

Belisha Beacons

Product Brochure



Charles  **Endirect**

Charles Endirect **Safety** Products

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Please note the images in this document are for illustration purposes only, are not to scale and colour may vary.

Charles Endirect Ltd

We are a leading manufacturer and supplier of electrical components and equipment, for use in the streetlighting, highway, rail and construction industries. The Company has been delivering products to UK and international markets since 1984 and is a founder member of the Highway Electrical Manufacturers and Suppliers Association (HEMSA), and an active member of the Highway Electrical Association (HEA).

We are also a member and supporter of the Institution of Lighting Professionals (ILP) and an ISO9001:2015, ISO14001:2015 and ISO45001:2008 quality accredited organisation.

Service

As a family owned company, we know how important good customer service is. Our Customer Services Team is happy to help with any questions you may have, and we have Area Sales Managers throughout the UK who can offer help and advice, and can visit.

To ensure we can provide you with the level of support you need, when you need it, we endeavour to retain high levels of stock for our standard ranges to enable us to despatch in one to two working days and offer a next working day service if time is of the essence.

Contact details:



sales@charlesendirect.com

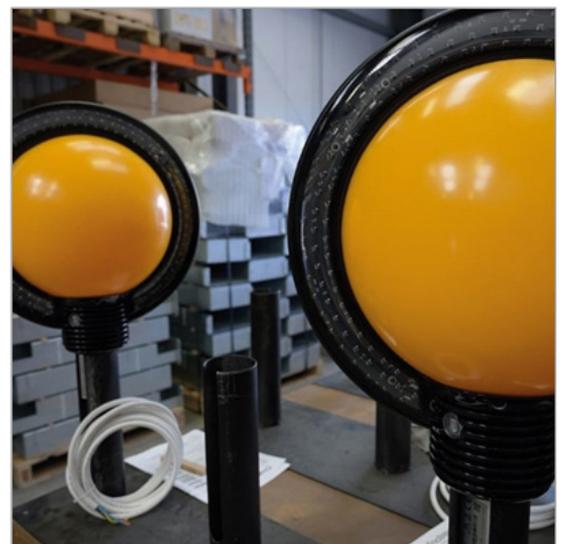
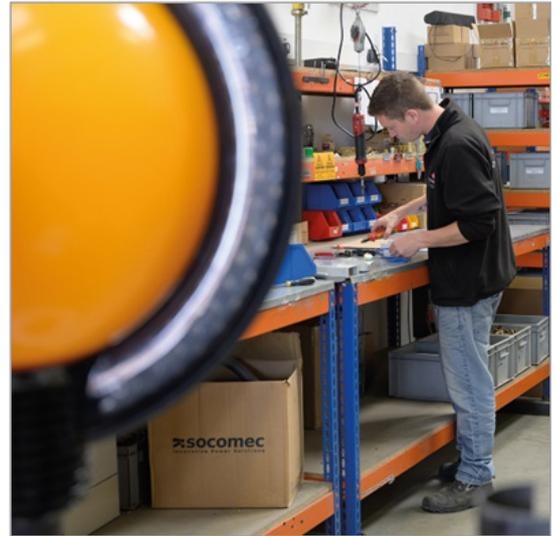


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AVG4 range

Charles Endirect has been manufacturing and supplying Beacon products for over 30 years based around our ingenious Anti-Vandal Gallery which gives the “AVG” range its name.

The AVG4 gallery holds the light source, globe and has allocated space for the addition of a Halo, Pedestrian Spotlight and Photocell.

Our range of beacons, with options for night-time dimming and the inclusion of a Halo or Pedestrian Spotlight, allows you to choose the right one for your project.

PoleStar Beacons

- night-time dimming option, connections for Halo and Pedestrian Spotlight.

CELstar3 Beacons

- standard, non-dimmable beacons.

CELSolar Beacons

- night-time dimming option, connection for Halo.



Globes are available in standard amber or opal with hi-glow options, and we offer a range of accessories from brackets and courtesy shields to poles in various heights to suit your needs.

Products meet the latest British and European standards and comply with the Traffic Signs Regulations and General Directions (TSR & GD), where applicable, with all products in the range constructed to the high standard you expect of Charles Endirect.

The following pages give the options available in more detail. If you would like any assistance, please contact our Customer Services Team or your Area Sales Manager.

Anti-vandal gallery

The redesigned Charles Endirect gallery is manufactured from robust LM6 grade dia cast aluminum and powder coated in black to give added protection against the elements. The fins around the gallery enable any excess heat to dissipate protecting internal electrical components in hotter climatic conditions.

The gallery has been designed to hold the globe with spaces to fit the Halo, integral Pedestrian Spotlight and Photocell, black nylon blanking plates are fitted if those options are not selected.

The gallery fits on to any standard 76mm pole or outreach bracket and is secured via 3 hidden grub screws which are marine grade to protect against corrosion.

Globes

As a manufacturer of products for use in the street lighting industry, we understand the importance of designing for the harsh environments in which they will be situated. Our beacon globes are no exception and are made of a material that can withstand the elements, including long term exposure to ultraviolet rays, and secure enough to resist tampering and vandalism.

Globes are 300mm diameter and available in different options dependent on whether they are paired with a flashing or non-flashing light source:

- Amber (for flashing options)
- Hi-glow Amber (for flashing options)
- Opal (for non-flashing options)
- Hi-glow Opal (for non-flashing options)

Globes are rotationally moulded with 2mm thickness on the sphere with 3mm thickness at the neck.



AVG4 anti-vandal gallery.

UV Protection

Our globes are made from grade UV8 stabilised MDPE Polyethylene. It is resistant to fading and degradation from sunlight and typically has a 7-year UV resistance. This means after 7 years the plastic has 50% of the original strength, after a further 7 years, this will half again.

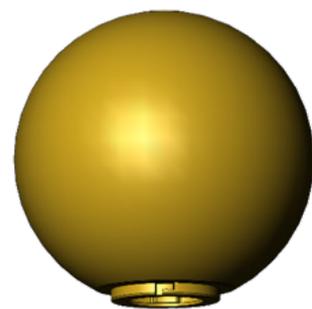
Ingress Protection

The connection between the globe and the AVG4 gallery is capable of withstanding water and dust to IP54 standard.

Fitting

Globes are connected to the AVG4 gallery via a locking mechanism and marine grade stainless-steel screws to secure in place.

Our standard package options are supplied with Amber or Opal globes, these can be upgraded to Hi-glow versions. Please state your preference when requesting a quotation or placing an order.



Amber belisha globe.



Opal refuge globe.

PoleStar Beacons

LED Light Controller & Light Engine (night-time dimming option)

The design and positioning of the PoleStar Light Controller & Light Engine ensures that the whole beacon is illuminated equally and evenly. It has an option to dim 50% at dusk, controlled by a photocell, to decrease night-time light levels and reduce energy costs. It also has connections available to power the Halo and Pedestrian Spotlight.

PoleStar Halo

(night-time dimming and switch off option)

The addition of the stylishly designed Halo increases the visual presence of the PoleStar beacon and is ideal for use in areas with high background light levels, high footfall, or high-profile city centre developments to further enhance awareness of the crossing. It has the option to dim 50% from dusk to dawn, controlled by a photocell, and to switch off completely mid-night to dawn, again reducing night-time light levels and energy costs.

The Halo is designed to meet “The Traffic Signs Regulations and General Directions” (TSR & GD), and is constructed from high-quality cast aluminium, utilising 162 LEDs on each side ensuring high visibility.

The design of the Halo ensures it is bright enough to be noticed by road users and pedestrians, but directional enough to be limited at an angle to prevent glare and light pollution. The cast aluminium body and clear polycarbonate lens is designed to IP66 and fits into the anti-vandal gallery to ensure a waterproof seal.

PoleStar Pedestrian Spotlight and Photocell

An additional element to the innovative design of the AVG4 gallery is the option to include a 1W LED Pedestrian Spotlight. The predefined aiming direction of the spotlight illuminates pedestrians waiting to walk over the crossing in hours of darkness and is operated via a photocell.

A key feature is the integral design making it far more tamper and vandal resistant, ensuring the light keeps focused on the pedestrians, reducing maintenance and call out costs.

Both the photocell and spotlight plug into the connectors to the PoleStar driver controller. The spotlight is fitted to the AVG4 gallery with an ‘O’ ring to seal it from ingress. The Photocell is held in place by the force of the cartridge also with an ‘O’ ring to seal it from ingress to maintain the units IP rating.



PoleStar Belisha, dimmable option: 50% dusk to dawn reduces light pollution and energy costs. Refuge option available.



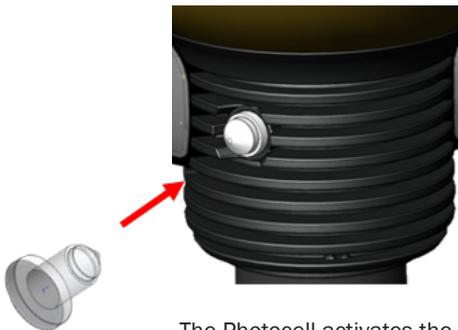
PoleStar LED light controller and light engine.



Cut-out showing PoleStar LED light controller and light engine installed within the AVG4 anti-vandal gallery together with globe, halo and photocell, front.

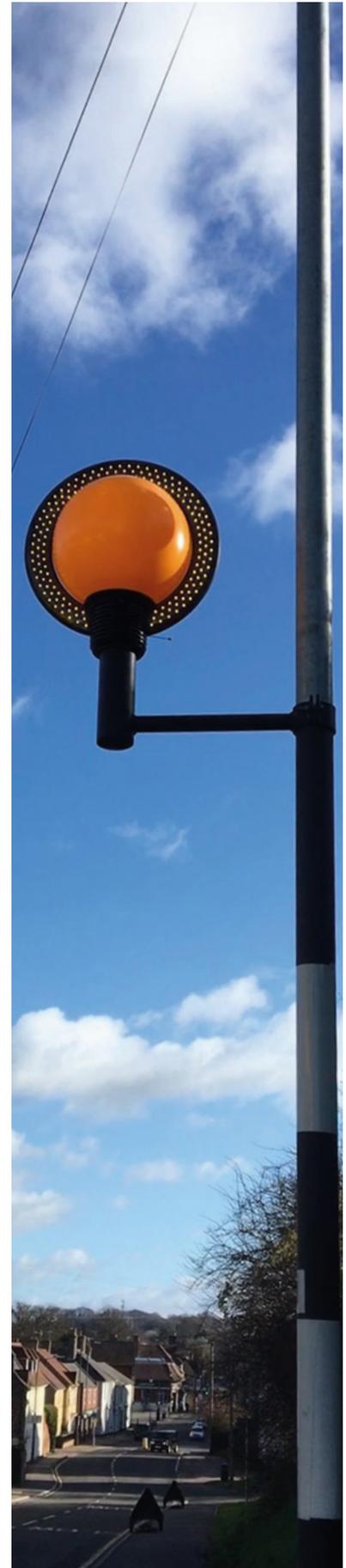


Integral Pedestrian Spotlight, controlled by separate Photocell.



The Photocell activates the Pedestrian Spotlight when a low light level is detected.

- » Globe illuminated evenly and equally
- » Night-time dimming capability
- » Stylish Halo option for added visibility
- » Integral Pedestrian Spotlight option - tamper resistant
- » Modern, energy efficient design



Belisha with Halo. night time dimming option: 50% dusk to dawn. Halo option: off midnight to dawn.

CELstar3 Beacons

CELstar3 LED light unit

The CELstar3 is an energy efficient LED light unit designed to have a long service life, reduced carbon footprint and minimal maintenance costs.

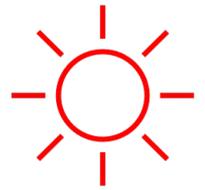
The CELstar3 sits within an ES lamp-holder contained within the AVG4 anti-vandal gallery.



CELstar3 LED light unit.
CELstar3 F = flashing CELstar3 N = non-flashing.



AVG4 anti-vandal gallery with brass ES lampholder which holds the CELstar3 LED light unit.



Standard CELstar3 Belisha beacon.



Standard CELstar3 Refuge beacon.

- » Versatile and cost effective
- » Belisha and refuge options
- » Fits any standard 76mm pole or outreach bracket

CELSolar Beacons

LED Light Controller & Light Engine (night-time dimming option)

The design and positioning of the CELSolar Light Controller & Light Engine ensures that the whole beacon is illuminated equally and evenly. It has an option to dim 50% at dusk, controlled by a photocell, to decrease night-time light levels and preserve battery power.

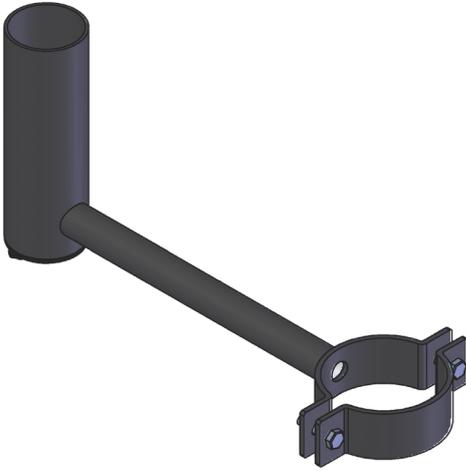


- » A complete no-cabling solution
- » Perfect for off-grid installation
- » Zero energy costs - Zero carbon

Accessories

Outreach brackets

Charles Endirect manufacture a range of tubular clamp on Outreach Brackets, painted black with an offset of 330mm to suit 76mm, 89mm and 114mm poles.



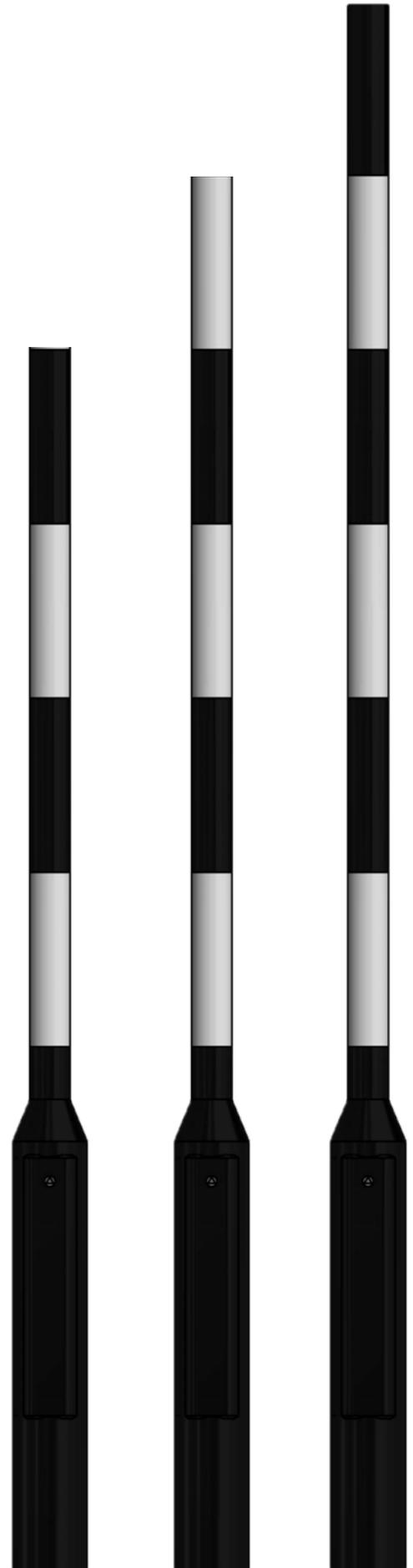
Courtesy shields

Courtesy Shield Kits for both Globe and Halo options are available



Poles

We offer 76mm poles to complete our range of accessories, these are available in 3m, 4m, 5m and 6m height options



Product options

| Beacon model Stock ref: Part no. (where allocated) |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|---|---|---|
| PoleStar Options: • Pedestrian spotlight, halo • Dimming | AVG4 gallery | ES lamp-holder kit | CELstar 3 F | CELstar 3 N | PoleStar LED light | CELSolar LED light | AVG4 Amber globe | AVG4 Opal globe | Spot-light | Halo |
| <u>PoleStar Belisha</u> Stock item: AVG/P/F400 Part no. CEB1064 | ✓ | | | | ✓ | | ✓ | | | |
| <u>PoleStar Refuge</u> Stock item: AVG/P/N400 Part no. CEB1065 | ✓ | | | | ✓ | | | ✓ | | |
| <u>PoleStar Belisha + Spotlight</u> Stock item: AVG/P/F400/PSL Part no. CEB1070 | ✓ | | | | ✓ | | ✓ | | ✓ | |
| <u>PoleStar Refuge + Spotlight</u> Stock item: AVG/P/N400/PSL Part no. CEB1071 | ✓ | | | | ✓ | | | ✓ | ✓ | |
| <u>PoleStar Belisha + Spotlight + Halo</u> Stock item: AVG/P/F400/PSL/Halo Part no. CEB1072 | ✓ | | | | ✓ | | ✓ | | ✓ | ✓ |
| CELstar Standard  | AVG4 gallery | ES lamp-holder kit | CELstar 3 F | CELstar 3 N | PoleStar LED light | CELSolar LED light | AVG4 Amber globe | AVG4 Opal globe | Spot-light | Halo |
| <u>CELstar3 Belisha</u> Stock item: AVG/C/F400 Part no. CEB1060 | ✓ | ✓ | ✓ | | | | ✓ | | | |
| <u>CELstar3 Refuge</u> Stock item: AVG/C/N400 Part no. CEB1062 | ✓ | ✓ | | ✓ | | | | ✓ | | |
| CELSolar Options: • Amber • Opal | AVG4 gallery | ES lamp-holder kit | CELstar 3 F | CELstar 3 N | PoleStar LED light | CELSolar LED light | AVG4 Amber globe | AVG4 Opal globe | Spot-light | Halo |
| <u>Solar Belisha</u> Stock item: AVG/S/F400 CEB1150 | ✓ | | | | | ✓ | ✓ | | | |
| <u>Solar Refuge</u> Stock item: AVG/S/N400 CEB1156 | ✓ | | | | | ✓ | | ✓ | | |

 **NOTE:** all beacon products come fully assembled

Dimming options:

Option 1:

CEB 1121 - AVG/P/F400/PSL/Halo - Halo off from midnight to sunrise

Option 2:

CEB1122 - AVG/P/F400/PSL/Halo - Halo dimmed to 50% from sunset to sunrise

Option 3:

CEB1123 - AVG/P/F400/PSL/Halo - Halo dimmed 50% from sunset to midnight then off from midnight to sunrise.

Accessories and spares

| Part no. (where allocated) | AVG4 accessories | Description |
|--------------------------------------|--|---|
| CEB1262 | Belisha beacon pole 3m | Belisha beacon pole 3m painted black with white stripes |
| CEB1264 | Belisha beacon pole 4m | Belisha beacon pole 4m painted black with white stripes |
| CEB1266 | Belisha beacon pole 5m | Belisha beacon pole 5m painted black with white stripes |
| CEB1267 | Belisha beacon pole 6m | Belisha beacon pole 6m painted black with white stripes |
| CEM38 | Outreach Bracket AVG4 C076/300 Black | Black Outreach Bracket for 76mm pole (330mm offset) |
| CEM104 | Outreach Bracket AVG4 C0114/330 Black | Black Outreach Bracket for 114mm pole (330mm offset) |
| CEM105 | Outreach Bracket AVG4 C089/330 | Black Outreach Bracket for 89mm pole (330mm offset) |
| CEB1092 | AVG4 Halo Courtesy Shield & Fastener Kit | AVG4 (Halo) Courtesy Shield & Fastener Kit |
| CEB1093 | AVG4 Globe Courtesy Shield & Fastener Kit | AVG4 (Non-Halo) Globe Courtesy Shield & Fastener Kit |
| Part no. | AVG4 spare parts | Description |
| CEB1036 | AVG4 Gallery | AVG4 Anti-Vandal Gallery |
| CEB1600 | CELstar3 F | LED Flashing Unit (can be used in AVG-03) |
| CEB1650 | CELstar3 N | LED Non-Flashing (can be used in AVG-03) |
| CEB1039 | Amber Globe AVG4 | AVG4 Amber globe |
| CEB1040 | Opal Globe AVG4 | AVG4 Opal Globe |
| CEB1077 | Hi-Glow Amber AVG4 | Hi-visibility 300mm Amber Globe |
| CEB1079 | Hi-Glow Opal AVG4 | Hi-visibility 300mm Opal Globe |
| Part no. | AVG-03 spare parts (obsolescent) | Description |
| CEB1170 | ES Lampholder | Edison Screw Lampholder to fit AVG-03 |
| CEB1200 | AVG-03 Amber Globe | 300mm Amber globe to suit existing AVG-03 Gallery |
| CEB1210 | AVG-03 Opal Globe | 300mm Opal globe to suit existing AVG-03 Gallery |
| CEB1220 | AVG-03 Hi-Glow Amber Globe | Hi-visibility 300mm Amber Globe to fit AVG-03 Gallery |
| CEB1230 | AVG-03 Hi-Glow Opal Globe | Hi-visibility 300mm Opal Globe to fit AVG-03 Gallery |
| CEB1300 | AVG CS400 Courtesy Shield, Black CM482 Iss 1 | Courtesy Shield to suit existing AVG-03 Gallery |

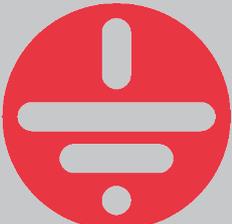


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