

Isolators

Component Directory



Charles Endirect **Safety** Products

[CharlesEndirect.com](https://www.CharlesEndirect.com)

+44 (0)1963 828 400

• Sales@CharlesEndirect.com

Wessex Way
Wincanton Business Park
Wincanton
Somerset BA9 9RR

Charles  **Endirect**

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Introduction

Charles Endirect Ltd is a leading Manufacturer and Supplier of electrical components and equipment, for use in street lighting and the highway, rail, and construction industries. The Company has been delivering these products to UK and international markets since 1984.

Our experience and expertise in this field gives us the edge to manufacture and supply some of the most intelligent, high specification and robust products available in the market.

Charles Endirect Ltd is an ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 Quality Accredited organisation with all areas of the company operating stringent quality control systems. This results in products that are designed and manufactured to comply with, or exceed, all relevant legislation. Charles Endirect is a founding member of the Highway Electrical Manufacturers & Suppliers Association (HEMSA) and an active member of the Highways Electrical Association (HEA). We are also a Member and supporter of the Institution of Lighting Professionals (ILP).

Charles Endirect offers a comprehensive range of Lockable Safety Isolators (LSI) and all supported by a choice of Extension Boxes, Gland Plates, Gable Glands, Central Earthing Terminals (CET) and Fuses, providing maximum versatility.

Their reliability and build quality ensure performance in hostile environments, hence their extensive use in 25-year PFI contracts.

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.

To request a quotation or for more information about our products and services, please contact our Customer Services Team below:



sales@charlesendirect.com



+44 (0)1963 828 400



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Lockable Safety Isolator (LSI) Range

The Charles Endirect Lockable Safety Isolator range offers high quality, durable, double pole isolation with a lockable cover for added security and safety. The Isolators can be fitted with fuse carriers, miniature circuit breakers (MCBs) or controls for festive lighting and feature the innovative Charles Endirect sliding interlock. This safety feature means that the fuse can only be removed when the switch is in the 'OFF' position. The range consists of three different sized models from 2 to 4 module widths, i.e. L2, L3 and L4.

L2	L3	L4
H142mm, W57mm, D82mm	H154mm, W79mm, D82mm	H168mm, W96mm, D90mm
		

Switch disconnecter and fuse Carrier

Charles Endirect manufactures their switch disconnecter and fuse carrier to the highest specification. Notably, the switch has been certified at a utilisation category of AC22A and, as such, is capable of switching a high inductive load. The fuse carrier accepts BS88 cartridge fuse (LD for 230V, MD for 415V)

These products have been independently tested and comply with International standards.

Isolators are available with MCB or SPD options, please ask for further details.

BS88/ IEC269-1 CARTRIDGE FUSES:
LD* for 230V (*please specify rating)
MD* for 415V (*please specify rating)



CEL1232
Switch



CEL1132
Fuse Carrier

L2 Isolator

The L2 is a two-module enclosure which is most commonly fitted with a double pole switch and fuse carrier (L2/SF/A1 shown here) but is also available fitted with a double pole switch and MCB or SPD which can be wired in parallel or in series. Can be supplied complete with pre-wired incoming tails if required. There is an additional option of supplying L2 units with an earth block fitted. (See Selection Chart for more options.)

Dimensions(mm): H142 x W57 x D82

Gland Plates to fit direct to L2 Isolator

The L2 can be supplied with plastic, brass or brass ferrule plate.

- | | |
|----|-----------------------------|
| A1 | Plastic with 1 x 20mm hole |
| A2 | Plastic with 1 x 25mm hole |
| B1 | Brass with 1 x 20mm hole |
| C2 | Brass with 1 x 25mm ferrule |
| C3 | Brass with x 20mm ferrules |

Note: Gland plates with holes are fitted with conical grommets; gland plates with ferrules are supplied with cable shrouds.

Extension Boxes

There is no extension box option.

Terminal Rack fitted in Extension Boxes

There is no terminal rack option



L2 Isolator

L3 Isolator

The L3 is a three-module enclosure available with a wide range of combinations depending on application (see selection chart for details). It is most commonly fitted with a double pole switch and 2 x fuse carriers. The L3 isolator is supplied with earth and neutral blocks as standard. This isolator can be provided complete with pre-wired incoming tails if required. We are also able to replace fuse carriers for MCB's and configure for Festive Lighting. We also can supply this isolator with surge protection if required, which can be wired in either series or parallel.

Dimensions(mm): H154mm, W79mm, D82mm

Gland Plates to fit direct to L3 Isolator

K3	Plastic with 2 x 20mm holes
K5	Plastic with 1 x 25mm hole and 1 x 20mm hole
M3	Brass with 2 x 20mm holes

Note: Gland plates with holes are fitted with conical grommets; gland plates with ferrules are supplied with cable shrouds.

Extension Boxes

X4	Dimensions (mm): H100 x W79 x D57
X0	Dimensions (mm): H36 x W96 x D69

Gland plates to fit direct to X4 Extension Box

The X4 will accept plastic, brass or brass ferrule plate - see list of gland plates to fit L3 as above

Gland plates to fit direct to X0 Extension Box

The X0 will accept plastic, brass or brass ferrule plate – see list of gland plates to fit L4

Terminal Rack fitted in Extension Boxes

TR2	1 live, 1 neutral and 1 earth BB termination blocks fitted in X4
TR9	2 live, 2 neutral and 1 earth BB termination blocks fitted in X4
TR15	1 live, 1 neutral and 1 earth BB termination blocks fitted in X4



L3 Isolator



X4 extension box with P4 gland plate



The X0 extension box takes the base of the L3 unit to the same width as L4

L4 Isolator

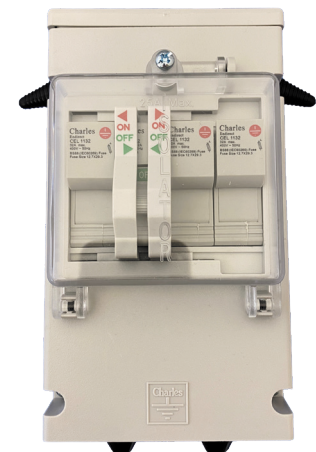
The L4 is a four-module enclosure available with a wide range of combinations depending on application (see selection chart for details). This isolator can be provided complete with incoming tails if required.

This isolator enclosure is ideal for the control and protection of Festive Lighting and other specialised applications. It has the capacity to incorporate switches, fuses, SPDs, RCCBs, MCBs, time clocks and contactors.

Dimensions (mm): H168mm, W96mm, D90mm

Gland Plates to fit direct to L4 Isolator

D3	Plastic with 2 x 20mm holes
D4	Plastic with 2 x 25mm holes
D6	Plastic with 3 x 20mm holes
E3	Brass with 2 x 20mm holes
E4	Brass with 2 x 25mm holes
E5	Brass with 1 x 25mm hole and 1 x 20mm holes
E6	Brass with 3 x 20mm holes
F4	Brass with 2 x 25mm ferrules
F6	Brass with 3 x 20mm ferrules
F12	Brass with 1 x 25mm hole and 1 x 25mm ferrule
F23	Brass with 3 x 35mm ferrules



L4 Isolator

Note: Gland plates with holes are fitted with conical grommets; gland plates with ferrules are supplied with cable shrouds.

Extension Boxes

X1	Dimensions(mm): H 65 x W96 x D69
X2	Dimensions(mm): H144 x W96 x D69
X3	Dimensions(mm): H144 x W96 x D69
X21= X2 + X1	Dimensions(mm): H209 x W96 x D99
X35 = X3 + X5	Dimensions(mm): H209 x W96 x D99

Gland plates to fit direct to X1, X2, X21 Extension Boxes

The X1, X2, and X21 will accept plastic, brass or brass ferrule plate - see list of gland plates to fit L4 as above

Gland Plates to fit direct to X3, X35 Extension Boxes

The X3 and X35 will accept plastic, brass or brass ferrule plate

G6	Plastic with 3 x 20mm holes
G7	Plastic with 3 x 25mm holes
H6	Brass with 3 x 20mm holes
H7	Brass with 3 x 35mm holes
H8	Brass with 2 x 25mm and 1 x 20mm holes
H10	Brass with 4 20mm holes
H11	Brass with 2 x 20mm and 2 x 25mm holes
H27	Brass with 1 x 20mm and 2 x 35mm holes
J7	Brass with 3 x 25mm ferrules
J16	Brass with 1 x 20mm hole and 2 x 25mm ferrules
J20	Brass with 4 x 25mm ferrules
J30	Brass with 3 x 35mm ferrules and 1 x 20mm hole

L4 Isolator cont.

Terminal Racks Fitted in Extension Boxes

TR4	1 live, 1 neutral and 1 earth BB termination blocks fitted in X2
TR5	3 live, 1 neutral and 2 earth BB termination blocks fitted in X21
TR6	3 live, 1 neutral and 2 earth BB termination blocks fitted in X35
TR7	1 live, 1 neutral and 1 earth BB termination blocks fitted in X21
TR8	2 live, 2 neutral and 2 earth BB termination blocks fitted in X35
TR8A	2 live, 2 neutral and 2 earth BB termination blocks fitted in X2
TR10	2 live, 2 neutral and 2 earth BB termination blocks fitted in X3
TR11	2 live, 2 neutral and 2 earth BB termination blocks fitted in X35
TR12	3 live, 2 neutral and 1 earth BB termination blocks fitted in X3
TR17	1 live, 1 neutral and 1 earth BB termination blocks fitted in X2
TR22	1 live, 1 neutral and 1 earth BB termination blocks fitted in X35
TR23	2 live, 1 neutral and 1 earth BB termination blocks fitted in X2
TR24	2 live, 2 neutral and 1 earth BB termination blocks fitted in X2

To help you choose the products you need, please refer to our selection charts.

Isolator Selection Charts

Isolators - Electricity Board Supply					
Incoming Cable Size (mm)	Incoming Cable 2x Double Insulated (DI) Tails	Outgoing Fused Circuits	Glands, ferrules, CET's	Order Reference	Dimensions H x W x D (mm)
When MCB is required, substitute F for M, plus MCB Current Rating, e.g. 6 Amp MCB = M6					
2.5mm - 6.0 mm	DI Tails x 2	1 x Up			142 x 57 x 82
				L2/SF/A1	
Pre-fitted incoming tails		1 x up	L2/SFE/A1/6.0/350+350E+510E/M8 Lug		142 x 57 x 82
2.5mm - 6.0mm	DI Tails x 2	2 x Up		L3/S2F/K3	154 x 79 x 82
2.5mm - 6.0mm	DI Tails x 2	3 x Up		L4/S3FNE/D3	168 x 95 x 90
2.5mm - 6.0mm	DI Tails + 1 x 6mm Fused Downward Spur	1 x Up 1 x Down	BW/CW20	L3/S2F/M3 (1D)	154 x 79 x 82
			Ferrules	L3/S2F/P4 (1D)	
2.5mm - 6.0mm	DI Tail + 1 x 6mm Fused Downward Spur	2 x Up 1 x Down	BW20 CW20 (CEL)	L4/S3FNE/E3 (1D)	168 x 95 x 90
			Ferrules	L4/S3FNE/F12 (1D)	
2.5mm - 6.0mm	DI Tails + 2 x 6mm Fused Downward Spur	1 x Up 2 x Down	BW/CW20	L4/S3F/TR12/H6	312 x 95 x 90
			Ferrules	L4/S3F/TR12/J7	

To choose the product you need, follow the steps below:

Column 1 - SELECT INCOMING CABLE SIZE

Column 2 - SELECT INCOMING CABLE CONFIGURATION e.g. single or looped

Column 3 - SELECT OUTGOING FUSED CIRCUITS e.g. 1 upward circuit

Column 4 - SELECT GLAND, FERRULE OR CET

Column 5 - ORDER REFERENCE, please quote this when placing an order

Column 6 - DIMENSIONS

Isolators - Private Supply					
Incoming Cable Size (mm)	Incoming Cable Configuration	Outgoing Fused Circuits	Glands, ferrules, CET's	Order Reference	Dimensions H x W x D (mm)
When MCB is required, substitute F for M, plus MCB Current Rating, e.g. 6 Amp MCB = M6					
2.5mm. 4.0mm. 3C	Single	1 x Up	BW/CW20	L2/SFE/B1	142 x 57 x 82
			Ferrules	L2/SFE/C2	
			CET	L2/SFE/A1	
2.5mm. 4.0mm. 3C	Single or Two looped	1 x Up	BW/CW20	L3/SF/M3	154 x 79 x 82
			Ferrules	L3/SF/P4	
			CET	L3/SF/K3	
2.5mm 4.0mm. 3C	Three looped (Two looped + Unfused Spur)	1 x Up	BW/CW20	L3/SF/TR2/X0/E6	290 x 95 x 82
			Ferrules	L3/SF/TR2/X0/F6	
			CET	L3/SF/TR2/X0/D6	
2.5mm. 4.0mm. 3C	Single or Two looped	2 x Up	BW/CW20	L3/S2F/M3	154 x 79 x 82
			Ferrules	L3/S2F/P4	
			CET	L3/S2F/K3	
2.5mm. 4.0mm. 3C	Three looped (Two looped + Unfused Spur)	2 x Up	BW/CW20	L3/S2F/TR2/X0/E6	290 x 95 x 82
			Ferrules	L3/S2F/TR2/X0/F6	
			CET	L3/S2F/TR2/X0/D6	
2.5mm. 4.0mm. 3C	Single or Two Looped	3 x Up	BW/CW20	L4/S3FNE/E3	168 x 95 x 90
			Ferrules	L4/S3FNE/F4	
			CET	L4/S3FNE/D3	
2.5mm. 4.0mm. 3C	Three Looped (Two looped + Unfused Spur)	3 x Up	BW/CW20	L4/S3FN/TR4/E6	312 x 95 x 90
			Ferrules	L4/S3FN/TR4/F6	
			CET	L4/S3FNE/TR4/D3	

Isolators - Private Supply					
Incoming Cable Size (mm)	Incoming Cable Configuration	Outgoing Fused Circuits	Glands, ferrules, CET's	Order Reference	Dimensions H x W x D (mm)
When MCB is required, substitute F for M, plus MCB Current Rating, e.g. 6 Amp MCB = M6					
6.00mm. 3C	Single	1 x Up	BW/CW20	L2/SFE/B1	142 x 57 x 82
			Ferrules	L2/SFE/C2	
			CET	L2/SFE/A1	
6.00mm. 3C	Single	2 x Up	BW/CW20	L3/S2F/M3	154 x 79 x 82
			Ferrules	L3/S2F/P4	
			CET	L3/S2F/K3	
6.00mm. 3C	Single	3 x Up	BW/CW20	L4/S3FNE/E3	168 x 95 x 90
			Ferrules	L4/S3FNE/F4	
			CET	L4/S2FNE/D3	
6.00mm. 3C	Two Looped	1 x Up	BW/CW20	L3/SF/TR2/M3	254 x 79 x 82
			Ferrules	L3/SF/TR2/P4	
			CET	L3/SF/TR2/K3	
6.00mm. 3C	Three Looped (Two Looped + Unfused Spur)	1 x Up	BW/CW20	L3/SF/TR2/X0/E6	290 x 95 x 82
			Ferrules	L3/SF/TR2/X0/F6	
			CET	L3/SF/TR2/X0/D6	
6.00mm. 3C	Two looped	2 x Up	BW/CW20	L3/S2F/TR2/M3	254 x 79 x 82
			Ferrules	L3/S2F/TR2/P4	
			CET	L3/S2F/TR2/K3	
6.00mm. 3C	Three Looped (Two Looped + Unfused Spur)	2 x Up	BW/CW20	L3/S2F/TR2/X0/E6	290 x 95 x 82
			Ferrules	L3/S2F/TR2/X0/F6	
			CET	L3/S2F/TR2/X0/D6	
6.00mm. 3C	Two looped	3 x Up	BW/CW20	L4/S3FN/TR4/E3	312 x 95 x 90
			Ferrules	L4/S3FN/TR4/F4	
			CET	L4/S3FN/TR4/D3	
6.00mm 3C	Three Looped (Two Looped + Unfused Spur)	3 x Up	BW/CW20	L4/S3FN/TR4/E6	312 x 95 x 90
			Ferrules	L4/S3FN/TR4/F6	
			CET	L4/S3FN/TR4/D6	
6.00mm. 3C	Single + 1 x 6mm Fused Downward Spur	1 x Up 1 x Down	BW/CW20	L3/S2F/M3 (1D)	154 x 79 x 90
			Ferrules	L3/S2F/P4 (1D)	
			CET	L3/S2F/K3 (1D)	
6.00mm. 3C	Single + 1 x 6mm Fused Downward Spur	2 x Up 1 x Down	BW/CW20	L4/S3FNE/E3 (1D)	168 x 95 x 90
			Ferrules	L4/S3FNE/F4 (1D)	
			CET	L4/S3FNE/F4 (1D)	
6.00mm. 3C	Looped + 1 x 6mm Fused Downward Spur	1 x Up 1 x Down	BW/CW20	L3/S2F/TR9/X0/E6	290 x 95 x 82
			Ferrules	L3/S2F/TR9/X0/F6	
			CET	L3/S2F/TR9/D6	

Isolators - Private Supply					
Incoming Cable Size (mm)	Incoming Cable Configuration	Outgoing Fused Circuits	Glands, ferrules, CET's	Order Reference	Dimensions H x W x D (mm)
When MCB is required, substitute F for M, plus MCB Current Rating, e.g. 6 Amp MCB = M6					
6.00mm. 3C	Single + 1 x 6mm Fused downward Spur	2 x Up 1 x Down	BW/CW20	L4/S3FN/TR24/E3	312 x 95 x 90
			Ferrules	L4/S3FN/TR24/F4	
			CET	L4/S3FN/TR24/D3	
6.00mm. 3C	Looped + 1 x 6mm Fused Downward Spur	2 x Up 1 x Down	BW/CW20	L4/S3FN/TR24/E6	312 x 95 x 90
			Ferrules	L4/S3FN/TR24/F6	
			CET	L4/S3FN/TR24/D6	
6.00mm. 3C	Singles + 2 x 6mm Fused Downward Spur	1 x Up 2 x Down	BW/CW20	L4/S3F/TR12/H6	312 x 95 x 99
			Ferrules	L4/S3F/TR12/J7	
			CET	L4/S3F/TR12/G6	
6.00mm. 3c.	Looped + 2 x 6mm Fused Downward Spur	1 x Up 2 x Down	BW.CW20	L4/S3F/TR12/H10	312 x 95 x 99
			Ferrules	L4/S3F/TR12/J20	
			CET	L4/S3F/TR12/G10	
6.00mm. 4. (TP&N)	Single or Two Looped	1 x Up (230V)	BW/CW20	L4/SF/TR5/E3	377 x 95 x 90
			Ferrules	L4/SF/TR5/F4	
			CET	L4/SF/TR5/D3	

Isolators - Private Supply					
Incoming Cable Size (mm)	Incoming Cable Configuration	Outgoing Fused Circuits	Glands, ferrules, CET's	Order Reference	Dimensions H x W x D (mm)
When MCB is required, substitute F for M, plus MCB Current Rating, e.g. 6 Amp MCB = M6					
10.00mm. 3C.	Single	1 x Up	BW/CW20	L3/SF/M3	154 x 79 x 82
			Ferrules	L3/SF/P4	
			CET	L3/SF/K3	
10.00mm. 3C.	Single	2 x Up	BW/CW20	L3/S2F/M3	154 x 79 x 82
			Ferrules	L3/S2F/P4	
			CET	L3/S2F/K3	
10.00mm. 3C.	Single	3 x Up	BW/CW20	L4/S3FNE/E3	168 x 95 x 90
			Ferrules	L4/S3FNE/F4	
			CET	L4/S3FNE/D3	
10.00mm. 3C.	Two Looped	1 x Up	BW/CW20	L3/SF/TR2/M3	254 x 79 x 82
			Ferrules	L3/SF/TR2/P4	
			CET	L3/SF/TR2/K3	
10.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	1 x Up	BW/CW20	L3/SF/TR2/X0/E6	290 x 95 x 82
			Ferrules	L3/SF/TR2/X0/F6	
			CET	L3/SF/TR2/X0/D6	
10.00mm. 3C.	Two Looped	2 x Up	BW/CW20	L3/S2F/TR2/M3	254 x 79 x 82
			Ferrules	L3/S2F/TR2/P4	
			CET	L3/S2F/TR2/K3	
10.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	2 x Up	BW/CW20	L3/S2F/TR2/X0/E6	290 x 95 x 82
			Ferrules	L3/S2F/TR2/X0/F6	
			CET	L3/S2F/TR2/X0/D6	
10.00mm. 3C.	Two Looped	3 x Up	BW/CW20	L4/S3FN/TR4/E3	312 x 95 x 90
			Ferrules	L4/S3FN/TR4/F4	
			CET	L4/S3FN/TR4/D3	
10.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	3 x Up	BW/CW20	L4/S3FN/TR4/E6	312 x 95 x 90
			Ferrules	L4/S3FN/TR4/F6	
			CET	L4/S3FN/TR4/D6	
10.00mm. 3C.	Single or Looped + 1 x 10mm Fused Downward Spur	1 x Up 1 x Down	BW/CW20	L3/S2F/TR9/X0/E6	290 x 95 x 82
			Ferrules	L3/S2F/TR9/X0/F6	290 x 95 x 82
			CET (Single)	L3/S2F/TR9/K3	254 x 79 x 82
			CET (Looped)	L3/S2F/TR9/X0/D6	290 x 95 x 82
10.00mm. 3C.	Single + 1 x 10mm Fused Downward Spur	2 x Up 1 x Down	BW/CW20	L4/S3FN/TR9/X0/E6	312 x 95 x 90
			Ferrules	L4/S3FN/TR24/F4	
			CET	L4/S3FN/TR24/D3	
10.00mm. 3C.	Single or Looped + 1 x 10mm Fused Downward Spur	2 x Up 1 x Down	BW/CW20	L4/S3FN/TR24/E6	312 x 95 x 90
			Ferrules	L4/S3FN/TR24/F6	
			CET	L4/S3FN/TR24/D6	

Isolators - Private Supply					
Incoming Cable Size (mm)	Incoming Cable Configuration	Outgoing Fused Circuits	Glands, ferrules, CET's	Order Reference	Dimensions H x W x D (mm)
When MCB is required, substitute F for M, plus MCB Current Rating, e.g. 6 Amp MCB = M6					
10.00mm. 3C.	Single or Looped + 2 x 6mm Fused Downward Spur	1 x Up 2 x Down	BW/CW20	L4/S3F/TR12/H10	312 x 95 x 99
			Ferrules	L4/S3F/TR12/J20	
			CET (Single)	L4/S3F/TR12/G6	
			CET (Looped)	L4/S3F/TR12/G10	
10.00mm. 4C. (TP&N)	Single or Two Looped	1 x Up (230V)	BW/CW25	L4/SF/TR5/E4	377 x 95 x 99
			Ferrules	L4/SF/TR5/F4	
			CET	L4/SF/TR5/D4	
16.00mm. 3C.	Single or Two Looped	1 x Up	BW/CW25	L4/SF/TR4/E4	312 x 95 x 90
			Ferrules	L4/SF/TR4/F4	
			CET	L4/SF/TR4/D4	
16.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	1 x Up	BW/CW25	L4/SF/TR8/H7	377 x 95 x 99
			Ferrules	L4/SF/TR8/J7	
			CET	L4/SF/TR8/G6	
16.00mm. 3C.	Single or Two Looped	2 x Up	BW/CW25	L4/S2F/TR4/E4	312 x 95 x 90
			Ferrules	L4/S2F/TR4/F4	
			CET	L4/S2F/TR4/D4	
16.00mm. 3C	Three Looped (Two Looped + Unfused Spur)	2 x Up	BW/CW25	L4/S2F/TR8/H7	377 x 95 x 99
			Ferrules	L4/S2F/TR8/J7	
			CET	L4/S2F/TR8/G6	
16.00mm. 3C	Single or Two looped	3 x Up	BW/CW25	L4/S3FN/TR4/E4	312 x 95 x 90
			Ferrules	L4/S3FN/TR4/F4	
			CET	L4/S3FN/TR4/D4	
16.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	3 x Up	BW/CW25	L4/S3FN/TR8/H7	377 x 95 x 99
			Ferrules	L4/S3FN/TR8/J7	
			CET	L4/S3FN/TR8/G6	
16.00mm. 3C	Single or Looped + 1 x 10mm Fused Downward Spur	1 x Up 1 x Down	BW/CW25	L4/S2F/TR10/H8	312 x 95 x 99
			Ferrules	L4/S2F/TR10/J7	312 x 95 x 99
			CET (Single)	L4/S2F/TR24/D4	312 x 95 x 90
			CET (Looped)	L4/S2F/TR10/G6	312 x 95 x 99
16.00m 3C.	Single or Looped + 1 x 10mm Fused Downward Spur	2 x Up 1 x Down	BW/CW25	L4/S3F/TR10/H8	312 x 95 x 99
			Ferrules	L4/S3F/TR10/J7	312 x 95 x 99
			CET (Single)	L4/S3F/TR24/D4	312 x 95 x 90
			CET (Looped)	L4/S3F/TR10/G6	312 x 95 x 99
16.00mm. 4c. (TP&N)	Single or Two Looped	1 x Up (230V)	BW/CW25	L4/SF/TR5/E4	377 x 95 x 90
			Ferrules	L4/SF/TR5/F4	
			CET	L4/SF/TR5/D4	

Isolators - Private Supply					
Incoming Cable Size (mm)	Incoming Cable Configuration	Outgoing Fused Circuits	Glands, ferrules, CET's	Order Reference	Dimensions H x W x D (mm)
When MCB is required, substitute F for M, plus MCB Current Rating, e.g. 6 Amp MCB = M6					
* Units for 25mm cable where TR4 used - it is possible to substitute TR7 where more space is required					
25.00mm. 3C.	Single or Two Looped	1 x Up	BW/CW25	L4/SF/TR4/E4	312 x 95 x 90
			Ferrules	L4/SF/TR4/F4	
			CET	L4/SF/TR4/D4	
25.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	1 x Up	BW/CW25	L4/SF/TR8/H7	377 x 95 x 99
			Ferrules	L4/SF/TR8/J7	
			CET	L4/SF/TR8/G7	
25.00mm. 3C.	Single or Two Looped	2 x Up	BE/CW25	L4/S2F/TR4/E4	312 x 95 x 90
			Ferrules	L4/S2F/TR4/F4	
			CET	L4/S2F/TR4/D4	
25.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	2 x Up	BW/CW25	L4/S2F/TR8/H7	377 x 95 x 99
			Ferrules	L4/S2F/TR8/J7	
			CET	L4/S2F/TR8/D4	
25.00m. 3C.	Single or Two Looped	3 x Up	BW/CW25	L4/S3F/TR4 /E4	32 x 95 x 90
			Ferrules	L4/S3F/TR4/F4	
			CET	L4/S3F/TR4/D4	
25.00mm. 3C.	Three Looped (Two Looped + Unfused Spur)	3 x Up	BW/CW25	L4/S3FN/TR8/H7	377 x 95 x 99
			Ferrules	L4/S2FN/TR8/J7	
			CET	L4/S3FN/TR8/G7	
25.00mm. 3C.	Single or Looped + 1 x 10mm Fused Downward Spur	1 x Up 1 x Down	BW/CW25	L4/S2F/TR10/H8	312 x 95 x 99
			Ferrules	L4/S2F/TR10/J7	312 x 95 x 99
			CET(Single)	L4/S2F/TR24/D4	312 x 95 x 90
			CET	L4/S2F/TR10/G8	312 x 95 x 99
25.00mm. 3C.	Single or Looped + 1 x 10mm Fused Downward Spur	2 x Up 1 x Down	BW/CW25	L4/S2FN/TR10/H8	312 x 95 x 99
			Ferrules	L4/S3FN/TR10/J7	312 x 95 x 99
			CET(Single)	L4/S3FN/TR24/D4	312 x 95 x 90
			CET(Looped)	L4/S3FN/TR10/G8	312 x 95 x 99
25.00mm. 4C. (TP&N)	Single or Two Looped	1 x Up (230V)	BW/CW32	L4/SF/TR6/H27	377 x 95 x 99
			Ferrules	L4/SF/TR5/F23	377 x 95 x 90
			CET	L4/SF/TR5/D4	377 x 95 x 90

For applications to suit 35mm cables please contact CEL customer Services Team:
sales@charlesendirect.com or call (+44) 01963 828 400

Festive Lighting

CEL's work in challenging industrial outdoor lighting situations means we are perfectly placed to provide safe and effective control and protection for all you Festive lighting systems.

Our standard range of units will meet most requirements - or we can design a custom unit to work with your specific application. This could be in conjunction with our LSI (Lockable Safety Isolators) or be housed in one of our control boxes.

Our four standard units, designed to work from DNO (Distribution Network Operator) supply, offer the range of features, high specifications and practical considerations you'd expect from CEL products. These include switches, fuses, RCCBs, RCBs, MCBs, time clocks and contractors.

L3/Festive 1	L4/Festive 1	L4/Festive 2	L4/Festive 3
H154mm x W79mm x D82mm	H336mm x W95mm x D90mm	H336mm x W95mm x D90mm	H336mm x W95mm x D90mm
SPL3/RCB06/EG071/E/ILF2/K3	SP2L4/SFE/RCB016/EG071/ES220/ILF2/D3	SP2L4/S2FNE/RCB016/EG071/ES220/ILF2/D3	SP2L4/S3FNE/RCV016/EG071/ES220/ILF2/E3(1D)
			

Name	Description
L3/Festive 1	3 module enclosure with 6A RCBO protection to Festive lighting circuit controlled by time switch. For incoming DNO supply.
L4/Festive 1	2 x 4 module enclosures with 16A RCBO protection to Festive lighting circuit switched through a contactor controlled by time switch fuse carrier for protection to the lantern. Double pole isolation to both circuits, For incoming DNO supply.
L4/Festive 2	2 x 4 module enclosures with 16A RCBO protection to Festive lighting circuit switched through a contactor controlled by time switch with two fuse carriers for protection to the lanterns. Double pole isolation to all circuit. For incoming DNO supply.
L4/Festive 3	2 x 4 module enclosure with 16A RCBO protection to Festive lighting circuits switched through a contractor controlled by time switch with three fuse carriers for protection to the lanterns and sign. Double pole isolation to all circuits. Will accept up to 6mm 3C SWA cable, with 6mm spur

Extension Boxes

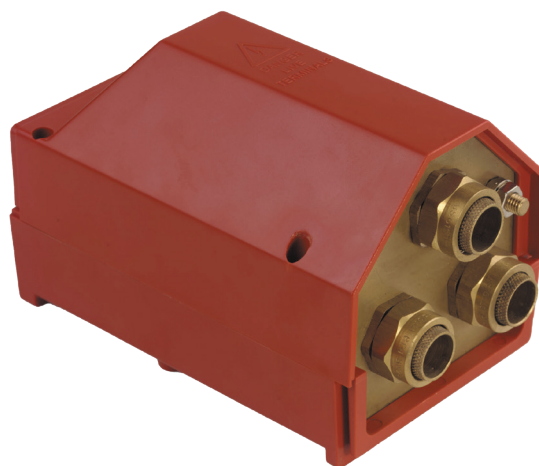
Extension boxes are available to fit onto Isolators and cut-outs to provide more versatility, ease of termination and quick installation.

They have been designed for strength with moulded DIN rails, with the X2 and X3 incorporating strengthened terminal clamps suitable for use with up to 25mm² (35mm³ circular) Steel Wire Armoured (SWA) cables.

Manufactured from brass, standard DIN rail-mounted live, neutral and earth terminals are fully insulated.



X2 Extension box



X3 Extension box

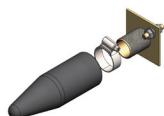
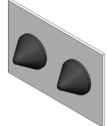
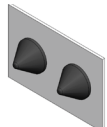
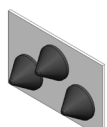
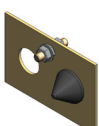
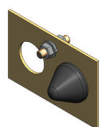
Extension Boxes Options

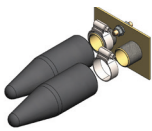
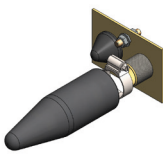
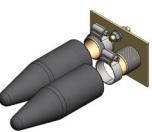
Reference	Description	Dimensions (mm)	Image (not to scale)
X0	Spreader box to fit under L3 to accept larger extension boxes	H36 x W96 x D69	
X1	Small extension box to fit onto X0 or L4.	H65 x W95 x D69	
X2	Extension box to fit onto X0 or L4.	H144 x W96 x D69	
X3	Extension box to fit X0 or L4.	H144 x W96 x D99	
X4	Extension box to fit onto L3 range.	H100 x W79 x D57	
X5	Extension box to fit on the end of X3	H65 x W96 x D99	

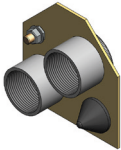
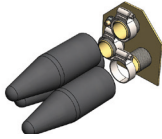
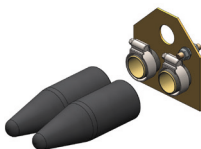
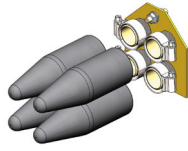
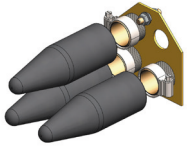
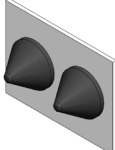
Gland Plate Options - for Extension Boxes

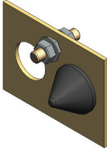
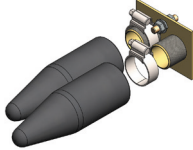
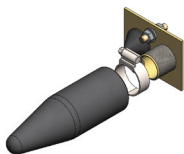
To fit X1, X2		To fit X3	
D3	Plastic with 2 x 20mm holes	G6	Plastic with 3 x 20mm holes
D4	Plastic with 2 x 25mm holes	G7	Plastic with 3 x 25mm holes
D6	Plastic with 3 x 20mm holes	G27	Plastic with 2 x 35mm holes
E3	Brass with 2 x 20mm holes	H6	Brass with 3 x 20mm holes
E4	Brass with 2 x 25mm holes	H7	Brass with 3 x 25mm holes
E5	Brass with 1 x 20mm and 1 x 25mm hole	H8	Brass with 2 x 25mm and 1 x 20mm holes
E6	Brass with 3 x 20mm holes	H10	Brass with 4 x 20mm holes
		H11	Brass with 2 x 20mm and 2 x 25mm holes
F4	Brass with 2 x 25mm ferrules	H27	Brass with 1 x 20mm and 2 x 35mm holes
F6	Brass with 3 x 20mm ferrules		
F12	Brass with 1 x 25mm hole and 1 x 25 ferrule	J7	Brass with 3 x 25mm ferrules
F23	Brass with 2 x 35mm ferrules	J16	Brass with 1 x 20mm hole and 2 x 25mm ferrules
		J20	Brass with 4 x 25mm ferrules
		J30	Brass with 3 x 35mm ferrules and 1 x 20mm hole
To fit X4			
K3	Plastic with 2 x 20mm holes	P4	Brass with 2 x 25mm ferrules
K5	Plastic with 1 x 25mm and 1 x 20mm hole	P14	Brass with 1 x 20mm hole and 1 x 25mm ferrule
M3	Brass with 2 x 20mm holes		

Gland Plate Options

Reference	Gland Plate Description	Image (not to scale)
A1 Gland plate	Plastic with 1 x 20mm hole, complete with rubber grommet <i>Fits L2.</i>	
A2 Gland Plate	Plastic with 1 x 25mm hole, complete with rubber grommet <i>Fits L2.</i>	
B1 Gland Plate	Brass with 1 x 20mm hole, complete with rubber grommet <i>Fits L2.</i>	
C2 Gland Plate	Brass gland plate with 1 x 25mm ferrule complete with 1 x jubilee clips and 2 x cable shrouds <i>Fits L2.</i>	
C3 Gland Plate	Brass gland plate with 2 x 20mm ferrules complete with 2 x jubilee clip 2 x cable shrouds <i>Fits L2.</i>	
D3 Gland Plate	Plastic gland plate with 2 x 20mm holes complete with 2 x grommets <i>Fits L4, X0, X1, X2, X7 TR4, TR5, TR7, TR17, TR23, TR24</i>	
D4 Gland Plate	Plastic gland with 2 x 25mm holes complete with 2 x grommets <i>Fits L4, X0, X1, X2, X7 TR4, TR5, TR7, TR17, TR23, TR24</i>	
D6 Gland Plate	Plastic gland plate with 3 x 20mm holes complete with 3 x grommets <i>Fits L4, X0, X1, X2, X7 TR4, TR5, TR7, TR17, TR23, TR24</i>	
E3 Gland Plate	Brass gland plate with 2 x 20mm holes complete with 1 x grommet <i>Fits L4, X0, X1, X2, X7 TR4, TR5, TR7, TR17, TR23, TR24</i>	
E4 Gland Plate	Brass gland plate with 2 x 25mm holes complete with 1 x grommet <i>Fits L4, X0, X1, X2, X7 TR4, TR5, TR7, TR17, TR23, TR24</i>	

Reference	Gland Plate Description	Image (not to scale)
E5 Gland plate	Brass gland plate with 1 x 25mm hole and 1 x 20mm hole complete with 2 x grommets <i>Fits L4, X0, X1, X2, X7</i> <i>TR4, TR5, TR7, TR17, TR23, TR24</i>	
E6 Gland plate	Brass gland plate with 3 x 20mm holes complete with 2 x grommets <i>Fits L4, X0, X1, X2, X7</i> <i>TR4, TR5, TR7, TR17, TR23, TR24</i>	
F4 Gland Plate	Brass gland plate with 3 x 25mm ferrules complete with 2 x grommets <i>Fits L4, X0, X1, X2, X7</i> <i>TR4, TR5, TR7, TR17, TR24</i>	
F6 Gland Plate	Brass gland plate with 3 x 20mm ferrules complete with 2 x jubilee clips and 2 x cable shrouds <i>Fits L4, X0, X1, X2, X7</i> <i>TR4, TR5, TR17, TR23, TR24</i>	
F12 Gland Plate	Brass gland plate with 1 x 25mm hole and 1 x 25mm ferrule complete with 1 grommet, 1 jubilee clip and 1 cable shroud <i>Fits L4, X0, X1, X2, X7</i> <i>TR4, TR5, TR7, TR17, TR23, TR24</i>	
F23 Gland Plate	Brass gland plate with 2 x 35mm ferrules complete with 2 x jubilee clips and 2 x cable shrouds <i>Fits L4, X0, X1, X2, X7</i> <i>TR4, TR5, TR7, TR17, TR23, TR24</i>	
G6 Gland Plate	Plastic gland plate with 3 x 20mm holes complete with 3 x grommets <i>Fits X3, X5, X8, X9</i> <i>TR6, TR8, TR10, TR11, TR12</i>	
G7 Gland Plate	Plastic gland plate with 3 x 25mm holes complete with 3 x grommets <i>Fits X3, X5, X8, X9</i> <i>TR6, TR8, TR10, TR11, TR12,</i>	
G27 Gland plate	Plastic gland plate with 2 x 35mm holes complete with 1 x grommets <i>Fits X3, X5, X8, X9</i> <i>TR6, TR8, TR10, TR11, TR12,</i>	
H6 Gland plate	Brass gland plate with 3 x 20mm holes complete with 2 x grommets <i>Fits X3, X5, X8, X9</i> <i>TR6, TR8, TR10, TR11</i>	

Reference	Gland Plate Description	Image (not to scale)
H7 Gland Plate	Brass gland plate with 3 x 25mm holes complete with 2 x grommets <i>Fits X3, X5, X8, X9</i> <i>TR6, TR8, TR10, TR11, TR12</i>	
H8 Gland Plate	Brass gland plate with 1 x 20mm holes and 2 x 25mm holes complete with 3 x grommets <i>Fits X3, X5, X8, X9</i> <i>TR6, TR8, TR10, TR11, TR12</i>	
H10 Gland Plate	Brass gland plate with 4 x 20mm holes complete with 3 x grommets <i>Fits X3, X5, X8, X9</i> <i>TR6, TR8, TR10, TR11, TR12</i>	
H11 Gland Plate	Brass gland plate with 2 x 25mm holes and 2 x 20mm holes complete with 4 x grommets <i>Fits X3, X5, X8, X9</i> <i>TR6, TR8, TR10, TR11, TR12</i>	
H27 Gland Plate	Brass gland plate with 1 x 20mm holes and 2 x 35mm holes complete with 1 x grommet and 2 galvanised couplers <i>Fits X3, X5, X8, X9</i> <i>TR6, TR8, TR10, TR11, TR12</i>	
J7 Gland Plate	Brass gland plate with 3 x 25mm ferrules complete with 3 x jubilee clips and 3 x cable shrouds <i>Fits X3, X5, X8, X9</i> <i>TR6, TR8, TR10, TR11, TR12</i>	
J16 Gland Plate	Brass gland plate with 2 x 25mm ferrules and 1 x 20mm hole complete with 2 x jubilee clips and 2 x cable shrouds <i>Fits X3, X5, X8, X9</i> <i>TR6, TR8, TR10, TR11, TR12</i>	
J20 Gland plate	Brass gland plate with 4 x 25mm ferrules complete with 4 x jubilee clips and 4 x cable shrouds <i>Fits X3, X5, X8, X9</i> <i>TR6, TR8, TR10, TR11, TR12</i>	
J30 Gland Plate	Brass gland plate with 3 x 35mm ferrules 1 x 20 mm hole complete with 3 x jubilee clips and 3 x cable shrouds <i>Fits X3, X5, X8, X9</i> <i>TR6, TR8, TR10, TR11, TR12</i>	
K3 Gland Plate	Plastic gland plate with 2 x 20mm holes complete with 2 x grommets <i>Fits L3, X4</i> <i>TR2, TR9, TR15</i>	

Reference	Gland Plate Description	Image (not to scale)
K5 Gland Plate	Plastic gland plate with 1 x 20mm hole and 1 x 25mm holes complete with 2 x grommets <i>Fits L3, X4 TR2, TR9, TR15</i>	
M3 Gland Plate	Brass gland plate with 2 x 20mm holes complete with 1 x grommet <i>Fits L3, X4 TR2, TR9, TR15</i>	
P4 Gland Plate	Brass gland plate with 2 x 25mm ferrules complete with 2 x jubilee clips and 2 x cable shrouds <i>Fits L3, X4 TR2, TR9, TR15</i>	
P14 Gland Plate	Brass gland plate with 1 x 20mm hole complete with 1 x grommet and 1 x 25mm ferrule complete with 1 x jubilee clip and 1 x cable shroud <i>Fits L3, X4 TR2, TR9, TR15</i>	

For **Stand-off Gland Plates** - see Earthing and Accessories section

Option of additional brass ferrules

Ferrules can be added or removed to a brass gland plate to suit customers requirements. They are secured with a brass nut.

Cable size	Reference	Description	Image (not to scale)
<10mm	20mm Brass Ferrule	1 x 20mm Brass Ferrule Complete with Brass Nut	
16mm - 25mm	25mm Brass Ferrule	1 x 25mm Brass Ferrule Complete with Brass Nut	

Terminal Racks (TR**) with termination blocks

Manufactured from brass, the live, neutral and earth termination block are fully insulated. Terminals can be combined on the DIN rail of an extension box to form a terminal rack.

There is a wide range of termination block arrangements in the extension boxes to facilitate the termination and looping of larger cables. These are Terminal Racks. For detailed applications of the TR's please refer to the Charles Endirect *Lockable Safety Isolator Selection Charts*.



Terminal Rack Options

Description and use		Cable type and direction indicators		
STANDARD Terminals	Used with Isolator/ Cut-outs	LIVE	NEUTRAL	EARTH
		↑ = incoming cable	↓ = outgoing cable	↔ = link cable
TR2 in X4 Extension Box <i>Dims: H100 x W79 x D57</i>	Fits both L3 isolator	↑↓↑↓↑↓		
TR4 in X2 Extension Box <i>Dims: H144 x W96 x D69</i>	Fits L4 Isolator	↑↓↑↓↑↓		
TR5 in X21 Extension Box <i>Dims: H209 x W96 x D69</i>	Fits L4 Isolator	↑↓↑↓↑↓↑↓↑↓↑↓	↑↓↑↓↑↓↑↓	↔↓
TR6 in X35 Extension Box <i>Dims: H209 x W96 x D99</i>	Fits L4 Isolator	↑↓↑↓↑↓↑↓↑↓↑↓	↑↓↑↓↑↓↑↓	↔↓
TR7 in X21 Extension Box <i>Dims: H209 x W96 x D69</i>	Fits L4 Isolator	↑↓↑↓↑↓↑↓		
TR8 in X35 Extension Box <i>Dims: H209 x W96 x D99</i>	Fits L4 Isolator	↑↔↑↓↑↓↑↓↑↓↑↓	↑↓↑↓↑↓↑↓	↔↓
TR8A in X35 Extension Box <i>Dims: H209 x W96 x D99</i>	Fits L4 Isolator	↑↔↑↓↑↓↑↓↑↓↑↓	↑↓↑↓↑↓↑↓	↔↓
TR9 in X4 Extension Box <i>Dims: H100 x W79 x D57</i>	Fits both L3 isolator	↑↓↑↓↑↓↑↓↑↓↑↓		
TR10 in X3 Extension Box <i>Dims: H144 x W96 x D99</i>	Fits L4 Isolator	↑↓↑↓↑↓↑↓↑↓↑↓	↑↓↑↓↑↓↑↓	↓
TR11 in X35 Extension Box <i>Dims: H209 x W96 x D99</i>	Fits L4 Isolator	↑↓↑↓↑↓↑↓↑↓↑↓	↑↓↑↓↑↓↑↓	↓
TR12 in X3 Extension Box <i>Dims: H144 x W96 x D99</i>	Fits L4 Isolator	↑↓↑↓↑↓↑↓↑↓↑↓	↑↓↑↓↑↓↑↓	↓
TR15 in X4 Extension Box <i>Dims: H100 x W79 x D57</i>	Fits L3 isolator	↓↑↓↑↓↑↓		
TR17 in X2 Extension Box <i>Dims: H144 x W96 x D69</i>	Fits L4 Isolator	↓↑↓↑↓↑↓		
TR22 in X35 Extension Box <i>Dims: H209 x W96 x D99</i>	Fits L4 Isolator	↑↓↑↓↑↓↑↓↑↓↑↓		
TR23 in X2 Extension Box <i>Dims: H144 x W96 x D69</i>	Fits L4 Isolator	↓↑↓↑↓↑↓		
TR24 in X2 Extension Box <i>Dims: H144 x W96 x D69</i>	Fits L4 Isolator	↑↓↑↓↑↓↑↓↑↓↑↓		

Earthing and Earthing Accessories

Fuses for Isolators

CEL isolators fitted with the Charles Endirect CEL1132 Fuse Carrier accept the BS88/ IEC269-1 cartridge fuse:



LD fuse for 230V, these are available in rating 6, 10, 16 and 20 amp.



CEL1132 Fuse Carrier



MD fuse for 415V, these are available in rating 4, 6, 10, 16 and 20 amp.

The L506 (fuse link and neutral break) fuse carrier accepts BS88/IEC269-1 10 x 38 fuse



L506 Fuse



L506 Fuse Carrier

Cable Glands

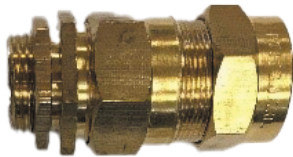
We offer a range of cable glands to suit most standard sizes of cable and connection requirements, including provision for making electrical connection to the armour sheath of the cable.

Our BW and CW Glands are manufactured to BS 6121 and suitable for use with Steel Wired Armour (SWA) cable.

The Central Earthing Terminal gland (CET) is ideal for terminating SWA cables in a narrow space, such as a lighting column, traffic sign or feeder pillar. Easy to use, all terminations are made from the front without the need of a spanner, providing an effective earth bond. The main terminal components are made from zinc plated solid brass.



BW20 gland
Standard compression gland



CW20 gland
Provides an IP66 seal to the outer sheath of the SWA

Plastic Gland PG (M gland)

Plastic glands are of solid construction and provide additional support and insulation to the cable, these can be used for *internal or external* applications.

3 x DOUBLE INSULATED TAILS					
PG GLAND	6mm ²	10mm ²	16mm ²	25mm ²	35mm ²
PG20	YES	YES	NO	NO	NO
PG25	NO	YES	YES	YES	NO

BW Gland Kits

BW Gland Kits contain a standard compression gland and come with brass lock nut, earth tag and PVC shroud, these are designed for use with steel wire armoured cables (SWA) and provides clamping of the cables to ensure electrical continuity and mechanical retention.



BW20 Compression Gland Kit (brass lock nut, earth tag and PVC shroud)

BW GLAND RANGE SELECTION CHART			
CABLE SIZE mm ²	2 CORE	3 CORE	4 CORE
1.5	BW20	BW20	BW20
2.5	BW20	BW20	BW20
4	BW20	BW20	BW20
6	BW20	BW20	BW20
10	BW20	BW20	BW25
16	BW25	BW25	BW25
25	BW25	BW25	BW32
35	BW32	BW32	BW32

CW Gland Kits - with IP66 seal

CW Gland Kits provide an IP66 seal to the outer sheath of the SWA cable and come with brass lock nut, earth tag and PVC shroud. It enables clamping of the cable to ensure electrical continuity and mechanical retention and provides an IP66 seal to the outer sheath of the SWA cable.

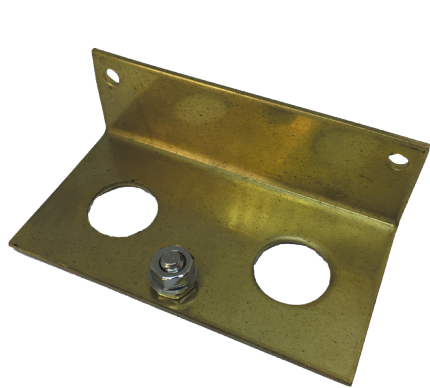


CW20 Compression Gland Kit (*brass lock nut, earth tag and PVC shroud*)

CW GLAND RANGE SELECTION CHART			
CABLE SIZE mm ²	2 CORE	3 CORE	4 CORE
1.5	CW20	CW20	CW20
2.5	CW20	CW20	CW20
4	CW20	CW20	CW20
6	CW20	CW20	CW20
10	CW20	CW20	CW25
16	CW25	CW25	CW25
25	CW25	CW25	CW32
35	CW32	CW32	CW32

Stand-off Gland Plates

Stand-off gland plates can be used in street lighting columns or feeder pillars to terminate cables using BW or CW glands.



GP Plate - manufactured from 2mm thick brass with 2 x 5mm fixing holes. All stand-off Gland Plates are supplied with brass earthing stud nut and washer.



GP 003/20 - manufactured from 2mm thick brass with 2 x 5mm fixing holes, supplied with brass earthing stud, nut and washer.

STAND - OFF GLAND PLATES				
REF	GLAND HOLES	WIDTH mm	HEIGHT mm	DEPTH mm
GP 1032	1 x 32	55	30	60
GP 2125	1 x 20, 1 x 25	95	30	55
GP 2220	2 x 20	95	30	55
GP 2025	2 x 25	95	30	55
GP 3125	1 x 20, 2 x 25	95	35	85
GP 3225	2 x 20, 1 x 25	95	35	85
GP 3320	3 x 20	95	35	85
GP 3025	3 x 25	95	35	85
GP 003/20	1 x 20	35	35	60
GP 003/25	1 x 25	35	35	60

Central Earthing Terminals (CETs)

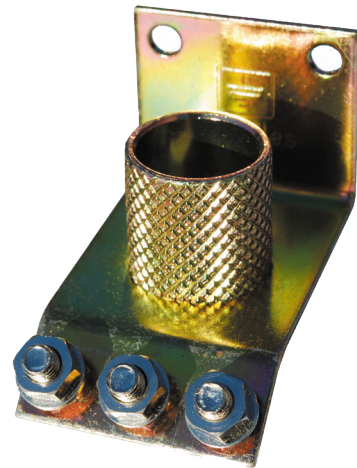
The Charles endirect CET is ideal for terminating SWA cables in a narrow space, typically in a lighting column, traffic sign or feeder pillar. Easy to use, all terminations are made from the front without the need of a spanner, providing an effective earth bond.

Key Features

- Allows easy and effective connection and termination of SWA cable
- Inherently strong and simple design
- Exceeds BSI (Cable gland) torque test
- Main terminal components are all zinc plated solid brass to prevent corrosion
- No loose fitting or easily omitted strands
- Single or multiple earth take-off points
- Comprehensive range, all standard cable sizes
- Supplied complete with jubilee clip



CET 002/-- comes in various sizes, designed to be used with armours **bent back** or **splayed**

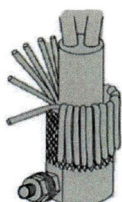


CET 003/-- comes in various sizes, designed to be used with armours **bent back**

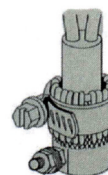


CET 003/-- R comes in various sizes, designed to be used with armours **splayed**

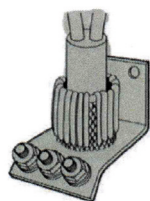
CETs for accepting bent back armours



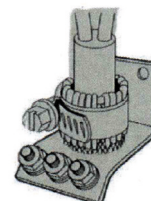
CET 002 with cable inserted and armours bent back



CET 002 with cable inserted, armours bent back and jubilee clip fitted



CET 003 with cable inserted and armours bent back

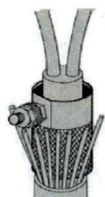


CET 003 with cable inserted, armours bent back and jubilee clip fitted

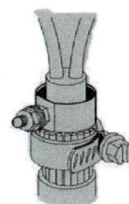
Table of Maximum Cable Sizes Accepted for each - Bent back armours

CET Range selection chart - Armours bent back			
Cable size mm ²	2 Core	3 Core	4 Core
2.5	CET 002/6	CET 002/6	CET 002/6
4	CET 002/6	CET 002/6	CET 002/6
6	CET 002/6 or CET 003/10	CET 002/10 or CET 003/10	CET 002/10 or CET 003/10
10	CET 002/10 or CET 003/10	CET 002/16 or CET 003/16	CET 002/16 or CET 003/16
16	CET 002/16 or CET 003/16	CET 002/16 or CET 003/16	CET 002/35

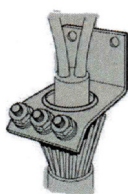
CETs for accepting splayed armours



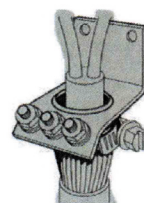
CET 002 with cable inserted and armours splayed



CET 002 with cable inserted, armours splayed and jubilee clip fitted



CET 003 with cable inserted and armours splayed



CET 003 with cable inserted, armours splayed and jubilee clip fitted

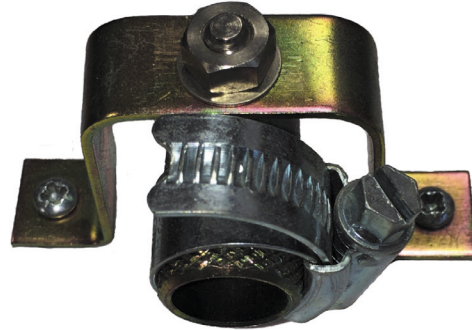
Table of Maximum Cable Sizes Accepted for each - **Splayed armours**

CET Range selection chart - Armours splayed			
Cable size mm ²	2 Core	3 Core	4 Core
2.5	CET 002/6	CET 002/6	CET 002/6
4	CET 002/6	CET 002/6	CET 002/6
6	CET 002/6 or CET 003/10R	CET 002/6 or CET 003/10R	CET 002/6 or CET 003/10R
10	CET 002/10 or CET 003/10R	CET 002/10 or CET 003/10R	CET 002/16 or CET 003/16R
16	CET 002/10 or CET 003/16R	CET 002/16 or CET 003/16R	CET 002/35 or CET 003/16R
25	CET 002/16 or CET 003/16R	CET 002/16 or CET 003/16R	CET 002/35 or CET 003/35R
35	CET 002/35 or CET 003/35R	CET 002/35 or CET 003/35R	N/A

CET Accessories



Single saddle - used to fix CET 002/- - to backboard, comes with fixing screws.



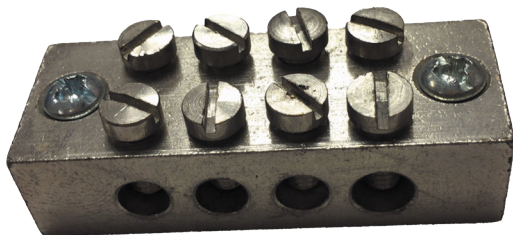
Single saddle - used to fix CET 002/- - to back board, comes with fixing screws. In this image shown fitted with **CET 002/6**



Double/Triple Saddle - using to fix CET 002/- - to back board, comes with fixing screws



Double/Triple Saddle - used to fix CET 002/- - to back board, comes with fixing screws. In this image shown fitted with **CET 002/6**



EB42 - double pinch solid brass earth block for use on backboard - provides three holes at 16mm²



Example of **CET 003** being used with EB42 earth block feeding isolator with plastic gland plate



Charles Endirect Limited
Wessex Way
Wincanton Business Park
Somerset
BA9 9RR

T: +44 (0)1963 828 400
E: sales@charlesendirect.com
www.charlesendirect.com

Charles  Endirect