

u n i b o x

Konnekt

Design Guide

International Patent Pending
No. 1820574.0



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Standard Slot Detail (S50)

mild steel box section

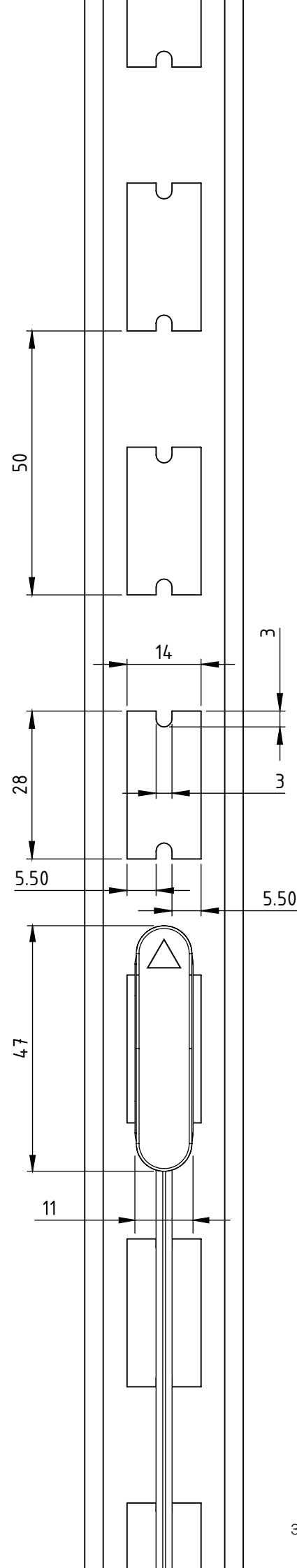
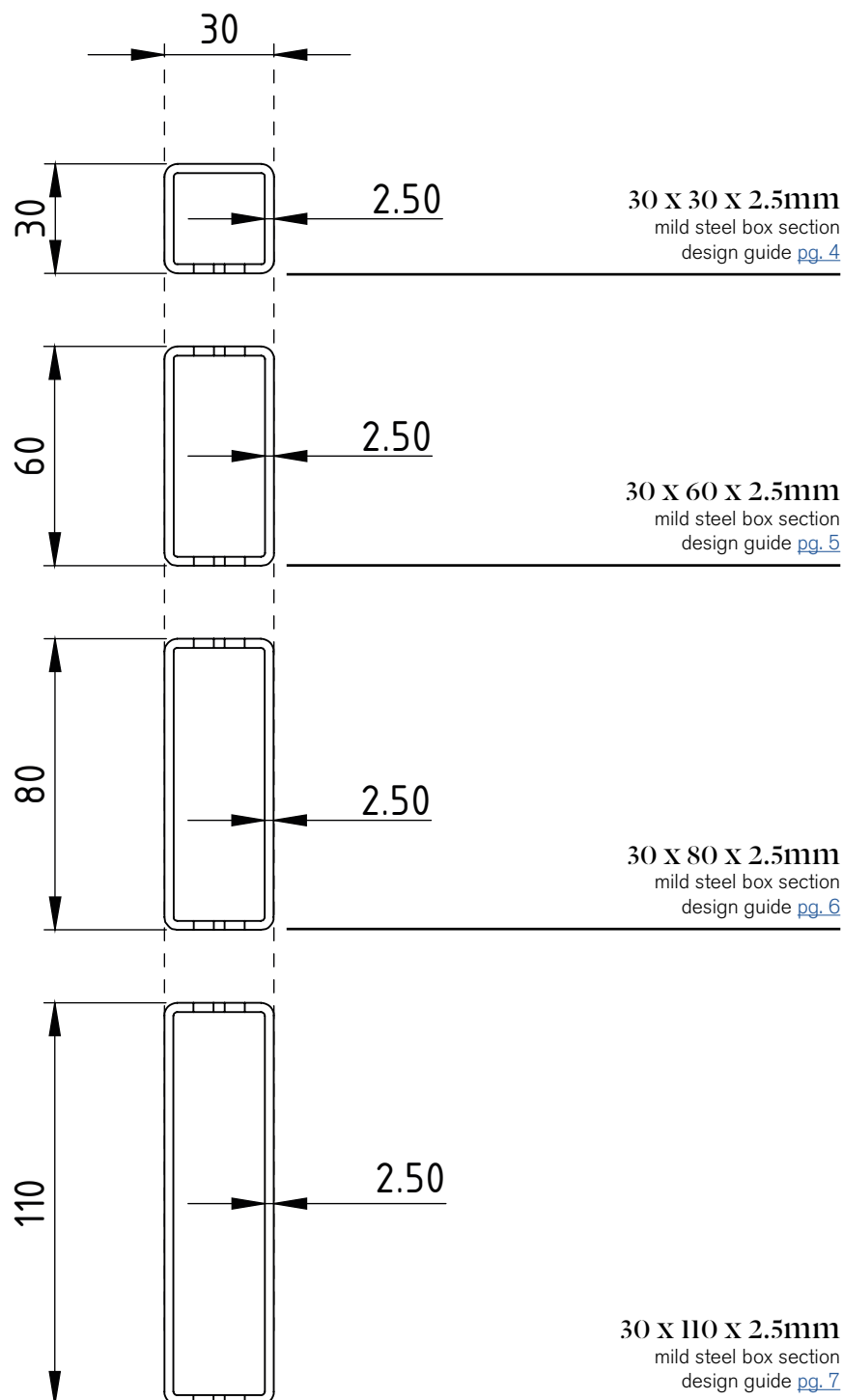
Key Design Considerations

The standard Konnekt system works with the slot detail indicated. This slot detail can be found on many mass produced retail racking systems.

Back panels can still be hooked into each side of the slot, with the power connectors sitting between.

Any other additional bracketry in the slot means connectors to be placed in next available slot.

Below are the details for the standard box sections the Konnekt system is compatible with. (other slot details and box sections are available upon request.)



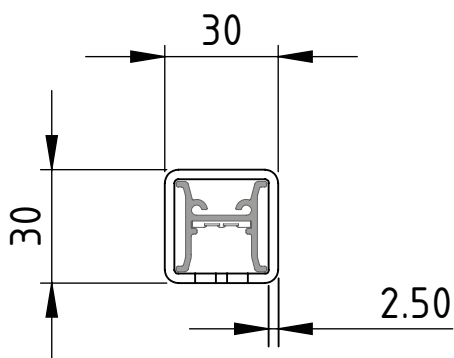
30 X 30 X 2.5mm mild steel box section

Key Design Considerations

- Single sided power delivery. (150W Max @ 24v - 1x power supply per upright)
- Tube wall thickness 2.5mm
- NO inserts or interference on internal faces of tube.
- Ensure tube is deburred on cut ends.
- Blanking plate/bung to tube base (top cap required if not possible).
- Maximum continuous length of power track 3m (if required in longer lengths please get in touch).
- Power track can be cut to any length.
- Take offs available in black or white.

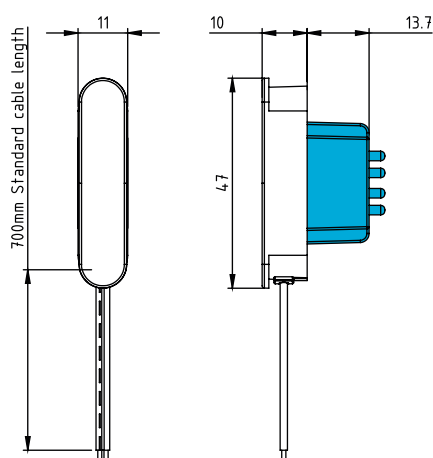


KON-PT-30x30
Power Track Profile
1:2 @ A4



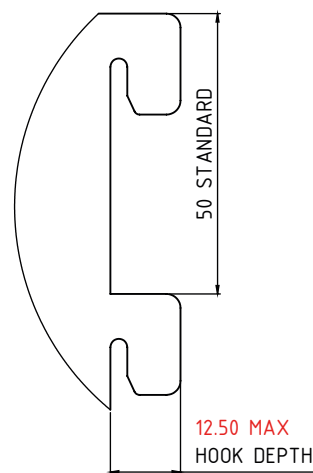
Power feed & Take off - (KON-PF-T2)

- Voltage rating: 24v
- Current rating: 6A
- Highlighted section recessed in tube.
- Available in black or white.

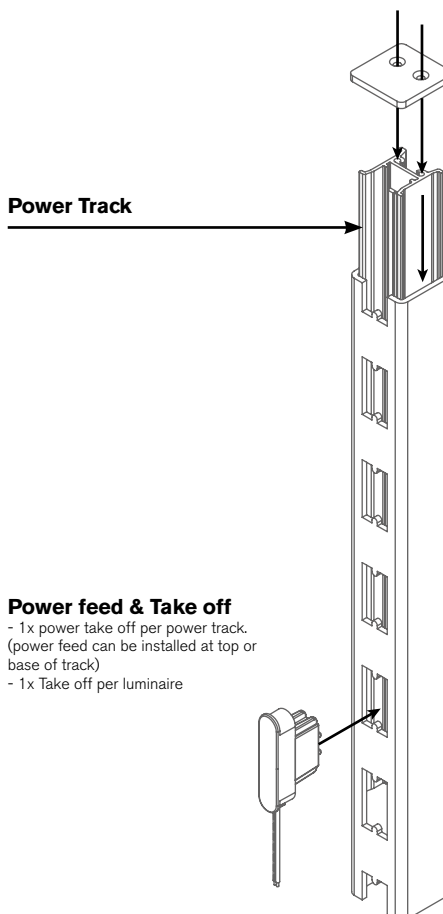


Bracketry

Please see below bracketry drawing outlining critical dimensions. All other dimensions and details can be revised to suit design requirements.



Assembly



Power feed & Take off

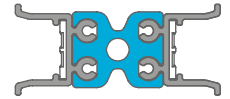
- 1x power take off per power track. (power feed can be installed at top or base of track)
- 1x Take off per luminaire

30 X 60 X 2.5mm

mild steel box section

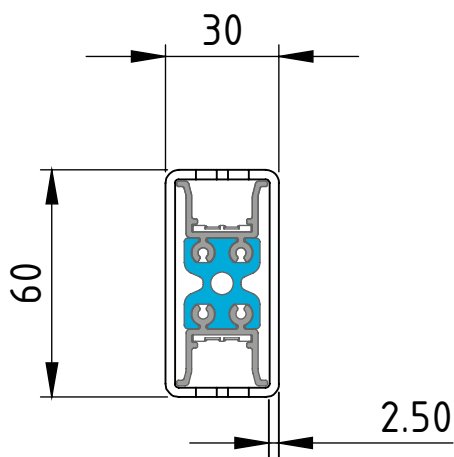
Key Design Considerations

- Double sided power delivery. (150W Max @ 24v - 2x power supply per upright)
- Tube wall thickness 2.5mm
- **NO** inserts or interference on internal faces of tube. (With standard joining bone.)
- Ensure tube is deburred on cut ends.
- Blanking plate/bung to tube base (top cap required if not possible).
- Maximum continuous length of power track 3m (if required in longer lengths please get in touch).
- Power track can be cut to any length.
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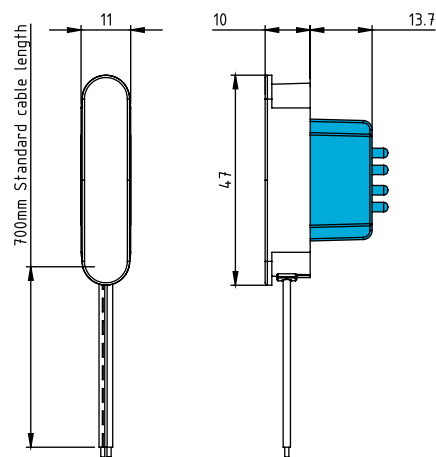
KON-PT-30x60

Power Track Profile & [Joining Bone](#)
1:2 @ A4



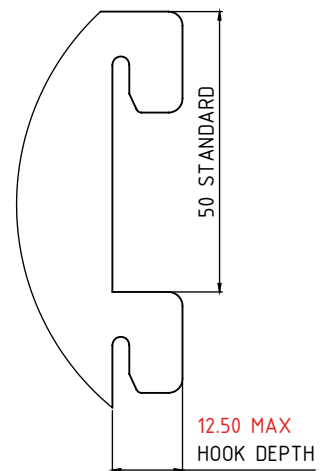
Power feed & Take off - (KON-PF-T2)

- Voltage rating: 24v
- Current rating: 6A
- Highlighted section recessed in tube.
- Available in black or white.

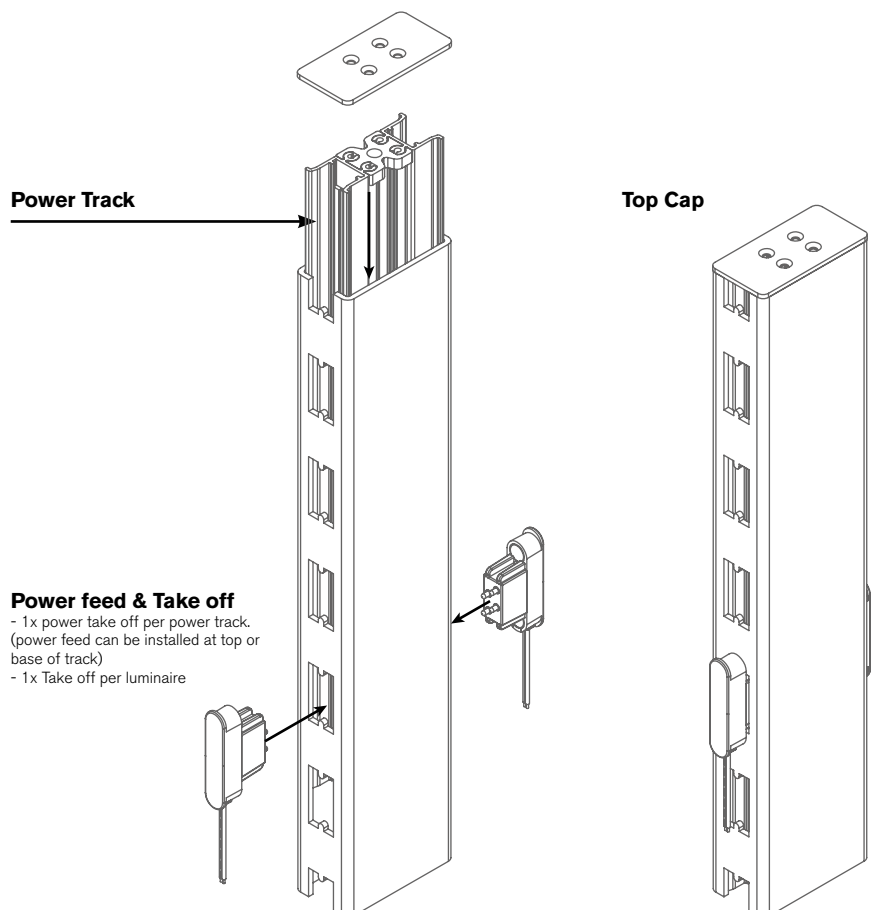


Bracketry

Please see below bracketry drawing outlining critical dimensions. All other dimensions and details can be revised to suit design requirements.



Assembly

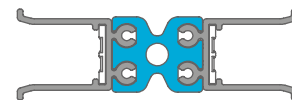


30 X 80 X 2.5mm

mild steel box section

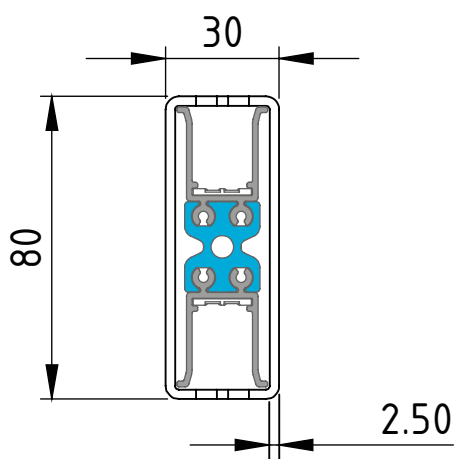
Key Design Considerations

- Double sided power delivery. (150W Max @ 24v - 2x power supply per upright)
- Tube wall thickness 2.5mm
- **NO** inserts or interference on internal faces of tube. (With standard joining bone.)
- Ensure tube is deburred on cut ends.
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- Power track can be cut to any length.
- Take offs available in black or white.



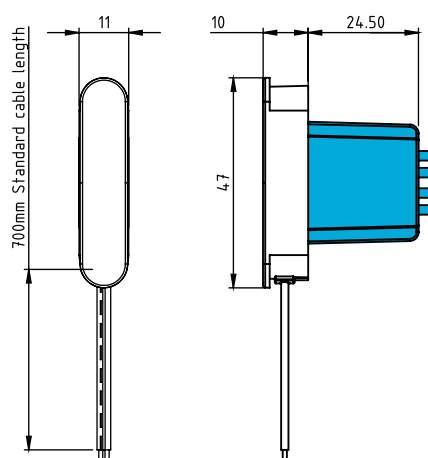
KON-PT-30x80

Power Track Profile & [Joining Bone](#)
1:2 @ A4



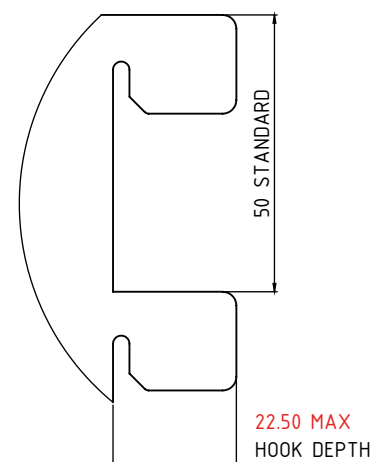
Power feed & Take off - (KON-PF-T1)

- Voltage rating: 24v
- Current rating: 6A
- Highlighted section recessed in tube.
- Available in black or white.

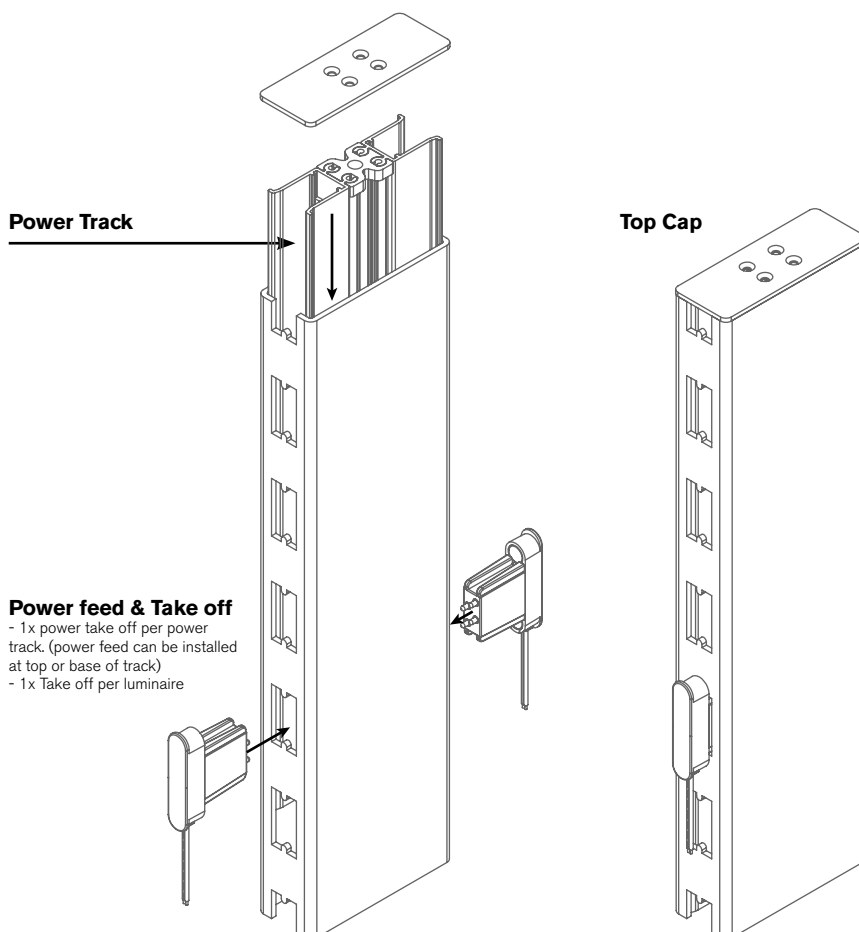


Bracketry

Please see below bracketry drawing outlining critical dimensions. All other dimensions and details can be revised to suit design requirements.



Assembly

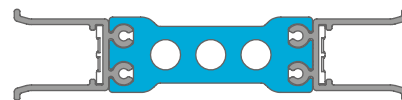


30 x 110 x 2.5mm

mild steel box section

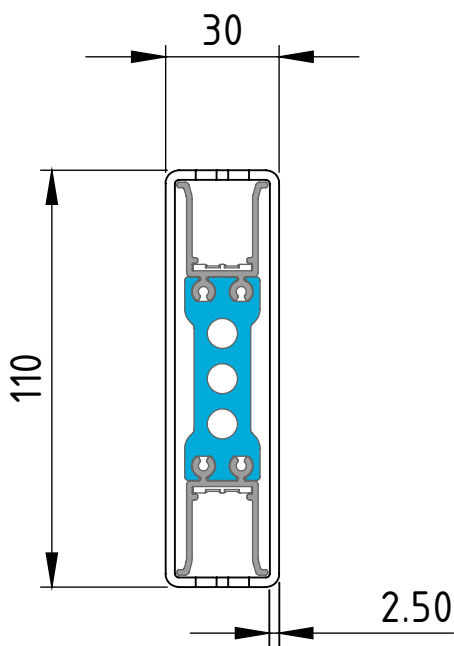
Key Design Considerations

- Double sided power delivery. (150W Max @ 24v - 2x power supply per upright)
- Tube wall thickness 2.5mm
- **NO** inserts or interference on internal faces of tube. (With standard joining bone.)
- Ensure tube is deburred on cut ends.
- Blanking plate/bung to tube base (top cap required if not possible).
- Maximum continuous length of power track 3m (if required in longer lengths please get in touch).
- Power track can be cut to any length.
- Take offs available in black or white.



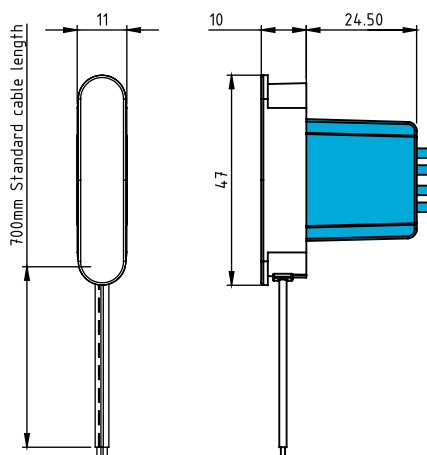
KON-PT-30x110

Power Track Profile & [Joining Bone](#)
1:2 @ A4



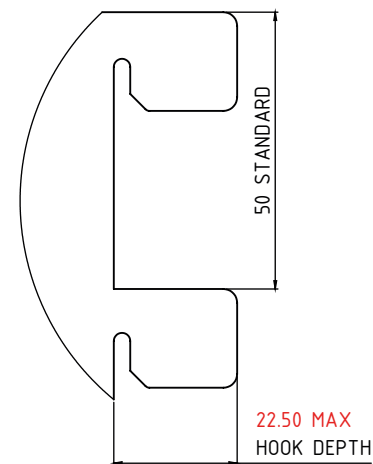
Power feed & Take off - (KON-PF-T1)

- Voltage rating: 24v
- Current rating: 6A
- Highlighted section recessed in tube.
- Available in black or white.

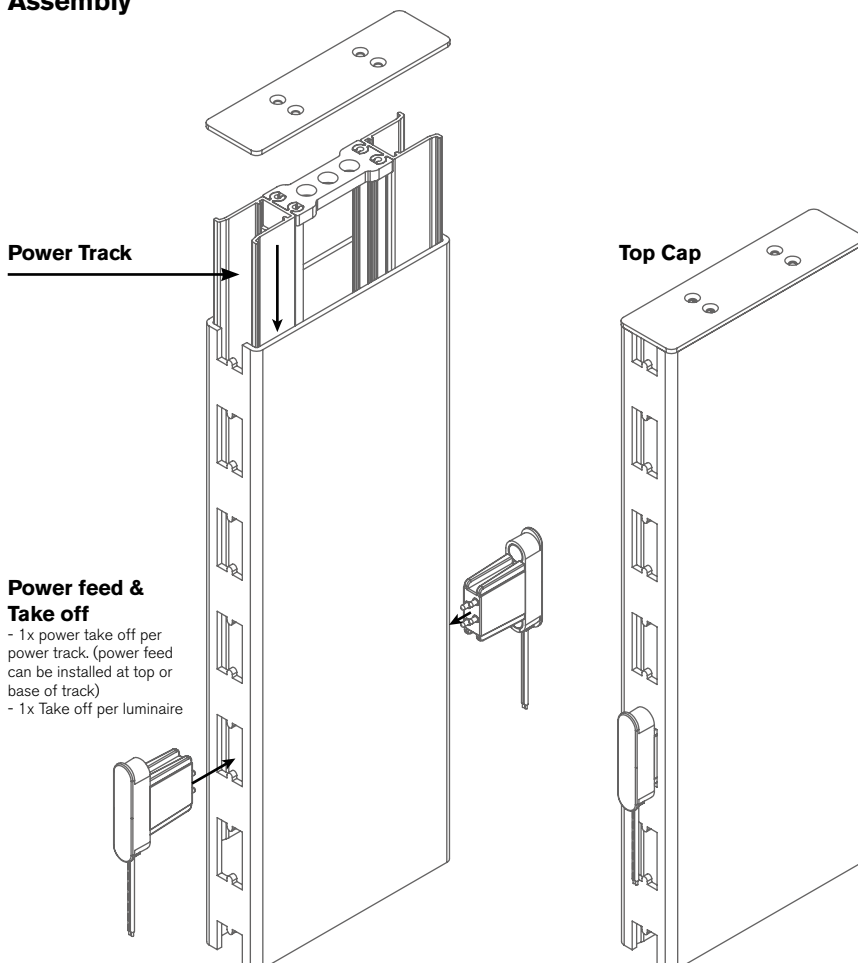


Bracketry

Please see below bracketry drawing outlining critical dimensions. All other dimensions and details can be revised to suit design requirements.

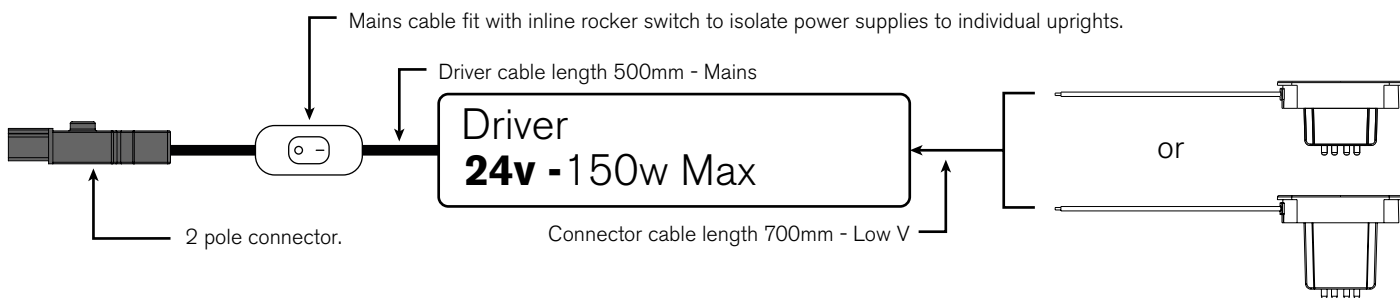


Assembly



Power Supplies & Wiring

Standard Power Supply



Power Supplies

Driver	Voltage (V)	Power (W)	Max No. Power Supplies on Single Mains Supply
KD-24V-150	24	150	8
KD-24V-100	24	100	16
KD-24V-60	24	60	18
KD-12V-60	12	60	26

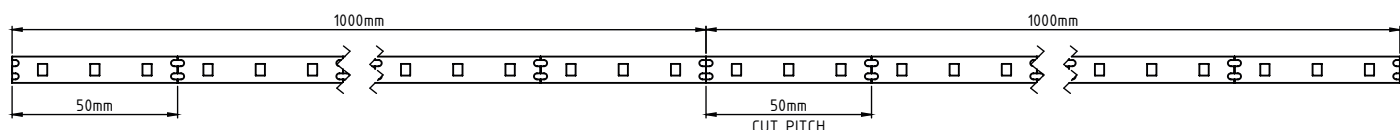
The above table is based upon a 16amp type C breaker.

To discuss other power supplies and wiring options please get in touch: sales@unibox.co.uk

Picking Your Supply

The first thing you need to consider when calculating your driver requirements is the wattage of your product. [See pg. 11](#) for the standard range of flexible LED's available and their wattage per metre (w/m).

For example, if you were going to use a length of LED tape – Eco Power 24v 10w tape, this means that your selected tape's wattage is 10w per metre. If you were going to use 2 metres of the tape, you would need to do this simple calculation:



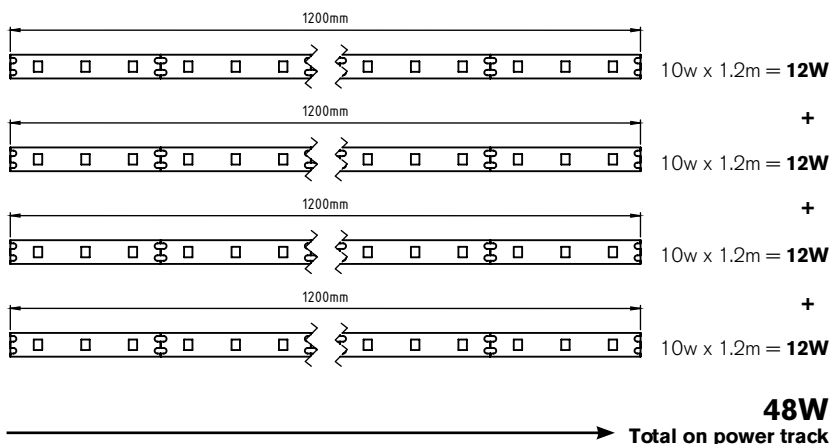
$$\text{WATTS} \times \text{LENGTH} = \text{TOTAL POWER}$$

$$10\text{w} \times 2\text{m} = 20\text{W}$$

Example Bay

This then gives you the wattage that each luminaire will require in power. Repeat this process for each luminaire on your power track add all the totals. This will give you the total wattage required on your track.

You must always select a driver that is a higher wattage than this total, so for this example you would purchase a 60w driver or higher.

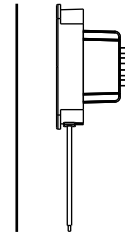


Please note: any additional items added to power track will need to be included in the total power requirement i.e. lightboxes see [page 13](#). Get in touch for power loadings on any additional items.

Power Supplies & Wiring

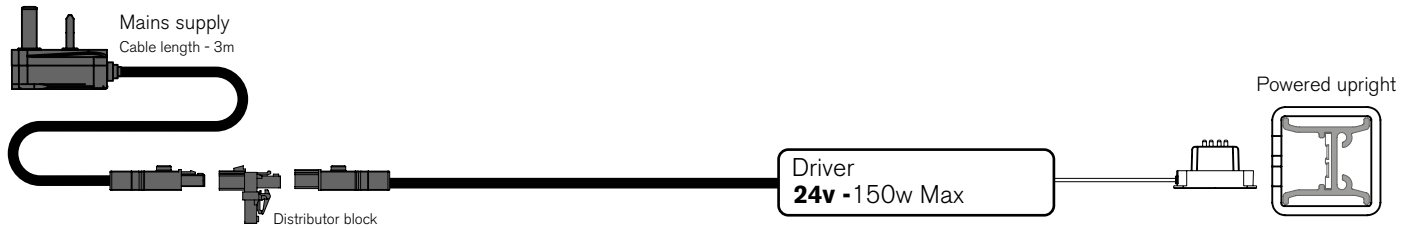
Single Sided Power Delivery

- Single sided power delivery. (150W Max @ 24v 1x power supply per upright)
- Standard mains cable 2 x 1.5mm² protected with 10amp (MAX) fuse in the 3 pin plug head.
- Cabling not to be fed through frame work. (If cabling required through frame work please get in touch.)

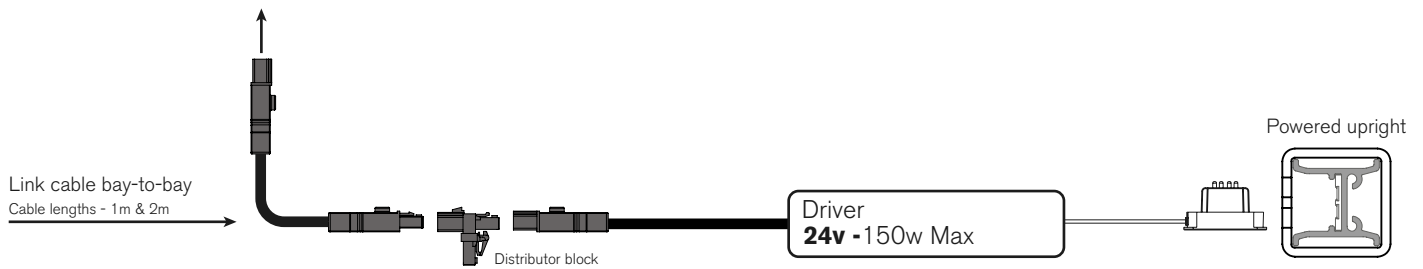


KON-PT-30x30
Power Track Profile
1:2 @ A4

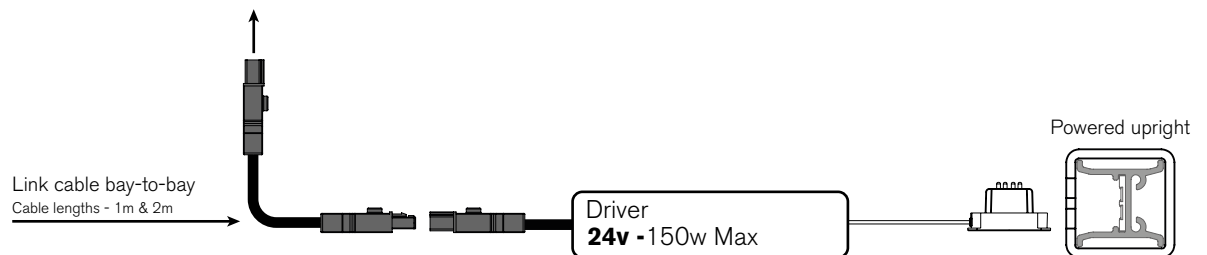
Starter Bay Power Pack



Link Bay-To-Bay



End Bay

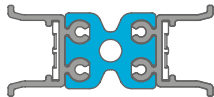
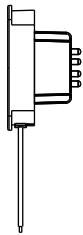


See power supply table [pg. 8](#) for linked bay quantities.
If more required add a new Starter bay power pack and repeat.

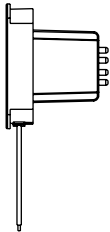
Power Supplies & Wiring

Double Sided Power Delivery

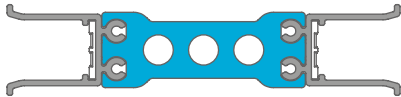
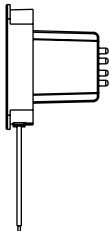
- Double sided power delivery. (150W Max @ 24v 2x power supply per upright)
- Standard mains cable 2 x 1.5mm² protected with 10amp (MAX) fuse in the 3 pin plug head.
- Cabling not to be fed through frame work. (If cabling required through frame work please get in touch.)



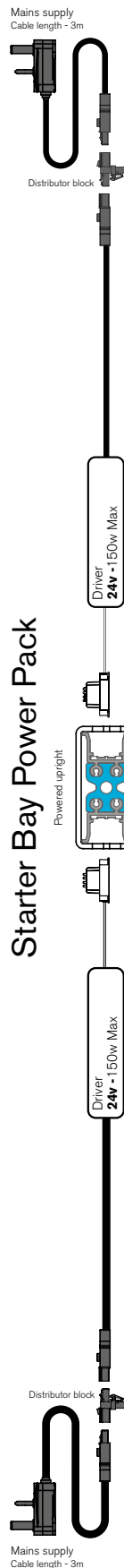
KON-PT-30x60
Power Track Profile & [Joining Bone](#)
1:2 @ A4



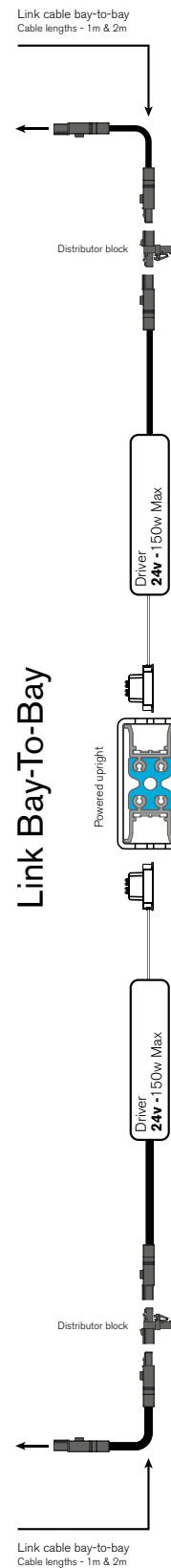
KON-PT-30x80
Power Track Profile & [Joining Bone](#)
1:2 @ A4



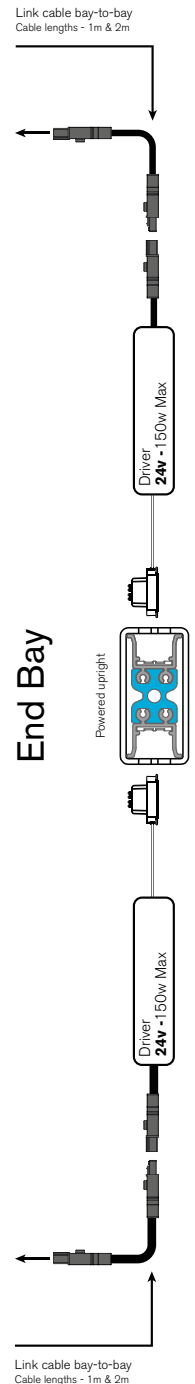
KON-PT-30x110
Power Track Profile & [Joining Bone](#)
1:2 @ A4



Starter Bay Power Pack



Link Bay-To-Bay



End Bay

See power supply table [pg. 8](#) for linked bay quantities.
If more required add a new Starter bay power pack and repeat.

Luminaires

Flexible LED

Flexible LED tape is one of the most streamlined and cost effective LED sources currently available, it is a fantastic product that is being used more and more from small scale pieces to large commercial applications. Flexible tape is also ideally suited for use with our aluminium profile range.

The tape itself when switched on can be touched as it generates very little heat; even after a long continuous use it will still stay cool to the touch. This makes it a perfect lighting option and gives the option to install almost anywhere and a much safer option than other methods which could become safety hazards.



3000k

6500k

Model No.	CCT(K)	LED Qty/m	Voltage (V)	Current (mA)	Power (W)	Calculated flux excl diffuser. (Lm)	CRI	Cut points
Eco+ 3K-24	3000	60	24	0.2	5w/m	336	80+, 90+, 95+	100mm
Eco+ 4K-24	4000	60	24	0.2	5w/m	384	80+, 90+, 95+	100mm
Eco+ 6K-24	6500	60	24	0.2	5w/m	360	80+, 90+, 95+	100mm
Eco Power 3K-24	3000	120	24	0.4	10w/m	672	80+, 90+, 95+	50mm
Eco Power 4K-24	4000	120	24	0.4	10w/m	768	80+, 90+, 95+	50mm
Eco Power 6K-24	6500	120	24	0.4	10w/m	720	80+, 90+, 95+	50mm
Power+ 3K-24	3000	160	24	0.6	15w/m	1496	80+, 90+	50mm
Power+ 4K-24	4000	160	24	0.6	15w/m	2230	80+, 90+	50mm
Power+ 6K-24	6500	160	24	0.6	15w/m	2230	80+, 90+	50mm
Eco+ 3K-12	3000	60	12	0.4	5w/m	336	80+, 90+, 95+	50mm
Eco+ 4K-12	4000	60	12	0.4	5w/m	384	80+, 90+, 95+	50mm
Eco+ 6K-12	6500	60	12	0.4	5w/m	360	80+, 90+, 95+	50mm
Eco Power 3K-12	3000	120	12	0.8	10w/m	672	80+, 90+, 95+	25mm
Eco Power 4K-12	4000	120	12	0.8	10w/m	768	80+, 90+, 95+	25mm
Eco Power 6K-12	6500	120	12	0.8	10w/m	720	80+, 90+, 95+	25mm

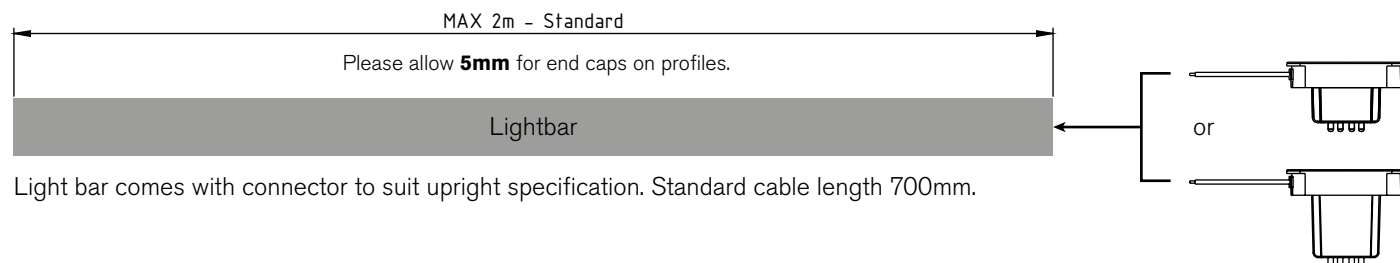
Note: Lumen output are measured according to PMS-80, with a tolerance of +/- 5%

Unibox offer a wide range of lighting solutions for the Konnekt system in addition to the standard flexible LED shown above. Whether it be for under-shelf, product lighting, floor strips, wall details, over-desk/sales counter unit or display cabinets, we have a solution to suit. With in-house lighting technicians & manufacturing facilities, Unibox linear luminaires can be completely customised, from colour temperature to secondary optics to manipulate the light output. Get in touch to discuss: sales@unibox.co.uk

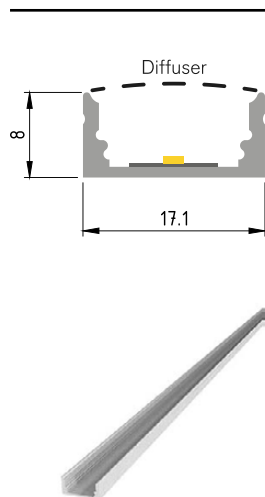
Luminaires

Linear Lighting Profiles

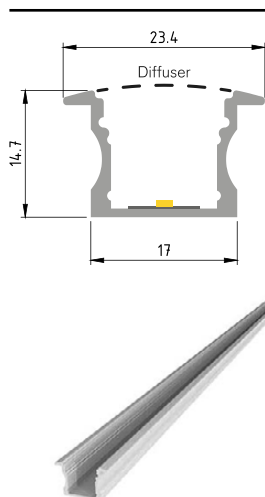
Choose from profile size, shape or function on this page together with diffuser type (clear, semi, fully frosted or coloured lenses). Our aluminium profiles are anodized satin silver with a full range of RAL colours available on request. We have designed & manufactured a range of slimline aluminium profiles specifically made to effectively dissipate heat. There are a selection of standard fixing elements and end caps available for all solutions.



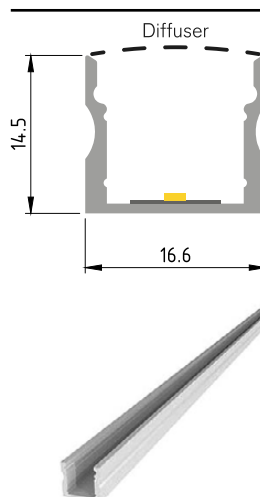
Mira
UA20496



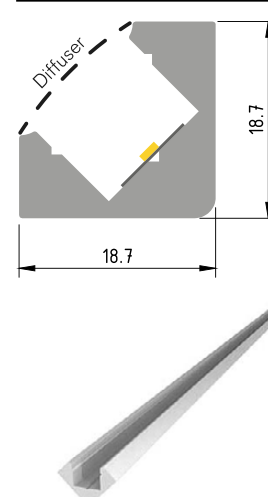
HaldusF
UA18904



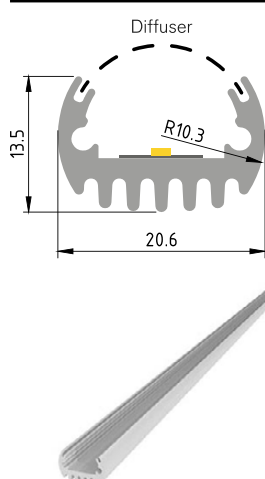
Haldus
UA21993



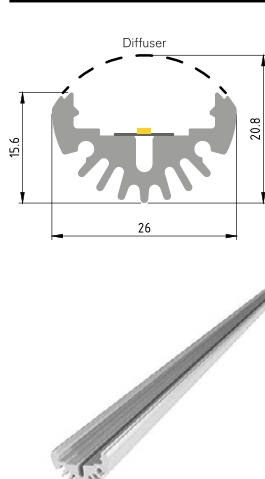
Vega
UA19612



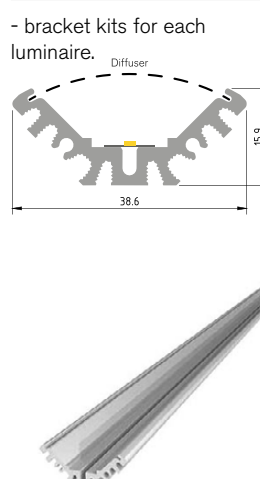
Capella
UA10292



Sirius
UA11196



Polaris
UA10316
Velorum
UA11977



Standard diffuser types:
Clear (CL)
Semi Frost (SF)
Fully Frosted (FF)

For more details on the profiles and other lighting solutions available please get in touch:
sales@unibox.co.uk

All Unibox LED luminaires are designed and manufactured in the UK.

Other Accessories

Light Boxes

Combining specially created aluminium profiles and range of graphic options - including removable tension fabric graphics and Duratrans quality photographic prints – our edge-lit, side-lit and backlit frames are designed to deliver maximum impact.

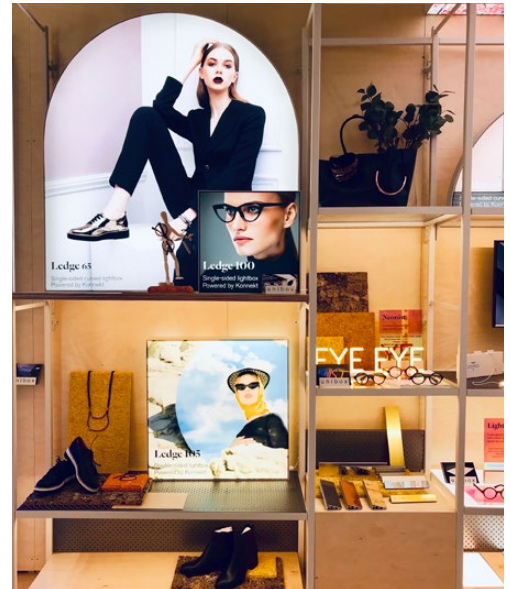
Our illuminated displays & graphics can be single or double-sided, freestanding, wall mounted, integrated, or ceiling hung, and are manufactured to custom dimensions and shapes.

Helping to maintain brand consistency, our illuminated graphics can also be powder coated, plated, and custom-finished (including wood/stone/graphic finishes directly to the aluminium - contact us for more info) to your precise requirements.

With in-house technical design and manufacturing facilities, we're the UK's leading supplier of illuminated graphics.

Key Design Considerations - For Lightboxes Powered by Konnekt

- Size limitations 150w max. (get in touch for more details)
- Various depth frames.
- 24v & 12v Options (Voltage must match power supply.)



Light Panels

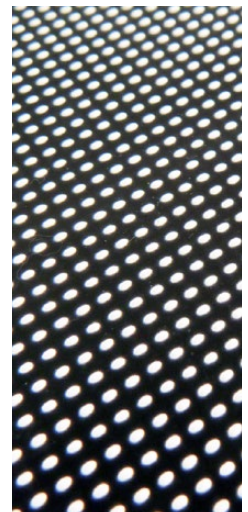
Light panels are core to Unibox's lighting and graphic display solutions, providing a slimline method of illumination with consistent lighting that can be combined with Unibox LED Lightboxes and multiple other products.

A bespoke, high-quality LED light engine illuminates a dot-matrix patterned light guide plate, produced on our in-house laser-etching machine. The pattern, algorithmically calculated by panel size, creates an even distribution of light across the surface.

Light Panels aren't only used within graphic display solutions, as they can complex shapes such as text, symbols or company branding as well as square panels.

Key Design Considerations - For Light Panels Powered by Konnekt

- Size limitations 150w max. (get in touch for more details)
- Various thicknesses: 10mm, 8mm & 6mm.
- 24v & 12v Options (Voltage must match power supply.)



LED Signage

Unibox are specialists in LED lighting, which when combined with our expertise in graphic display, creates some truly eye-catching LED signage solutions. Utilising our in-house manufacturing skills, we provide two different signage options, that are designed to perfectly match your (or your clients) branding.

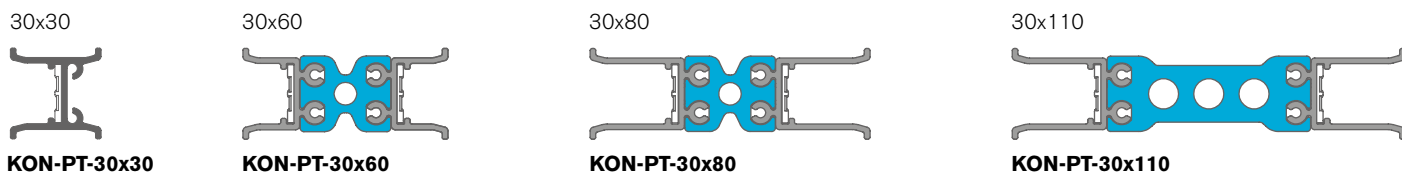
Neonist is our modern alternative to neon, created using LED illumination and advanced manufacturing techniques which result in high impact signs without the complications (or risks!) that neon is infamous for.

Kontour, our latest LED signage innovation, utilises laser-cut acrylic made custom to your design or font, mounted within almost any housing or display. Kontour benefits from advanced LED illumination, with a custom-coloured edge lit panel.



How to order

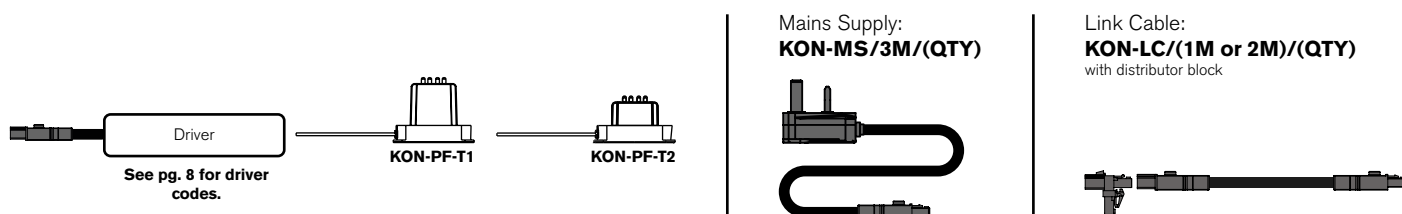
Power Track



Power Track Code Overall Length (mm) Top Cap Y/N Qty

Example: **KON-PT-30x30** / **2000** / **Y** / **(4)** = **KON-PT-30x30/2000/Y/(4)**

Power Supplies & Wiring



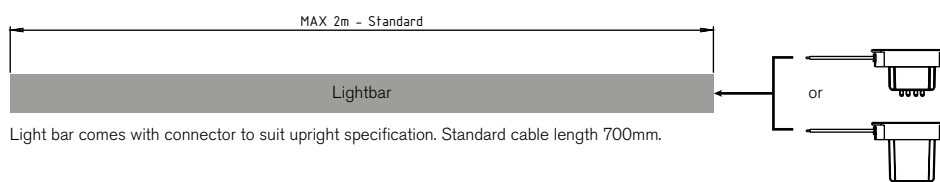
Driver Code Connector Type Connector colour Black (B) or White (W) Qty

Example: **KD-24V-100** / **KON-PF-T2** / **B** / **(4)** = **KD-24v-100/KON-PF-T2/B/(4)**

Please check wiring diagram [pg. 10](#) for qty's. Double track systems require 2 x drivers per upright.

Luminaires

Please allow **5mm** for end caps on profiles.



Profile Code (see [pg. 12](#)) Diffuser Type Connector Type Connector colour (B) or (W) LED Code (see [pg. 11](#)) Length (mm) inc. end caps. Qty

Example: **UA20496** / **SF** / **KON-PF-T2** / **B** / **Eco Power 4K-24** / **1215** / **(10)** = **UA20496/SF/KON-PF-T2/B/Eco Power 4K-24/1215/(10)**

For more details on fixing methods, RAL colours and alternative light engines please get in touch.

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