit	N/A
Options 4 - 110Vac	Yes
Options 5 - 48Vac	No
Options 6 - 24Vac	No
Options 7- Reverse Acting	No
Options 8 - Part Night	No

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE 2 PART PHOTOCELLS

S400

Code:	Description:
S400	2 Part photocell

Reference	S400
Sensor Type	Filtered silicon photodiode
Sensor Control	Microprocessor
Std Switching level	70 Lux on
Operating Voltage Range	220-260 VAC 50/60 Hz
Max Lamp Load	2 X 250W Inductive (60uF)
Zero crossover voltage switching	Yes
Power consumption	0.9w
Operating Temp range	-20 to + 60°C
Ingress protection	IP65 Lens / IP54 Casing
Dimensions Dia x D	68x75x92 mm (Controller).
25x35 mm (Detector)	
MOV Surge Protection	No
Options 1 - Positive & Negative Differential	Positive only
Options 2 - Kit	N/A
Options 3 - Conduit	N/A
Options 4 - 110Vac	Yes
Options 5 - 48Vac	No
Options 6 - 24Vac	No
Options 7- Reverse Acting	Yes
Options 8 - Part Night	No

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE 2 PART PHOTOCELLS

ER4N

Code:	Description:
ER4N	2 Part photocell

Reference	ER4N
Sensor Type	Filtered silicon photodiode
Sensor Control	Microprocessor
Std Switching level	70 Lux on 35 lux off
Operating Voltage Range	198-270 VAC 50/60 Hz
Max Lamp Load	3 x 400W Inductive (96uF) 10A
Zero crossover voltage switching	Yes
Power consumption	0.25w
Operating Temp range	-20 to + 60°C
Ingress protection	IP65 Lens / IP54 Casing
Dimensions Dia x D	68x75x92 mm (Controller). 25x35 mm (Detector)
MOV Surge Protection	Yes
Options 1 - Positive & Negative Differential	Yes
Options 2 - Kit	N/A
Options 3 - Conduit	N/A
Options 4 - 110Vac	Yes
Options 5 - 48Vac	Yes
Options 6 - 24Vac	Yes
Options 7- Reverse Acting	Yes
Options 8 - Part Night	Yes

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE ADJUSTABLE PHOTOCELLS

V16

Code:	Description:
V16	1 Part adjustable photocell
	Adjusts from 5 to 1000 Lux

Reference	S400
Sensor Type	Filtered silicon photodiode
Sensor Control	Microprocessor
Std Switching level	70 Lux on
Operating Voltage Range	220-260 VAC 50/60 Hz
Max Lamp Load	2 X 250W Inductive (60uF)
Zero crossover voltage switching	Yes
Power consumption	0.9w
Operating Temp range	-20 to + 60°C
Ingress protection	IP65 Lens / IP54 Casing
Dimensions Dia x D	68x75x92 mm (Controller). 25x35 mm (Detector)
MOV Surge Protection	No
Options 1 - Positive & Negative Differential	Positive only
Options 2 - Kit	N/A
Options 3 - Conduit	N/A
Options 4 - 110Vac	Yes
Options 5 - 48Vac	No
Options 6 - 24Vac	No
Options 7- Reverse Acting	Yes
Options 8 - Part Night	No

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE ADJUSTABLE PHOTOCELLS

V400

Code:	Description:
V400	2 Part adjustable photocell Adjusts from 25 to 2000 Lux
V400/1	2 Part adjustable photocell Adjusts from 25 to 50000 Lux

Reference	**V400**
Sensor Type	LDR
Sensor Control	Discrete components
Std Switching level	Adjustable Lux ON Diff within 1:1.5 Lux OFF
Operating Voltage Range	198-270 VAC 50/60 Hz
Max Lamp Load	2 x 250W inductive (60uF) 2000w Res
Zero crossover voltage switching	No
Power consumption	0.25w
Operating Temp range	-20 to + 60°C
Ingress protection	IP65 Lens / IP54 Casing
Dimensions Dia x D	68x75x92 mm (Controller). 68x68x86 mm (Detector)
MOV Surge Protection	No
Options 1 - Positive & Negative Differential	Positive only
Options 2 - Kit	N/A
Options 3 - Conduit	N/A
Options 4 - 110Vac	Yes
Options 5 - 48Vac	No
Options 6 - 24Vac	No
Options 7- Reverse Acting	Yes
Options 8 - Part Night	No

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

P9

Code:	Description:
P9	Grommet mounted photocell

Reference — **P9**

Sensor Type	CDS Cell
Operating Voltage Range	220-260 VAC 50/60 Hz
Max Lamp Load	2 x 250w Inductive (60F)
Maximum resistive load	2000w
Power consumption	0.9w
Operating Temp range	-20 to + 80°C
Ingress protection	IP65 Lens only

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE ASTRO NOVA TIME CLOCK

ASTRO NOVA CITY

Code:	Description:
Astro Nova City	Din rail mounted time clock Astronomic Time Switch - Astro Nova City

Reference	Astro Nova City
Sensor Type	N/A
Sensor Control	Microprocessor
Std Switching level	Astronimical & fixed time schedule
Operating Voltage Range	220-265 VAC 50/60 Hz
Max Lamp Load	2 x 16A Res 10A Ind 250Vac
Zero crossover voltage switching	No
Power consumption	1w
Operating Temp range	-10 to + 45°C
Ingress protection	IP20
Dimensions Dia x D	65x35x88 mm
MOV Surge Protection	No
Options 1 - Positive & Negative Differential	N/A
Options 2 - Kit	N/A
Options 3 - Conduit	N/A
Options 4 - 110Vac	N/A
Options 5 - 48Vac	N/A
Options 6 - 24Vac	N/A
Options 7- Reverse Acting	N/A
Options 8 - Part Night	Yes

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE ROTAFLASH

ROTAFLASH

Code:	Description:
ROTAFLASH	Beacon controller (48 flash per min)

Reference	ROTAFLASH
Sensor Type	N/A
Operating Voltage Range	220-270 VAC 50/60 Hz
Max Lamp Load	500W Resistive
Zero crossover voltage switching	No
Power consumption	1.5w
Operating Temp range	-20 to + 60°C
Ingress protection	IP54
Dimensions Dia x D	75x70x90mm

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

RTE POWER-TAP

POWERTAP

Code:	Description:
Power-tap 5M	Power tap adapter 5 Mtr lead
Power-tap 10M	Power tap adapter 10 Mtr lead

Reference   **POWERTAP**
Operating Voltage Range   220-270 VAC 50/60 Hz
Current rating   10A
Standard cable length   5m/10m
Dimensions   75 x 65mm

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

ZODION PHOTOCELLS

SS4 / SS4K

Code:	Description:
SS4 D	Photocell head
SS4 KT	Photocell kit

Reference	**SS4 / SS4K**
Surge Suppression	N/A
Fixing (where applicable hole dimensions)	NEMA
70 Lux Switch-On Level	Yes
Switching ratio	1:1.5 Pos
Capable of unity or negative ratio	Yes
Maximum total load for discharge lighting (eg: HPS, MH)	500w
Maximum total load for incandescent lighting	1200w
Polycarbonate Enclosure (UV) stabilised)	Yes
Consumption in watts	<0.5
Sensor Type	Photodiode
Max operating ambient temp range	-20 to + 70°C
IP Rating (installed)	IP65
Voltage	198-264
Frequency	50Hz
Electro-magnetic Relay	Yes

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

ZODION MINIATURE PHOTOCELLS

Code:	Description:
SS14	Miniature photocell
SS14R	Miniature remote photocell

Reference	SS14 / SS14R
Type	EM Relay
Sensor	Photodiode
Voltage	198 to 264VAC 50hz
Switch Level	50Lux
Typical Load	2x250W HPS
Operating Temp	-20℃ to +75℃
Switching Capacity	5A or 60uF
Enclosure Material	Polycarbonate
Power Consumption	<1W
IP Rating	IP66 (fitted)

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

ZODION PART NIGHT PHOTOCELLS

SS9K

ENERGY SAVING ✓

Cut your electricity bill by using Part Night Photo-cells

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Code:	Description:
SS9K	Part night photocell kit

Reference	SS9
Electronic EM Relay Load Switching:	YES
Supply Voltage:	50/60Hz AC: 198-264, 50Hz only
Switching Differential:	1:0.5 NEG
Maximum total load for discharge lighting (eg. HPS, MH) (watts):	500
Maximum total load for incandescent lighting (watts) / Maximum VA:	1200
Switching Delay In Seconds:	10
Polycarbonate Enclosure (UV Stabilised):	YES
Power Consumption (watts):	<0.25
Sensor Type:	Photo IC
Sensor Drift:	Negligible
Max Operating Ambient Temp Range (ºC):	-20/+80
IP Rating Installed:	IP65
VDR Voltage Supression:	YES
Additional Features:	Part Night/Predictive Transfer Switching

Operating times:
On at dusk, off at 12.00pm midnight.on at 5.30 am - off at sun rise.

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

ZODION PART NIGHT PHOTOCELLS

Code:	Description:
SS19	Part night miniature photocell

Reference   **SS19**

Type:	EM Relay
Sensor:	Photodiode/Photo IC
Voltage:	198 to 264VAC 50hz
Switch Level:	70Lux (Other levels Available)
Switching Diff:	1:0.5
Typical Load:	1x400W HPS
Operating Temp:	-20°C to +75°C
Switching Capacity:	5A or 60uF
Enclosure Material:	Polycarbonate
Power Consumption:	<0.25W
Part Night Off times:	12.00 Midnight to 5.30am*
IP Rating (correctly fitted):	IP66

ENERGY SAVING ✔

Cut your electricity bill by using Part Night Photo-cells

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

ZODION PART NIGHT PHOTOCELLS

NIGHTOWL

Code:	Description:
Nightowl	Time delay photocell

| **Reference**	**Nightowl**
Fixing (where applicable hole dimensions)	Wall mounted
Lux settings	Dusk switch on light level: 3 – 1000 lux (or memory setting)
Dusk to Dawn Setting	D-D (Dusk-Dawn), 2, 4, 6 and 8 hour remain
	On time after dusk according to Lux control setting
Maximum load	1000W Max (Resistive Load)
	500W Max (inductive Load)
Consumption in watts	<1.8W
IP Rating (installed)	IP55
Voltage	220V-240V
Frequency	50Hz

Important:
When using photo-cells with LED flood lights always check with the manufacture of the LED flood lights the inrush current before selecting the photocell.

Cable Protectors

FRS rubber cable protectors help create a safer environment in your workplace, either in the office or on the shop floor. With a wide range of profile selections available, they help you comply with health and safety requirements and play a major role in preventing accidents caused by loose, trailing cables, air lines or hoses etc.
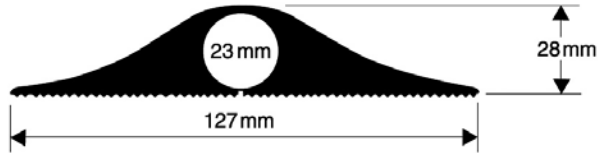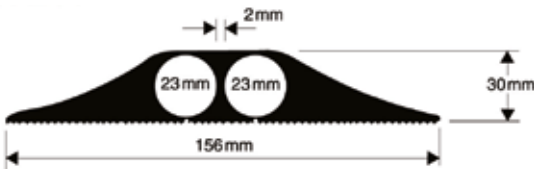
Standard Type
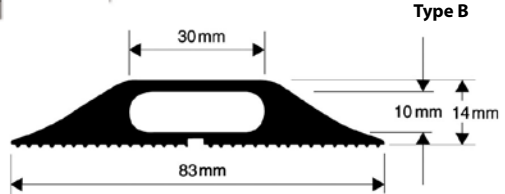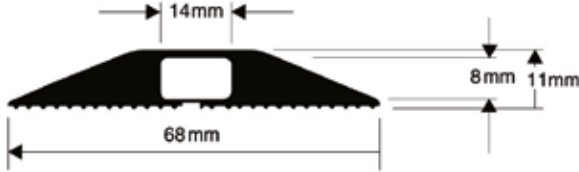
Type B
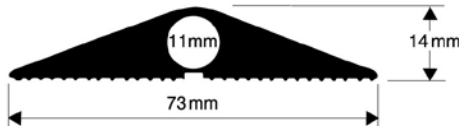
Type E

Type F

Type FF

Code	Approx Hole Dimensions	Length	Width	Height
Standard Type	8mm x 14mm	9m	68mm	11mm
Standard Type / 3	8mm x 14mm	3m	68mm	11mm
Type B	10mm x 30mm	9m	83mm	14mm
Type B / 3	10mm x 30mm	3m	83mm	14mm
Type E	11mm bore	9m	73mm	14mm
Type E / 3	11mm bore	3m	73mm	14mm
Type F	23mm bore	9m	127mm	28mm
Type F / 3	23mm bore	3m	127mm	28mm
Type FF	2 x 23mm bore	4.5m	156mm	30mm

CABLE PROTECTORS
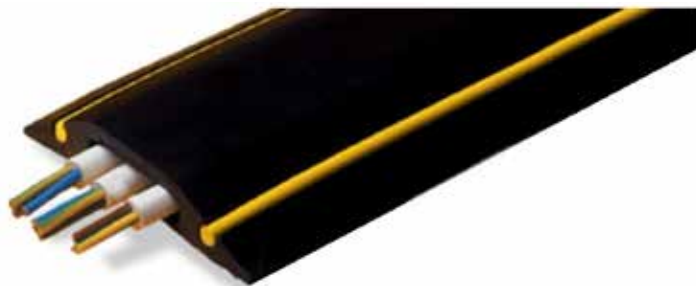
HAZ 1
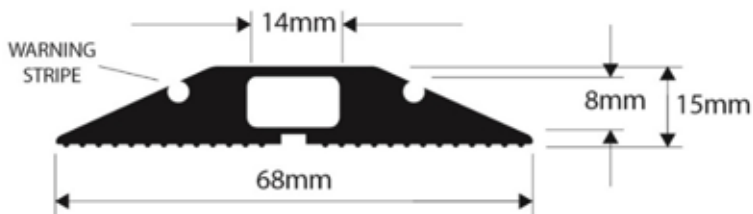
Code	Approx Hole Dimensions	Length	Width	Height
HAZ1	14 x 8mm	9m	68mm	15mm
HAZ1 / 3	14 x 8mm	3m	68mm	15mm

HAZ 2
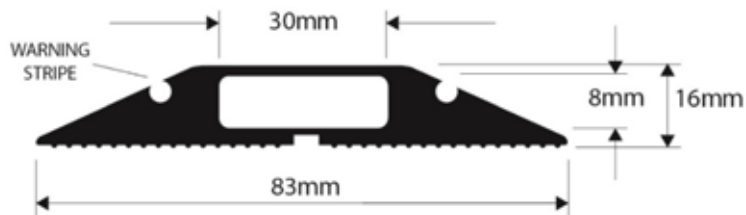
Code	Approx Hole Dimensions	Length	Width	Height
HAZ2	30 x 10mm	9m	83mm	16mm
HAZ2 / 3	30 x 10mm	3m	83mm	16mm

Wall Mounting Junction Boxes

WALL MOUNTING JUNCTION BOXES

SELF-EXTINGUISHING ✔

FR21101   **FR21102**   **FR21103**

Junction boxes with stepped glands IP44 C/W clip on lids

Code:	Description:
FR21101	Junction box, IP44 with stepped glands dim. 65x35 EC400C1A
FR21102	Junction box, IP44 with stepped glands dim. 80x40 EC400C2A
FR21103	Junction box, IP44 with stepped glands dim. 80x80x40 EC400C3A

Technical features:
- **Bottom & lid made of self-extinguishing VO (UL94) ABS**
- Resistance to abnormal heat: up to 960* C
  (Glow wire test according to the standard IEC 695-2-1)
- Press on lid   • Threaded holes for wall mounting & system to prevent unscrewing
- Soft stepped glands   • Max conduit dia 20mm   • European manufactured

SELF-EXTINGUISHING ✔

FR21204   **FR21205**

Junction boxes with stepped glands IP55 C/W screw on lids

Code:	Description:
FR21204	Junction box, IP55 with stepped glands dim. 100x100x50 EC400C4A
FR21205	Junction box, IP55 with stepped glands dim. 120x80x50 EC400C4RA

Technical features:
- **Bottom & lid made of self-extinguishing VO (UL94) ABS**
- Resistance to abnormal heat: up to 960* C (
  Glow wire test according to the standard IEC 695-2-1)   • Screw on lid
- High-resistant soft rubber inner gasket   • Soft stepped glands
- Possibility of a double insulation (reference Standard EN 60439)
- Internal guide to fix the Din rail EN 50022, Brass terminal block or Back plate
- Max conduit dia 20mm • European manufactured

WALL MOUNTING JUNCTION BOXES

SELF-EXTINGUISHING ✔

FR21301

FR21302

FR21303

FR21304

FR21305

FR21306

FR21307

FR21308

Smooth-sided junction boxes

Code:	Description:
FR21301	Smooth sided junction box IP56 dim. 100x100x50 EC410C4A Metal screw on lid
FR21302	Smooth sided junction box IP56 dim. 120x80x50 EC410C4RA Metal screw on lid
FR21303	Smooth sided junction box IP56 dim. 150x110x70 EC410C5A Metal screw on lid
FR21304	Smooth sided junction box IP56 dim. 190x140x70 EC410C6A Metal screw on lid
FR21305	Smooth sided junction box IP56 dim. 240x140x70 EC410C7A Nylon screw on lid
FR21306	Smooth sided junction box IP56 dim. 300x220x120 EC410C8A Nylon screw on lid & hinged lid
FR21307	Smooth sided junction box IP56 dim. 380x300x120 EC410C9A Nylon screw on lid & hinged lid
FR21308	Smooth sided junction box IP56 dim. 460x380x120 EC410C10A Nylon screw on lid & hinged lid

Technical features:
- **Bottom & lid made of self-extinguishing VO (UL94) ABS**
- Resistance to abnormal heat: up to 960* C (Glow wire test according to the standard IEC 695-2-1)
- Screw on lid
- High-resistant soft rubber inner gasket
- Possibility of a double insulation (reference Standard EN 60439)
- Internal guide to fix the Din rail EN 50022, Brass terminal block or Back plate
- European manufactured

WALL MOUNTING JUNCTION BOXES

HALOGEN FREE 120⁰C ✔

FR21501

FR21502

FR21503

FR21504

FR21505

High & Smooth-sided junction boxes

Code:	Description:
FR21501	Smooth sided junction box IP56 dim. 150x110x140 EC490C5 Metal screw on lid
FR21502	Smooth sided junction box IP56 dim. 190x140x140 EC490C6 Metal screw on lid
FR21503	Smooth sided junction box IP56 dim. 240x190x160 EC490C7 Nylon screw on lid
FR21504	Smooth sided junction box IP56 dim. 300x220x180 EC490C8 Nylon screw on lid & hinged lid
FR21505	Smooth sided junction box IP56 dim. 380x300x180 EC490C9 Nylon screw on lid & hinged lid

Technical features:
- Bottom & lid made in polycarbonate with heat resistance up to 120* C for heavy duties
- High Lid assures a big inner volume for industrial applications
- Screw on lid
- High-resistant soft rubber inner gasket
- Possibility of a double insulation (reference Standard EN 60439)
- Internal guide to fix the Din rail EN 50022, Brass terminal block or Back plate
- European manufactured
- **Halogen free 120*C**

WALL MOUNTING JUNCTION BOXES ¼ TURN SCREWS

SELF-EXTINGUISHING ✔

FR21104

Junction box with direct cable inlets ¼ turn screws

Code:	Description:
FR21104	Junction box, IP55 with direct cable inlets dim. 105x105x55 EC401C4A

Quick-closing plastic ¼ turn plastic screws

- Bottom & lid made of thermoresistant ABS
- **Quick-closing plastic ¼ turn plastic screws* New linking system of the cover to the box bottom**
- High-resistant soft rubber inner gasket
- Possibility of a double insulation (reference Standard EN 60439)
- Resistance to abnormal heat: up to 960* C (Glow wire test according to the standard IEC 695-2-1)
- Bottom suitable to house brass terminal blocks.
- European manufactured

SELF-EXTINGUISHING ✔

FR21300

Junction box with smooth sides ¼ turn screws

Code:	Description:
FR21300	Juntion box, IP56 smooth sided box. 105x105x55 EC415C5A

Quick-closing plastic ¼ turn plastic screws

- Bottom & lid made of thermoresistant ABS
- **Quick-closing plastic ¼ turn plastic screws* New linking system of the cover to the box bottom**
- High-resistant soft rubber inner gasket
- Possibility of a double insulation (reference Standard EN 60439)
- Resistance to abnormal heat: up to 960* C (Glow wire test according to the standard IEC 695-2-1)
- Bottom suitable to house brass terminal blocks.
- European manufactured

Distribution Boards

DISTRIBUTION BOARDS

Wall mounting modular enclosures without door

FR20001

FR20002

Code:	Description:
FR20001	Enclosure IP40 dim. 50x130x85 EC61002 1-2 modular enclosure no door IP40
FR20002	Enclosure IP40 dim. 90x130x85 EC61003 2-4 modular enclosure no door IP40

Technical features:
- Pre-cuttings for conduit inlet or cable glands
- Galvanized steel din rail EN 50022
- European manufactured

DISTRIBUTION BOARDS

IP65 Wall mounting modular enclosures with door

FR20201

FR20202

FR20203

FR20208

Code:	Description:
FR20201	**4** Modular enclosure, IP65 dim. 150x170x100 EC62004 Supplied with Earth & Neutral bars
FR20202	**8** Modular enclosure, IP65 dim. 200x180x100 EC62008 Supplied with Earth & Neutral bars
FR20203	**12** Modular enclosure, IP65 dim. 280x220x100 EC62012 Supplied with Earth & Neutral bars
FR20208	**18** Modular enclosure, IP65 dim. 400x265x140 EC62012 Supplied with Earth & Neutral bars

Technical features:
- Pre-cuttings for conduit inlet or cable glands
- Galvanized steel din rail EN 50022
- Supplied with blank plastic plates for none used modules
- Self adhesive label for circuit identification
- Screw cap covers to gain double insulation
- European manufactured

DISTRIBUTION BOARDS

IP65 Wall mounting modular enclosures with door

FR20204

FR20206

FR20205

FR20207

Code:	Description:
FR20204	**24** Modular enclosure, IP65 dim. 290x390x140 EC62024 Supplied with Earth & Neutral bars
FR20205	**36** Modular enclosure IP65 dim. 400x400x140 EC62036 Supplied with Earth & Neutral bars
FR20206	**54** Modular enclosure IP65 dim. 400x650x150 EC62054 Supplied with Earth & Neutral bars
FR20207	**72** Modular enclosure, IP65 dim. 420x885x150 EC62072 Supplied with Earth & Neutral bars

Technical features:
- Pre-cuttings for conduit inlet or cable glands
- Galvanized steel din rail EN 50022
- Supplied with blank plastic plates for none used modules
- Self adhesive label for circuit identification
- Screw cap covers to gain double insulation
- European manufactured

Ventilation

Extraction of stale air & condensation from bathrooms & kitchens is a must to stop damp and mould. Good quality ventilation is essential for ensuring that you adhere to building regulations.

A few points to remember:

- Ducting comes in many sizes
- Types of ducting; round or square, solid, flexible, or insulated.
- Make sure you have adequate space to install the ducting.
- Grilles to match the external colour of your building or grilles for use inside your rooms.

Fans & extraction cooker hoods must have the correct size ducting. Please refer to the manufacturers recommended specification.

VENTILATION

4" GRAVITY GRILLES

Code:	Description:	Size:
FRV4GGWH	4" White gravity grille	4" Spigot
FRV4GGBR	4" Brown gravity grille	4" Spigot
FRV4GGTC	4" Terracotta gravity grille	4" Spigot
FRV4GGBG	4" Beige gravity grille	4" Spigot
FRV4GGBK	4" Black gravity grille	4" Spigot

5" GRAVITY GRILLES

Code:	Description:	Size:
FRV5GGWH	5" White gravity grille	5" Spigot
FRV5GGBR	5" Brown gravity grille	5" Spigot
FRV5GGTC	5" Terracotta gravity grille	5" Spigot
FRV5GGBG	5" Beige gravity grille	5" Spigot

6" GRAVITY GRILLES

Code:	Description:	Size:
FRV6GGWH	6" White gravity grille	6" Spigot
FRV6GGBR	6" Brown gravity grille	6" Spigot
FRV6GGTC	6" Terracotta gravity grille	6" Spigot
FRV6GGBG	6" Beige gravity grille	6" Spigot

White gravity grille

Brown gravity grille

Terracotta gravity grille

Black gravity grille

Beige gravity grille

VENTILATION

4"-5"-6" COWLED GRILLES & 4" HIGH RISE KITS

4" COWLED GRILLES

Code:	Description:	Size:
FRV4CGWH	4" White cowled grille	4" spigot
FRV4CGBR	4" Brown cowled grille	4" spigot
FRV4CGBK	4" Black cowled grille	4" spigot

Black cowled grille

5" COWLED GRILLES

Code:	Description:	Size:
FRV5CGWH	5" White cowled grille	5" spigot
FRV5CGBR	5" Brown cowled grille	5" spigot

Brown cowled grille

6" COWLED GRILLES

Code:	Description:	Size:
FRV6CGWH	6" White cowled grille	6" spigot
FRV6CGBR	6" Brown cowled grille	6" spigot

White cowled grille

HIGH RISE KITS

4"/100mm HIGH RISE KITS

Code:	Description:	Size:
FRV21HRB	High rise vent Brown	4"/100mm
FRV21HRW	High rise vent White	4"/100mm

High rise vent White

High rise vent Brown

4" FIXED GRILLES   *Supplied with fly-screen*

Code:	Description:	Size:
FRV4FGWH	4" White fixed grille	4" Spigot
FRV4FGBR	4" Brown fixed grille	4" Spigot
FRV4FGTC	4" Terracotta fixed grille	4" Spigot
FRV4FGBG	4" Beige fixed grille	4" Spigot
FRV4FGBK	4" Black fixed grille	4" Spigot

White fixed grille

5" FIXED GRILLES   *Supplied with fly-screen*

Code:	Description:	Size:
FRV5FGWH	5" White fixed grille	5" Spigot
FRV5FGBR	5" Brown fixed grille	5" Spigot
FRV5FGTC	5" Terracotta fixed grille	5" Spigot
FRV5FGBG	5" Beige fixed grille	5" Spigot

6" FIXED GRILLES   *Supplied with fly-screen*

Code:	Description:	Size:
FRV6FGWH	6" White fixed grille	6" Spigot
FRV6FGBR	6" Brown fixed grille	6" Spigot
FRV6FGTC	6" Terracotta fixed grille	6" Spigot
FRV6FGBG	6" Beige fixed grille	6" Spigot
FRV6FGBK	6" Black fixed grille	6" Spigot

Brown fixed grille

Terracotta fixed grille

Black fixed grille

Beige fixed grille

PVC DUCTING & WORM DRIVE CLIPS

PVC DUCTING

4" PVC DUCTING

Code:	Description:	Size:
FRV401PD	4" White PVC flex duct	4" x 1m
FRV403PD	4" White PVC flex duct	4" x 3m
FRV406PD	4" White PVC flex duct	4" x 6m
FRV415PD	4" White PVC flex duct	4" x 15m
FRV445PD	4" White PVC flex duct	4" x 45m

5" PVC DUCTING

Code:	Description:	Size:
FRV501PD	5" White PVC flex duct	5" x 1m
FRV503PD	5" White PVC flex duct	5" x 3m
FRV506PD	5" White PVC flex duct	5" x 6m
FRV515PD	5" White PVC flex duct	5" x 15m

6" PVC DUCTING

Code:	Description:	Size:
FRV601PD	6" White PVC flex duct	6" x 1m
FRV603PD	6" White PVC flex duct	6" x 3m
FRV606PD	6" White PVC flex duct	6" x 6m
FRV615PD	6" White PVC flex duct	6" x 15m

WORM DRIVE CLIPS

Code:	Description:	Size:
FRV01WDC	4" Worm drive clip	100mm
FRV02WDC	5" Worm drive clip	125mm
FRV03WDC	6" Worm drive clip	150mm
FRV04WDC	8" Worm drive clip	200mm
FRV05WDC	9" Worm drive clip	225mm
FRV06WDC	10" Worm drive clip	250mm
FRV07WDC	12" Worm drive clip	300mm
FRV08WDC	315mm Worm drive clip	315mm

ALUMINIUM FLEXIBLE DUCTING

3M FLEXIBLE ALUMINIUM DUCTING

Code:	Description:	Size:
FRV403AD	4" Alu flex duct	4" x 3m
FRV503AD	5" Alu flex duct	5" x 3m
FRV603AD	6" Alu flex duct	6" x 3m
FRV803AD	8" Alu flex duct	8" x 3m
FRV903AD	9" Alu flex duct	9" x 3m
FRV1003AD	10" Alu flex duct	10" x 3m
FRV1203AD	12" Alu flex duct	12" x 3m
FRV31503AD	315mm Alu flex duct	315mm x 3m

10M FLEXIBLE ALUMINIUM DUCTING

Code:	Description:	Size:
FRV410AD	4" Alu flex duct	4" x 10m
FRV510AD	5" Alu flex duct	5" x 10m
FRV610AD	6" Alu flex duct	6" x 10m
FRV810AD	8" Alu flex duct	8" x 10m
FRV910AD	9" Alu flex duct	9" x 10m
FRV1010AD	10" Alu flex duct	10" x 10m
FRV1210AD	12" Alu flex duct	12" x 10m
FRV31510AD	315mm Alu flex duct	315mm x 10m

10M INSULATED FLEXIBLE ALUMINIUM DUCTING

Code:	Description:	Size:
FRV410ADIN	4" Alu flex duct	4" x 10m
FRV510ADIN	5" Alu flex duct	5" x 10m
FRV610ADIN	6" Alu flex duct	6" x 10m

4"-5"-6" DIA ROUND PLASTIC PIPE & ACCESSORIES

ROUND PIPE

Code:	Description:	Size:
FRV401RP	Plastic round pipe	100mm dia x 350mm
FRV402RP	Plastic round pipe	100mm dia x 1mtr
FRV403RP	Plastic round pipe	100mm dia x 2mtr
FRV501RP	Plastic round pipe	125mm dia x 350mm
FRV502RP	Plastic round pipe	125mm dia x 1mtr
FRV503RP	Plastic round pipe	125mm dia x 2mtr
FRV601RP	Plastic round pipe	150mm dia x 350mm
FRV602RP	Plastic round pipe	150mm dia x 1mtr
FRV603RP	Plastic round pipe	150mm dia x 2mtr

TELESCOPIC PIPE

Code:	Description:	Size:
FRV404RP	Telescopic pipe	100mm dia x 200-350mm
FRV504RP	Telescopic pipe	125mm dia x 200-350mm
FRV604RP	Telescopic pipe	150mm dia x 200-350mm

PIPE CONNECTORS

Code:	Description:	Size:
FRV405RP	Pipe connector	100mm dia
FRV505RP	Pipe connector	125mm dia
FRV605RP	Pipe connector	150mm dia

PIPE CONNECTORS WITH DAMPER

Code:	Description:	Size:
FRV406RP	Pipe con & damper	100mm dia
FRV506RP	Pipe con & damper	125mm dia
FRV606RP	Pipe con & damper	150mm dia

4"-5"-6" DIA ROUND PLASTIC PIPE & ACCESSORIES

90° BEND

Code:	Description:	Size:
FRV408RP	90° Bend	100mm dia
FRV508RP	90° Bend	125mm dia
FRV608RP	90° Bend	150mm dia

EQUAL T

Code:	Description:	Size:
FRV01TEE	Equal tee	100mm dia
FRV02TEE	Equal tee	125mm dia
FRV03TEE	Equal tee	150mm dia

3 WAY SPLITTER / Y PIECE

Code:	Description:	Size:
FRV01Y	3 way splitter	100mm dia
FRV02Y	3 way splitter	125mm dia
FRV03Y	3 way splitter	150mm dia

PIPE FASTENER

Code:	Description:	Size:
FRV01PF	Pipe fastener	100mm dia
FRV02PF	Pipe fastener	125mm dia
FRV03PF	Pipe fastener	150mm dia

110 x 54MM FLAT CHANNEL DUCTING & ACCESSORIES

FLAT CHANNEL DUCTING

Code:	Description:	Size:
FRV01FCD	Flat channel duct	110 x 54mm x 1mtr
FRV020FCD	Flat channel duct	110 x 54mm x 2mtr
FRV03FCD	Flat duct clips	
FRV04FCD	Flat duct connector	
FRV05FCD	Flat duct con & damper	
FRV06FCD	Elbow bend 100mm i/d	
FRV07FCD	Elbow bend & insert 100mm o/d	
FRV08FCD	Horizontal 90° bend	
FRV09FCD	Vertical 90° bend	
FRV10FCD	Round to rectangle adaptor	
FRV11FCD	Short round to rectangle	
FRV12FCD	Horizontal T piece	

FRV01FCD/FRV020FCD

FRV03FCD

FRV04FCD

FRV05FCD

FRV06FCD

FRV07FCD

FRV08FCD

FRV09FCD

FRV10FCD

FRV11FCD

FRV12FCD

FLAT CHANNEL DUCTING

Code:	Description:
FRV14FCD	White horizontal airbrick & airbrick adaptor
FRV15FCD	Brown horizontal airbrick & airbrick adaptor
FRV16FCD	Beige horizontal airbrick & airbrick adaptor
FRV17FCD	Terracotta horizontal airbrick & airbrick adaptor
FRV18FCD	White gravity grille, 110 x 54mm spigot
FRV19FCD	Brown gravity grille, 110 x 54mm spigot
FRV20FCD	White cowl grille with damper & 110 x 54mm spigot
FRV21FCD	Brown cowl grille with damper & 110 x 54mm spigot
FRV22FCD	White fixed grille, fly screen & 110 x 54mm spigot
FRV23FCD	Brown fixed grille, fly screen & 110 x 54mm spigot
FRV24FCD	Flexible ducting 110 x 54mm x 3mtr

FRV14FCD

FRV15FCD

FRV16FCD

FRV17FCD

FRV18FCD

FRV19FCD

FRV20FCD

FRV21FCD

FRV22FCD

FRV23FCD

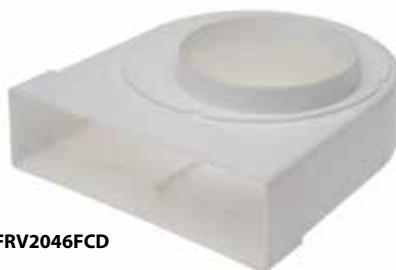

FRV24FCD

204 x 60MM FLAT CHANNEL DUCTING & ACCESSORIES

FRV2041FCD / FRV2043FCD

FRV2044FCD

FRV2045FCD

FRV2046FCD

FRV2047FCD

FLAT CHANNEL DUCTING

Code:	Description:
FRV2041FCD	Flat channel duct 204 x 60mm x 1mtr
FRV2043FCD	Flat channel duct 204 x 60mm x 2mtr
FRV2044FCD	Flat channel connector
FRV2045FCD	Flat channel elbow bend 204 x 60mm to 100mm
FRV2046FCD	Flat channel elbow bend 204 x 60mm to 125mm
FRV2047FCD	Flat channel elbow bend 204 x 60mm to 150mm

204 x 60MM FLAT CHANNEL DUCTING & ACCESSORIES

FRV2048FCD

FRV20410FCD

FRV20411FCD

FRV20412FCD

FRV20413FCD

FRV20414FCD

FRV20415FCD

FRV20417FCD

FRV20418FCD

FRV20419FCD

FRV20420FCD

FLAT CHANNEL DUCTING

Code:	Description:
FRV2048FCD	Horizontal 90° bend
FRV20410FCD	Vertical 90° bend
FRV20411FCD	Flexible bend
FRV20412FCD	Flat to round adaptor 204 x 60mm to 100mm
FRV20413FCD	Flat to round adaptor 204 x 60mm to 125mm
FRV20414FCD	Flat channel duct clip
FRV20415FCD	Flat channel equal T
FRV20416FCD	Flat channel airbrick adaptor
FRV20417FCD	White horizontal airbrick & airbrick adaptor
FRV20418FCD	Beige horizontal airbrick & airbrick adaptor
FRV20419FCD	Brown horizontal airbrick & airbrick adaptor
FRV20420FCD	Trracotta horizontal airbrick & airbrick adaptor

VENTILATION

VENTILATION ACCESSORIES

DUCT TAPE

Code:	Description:	Size:
DTAPE1	PVC Duct tape	
DTAPE2	Aluminium duct tape	

THREADED HOSE CONNECTORS

Code:	Description:	Size:
FRV01TCON	Male connector	100mm o/d
FRV02TCON	Female connector	100mm i/d

CONDENSATION TRAP

Code:	Description:	Size:
FRV04CT	Plastic condensation trap	100mm/4"

VENT COWL

Code:	Description:	Size:
FRV04VC	Plastic mushroom vent	110mm

REDUCERS

Code:	Description:	Size:
FRV01RED	Plastic reducer	5" - 4"
FRV02RED	Plastic reducer	6" - 5"
FRV03RED	Plastic reducer	6" - 4"

AIR VALVES

Code:	Description:	Size:
FRV04AV	Air valve with spigot	4"/100mm
FRV05AV	Air valve with spigot	5"/125mm
FRV06AV	Air valve with spigot	6"/150mm

HOW TO ORDER

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Frank Russell & Son
Guy Street
Bradford
BD4 7BB

T. +44 (0) 1274 304411
F. +44 (0) 1274 304433
E. info@frs-group.co.uk

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