

POWERING THE WORKPLACE

PRODUCT GUIDE



Global strength

built on local knowledge

Legrand is the global specialist in electrical and digital building infrastructures. Innovation is the driving force behind its development.

With an increasing investment in research and development (circa 5% of sales) and more than 4,000 active patents, the Legrand Group is focused on maintaining a high rate of new product launches that present innovative solutions to the market.



CORPORATE SOCIAL RESPONSIBILITY

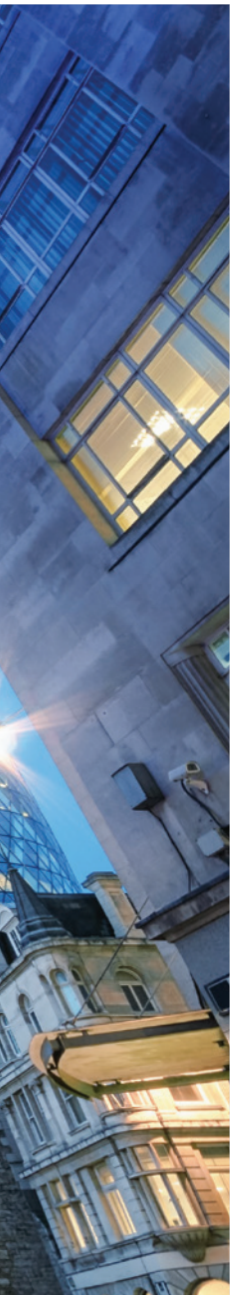
Legrand's CSR roadmap is a natural extension to the governance and sustainable development approach in which the company has been engaged for many years. The CSR roadmap firmly asserts Legrand's ongoing commitment to sustainable development.



LEGRAND'S POWER DISTRIBUTION BUSINESS UNIT

From Zucchini transformers, through high power distribution and rising main busbar to Electrak powertrack, desk modules and lighting control, Legrand's power distribution business unit provides market leading solutions to the increasing demands of today's buildings.





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ELECTRAK[®]

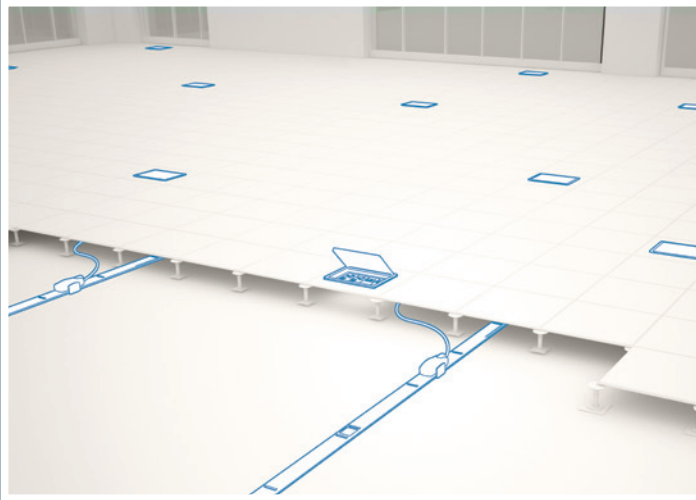
the specialist in power
distribution throughout the
workplace



Electrak, a brand of the Legrand Group in the UK, is a leading name in power distribution and lighting control solutions.

Electrak busbar systems, floor boxes, floor grommets, desk modules and lighting control ranges are installed in high specification offices around the world.

Powering the workplace



UNDERFLOOR POWER

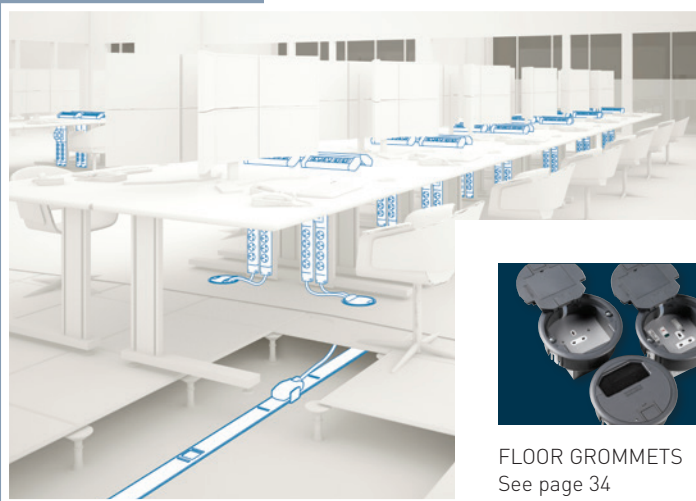
Electrak's powertrack system is perfect for supplying underfloor power in cavity floor installations. With minimal parts, push-fit assembly and a complementary range of floor boxes, this flexible, easy-to-install system can be reconfigured as office layouts evolve.



POWERTRACK
See page 6



CAVITY FLOOR BOXES
See page 24



WORKSTATION POWER

Electrak's access grommets provide the gateway for power to feed from the underfloor powertrack network to the workstation, where all desk power requirements are met with our new range of desk modules, Intersoc-R, On-desk and In-desk.



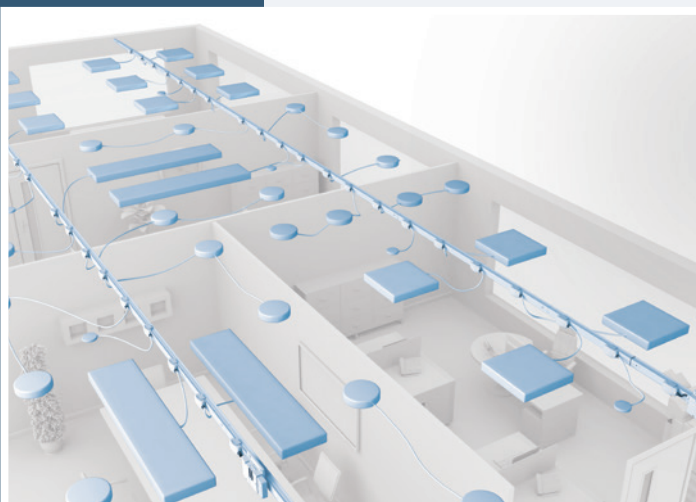
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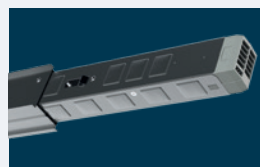


ON-DESK & IN-DESK
See pages 48 & 58



FULLY ADDRESSABLE LIGHTING CONTROL

Designed to work in harmony with Buscom trunking, Lightrak lighting control offers high-end sophistication with unbeatable flexibility and speed of installation.



BUSCOM
power and data backbone
See page 62



LIGHTRAK
lighting control system
Visit: www.legrand.co.uk

ELECTRAK[®]

UK manufacturing Global recognition



OVER 30 YEARS' EXPERIENCE

Legrand's cost-effective Electrak systems have been designed and manufactured to distribute power and data reliably and safely throughout the workplace. The original underfloor busbar system, invented by Electrak in the 1980s, sets the benchmark for flexible power distribution.

INDUSTRY EXPERTS

As part of its ongoing commitment to research and development, Legrand continually evolves its product ranges to ensure it develops the best and most innovative solutions available on the market. Legrand takes pride in its enviable reputation for market leading customer service, industry knowledge and product expertise.



TRUSTED

THROUGHOUT THE UK AND ACROSS THE WORLD



UNITED KINGDOM

- Morgan Stanley, Canary Wharf
- Media City, Manchester
- JP Morgan, Canary Wharf
- RBS, Edinburgh
- Bridgewater Place, Leeds
- Network Rail, Nationwide
- Swiss Re, City of London
- Amazon, Swansea
- Heathrow Airport, London
- Snow Hill, Birmingham
- Barclays Capital, Canary Wharf
- Temple Back, Bristol
- Standard Chartered Bank, City of London
- London Underground
- BBC, White City
- Mann Island, Liverpool



MIDDLE EAST & INDIA

- ADMA-OPCO HQ, Dubai
- Internet City, Dubai
- Burjuman Centre, Dubai
- ADIC/Al Bahr Towers, Abu Dhabi
- Al Dar HQ, Abu Dhabi
- Central Bank of Kuwait
- Ministry of Education, Kuwait
- PIFFS Aridya, Kuwait
- PAAET, Kuwait
- Qatar News Agency
- Barclays, Chennai, India
- Barclays, Pune, India
- Barclays, Andheri, India
- Barclays, Mumbai, India
- RBS, Delhi, India
- Fidelity, Delhi, India



ASIA PACIFIC

- Deutsche Bank, ICC I, Hong Kong
- Customs Headquarters, North Point, Hong Kong
- Citi Bank Tower, Hong Kong
- Macquarie Bank, IFC I, Hong Kong
- UBS Bank, IFC II, Hong Kong
- JP Morgan, Hong Kong
- Nomura Bank, Marina Bay, Singapore
- Credit Suisse, Singapore
- ABN Amro, One Raffles Quay, Singapore
- RBS, One George Street, Singapore
- Barclays Capital, Shanghai
- Standard Chartered Bank, Shanghai

QUALITY ASSURED UK MANUFACTURING



With its Electrak ranges manufactured from its UK base situated in the North East of England, Legrand can provide a rapid production response and adapt to ever-changing project demands. Having total production control also helps ensure our quality meets the highest standards.

BUILDING INFORMATION MODELLING

As part of Legrand's ongoing commitment to supporting construction, we have integrated a number of ranges into the BIM environment to assist all areas of project activity, from design and construction through to facilities management and beyond.

Autodesk Revit files are now available for Electrak powertrack, floor boxes and Buscom trunking.

Download Revit files at: www.legrand.co.uk



POWERTRACK

adaptable, reliable

underfloor power

THE INDUSTRY STANDARD IN UNDERFLOOR POWER

Electrak powertrack / underfloor busbar is perfect for cavity floor installations. With minimal parts, push-fit assembly and a complementary range of floor boxes and grommets, this flexible, easy-to-install system can be reconfigured as office layouts evolve.

The system consists of continuous lengths of track which are fed via a feed unit and can be installed in floor voids as low as 48mm.

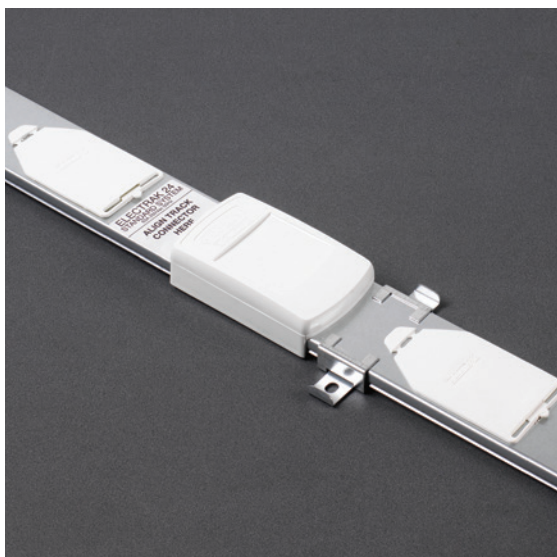
- 63 A rated, IP 40 protection
- Available in five versions: single phase, clean earth, dual circuit, three phase and auxiliary earth
- Tinned busbar version available for use within Abu Dhabi (see page 15)
- Available in 1.2m, 1.8m, 2.4m and 3.6m lengths
- Tap-off outlets are located at every 300 or 600mm pitch
- Floor mountable (stand-off brackets also available)



Integral track connector plugs into feed unit



Lengths simply push-fit together



Integral fixing brackets for rapid installation







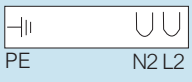

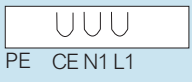

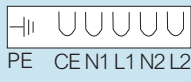



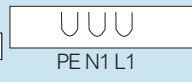


Tap-offs plug into shuttered socket outlets and lock onto track body

Electrak® powertrack / underfloor busbar system

selection chart

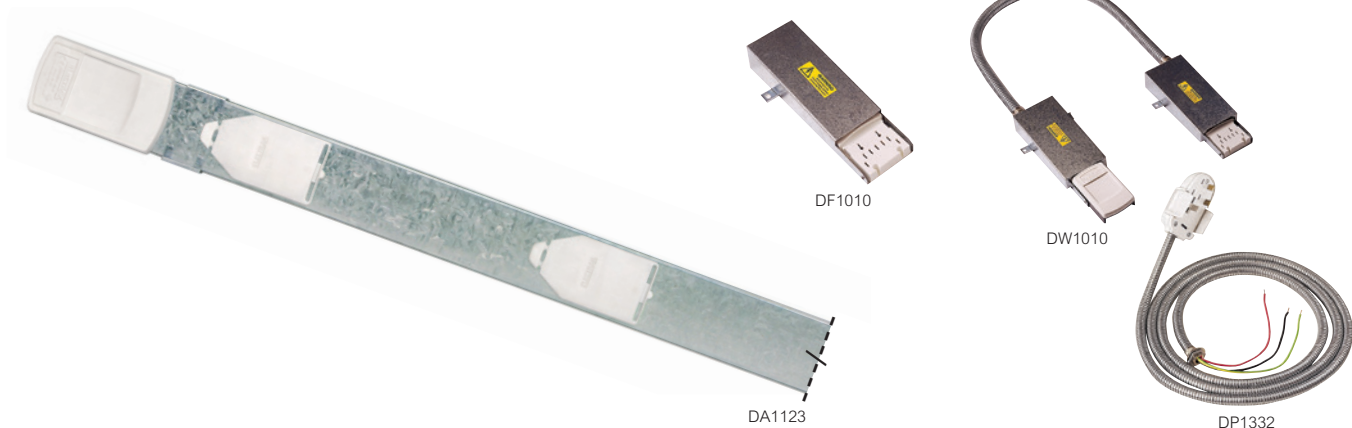
	Description	Length (m)	
Track lengths with 300 mm socket centres			
	4 outlets	1-2	
	6 outlets	1-8	
	8 outlets	2-4	
	12 outlets	3-6	
Track feeds			
		-	
	Excluding cables and conduit	-	
	Flexible metal conduit	1-2	
	Flexible metal conduit	2-4	
Standard tap-off / auxiliary earth tap-off			
	32 A unfused 16 mm Ø L, N, PE	3	
		5	
	13 A fused 16 mm Ø L, N, PE	3	
		5	
	13 A 543-7 fused 16 mm Ø L, N, PE	3	
		5	
Low noise / clean earth tap-off			
	32 A unfused 16 mm Ø CE, L, N, PE	3	
		5	
	13 A fused 16 mm Ø CE, L, N, PE	3	
		5	
	13 A 543-7 fused 16 mm Ø CE, L, N, PE	3	
		5	
Dual circuit tap-off			
	32 A unfused 20 mm Ø CE, L1, N1 L2, N2, PE	3	
		5	
3 phase tap-off			
	32 A 415 V 3 phase 20 mm Ø L1, L2, L3, N, PE	3	
		5	
	32 A L1 unfused reconfigurable live pin 16 mm Ø L1, N, PE	3	
		5	
	32 A L2 unfused reconfigurable live pin 16 mm Ø L2, N, PE	3	
		5	
	32 A L3 unfused reconfigurable live pin 16 mm Ø L3, N, PE	3	
		5	
	Key code / Busbar arrangement		

	ELECTRAK 24 Standard system (white)		ELECTRAK 25 Low noise / clean earth system (green)		ELECTRAK 26 Dual circuit system (dark green)		ELECTRAK 27 3 phase system (grey)		ELECTRAK 28 Auxiliary earth system (red)
	DA1123		JA2123		KA3123		NA4123		YA5123
	DA1183		JA2183		KA3183		NA4183		YA5183
	DA1243		JA2243		KA3243		NA4243		YA5243
	DA1363		JA2363		KA3363		NA4363		YA5363
	DF1010		JF2010		KF3010		NF4010		YF5010
	DW1000		JW2000		KW3000		NW4000		YW5000
	DW1010		JW2010		KW3010		NW4010		YW5010
	DW1020		JW2020		KW3020		NW4020		YW5020
	DP1332		–		DP1332		–		YP5332
	DP1532		–		DP1532		–		YP5532
	DP1313		–		DP1313		–		YP5313
	DP1513		–		DP1513		–		YP5513
	DP1327		–		DP1327		–		YP5327
	DP1527		–		DP1527		–		YP5527
	–		JP2332		JP2332		–		–
	–		JP2532		JP2532		–		–
	–		JP2313		JP2313		–		–
	–		JP2513		JP2513		–		–
	–		JP2327		JP2327		–		–
	–		JP2527		JP2527		–		–
	–		–		KP3328		–		–
	–		–		KP3528		–		–
	–		–		–		NZ4331		–
	–		–		–		NZ4531		–
	–		–		–		NP4332 ¹		–
	–		–		–		NP4532 ¹		–
	–		–		–		NP4302 ¹		–
	–		–		–		NP4502 ¹		–
	–		–		–		NP4303 ¹		–
	–		–		–		NP4503 ¹		–
									

1 : All NP tap-offs are reconfigurable between L1, L2 or L3 for 3 phase track

Electrak® 24 powertrack / underfloor busbar system

standard system (white)



Selection charts **p. 8-9**
Dimensions and technical information **p. 18-23**

Approved to ASTA Standard 138 and ISO 9001 : 2015
Conforms to BS EN 61534-22 : 2014. Fully complies with the requirements of BS 7671 : 2018
A compact system that can be installed in floor voids as low as 48 mm

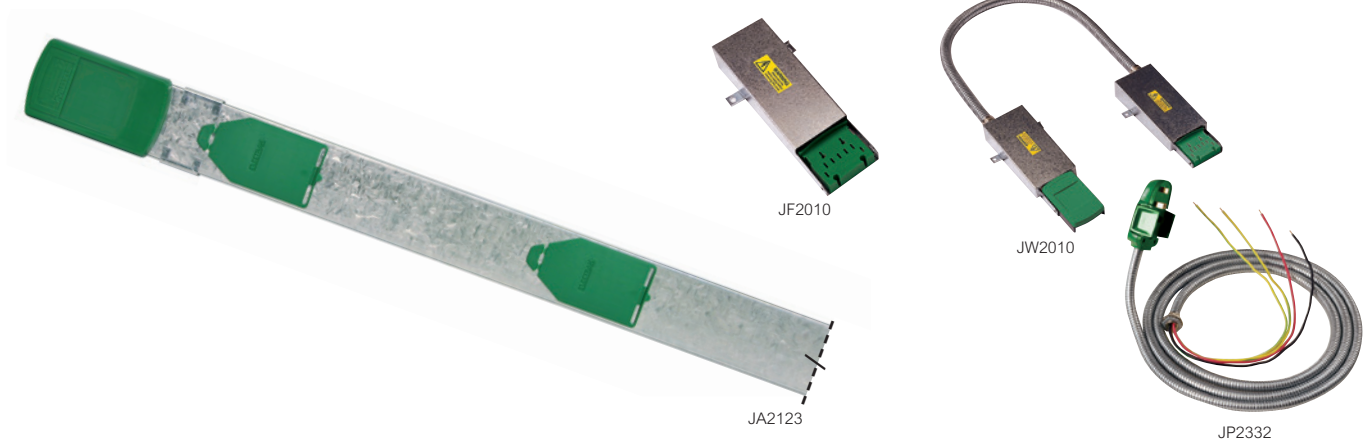
Pack	Cat. Nos.	Track system components
		Electrak 24 standard track lengths Track lengths fit together using the integral connectors on each length Track lengths should always be secured using the integral floor fixing brackets 300 mm socket centres
1	DA1123	1·2 m, 4 outlets, 2 floor fixing brackets
1	DA1183	1·8 m, 6 outlets, 2 floor fixing brackets
1	DA1243	2·4 m, 8 outlets, 2 floor fixing brackets
1	DA1363	3·6 m, 12 outlets, 3 floor fixing brackets
		Track feed unit With one 25 mm diameter hole suitable for MICC, armoured cables or single core cables in conduit
1	DF1010	
		Flexible interlinks Can be used to overcome obstructions or as corners where required
1	DW1000	Excluding cables and conduit
1	DW1010	1·2 m flexible metal conduit
1	DW1020	2·4 m flexible metal conduit
		Special fixing brackets Required when track is raised off surface level Brackets raise track by 21 mm and should be spaced 600 mm apart
1	DZ1210	For fitting under track body and track feed
1	DZ1230	For fitting under integral track connectors

Pack	Cat. Nos.	Tap-off units
		Tap-off length is determined by the cable and not the conduit length, e.g. a 3 m tap-off has 3 m of cable and 2·6 m of flexible metal conduit ¹ Tap-off units in excess of 3 m should only be used if they contain a fuse or if the powertrack is protected by a protective device not exceeding 32 A
		32 A unfused - 543·7 high integrity 16 mm Ø, L, N, PE
1	DP1332	3 m
1	DP1532	5 m
		13 A fused - 543·7 high integrity 16 mm Ø, L, N, PE
1	DP1327	3 m
1	DP1527	5 m
		13 A fused 16 mm Ø, L, N, PE
1	DP1313	3 m
1	DP1513	5 m
		Tap-off units specifically for the U.A.E. To meet the local requirements, these tap-offs contain silver-flashed blades, larger 20 mm Ø conduits and minimum 4 mm ² conductors
		32 A unfused - 543·7 high integrity L (red), N (black), PE (green/yellow)
1	DP1332R	3 m U.A.E.
1	DP1532R	5 m U.A.E.
		13 A fused - 543·7 high integrity L (red), N (black), PE (green/yellow)
1	DP1314R	3 m U.A.E.
1	DP1514R	5 m U.A.E.

¹ : Tap-offs are supplied as standard with flexible metal conduit
For alternative wiring solutions, contact us on +44 (0) 370 608 9020

Electrak® 25 powertrack / underfloor busbar system

low noise / clean earth system (green)



 Selection charts **p. 8-9**
Dimensions and technical information **p. 18-23**

Approved to ASTA Standard 138 and ISO 9001 : 2015
Conforms to BS EN 61534-22 : 2014. Fully complies with the requirements of BS 7671 : 2018
A compact system that can be installed in floor voids as low as 48 mm

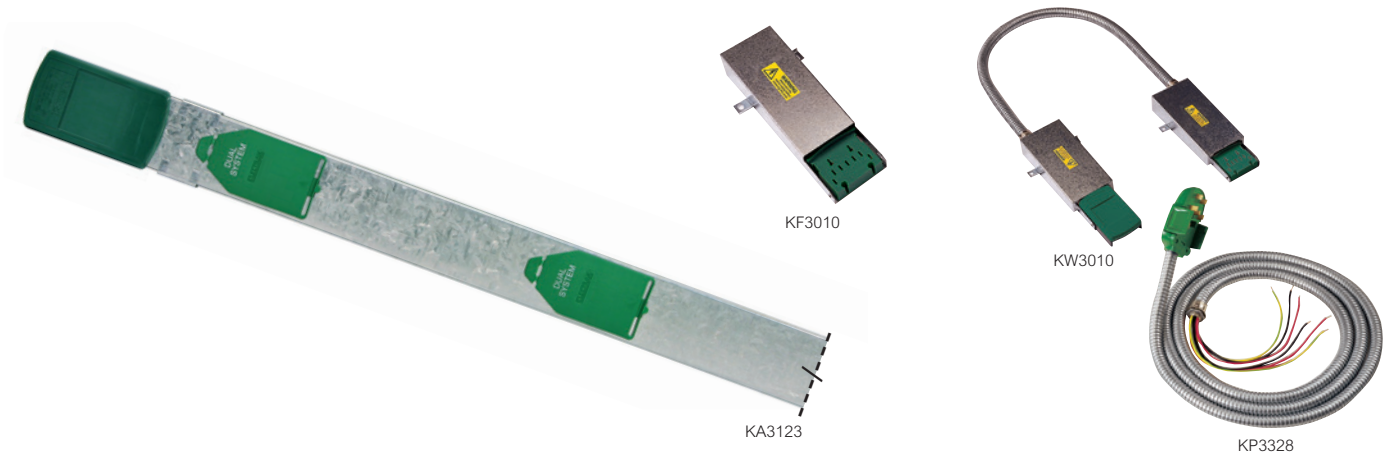
Pack	Cat. Nos.	Track system components
		Electrak 25 low noise / clean earth track lengths Track lengths fit together using the integral connectors on each length Track lengths should always be secured using the integral floor fixing brackets 300 mm socket centres
1	JA2123	1·2 m, 4 outlets, 2 floor fixing brackets
1	JA2183	1·8 m, 6 outlets, 2 floor fixing brackets
1	JA2243	2·4 m, 8 outlets, 2 floor fixing brackets
1	JA2363	3·6 m, 12 outlets, 3 floor fixing brackets
		Track feed unit
1	JF2010	With one 25 mm diameter hole suitable for MICC, armoured cables or single core cables in conduit
		Flexible interlinks Can be used to overcome obstructions or as corners where required
1	JW2000	Excluding cables and conduit
1	JW2010	1·2 m flexible metal conduit
1	JW2020	2·4 m flexible metal conduit
		Special fixing brackets Required when track is raised off surface level Brackets raise track by 21 mm and should be spaced 600 mm apart
1	DZ1210	For fitting under track body and track feed
1	DZ1230	For fitting under integral track connectors

Pack	Cat. Nos.	Tap-off units
		Tap-off length is determined by the cable and not the conduit length, e.g. a 3 m tap-off has 3 m of cable and 2·6 m of flexible metal conduit ¹ Tap-off units in excess of 3 m should only be used if they contain a fuse or if the powertrack is protected by a protective device not exceeding 32 A
		32 A unfused - 543·7 high integrity 16 mm Ø, CE, L, N, PE
1	JP2332	3 m
1	JP2532	5 m
		13 A fused - 543·7 high integrity 16 mm Ø, CE, L, N, PE
1	JP2327	3 m
1	JP2527	5 m
		13 A fused 16 mm Ø, CE, L, N, PE
1	JP2313	3 m
1	JP2513	5 m

¹ : Tap-offs are supplied as standard with flexible metal conduit
For alternative wiring solutions, contact us on +44 (0) 370 608 9020

Electrak® 26 powertrack / underfloor busbar system

dual circuit system (dark green)



Selection charts **p. 8-9**
Dimensions and technical information **p. 18-23**

Approved to ASTA Standard 138 and ISO 9001 : 2015
Conforms to BS EN 61534-22 : 2014. Fully complies with the requirements of BS 7671 : 2018
A compact system that can be installed in floor voids as low as 48 mm

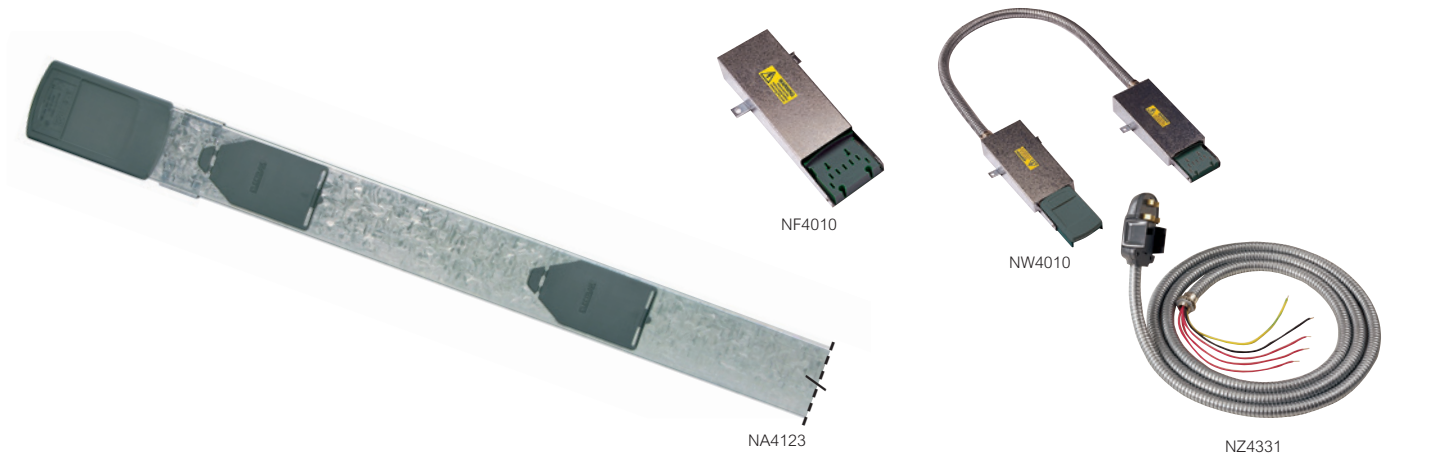
Pack	Cat. Nos.	Track system components
		The dual powertrack system has both standard and low noise / clean earth systems incorporated
		Electrak 26 dual circuit track lengths
		Track lengths fit together using the integral connectors on each length
		Track lengths should always be secured using the integral floor fixing brackets
		300 mm socket centres
1	KA3123	1.2 m, 4 outlets, 2 floor fixing brackets
1	KA3183	1.8 m, 6 outlets, 2 floor fixing brackets
1	KA3243	2.4 m, 8 outlets, 2 floor fixing brackets
1	KA3363	3.6 m, 12 outlets, 3 floor fixing brackets
		Track feed unit
1	KF3010	With two 25 mm diameter holes suitable for MICC, armoured cables or single core cables in conduit
		Flexible interlinks
		Can be used to overcome obstructions or as corners where required
1	KW3000	Excluding cables and conduit
1	KW3010	1.2 m flexible metal conduit
1	KW3020	2.4 m flexible metal conduit
		Special fixing brackets
		Required when track is raised off surface level
		Brackets raise track by 21 mm and should be spaced 600 mm apart
1	DZ1210	For fitting under track body and track feed
1	DZ1230	For fitting under integral track connectors

Pack	Cat. Nos.	Tap-off units
		Tap-off length is determined by the cable and not the conduit length, e.g. a 3 m tap-off has 3 m of cable and 2.6 m of flexible metal conduit ¹
		Tap-off units in excess of 3 m should only be used if they contain a fuse or if the powertrack is protected by a protective device not exceeding 32 A
		Standard 32 A unfused - 543-7 high integrity
		16 mm Ø, L, N, PE
1	DP1332	3 m
1	DP1532	5 m
		Standard 13 A fused - 543-7 high integrity
		16 mm Ø, L, N, PE
1	DP1327	3 m
1	DP1527	5 m
		Standard 13 A fused
		16 mm Ø, L, N, PE
1	DP1313	3 m
1	DP1513	5 m
		Low noise / clean earth 32 A unfused - 543-7 high integrity
		16 mm Ø, CE, L, N, PE
1	JP2332	3 m
1	JP2532	5 m
		Low noise / clean earth 13 A fused - 543-7 high integrity
		16 mm Ø, CE, L, N, PE
1	JP2327	3 m
1	JP2527	5 m
		Low noise / clean earth 13 A fused
		16 mm Ø, CE, L, N, PE
1	JP2313	3 m
1	JP2513	5 m
		Dual circuit 32 A unfused - 543-7 high integrity
		20 mm Ø, CE, L1, N1, L2, N2, PE
1	KP3328	3 m
1	KP3528	5 m

¹ : Tap-offs are supplied as standard with flexible metal conduit
For alternative wiring solutions, contact us on +44 (0) 370 608 9020

Electrak® 27 powertrack / underfloor busbar system

3 phase system (grey)



 Selection charts **p. 8-9**
Dimensions and technical information **p. 18-23**

Approved to ASTA Standard 138 and ISO 9001 : 2015
Conforms to BS EN 61534-22 : 2014. Fully complies with the requirements of BS 7671 : 2018
A compact system that can be installed in floor voids as low as 48 mm

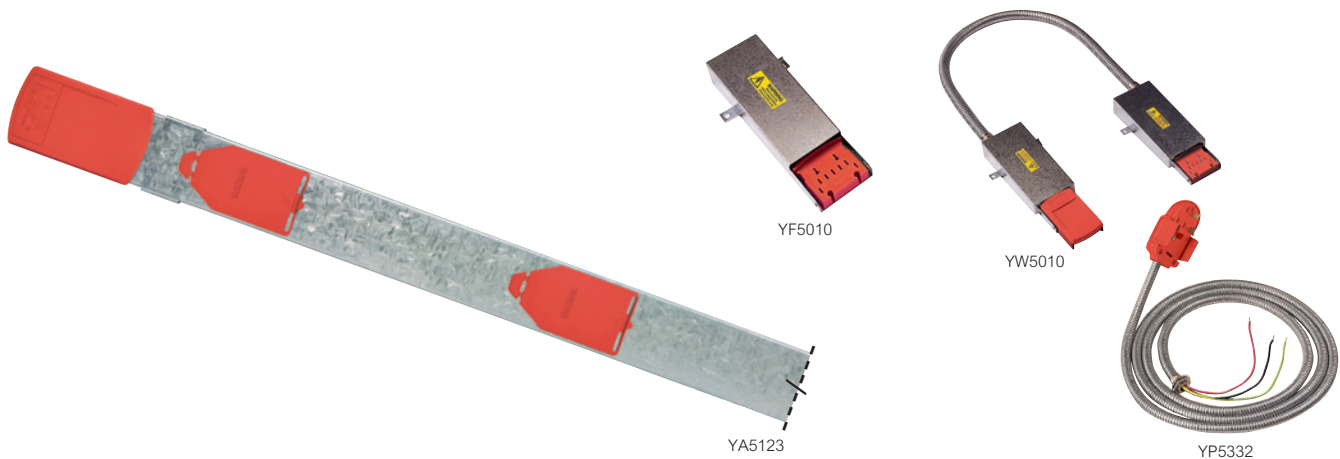
Pack	Cat. Nos.	Track system components
		Electrak 27 3 phase track lengths Track lengths fit together using the integral connectors on each length Track lengths should always be secured using the integral floor fixing brackets 300 mm socket centres
1	NA4123	1.2 m, 4 outlets, 2 floor fixing brackets
1	NA4183	1.8 m, 6 outlets, 2 floor fixing brackets
1	NA4243	2.4 m, 8 outlets, 2 floor fixing brackets
1	NA4363	3.6 m, 12 outlets, 3 floor fixing brackets
		Track feed unit With one 25 mm diameter hole suitable for MICC, armoured cables or single core cables in conduit
1	NF4010	
		Flexible interlinks Can be used to overcome obstructions or as corners where required
1	NW4000	Excluding cables and conduit
1	NW4010	1.2 m flexible metal conduit
1	NW4020	2.4 m flexible metal conduit
		Special fixing brackets Required when track is raised off surface level Brackets raise track by 21 mm and should be spaced 600 mm apart
1	DZ1210	For fitting under track body and track feed
1	DZ1230	For fitting under integral track connectors

Pack	Cat. Nos.	Tap-off units
		Tap-off length is determined by the cable and not the conduit length, e.g. a 3 m tap-off has 3 m of cable and 2.6 m of flexible metal conduit ¹ Tap-off units in excess of 3 m should only be used if they contain a fuse or if the powertrack is protected by a protective device not exceeding 32 A
		32 A 415 V 3 phase - 543-7 high integrity 20 mm Ø, L1, L2, L3, N, PE
1	NZ4331	3 m
1	NZ4531	5 m
		32 A L1² unfused - 543-7 high integrity Reconfigurable live pin 16 mm Ø, L, N, PE
1	NP4332	3 m
1	NP4532	5 m
		32 A L2² unfused - 543-7 high integrity Reconfigurable live pin 16 mm Ø, L, N, PE
1	NP4302	3 m
1	NP4502	5 m
		32 A L3² unfused - 543-7 high integrity Reconfigurable live pin 16 mm Ø, L, N, PE
1	NP4303	3 m
1	NP4503	5 m
		Tap-off units specifically for the U.A.E. To meet the local requirements, these tap-offs contain silver-flashed blades, larger 20 mm Ø conduits, minimum 4 mm ² conductors and use RYB colour coding for the conductors
		32 A unfused - 543-7 high integrity
1	NP4332R	3 m L1 U.A.E. (R)
1	NP4532R	5 m L1 U.A.E. (R)
1	NP4302Y	3 m L2 U.A.E. (Y)
1	NP4502Y	5 m L2 U.A.E. (Y)
1	NP4303B	3 m L3 U.A.E. (B)
1	NP4503B	5 m L3 U.A.E. (B)

1 : Tap-offs are supplied as standard with flexible metal conduit
For alternative wiring solutions, contact us on +44 (0) 370 608 9020
2 : All NP tap-offs are reconfigurable between L1, L2, or L3 for 3 phase track

Electrak® 28 powertrack / underfloor busbar system

auxiliary earth system (red)



Selection charts **p. 8-9**
Dimensions and technical information **p. 18-23**

Approved to ASTA Standard 138 and ISO 9001 : 2015
Conforms to BS EN 61534-22 : 2014. Fully complies with the requirements of BS 7671 : 2018
A compact system that can be installed in floor voids as low as 48 mm

Pack	Cat. Nos.	Track system components
		Electrak 28 auxiliary earth track lengths
		Track lengths fit together using the integral connectors on each length Track lengths should always be secured using the integral floor fixing brackets 300 mm socket centres
1	YA5123	1·2 m, 4 outlets, 2 floor fixing brackets
1	YA5183	1·8 m, 6 outlets, 2 floor fixing brackets
1	YA5243	2·4 m, 8 outlets, 2 floor fixing brackets
1	YA5363	3·6 m, 12 outlets, 3 floor fixing brackets
		Track feed unit
1	YF5010	With one 25 mm diameter hole suitable for MICC, armoured cables or single core cables in conduit
		Flexible interlinks
		Can be used to overcome obstructions or as corners where required
1	YW5000	Excluding cables and conduit
1	YW5010	1·2 m flexible metal conduit
1	YW5020	2·4 m flexible metal conduit
		Special fixing brackets
		Required when track is raised off surface level Brackets raise track by 21 mm and should be spaced 600 mm apart
1	DZ1210	For fitting under track body and track feed
1	DZ1230	For fitting under integral track connectors

Pack	Cat. Nos.	Tap-off units
		Tap-off length is determined by the cable and not the conduit length, e.g. a 3 m tap-off has 3 m of cable and 2·6 m of flexible metal conduit ¹ Tap-off units in excess of 3 m should only be used if they contain a fuse or if the powertrack is protected by a protective device not exceeding 32 A
		32 A unfused - 543-7 high integrity
		16 mm Ø, L, N, PE
1	YP5332	3 m
1	YP5532	5 m
		13 A fused - 543-7 high integrity
		16 mm Ø, L, N, PE
1	YP5327	3 m
1	YP5527	5 m
		13 A fused
		16 mm Ø, L, N, PE
1	YP5313	3 m
1	YP5513	5 m

¹ : Tap-offs are supplied as standard with flexible metal conduit
For alternative wiring solutions, contact us on +44 (0) 370 608 9020

Electrak tinned powertrack...

Designed to meet local standards

Guideline For Design, Testing and Installation Of Busways GL.GN.01.

Issued by: Abu Dhabi Distribution Co.

Low Voltage Switchgear Committee

Issue: 2, Revision: 1, effective 01/02/2012

16. Lighting & Small Power Busways & Modular Wiring
Lighting & Power Socket bus duct and modular wiring are considered part of building wiring and regulated by the Electricity Wiring Regulation issued by RSB. It shall comply with respective specifications under the Wiring regulation. ADDC LVSGC approves these methods in principle provided that the RSB set aspects are incorporated (like tinning of copper, colour coding etc.).

Guideline For Design, Testing and Installation Of Busways GL.GN.01

Copyright Abu Dhabi Distribution Co.

Developed to meet the ADDC requirements for busways, these specially designed ranges see all busbars tinned along their entire length, and all busbar connectors and tap-off blades plated.

Approved to ASTA standard 138 and designed to be in accordance with the requirements of BS EN 61439-6 : 2011 and BS EN 61534-22: 2014 (IEC 61534: 2009).

The Electrical Wiring Regulations 2007
Issued by: The Regulation and Supervision Bureau for the Water, Wastewater and Electricity Sector in the Emirate of Abu Dhabi. Revision 1, January 2009

7.7 Busways, bus ducts and busbar risers
7.7.6 Busways, bus ducts and busbar risers shall have neutral conductors of equal size to the phase conductors and shall have a dedicated Earth Conductor. The use of the metal casing as an earth conductor permitted only for Earth Leakage Protected Installations, and with the prior approval of the Distribution Company.

The Electrical Wiring Regulations 2007

Copyright The Regulation and Supervision Bureau (RSB)

The Electrak powertrack system uses equal size tinned copper busbars for live, neutral and earth conductors to meet with the requirements of The Regulation and Supervision Bureau of the Water, Wastewater and Electricity Sector in the Emirate of Abu Dhabi.

As a specific requirement for use within Abu Dhabi, Legrand has developed a 'tinned' busbar which has been designed in line with the guidance for busways outlined by the Abu Dhabi Distribution Company (ADDCC), as detailed below.



Electrak 28R tinned tap-offs



Electrak 28R tinned busbar connectors

Appendix 8. Colour identification for cables

Conductor	Colour
Non-flexible fixed wiring and all 3 phase cables:	
Phase 1	Red
Phase 2	Yellow
Phase 3	Blue
Neutral	Black
Earth conductors	Green / yellow

To meet the local regulations, tap-offs designed for sale within this region are supplied with the following cable colours:

Within any single phase system (e.g. Electrak 25R or Electrak 28R) - red (L), black (N) and green/yellow (E).

Specifically within the 3 phase Electrak 27 system - L1 tap-offs are red (L), black (N) and green/yellow (E); L2 tap-offs are yellow (L), black (N) and green/yellow (E); L3 tap-offs are blue (L), black (N) and green/yellow (E).

Appendix 9. Capacity of conduits and trunking

Conduit (mm ²)	Diameter of Conduit (mm ²)		
	20	25	32
Maximum number of conductors			
1.5	7	12	-
2.5	5	9	12
4.0	3	6	9

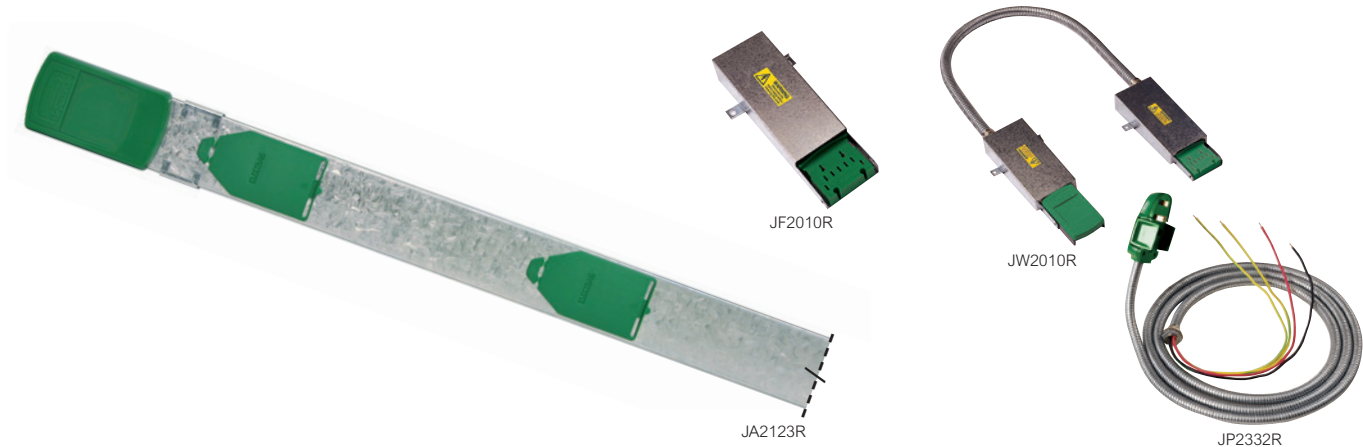
The tap-offs contain a maximum of 2 x 4mm² conductors (excluding earths) housed in a 20mm ø metal flexible conduit.

NOTE: When designing installation in regions with higher ambient temperatures than 35°C, de-rating factors may need to be applied. Please refer to the table on page 22 for details.



Electrak® 25R tinned powertrack / underfloor busbar system

low noise / clean earth system (green)



Dimensions and technical information p. 18-23

Approved to ASTA Standard 138 and ISO 9001 : 2015
 Conforms to BS EN 61534-22 : 2014. Fully complies with the requirements of BS 7671 : 2018
 A compact system that can be installed in floor voids as low as 48 mm

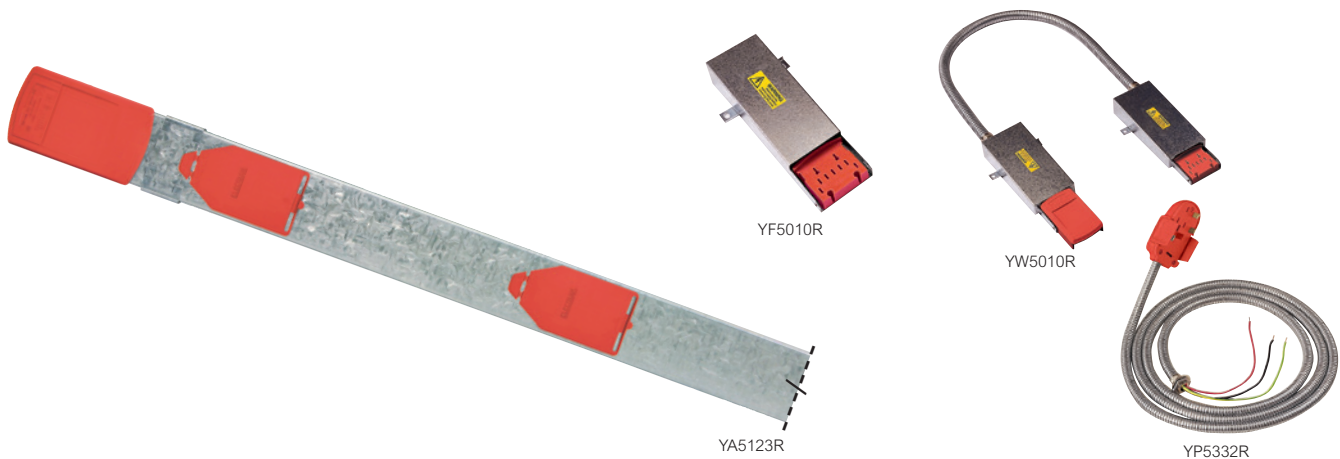
Pack	Cat. Nos.	Busbar system components
		63 A low noise / clean earth busbar lengths Busbar lengths fit together using the integral connectors on each length Lengths should always be secured using the integral floor fixing brackets 300 mm socket centres
1	JA2123R	1.2 m, 4 outlets, 2 floor fixing brackets
1	JA2183R	1.8 m, 6 outlets, 2 floor fixing brackets
1	JA2243R	2.4 m, 8 outlets, 2 floor fixing brackets
1	JA2363R	3.6 m, 12 outlets, 3 floor fixing brackets
		Feed unit
1	JF2010R	With one 25 mm diameter hole suitable for MICC, armoured cables or single core cables in conduit
		Flexible interlinks
		Can be used to overcome obstructions or as corners where required
1	JW2000R	Excluding cables and conduit
1	JW2010R	1.2 m flexible metal conduit
1	JW2020R	2.4 m flexible metal conduit
		Special fixing brackets
		Required when busbar is raised off surface level Brackets raise the system by 21 mm and should be spaced 600 mm apart
1	DZ1210	For fitting under lengths and feed units
1	DZ1230	For fitting under integral connectors

Pack	Cat. Nos.	Tap-off units
		Tap-off length is determined by the cable and not the conduit length, e.g. a 3 m tap-off has 3 m of cable and 2.6 m of flexible metal conduit ¹ Tap-off units in excess of 3 m should only be used if they contain a fuse or if the busbar run is protected by a protective device not exceeding 32 A
		32 A unfused - 543-7 high integrity 20 mm Ø, CE, L, N, PE (4 mm ²)
1	JP2332R	3 m
1	JP2532R	5 m
		13 A fused - 543-7 high integrity 20 mm Ø, CE, L, N, PE (4 mm ²)
1	JP2314R	3 m
1	JP2514R	5 m

¹ : Tap-offs are supplied as standard with flexible metal conduit
 For alternative wiring solutions, contact us on +44 (0) 370 608 9020

Electrak® 28R tinned powertrack / underfloor busbar system

auxiliary earth system (red)



 Dimensions and technical information p. 18-23

Approved to ASTA Standard 138 and ISO 9001 : 2015
 Conforms to BS EN 61534-22 : 2014. Fully complies with the requirements of BS 7671 : 2018
 A compact system that can be installed in floor voids as low as 48 mm

Pack	Cat. Nos.	Busbar system components
		63 A auxiliary earth busbar lengths
		Busbar lengths fit together using the integral connectors on each length Lengths should always be secured using the integral floor fixing brackets 300 mm socket centres
1	YA5123R	1·2 m, 4 outlets, 2 floor fixing brackets
1	YA5183R	1·8 m, 6 outlets, 2 floor fixing brackets
1	YA5243R	2·4 m, 8 outlets, 2 floor fixing brackets
1	YA5363R	3·6 m, 12 outlets, 3 floor fixing brackets
		Feed unit
1	YF5010R	With one 25 mm diameter hole suitable for MICC, armoured cables or single core cables in conduit
		Flexible interlinks
		Can be used to overcome obstructions or as corners where required
1	YW5000R	Excluding cables and conduit
1	YW5010R	1·2 m flexible metal conduit
1	YW5020R	2·4 m flexible metal conduit
		Special fixing brackets
		Required when busbar is raised off surface level Brackets raise the system by 21 mm and should be spaced 600 mm apart
1	DZ1210	For fitting under lengths and feed units
1	DZ1230	For fitting under integral connectors

Pack	Cat. Nos.	Tap-off units
		Tap-off length is determined by the cable and not the conduit length, e.g. a 3 m tap-off has 3 m of cable and 2·6 m of flexible metal conduit ¹ Tap-off units in excess of 3 m should only be used if they contain a fuse or if the busbar run is protected by a protective device not exceeding 32 A
		32 A unfused - 543·7 high integrity
		20 mm Ø, L, N, PE (4 mm ²)
1	YP5332R	3 m
1	YP5532R	5 m
		13 A fused - 543·7 high integrity
		20 mm Ø, L, N, PE (4 mm ²)
1	YP5314R	3 m
1	YP5514R	5 m

¹ : Tap-offs are supplied as standard with flexible metal conduit
 For alternative wiring solutions, contact us on +44 (0) 370 608 9020

Electrak® powertrack / underfloor busbar system

design and installation

General installation notes

Electrak powertrack is a compact system that can be installed in floor voids as low as 48 mm

Feed units are provided with one or two 25 mm diameter holes suitable for MICC, armoured cables or single core cables in conduit
Track lengths connect together and to feed units using the integral connectors on each length

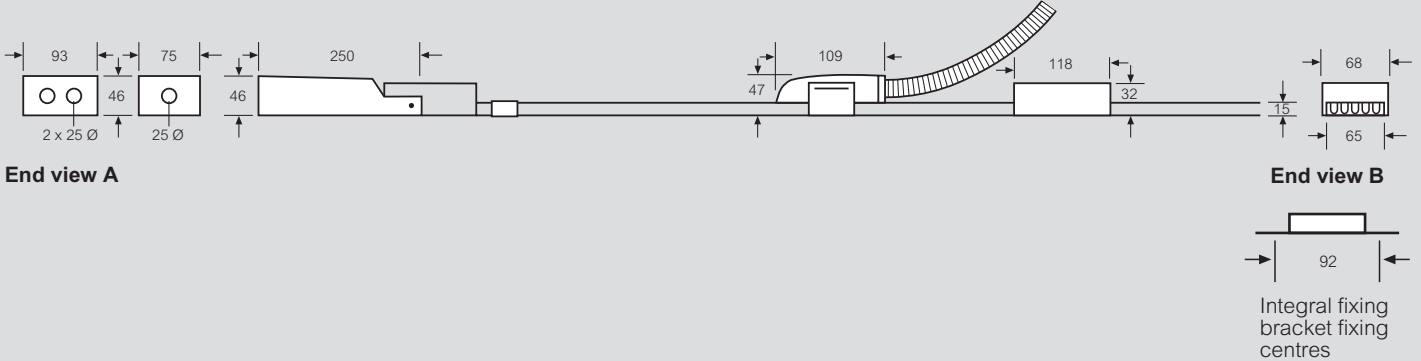
Lengths should always be secured using the integral floor fixing brackets ; three on the 3.6 m length and two on 2.4 m, 1.8 m or 1.2 m lengths

Access to power is provided along the busbar length by simply plugging tap-off units into shuttered socket outlets. These tap-off units feed all types of conventional floor service outlet boxes or feed workstations directly through the floor via insulated conductors contained in flexible metal or VO rated nylon conduit. When connecting tap-offs directly through the floor via grommet outlets to workstations care must be taken to ensure that the tap-off length is adequate

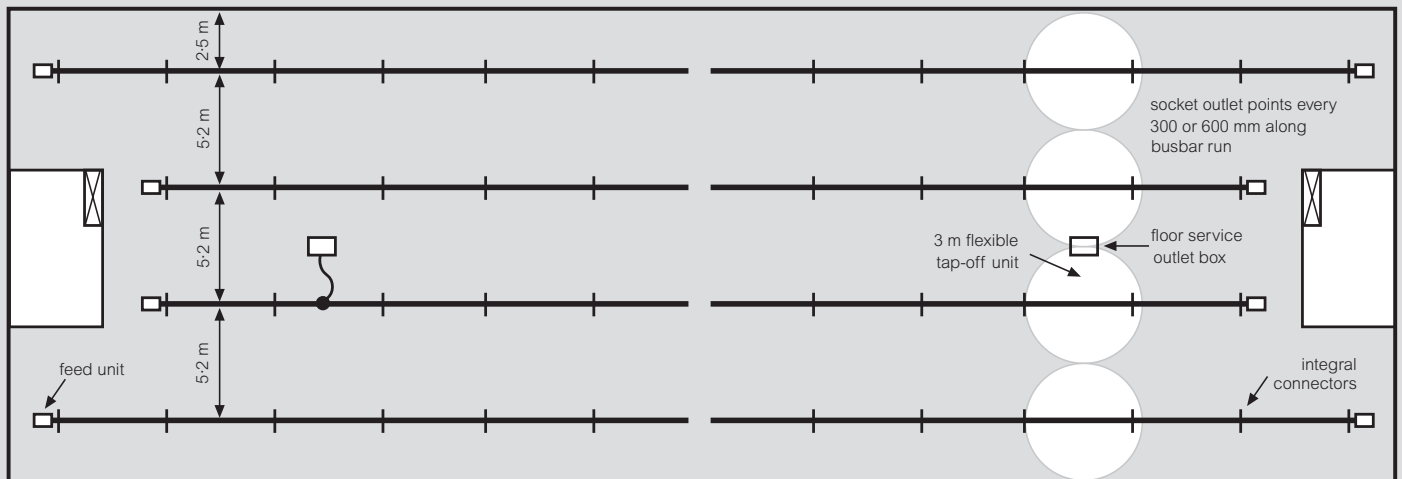
The dual system has both standard and low noise / clean earth systems incorporated. As well as dual tap-offs, both standard and low noise / clean earth tap-offs can be plugged into any socket outlet along the busbar length. The dual tap-off incorporates both standard and low noise cables

Optimum layout flexibility is achieved by positioning busbar lengths a maximum of 5.2 m apart and 2.5 m from the wall, and by connecting the 3 m tap-off units to floor outlet boxes. This means every part of the floor area can be served. Flexible interlinks can be used to overcome obstructions or used as corners if required

Dimensions



Example floor layout



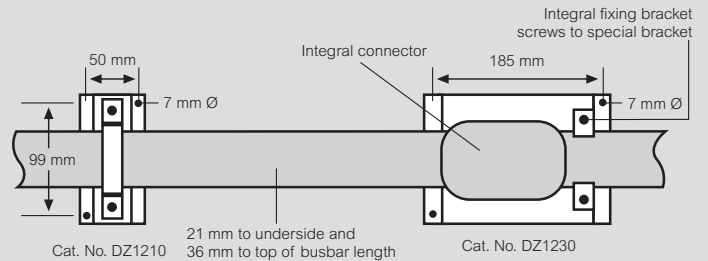
All dimensions (mm) are nominal

Special fixing brackets

Electrak special fixing brackets are available to raise the system by 21 mm. Ensure brackets are spaced 600 mm apart and always have support under the integral connectors and feed units. Failure to do so may undermine the integrity of the system

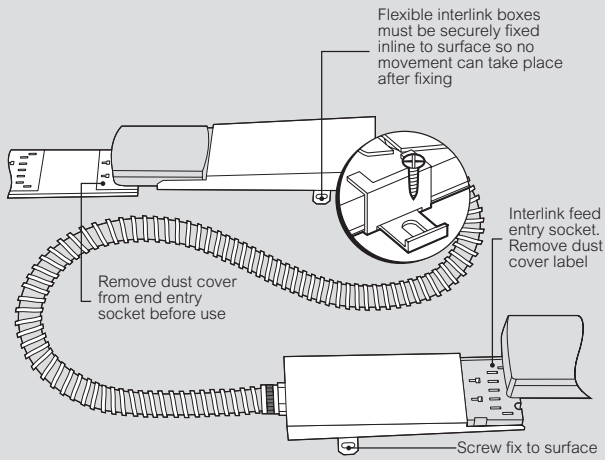
Cat. No. DZ1210 raised off-floor fixing brackets are spaced at 600 mm centres along the busbar run. Also use bottom half of bracket under feed unit and flexible interlink

Cat. No. DZ1230 raised off-floor fixing brackets are always used under integral connectors. Busbar is secured to raised brackets using the integral fixing bracket



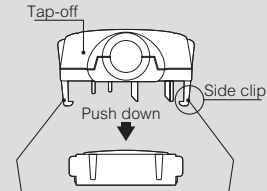
■ **Product configuration**

Flexible interlink



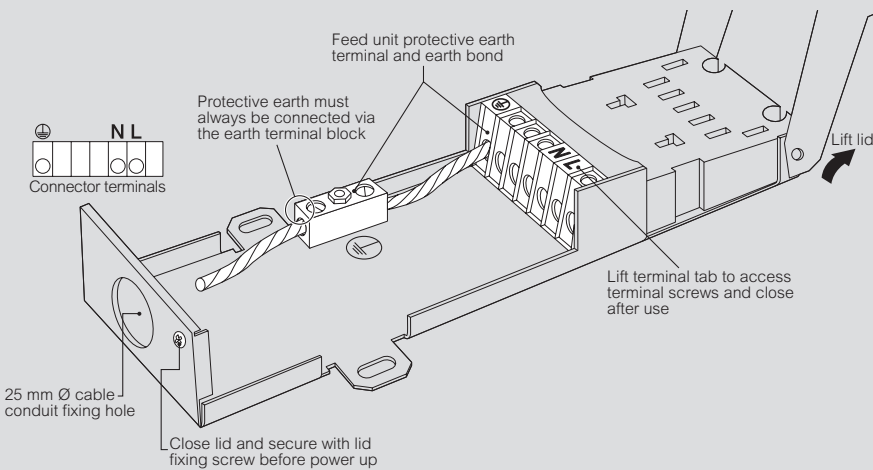
Tap-off connection

Depress tap-off side clips and push down

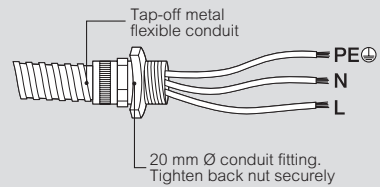


Make sure both tap-off side clips are fully pushed home on both sides of the bar

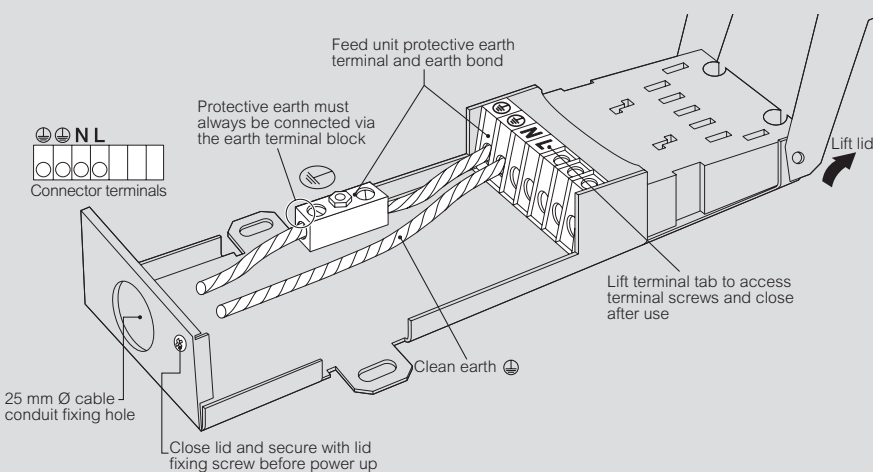
Feed unit (Cat. No. DF1010) Sub-cabling



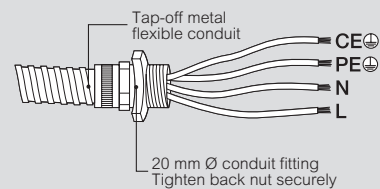
Tap-off connection



Feed unit (Cat. No. JF2010 and JF2010R) Sub-cabling



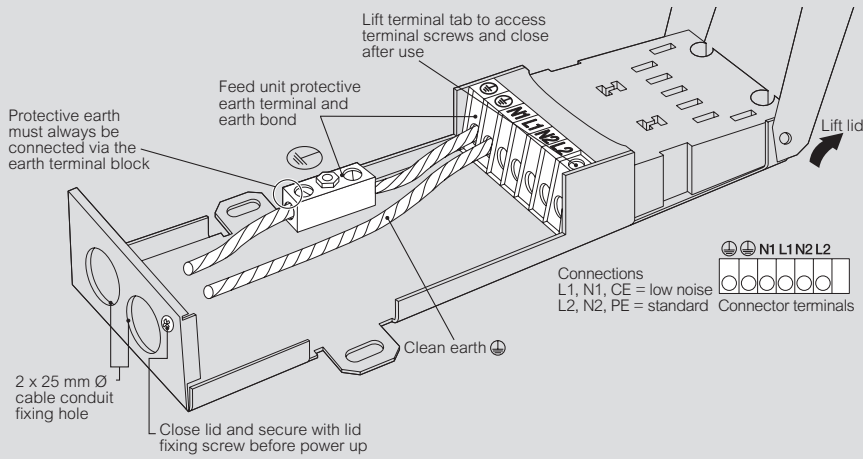
Tap-off connection



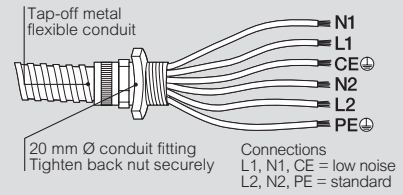
All dimensions (mm) are nominal

Product configuration (continued)

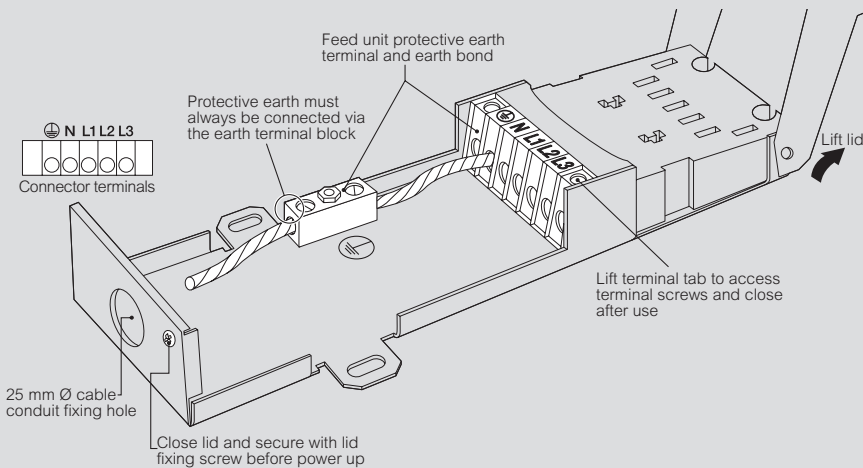
Feed unit (Cat. No. KF3010) Sub-cabling



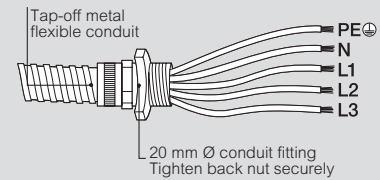
Dual tap-off connection (dark green)



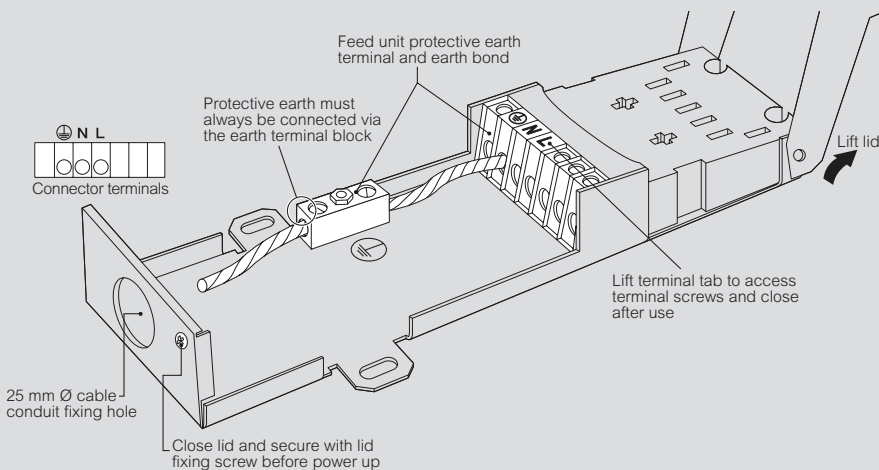
Feed unit (Cat. No. NF4010) Sub-cabling



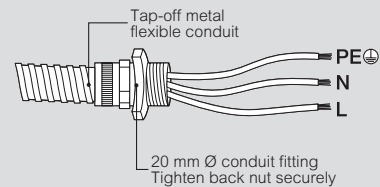
3 phase tap-off connection



Feed unit (Cat. No. YF5010 and YF5010R) Sub-cabling



Tap-off connection

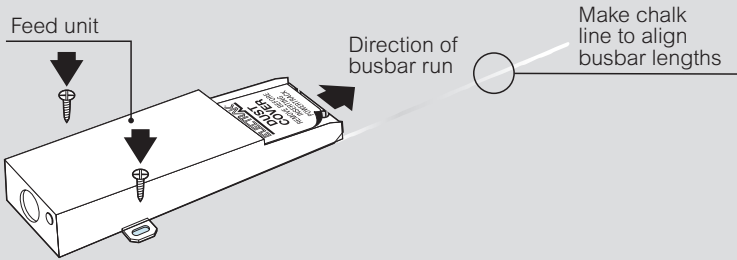


All dimensions (mm) are nominal

Electrak® powertrack / underfloor busbar system

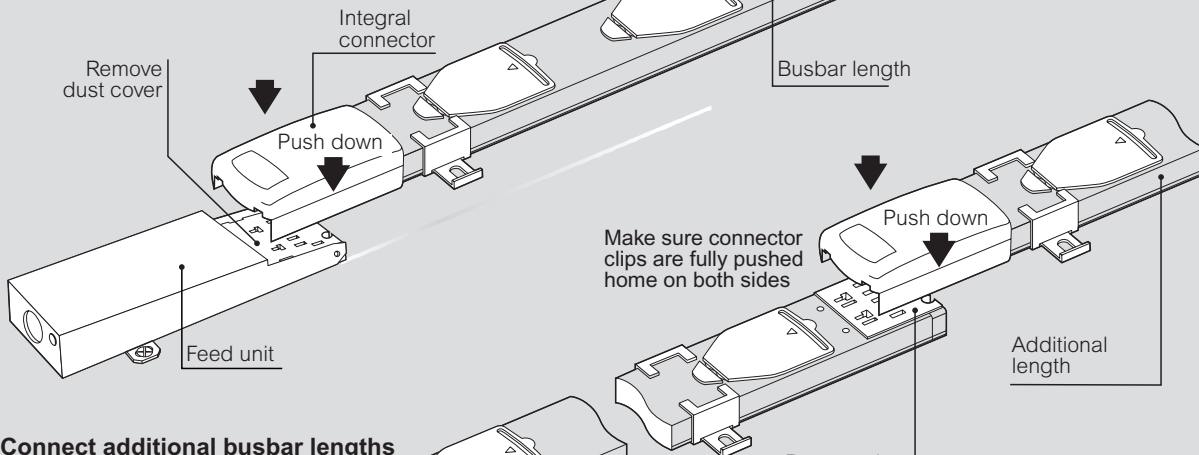
installation (continued)

1 Fix feed unit to surface

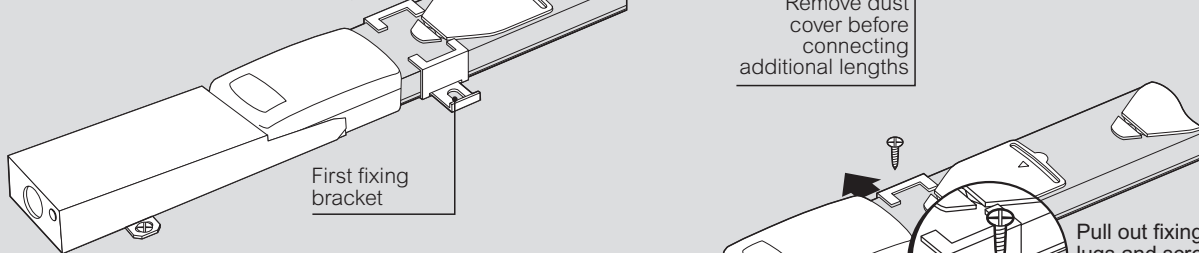


All integral fixing brackets must be fixed to surface at 1.2 m fixing centres from first bracket on each busbar length

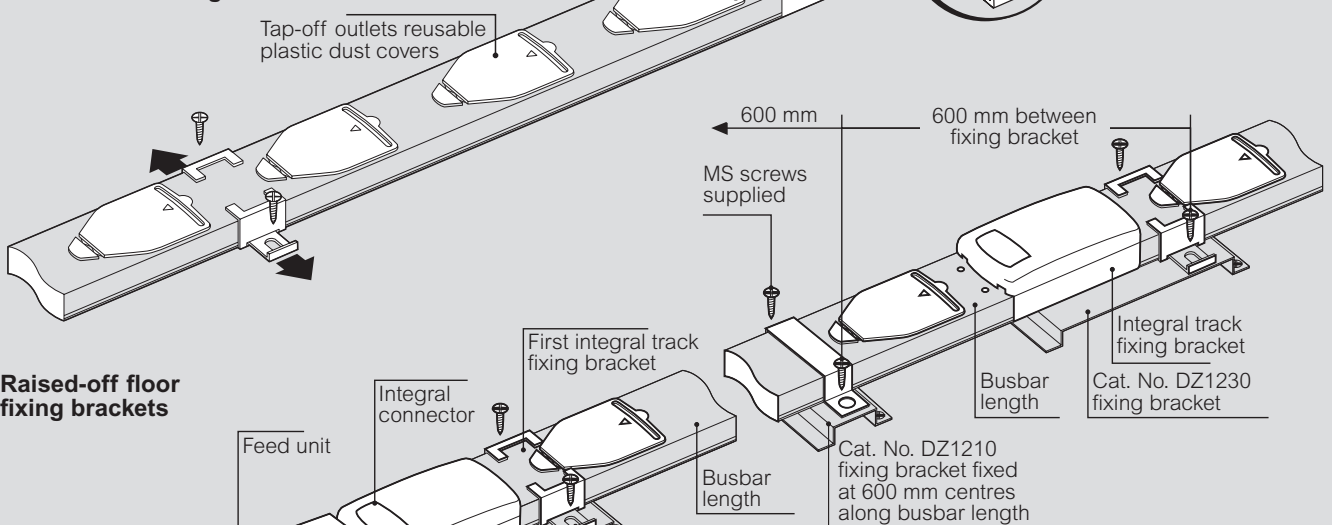
2 Connect busbar length to feed unit



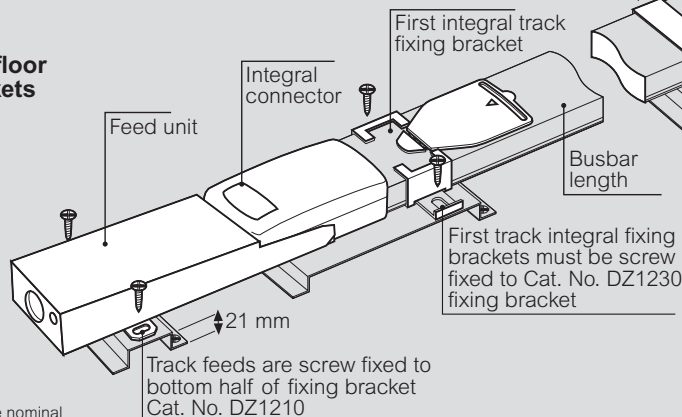
3 Connect additional busbar lengths



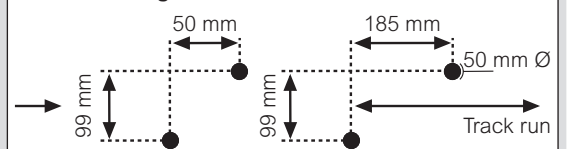
4 Secure busbar lengths to surface



5 Raised-off floor fixing brackets



Bracket fixing dimensions to surface



All dimensions (mm) are nominal

Standards



Approved to ASTA Standard 138
 BS EN 61534-22 : 2014
 and IEC 61534-22 : 2014
 Manufactured within an approved ISO 9001 : 2015 and ISO 14001 : 2015 facility
 Assessed Quality Assurance Certificate No. 2029
 Electrak powertrack / underfloor busbar fully complies with the requirements of BS 7671 : 2018

Classifications according to BS 61534-22 : 2014

7.1	Resistance to impact	Medium impact – 5J
7.2.2	Connection	Tap-off is intended to be connected/disconnected when the system is energised but without a load connected
7.3	Degree of protection	IP40
7.4	Degree of pollution	Pollution degree 2
7.5	Rated impulse withstand voltage	Category III - 4kV
7.101	Type of floor treatment	Dry treatment of floor
7.102	Intended location	Underfloor powertrack system

Ambient temperature rating factors

The current carrying capacity for a powertrack / underfloor busbar (In) is affected by the ambient temperature
 For Electrak powertrack / underfloor busbar the ambient rating factor K α is equal to 1 for ambient temperatures up to and including 35° C

$$I_z = K\alpha I_n$$

Where :

I_z = effective current carrying capacity for continuous service under particular installation conditions

K α = ambient temperature factor

I_n = nominal current carrying capacity

For ambient temperatures exceeding 35° C the values of K α and I_z are given in the following tables

Powertrack / underfloor busbar system							
Ambient	20°C	25°C	30°C	35°C	40°C	45°C	50°C
Kα	1			0.95	0.85	0.80	
I_z	63 A			59 A	53 A	50 A	

32 A unfused tap-off (using thermosetting 90°C cables)							
Ambient	20°C	25°C	30°C	35°C	40°C	45°C	50°C
Kα	1			0.95	0.85	0.80	
I_z	32 A			30 A	27 A	25 A	

13 A fused tap-off (using 2.5 mm ² thermosetting 90°C cables)							
Ambient	20°C	25°C	30°C	35°C	40°C	45°C	50°C
Kα	1						
I_z	13 A						

References :

BS 7671 : 2018

Earth fault loop impedance

BS 7671 : 2018 requires accurate determination of the total earth loop impedance, which must be sufficiently low to allow the protective device to operate within the specified time, which for socket outlets is 0.4 seconds. The values relevant to Electrak powertrack / underfloor busbar for calculating the earth fault loop impedance are shown in the electrical test data table, see opposite

Durability

Electrak systems are superbly designed and extremely robust. They can be expected to stand up to all normal site conditions. Electrak powertrack / underfloor busbar has been short circuit strength tested by ASTA

Installations with high protective conductor currents

All unfused tap-offs comply with Regulation 543.7 without the need for additional earth conductors. Regulation 543.7.1.203 (ii) states "a single copper protective conductor having a cross-sectional area of not less than 4 mm², complying with the requirements of Regulations 543.2 and 543.3, the protective conductor being enclosed to provide additional protection against mechanical damage, for example, within a flexible conduit"

For installations with high protective conductor currents requiring fused tap-offs, a 543.7 compliant tap-off must be used. Normally fused tap-offs incorporate 1.5 mm² conductors, however in our fused 543.7 tap-offs, the 1.5 mm² earth conductor is replaced with a 4 mm² conductor and are therefore compliant with Section 543.7.1.203 (ii)

32 A tap-off unit

The 3 m 32 A tap-off unit comprises an unfused tap-off with 2.6 m of flexible metal conduit with integral 4 mm² LSOH conductors

These units are designed to comply with Regulation 543.7.1.203 (ii) of the IET Wiring Regulations by virtue of the following :

- maximum length of cable is 3 m
- it is factory assembled and fully tested item with cable installed in high quality flexible conduit

Fault condition protection for the tap-off assembly and the floor box socket outlets is delivered by the circuit protection device
 Disconnection time for socket outlets is 0.4 seconds (Regulation 411.3.2.2). The Electrak system meets this requirement

Tap-off units in excess of 3 m should only be used if they contain a fuse or the busbar run is protected by a protective device not exceeding 32 A

Volt drops (live and neutral)	
Busbars	3.0 mV/A/m
Cable connector	0.4 mV/A
Integral connector	0.4 mV/A
32 A tap-off	0.4 mV/A
+ 4 mm ² cable	11 mV/A/m
Flexible corner assembly	1.5 mV/A
+ 10 mm ² cable	4.0 mV/A/m

Mechanical data	E24 – E28	E28R
Number of conductors	3-6	3
Busbar conductor cross sectional area	13 mm ²	13 mm ²
Housing cross sectional area (copper equivalent)	13 mm ²	13 mm ²
Cable terminal capacity	16 mm ²	16 mm ²
Tap-off cable 32 A	4 mm ²	4 mm ²
Tap-off cable 13 A fused	1.5 mm ²	2.5 mm ²
Tap-off conduit, up to 4 conductors	16 mmØ	20 mmØ
Tap-off conduit, 5 and 6 conductors	20 mm ²	N/A
Flexible corner cable (tri-rated, high temperature)	10 mm ²	10 mm ²
Flexible corner conduit	25 mmØ	25 mmØ
IP rating	40	40

Material specifications	
Housing - busbar lengths	Galvanised steel, natural finish
Busbars	High conductivity copper (Tinned version is electro-tin plated)
Busbar insulator	PTFE
Integral connectors / Tap-off outlets	Flame retardant polycarbonate
Tap-off outlet entry shutter	Acetal
Tap-off housing	Flame retardant polycarbonate
Integral connector blades	Copper (Tinned version is plated)
Tap-off blades	Copper (Tinned version is plated)
Tap-off/flexible corner conduit, metal	Electro-galvanised steel
Tap-off cable	LSOH to BS EN 50525
Flexible interlink cable	Tri-rated to BS 6231
Feed box/flexible interlink boxes	Galvanised steel
Feed connector terminals/earth block	Brass (Tinned version is plated)
Fixing brackets	Galvanised steel
13 A tap-off, fuse	To BS 1362, ASTA approved

Earth fault loop impedance	
Phase busbar	1.5 mΩ/m
Earth busbar	1.5 mΩ/m
Earth housing	1.1 mΩ/m
Earth busbar and housing	0.8 mΩ/m
Cable connector	0.4 mΩ
Integral connector	0.6 mΩ
32 A tap-off	0.6 mΩ
+ 4 mm ² cable	11 mΩ/m
Flexible corner assembly	1.5 mΩ
+ 10 mm ² cable	4.0 mΩ/m
Rated conditional short-circuit current	16 KA
Ambient temperature	25°C

Electrical test data	
Rated current	63 A
Rated voltage	230/400 V~
Frequency	50 Hz
Conductor resistance - live and neutral	3.0 mΩ/m
Conductor impedance	1.5 mΩ/m

FLOOR BOXES

choice, flexibility &

easy installation



Raised access floor boxes and slab boxes offer complete versatility.

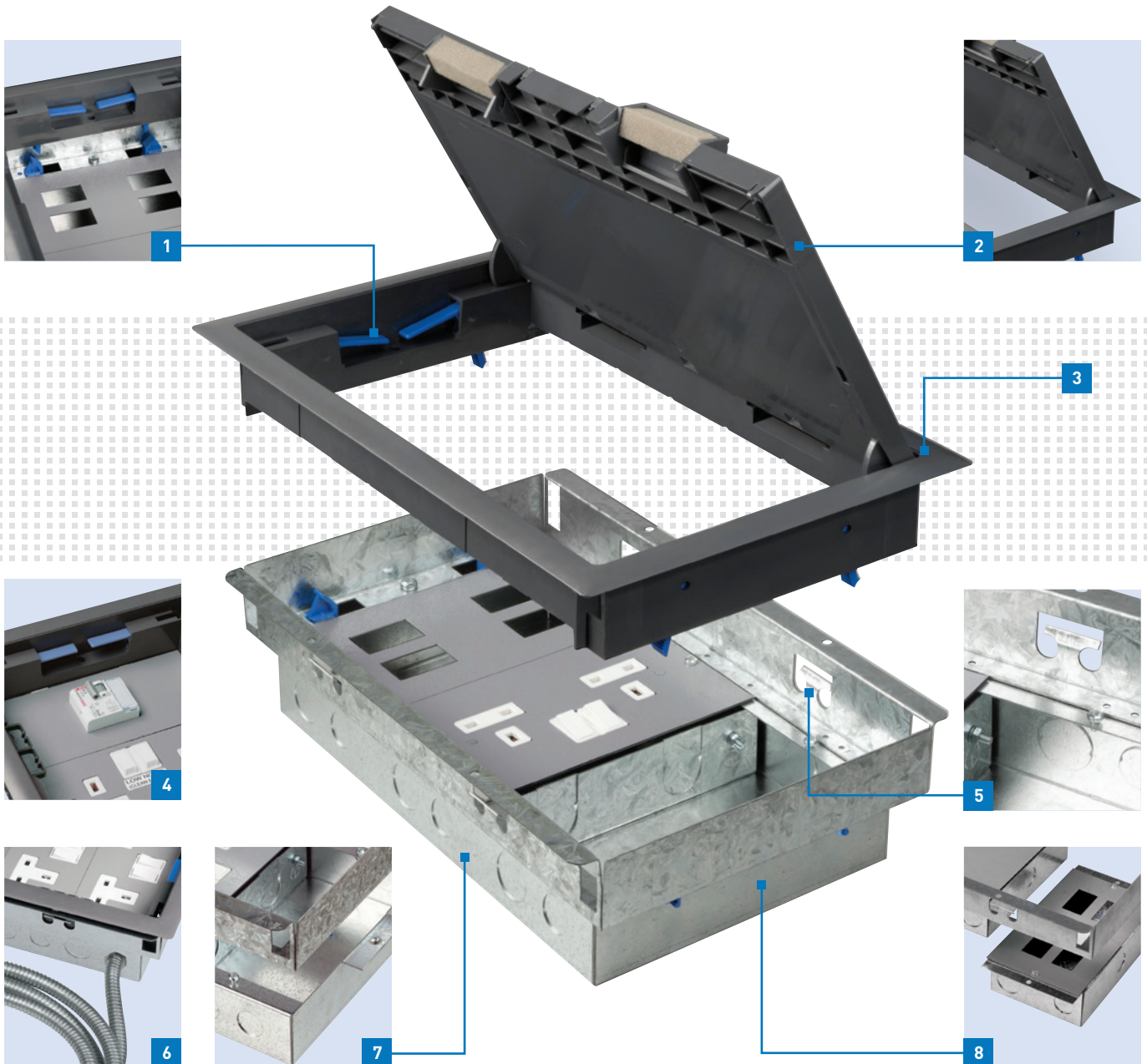
Floor boxes are available pre-wired with powertrack tap-off, or supplied empty (unassembled), with a choice of single or separate compartment bases and three depth options. With a vast selection of power and data plates available, boxes can be tailored to the specific requirements of each office installation.



NOTE : Please consult us for different plate options on +44 (0) 370 608 9020. Photos are only illustrative.

Available in 2, 3 and 4 compartments and with a choice of three depths, Electrak floor boxes have been developed with a host of special features:

- Available pre-wired with tap-off or supplied unassembled
- A wide selection of power and data plates, including RCD options
- Single or separate compartment bases for ease of data cabling
- Rapid installation and fast ratchet mechanism which adjusts to floor finish thickness



- 1** Rapid fit /remove mechanism adjusts for flooring thickness
- 2** Quick-fit, reversible lid for rapid installation
- 3** Durable ABS trim and lid surround
- 4** Various RCD protection options available

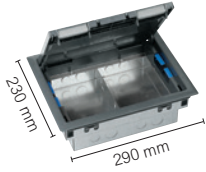
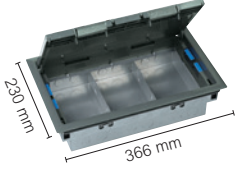
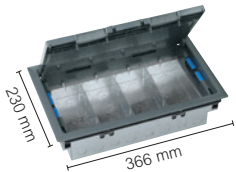




















- 5** Rapid fit push lock secures base in floor aperture
- 6** Available pre-wired with tap-off
- 7** Three depth options: 75mm, 85mm, 110mm
- 8** Single or separate compartment bases

NOTE : Please consult us for different plate options on +44 (0) 370 608 9020. Photos are only illustrative.

access floor service outlet and slab mounted floor boxes

empty boxes and accessory plates

		2 compartment		3 compartment		4 compartment	
To configure boxes as required, select : 1. Box depth 2. Number of compartments required 3. Desired accessory plates							
Empty boxes	Example	100 mm width plates		100 mm width plates		75 mm width plates	
Single base – 75 mm depth		CR2001		CR011		CR4001	
Single base – 85 mm depth (standard box)		CR2002		CR012		CR4002	
Single base – 110 mm depth		CR2003		CR013		CR4003	
Separate compartment base – 75 mm depth		CR2004		CR014		CR4004	
Separate compartment base – 85 mm depth		CR2005		CR015		CR4005	
Separate compartment base – 110 mm depth		CR2006		CR016		CR4006	
Slab boxes		1 compartment	2 compartment	3 compartment	4 compartment		
Fix directly onto floor slab (supplied empty)		CR5102	CR5202	CR5302	CR5402		

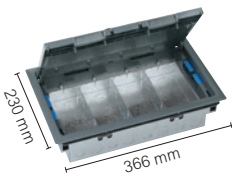









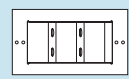

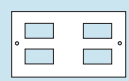
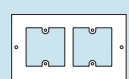
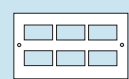
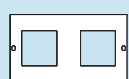
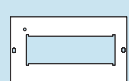
			2 compartment	3 compartment	4 compartment
	To configure boxes as required, select : 1. Box depth 2. Number of compartments required 3. Desired accessory plates				
	Accessory plates		For 1, 2 and 3 compartment boxes		For 4 compartment boxes
	Blank plate		CR020		CR4100
	2 gang switched socket outlet		CR022		CR4101
	2 gang switched socket outlet, low noise / clean earth		CR023		CR4102
	2 gang non-standard switched socket outlet		CR027		CR4103
	2 gang unswitched socket outlet		CR029		CR4104
	3 gang unswitched socket outlet		CR030		CR4195
	3 gang unswitched socket outlet, low noise / clean earth		CR044		CR4118
	2 gang RCD socket outlet		CR036		CR4111
	2 gang RCD socket outlet, low noise / clean earth		CR043		CR4117
	2 gang RCD shallow socket outlet specifically for 75 mm deep floor boxes		CR046		CR4121
	2 gang RCD shallow socket outlet low noise / clean earth specifically for 75 mm deep floor boxes		CR053		CR4127
	Punched plate for 2 x 1 gang accessories (60.3 mm fixing centres)		CR026		-
	Punched plate for 2 gang accessories (120.6 mm fixing centres)		CR028		-
	Angled punched plate for 4 x RJ45 sockets (37 mm x 22 mm cut-outs)		CR042		CR4115
	2 x LJ2 accessory plate (50 mm fixing centres)		CR031		CR4106
	4 x BNC connector plate		CR033		CR4108
	4 x Data / telecoms plate (37 mm x 22 mm cut-outs)		CR024		CR4112
	6 x Data / telecoms plate (37 mm x 22 mm cut-outs)		CR025		CR4113
	Punched plate for 2 x 50 mm x 50 mm Euro Module		CR035		-
	Punched plate for 3 x 45 mm x 45 mm Arteor modules		CR070		CR4200

access floor pre-wired service outlet boxes

and accessory plates

Pre-wired service outlet boxes with Electrak tap-offs							
1. Select powertrack tap-off and desired configuration							
2. Select additional accessory plates (if required)							
3 compartment		Includes 1 x twin switched socket outlet	Includes 2 x twin switched socket outlet	Includes 1 x 2 gang RCD socket outlet	Includes 2 x 2 gang RCD socket outlet		
	Electrak 24 - standard tap-off						
		DP1332 - 3 m	CR100	CR102	CR100R	CR102R	
		DP1532 - 5 m	CR101	CR103	CR101R	CR103R	
	Electrak 25 - low noise / clean earth tap-off						
		JP2332 - 3 m	CR110	CR112	CR110R	CR112R	
		JP2532 - 5 m	CR111	CR113	CR111R	CR113R	
	Electrak 28 - auxiliary earth tap-off						
		YP5332 - 3 m	CR104	CR106	CR104R	CR106R	
		YP5532 - 5 m	CR105	CR107	CR105R	CR107R	
	Additional plates for 3 compartment boxes						
Blank plate		CR020	2 x LJ2 accessory plate (50 mm fixing centres)		CR031		
Punched plate for 2 x 1 gang accessories (60.3 mm fixing centres)		CR026	4 x BNC connector plate		CR033		
Punched plate for 2 gang accessories (120.6 mm fixing centres)		CR028	4 x Data / telecoms plate (37 mm x 22 mm cut-outs)		CR024		
Angled punched plate for 4 x RJ45 sockets (37 mm x 22 mm cut-outs)		CR042	6 x Data / telecoms plate (37 mm x 22 mm cut-outs)		CR025		
100 mm plate for 2 x 50 mm x 50 mm Euro Module		CR035					
100 mm plate for 3 x 45 mm x 45 mm Arteor modules		CR070					

NOTE : Please consult us for different plate options on +44 (0) 370 608 9020. Product drawings are only illustrative.

4 compartment			Includes 1 x twin switched socket outlet	Includes 2 x twin switched socket outlet	Includes 1 x 2 gang RCD socket outlet	Includes 2 x 2 gang RCD socket outlet	Modular RCD protecting 2 x twin switched socket outlets and 1 spare compartment
	Electrak 24 - standard tap-off						
		DP1332 - 3 m	CR120	CR122	CR120R	CR122R	CR4402
		DP1532 - 5 m	CR121	CR123	CR121R	CR123R	CR4403
	Electrak 25 - low noise / clean earth tap-off						
		JP2332 - 3 m	CR130	CR132	CR130R	CR132R	CR4412
		JP2532 - 5 m	CR131	CR133	CR131R	CR133R	CR4413
	Electrak 28 - auxiliary earth tap-off						
		YP5332 - 3 m	CR124	CR126	CR124R	CR126R	CR4406
		YP5532 - 5 m	CR125	CR127	CR125R	CR127R	CR4407
	Additional plates for 4 compartment boxes						
Blank plate		CR4100	4 x BNC connector plate			CR4108	
Angled punched plate for 4 x RJ45 sockets (37 mm x 22 mm cut-outs)		CR4115	4 x Data / telecoms plate (37 mm x 22 mm cut-outs)			CR4112	
2 x LJ2 accessory plate (50 mm fixing centres)		CR4106	6 x Data / telecoms plate (37 mm x 22 mm cut-outs)			CR4113	
100 mm plate for 2 x 50 mm x 50 mm Euro Module		CR4110					
100 mm plate for 3 x 45 mm x 45 mm Arteor modules		CR4200					

NOTE : Please consult us for different plate options on +44 (0) 370 608 9020. Product drawings are only illustrative.

access floor service outlet boxes

empty boxes



Selection charts **p. 26**
Dimensions and technical information **p. 33**

Lid and trim mouldings are precision engineered from hard wearing durable ABS. Lid is reinforced with a galvanised mild steel plate
Mounting frame and box base - 0.9 mm thick galvanised steel
Each compartment has 2 entries for 20 mm and 2 entries for 25 mm flexible conduits
Grey mouldings. Alternative colours available to special order
Grey plates
2, 3 and 4 compartment boxes are also available with separate individual compartment base units for convenient offsite pre-wiring
Supplied in parts or fully assembled and configured to customer specification
Conform to BS EN 61534-22

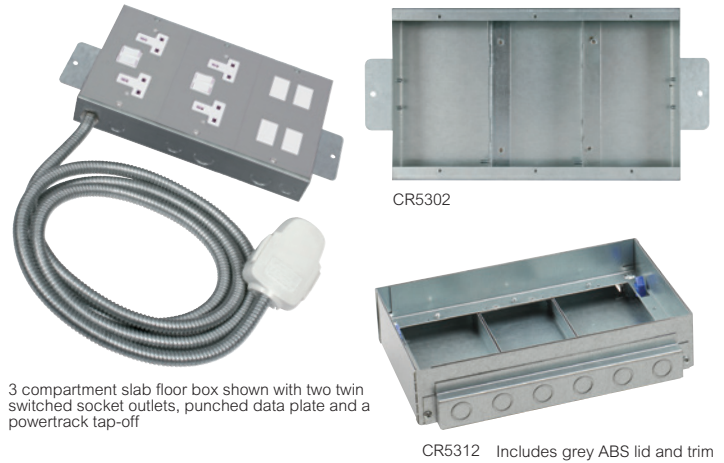
Pack	Cat. Nos.	2 compartment floor boxes
		Empty boxes
		100 mm compartment widths
1	CR2001	Single base - 75 mm depth
1	CR2002	Single base - 85 mm depth (standard box)
1	CR2003	Single base - 110 mm depth
1	CR2004	Separate compartment base - 75 mm depth
1	CR2005	Separate compartment base - 85 mm depth
1	CR2006	Separate compartment base - 110 mm depth

Pack	Cat. Nos.	3 compartment floor boxes
		Empty boxes
		100 mm compartment widths
1	CR011	Single base - 75 mm depth
1	CR012	Single base - 85 mm depth (standard box)
1	CR013	Single base - 110 mm depth
1	CR014	Separate compartment base - 75 mm depth
1	CR015	Separate compartment base - 85 mm depth
1	CR016	Separate compartment base - 110 mm depth

Pack	Cat. Nos.	4 compartment floor boxes
		Empty boxes
		75 mm compartment widths
		NOTE: due to plug entry requirements, 4 x twin socket outlets will not fit into a 4 compartment floor box
1	CR4001	Single base - 75 mm depth
1	CR4002	Single base - 85 mm depth (standard box)
1	CR4003	Single base - 110 mm depth
1	CR4004	Separate compartment base - 75 mm depth
1	CR4005	Separate compartment base - 85 mm depth
1	CR4006	Separate compartment base - 110 mm depth

slab and screed mounted floor boxes

empty boxes



3 compartment slab floor box shown with two twin switched socket outlets, punched data plate and a powertrack tap-off

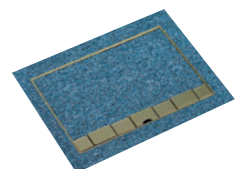
Selection charts **p. 26**
Dimensions and technical information **p. 33**

Electrak slab floor boxes are an ideal solution for underfloor power and data requirements
Used in conjunction with Electrak floor grommets, slab boxes prevent unwanted access to power and data connections

Pack	Cat. Nos.	Slab floor boxes
		Fixes directly onto floor slab Fast and efficient installation with integrated fixing plates Wide range of power and data accessory plates Manufactured from 0.9 mm thick galvanised steel Each compartment has 2 entries for 20 mm and 2 entries for 25 mm flexible conduits
		100 mm compartment widths
		Use plates from the 1, 2 and 3 compartment floor box section p. 26-27
1	CR5102	1 compartment slab floor box
1	CR5202	2 compartment slab floor box
1	CR5302	3 compartment slab floor box
		75 mm compartment widths
		Use plates from the 4 compartment floor box section p. 26-27
1	CR5402	4 compartment slab floor box
		Screed floor boxes
		25 mm conduit fed, to suit screed 75 mm to 90 mm deep
1	CR5312	3 compartment screed floor box
1	CR5412	4 compartment screed floor box

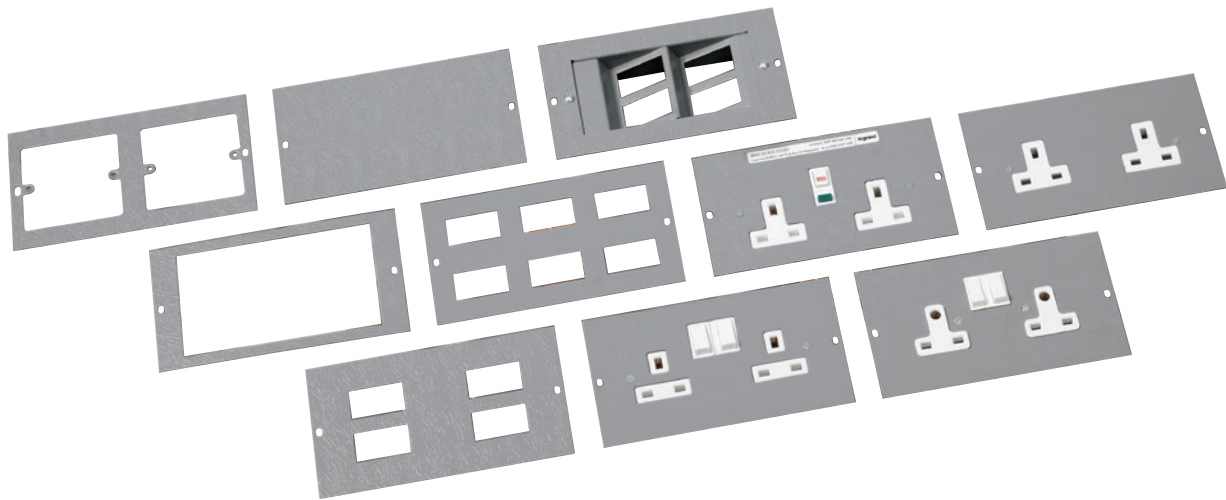
NOTE : Please consult us for different plate options on +44 (0) 370 608 9020. Photos are only illustrative.

Edge trim boxes, and metal or lockable lids are available to order
contact us on +44 (0) 370 608 9020



access floor service outlet boxes

accessory plates and ancillary items



 Selection charts **p. 26-29**
Dimensions and technical information **p. 33**

Lid and trim mouldings are precision engineered from hard wearing durable ABS. Lid is reinforced with a galvanised mild steel plate
Mounting frame and box base - 0.9 mm thick galvanised steel
Each compartment has 2 entries for 20 mm and 2 entries for 25 mm flexible conduits
Grey mouldings. Alternative colours available to special order. Grey plates
2, 3 and 4 compartment boxes are also available with separate individual compartment base units for convenient offsite pre-wiring
Supplied in parts or fully assembled and configured to customer specification
Conform to BS EN 61534-22

Pack	Cat. Nos.	1, 2 and 3 compartment accessory plates
		100 mm width
1	CR020	Blank plate
1	CR022	2 gang switched socket outlet
1	CR023	2 gang switched socket outlet, low noise / clean earth
1	CR027	2 gang non-standard switched socket outlet
1	CR029	2 gang unswitched socket outlet
1	CR030	3 gang unswitched socket outlet
1	CR044	3 gang unswitched socket outlet, low noise / clean earth
1	CR036	2 gang RCD socket outlet
1	CR043	2 gang RCD socket outlet, low noise / clean earth
1	CR046	100 mm plate – 2 gang RCD switched shallow socket outlet specifically for 75 mm deep floor boxes
1	CR053	100 mm plate – low noise 2 gang RCD switched shallow socket outlet specifically for 75 mm deep floor boxes
1	CR026	Punched plate for 2 x 1 gang accessories (60.3 mm fixing centres)
1	CR028	Punched plate for 2 gang accessories (120.6 mm fixing centres)
1	CR042	Angled punched plate for 4 x RJ45 (37 mm x 22 mm cut-outs)
1	CR031	2 x LJ2 accessory plate (50 mm fixing centres)
1	CR033	4 x BNC connector plate
1	CR024	4 x Data / telecoms plate (37 mm x 22 mm cut-outs)
1	CR025	6 x Data / telecoms plate (37 mm x 22 mm cut-outs)
1	CR035	100 mm plate for 2 x 50 mm x 50 mm Euro Module
1	CR070	100 mm plate for 3 x 45 mm x 45 mm Arteor modules

Pack	Cat. Nos.	4 compartment accessory plates
		75 mm compartment widths
1	CR4100	Blank plate
1	CR4101	2 gang switched socket outlet
1	CR4102	2 gang switched socket outlet, low noise / clean earth
1	CR4103	2 gang non-standard switched socket outlet
1	CR4104	2 gang unswitched socket outlet
1	CR4105	3 gang unswitched socket outlet
1	CR4118	3 gang unswitched socket outlet, low noise / clean earth
1	CR4111	2 gang RCD socket outlet
1	CR4117	2 gang RCD socket outlet, low noise / clean earth
1	CR4121	75 mm plate – 2 gang RCD switched shallow socket outlet specifically for 75 mm deep floor boxes
1	CR4127	75 mm plate – low noise 2 gang RCD switched shallow socket outlet specifically for 75 mm deep floor boxes
1	CR4115	Angled punched plate for 4 x RJ45 (37 mm x 22 mm cut-outs)
1	CR4106	2 x LJ2 accessory plate (50 mm fixing centres)
1	CR4108	4 x BNC connector plate
1	CR4112	4 x Data / telecoms plate (37 mm x 22 mm cut-outs)
1	CR4113	6 x Data / telecoms plate (37 mm x 22 mm cut-outs)
1	CR4110	75 mm plate for 2 x 50 mm x 50 mm Euromod
1	CR4200	75 mm plate for 3 x 45 mm x 45 mm Arteor modules

Pack	Cat. Nos.	Ancillary items for service outlet boxes
1	CR0001	Floor tile cut-out template – 2 compartment
1	CR0003	Floor tile cut-out template – 3 / 4 compartment
10	CR0000	Cable outlet flap
10	CR0010	Cable routers
50	CR0011	Screws for accessory plates
1	CR0012	Pack of 5 keys for use with lockable floor boxes
1	CR0021	Plastic lid and trim for 2 compartment floor box
1	CR0022	Plastic lid and trim for 3 / 4 compartment floor box
1	CR0023	Lockable lid assembly for 2 compartment floor box
1	CR0024	Lockable lid assembly for 3 / 4 compartment floor box
1	CR0005	Mounting frame for vinyl floor. For 2 compartment box Replaces mounting frame attached to base
1	CR0006	Mounting frame for vinyl floor. For 3 / 4 compartment box. Replaces mounting frame attached to base
10	CR0007	Floor box lid handle
1	CR0020	Metal lid and trim - replacement for 3 and 4 compartment boxes - powder coated grey

Electrak tap-offs p. 10-14, 16-17

access floor pre-wired service outlet boxes

3 and 4 compartment



CR100



CR122

Selection chart **p. 28-29**
 Dimensions and technical information **p. 33**

Electrak floor boxes can be supplied pre-wired to powertrack tap-offs with any variation of sockets, tap-offs, depth or other configuration

Pack	Cat. Nos.	3 compartment pre-wired boxes with 1 x TSSO	Pack	Cat. Nos.	4 compartment pre-wired boxes with 1 x TSSO
		100 mm compartment widths			75 mm compartment widths
		Single base – 85 mm depth, pre-wired with :			Single base – 85 mm depth, pre-wired with :
1	CR100	3 m Electrak 24 standard tap-off Cat. No. DP1332	1	CR120	3 m Electrak 24 standard tap-off Cat. No. DP1332
1	CR101	5 m Electrak 24 standard tap-off Cat. No. DP1532	1	CR121	5 m Electrak 24 standard tap-off Cat. No. DP1532
1	CR110	3 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2332	1	CR130	3 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2332
1	CR111	5 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2532	1	CR131	5 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2532
1	CR104	3 m Electrak 28 auxiliary earth tap-off Cat. No. YP5332	1	CR124	3 m Electrak 28 auxiliary earth tap-off Cat. No. YP5332
1	CR105	5 m Electrak 28 auxiliary earth tap-off Cat. No. YP5532	1	CR125	5 m Electrak 28 auxiliary earth tap-off Cat. No. YP5532
		3 compartment pre-wired boxes with 2 x TSSO			4 compartment pre-wired boxes with 2 x TSSO
		100 mm compartment widths			75 mm compartment widths
		Single base – 85 mm depth, pre-wired with :			Single base – 85 mm depth, pre-wired with :
1	CR102	3 m Electrak 24 standard tap-off Cat. No. DP1332	1	CR122	3 m Electrak 24 standard tap-off Cat. No. DP1332
1	CR103	5 m Electrak 24 standard tap-off Cat. No. DP1532	1	CR123	5 m Electrak 24 standard tap-off Cat. No. DP1532
1	CR112	3 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2332	1	CR132	3 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2332
1	CR113	5 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2532	1	CR133	5 m Electrak 25 low noise / clean earth tap-off Cat. No. JP2532
1	CR106	3 m Electrak 28 auxiliary earth tap-off Cat. No. YP5332	1	CR126	3 m Electrak 28 auxiliary earth tap-off Cat. No. YP5332
1	CR107	5 m Electrak 28 auxiliary earth tap-off Cat. No. YP5532	1	CR127	5 m Electrak 28 auxiliary earth tap-off Cat. No. YP5532

Pre-wired floor boxes can be supplied with RCD rather than standard sockets. Add an **R** to the end of the part numbers for an RCD version. For example CR100**R** is a 3 compartment floor box with a twin RCD socket and a DP1332 tap-off

Also available :
 - pre-wired boxes with fused tap-offs
 - shallow or deep versions
 - separate compartment bases
contact us on +44 (0) 370 608 9020



NOTE : Please consult us for different plate options on +44 (0) 370 608 9020. Photos are only illustrative.

access floor service outlet boxes

with RCD protection



CR4401

 Selection charts **p. 26-29**
Dimensions and technical information (**opposite**)

Electrak floor boxes are available with various RCD protection options and can be supplied pre-wired to powertrack tap-offs

Pack	Cat. Nos.	Floor boxes with RCD protection and 2 x TSSO
1	CR4400	Boxes contain 1 spare 75 mm width compartment Includes standard sockets
1	CR4401	Includes low noise sockets
Pre-wired RCD protected floor boxes		
Boxes contain RCD and 2 x TSSO with 1 spare 75 mm compartment		
1	CR4402	Pre-wired with Cat. No. DP1332 tap-off
1	CR4403	Pre-wired with Cat. No. DP1532 tap-off
1	CR4412	Pre-wired with Cat. No. JP2332 tap-off
1	CR4413	Pre-wired with Cat. No. JP2532 tap-off

access floor service outlet boxes

technical information

Floor boxes

Dimensions

Lid can accommodate carpets up to 6 mm depth
Accessory plates are 172 mm long, with 162 mm fixing centres

Materials

Lid and trim mouldings are precision engineered from hard wearing durable ABS. Lid is reinforced with a galvanised mild steel plate
Mounting frame and box base – 0.9 mm thick galvanised steel
Floor service unit conforms to BS EN 61534-22

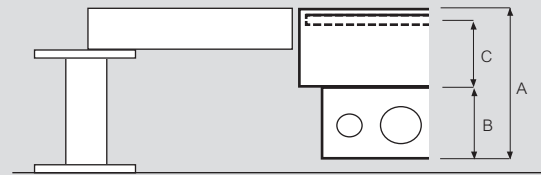
Wiring

Each compartment has 2 entries for 20 mm and 2 entries for 25 mm flexible conduits

Colour

Grey mouldings. Alternative colours available to special order
Grey plates

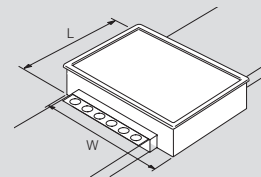
Dimensions from top of floor tile into floor void



A (mm)	B Accessory box depth (mm)	C Underside lid to top of accessory (plug clearance) (mm)
75	35	35
85	45	35
110	45	60

Screed floor boxes

Compartment	W (mm)	L (mm)
3C	350	245
4C	350	245



To install access floor box



Cut hole in raised floor tile, lower complete box into aperture and push firmly down

Floor tile cut-out dimensions

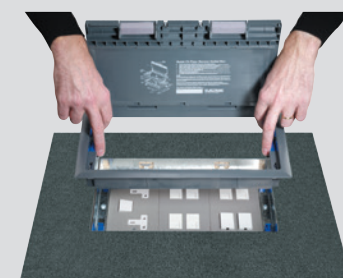
2 compartment : 263 mm x 203 mm¹

3 and 4 compartment : 340 mm x 203 mm¹

Floor cut-out aperture is the same for single base or separate compartment base

To fit carpet :

Detach lid and trim assembly by lifting the blue locking handles and lifting out. Cut and fit carpet. Push lid and trim assembly back into place



1 : The aperture dimension 203 mm has a fixing tolerance between 203 to 205 mm

NOTE : Please consult us for different plate options
on +44 (0) 370 608 9020. Photos are only illustrative.



FLOOR GROMMETS

perfectly balancing

capacity & size

ACCESS GROMMETS

The Electrak range of simple-to-install access grommets allow cables and conduit to link between underfloor power and desk power systems.

- Ranging from 144mm to 232mm in diameter
- 169mm diameter grommet can accommodate up to 3 x 32mm conduits - perfectly balancing capacity and size
- Push-fit lid with optional screw fixing to prevent unauthorised access



POWER AND DATA GROMMETS

The Electrak range of cleaner's grommets are the latest addition to its power and data grommets range. Within their 169mm diameter, the grommet can house a flat RCD socket and provide ample space for the user to plug in or unplug equipment.

- Cleaner's grommet with flat mounted RCD socket or standard socket options
- Push-fit lid with cable flap feature
- Spring loaded screws for rapid installation
- Available pre-wired to powertrack tap-off

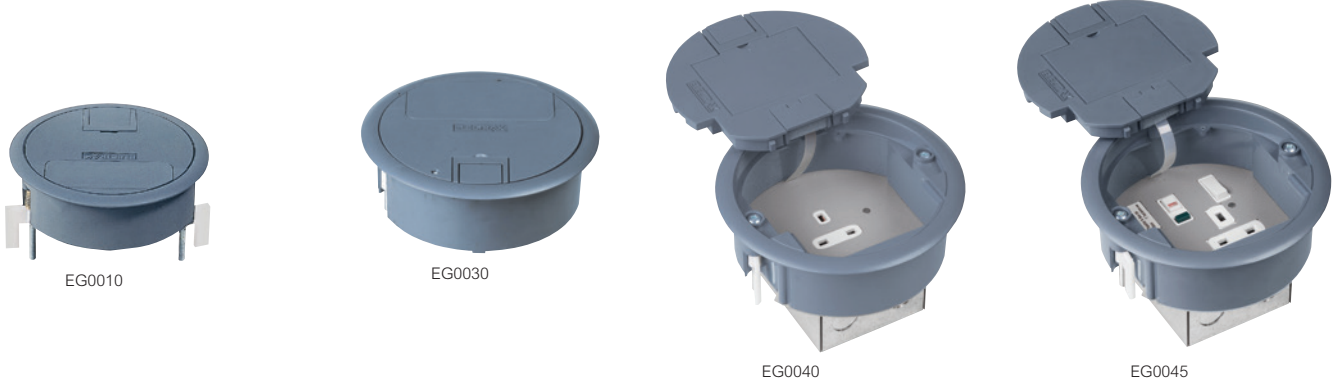


- 1 Removable inlay for optional carpet fitting
- 2 Cable flap allows permanent connection of services
- 3 Flat mounted RCD socket

- 4 169mm diameter provides the perfect balance between size and capacity
- 5 Spring loaded screws for rapid installation
- 6 Available pre-wired to powertrack tap-offs

floor grommets

access / power and data



Dimensions and technical information p. 37

Pack	Cat. Nos.	Plastic access grommets	Pack	Cat. Nos.	Plastic power and data grommets
1	EG0010	<p>Quick fit installation Precision engineered from hard wearing durable ABS Grey mouldings. Other colours available to special order Conform to BS EN 61534-22 Simply secured by pushing down the spring-loaded screws and rotating a quarter turn Recommended for use in light traffic areas Avoid positioning in walkways or under static loads</p> <p>144 mm Ø – cut-out size 127 mm Ø Can accommodate all cable types or three metal conduits up to a 20 mm Ø or 25 mm without foam</p>	1	EG0040	<p>169 mm Ø – cut-out size 152 mm Ø Quick fit installation Precision engineered from hard wearing durable ABS Grey mouldings. Other colours available to special order. Conform to BS EN 61534-22 Removable carpet recess Cable flap feature so grommet lid can be closed while in use Simply secured by pushing down the spring-loaded screws and rotating a quarter turn Recommended for use in light traffic areas Avoid positioning in walkways or under static loads</p> <p>13 A power grommet Supplied complete with 13 A unswitched socket</p>
1	EG0030	<p>169 mm Ø – cut-out size 152 mm Ø Allows power, data and flexible conduit up to 32 mm to pass through raised access floor Lid can be locked with screw (included) Maximum number of conduits : 9 x 20 mm Ø 5 x 25 mm Ø 3 x 32 mm Ø</p>	1	EG0045	<p>RCD power grommet Supplied complete with 13 A RCD socket</p>
1	EG0055	<p>232 mm Ø – cut-out size 215 mm Ø High capacity grommet Recommended for installation in light traffic areas</p>	1	EG0051	<p>13 A power/data grommet Supplied complete with 13 A socket and 1 x 37 x 22 mm cut-out</p>
1	EG0015	<p>Aluminium access grommet Body – cast aluminium Lid – injection moulded plastic Nylon 66 with neoprene cable gasket Secured by quarter-turn fasteners Floor depth 25 to 55 mm Access grommet depth 60 mm (95 mm when back box included)</p> <p>144 mm Ø – cut-out size 127 mm Ø Allows power, data and flexible conduit up to 25 mm to pass through raised access floor</p>	1	EG0052	<p>Data grommet Supplied complete with data plate 2 x 37 x 22 mm cut-out</p>
1	EG0025	<p>Aluminium power grommet 13 A power grommet Supplied complete with 13 A switched socket</p>	1	EG0053	<p>Cleaners floor grommets 169 mm Ø Non-standard 5 A socket</p>
			1	EG0035	<p>Single switched socket</p>
					<p>Pre-wired power grommets Recommended for use in light traffic areas</p> <p>169 mm Ø – cut-out size 152 mm Ø</p> <p>Cleaners socket version</p>
			1	EG0041	DP1332 - 3 m unfused
			1	EG0042	DP1532 - 5 m unfused
			1	EG0043	DP1313 - 3 m 13 A fused
			1	EG0044	DP1513 - 5 m 13 A fused
					RCD socket version
			1	EG0046	DP1332 - 3 m unfused
			1	EG0047	DP1532 - 5 m unfused
			1	EG0048	DP1313 - 3 m 13 A fused
			1	EG0049	DP1513 - 5 m 13 A fused

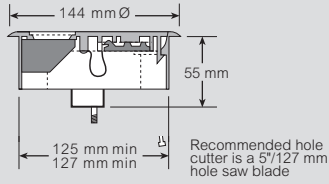
floor grommets

technical information

■ 144 mm Ø plastic floor grommet

Dimensions

Cat. No. EG0010

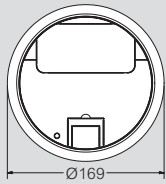
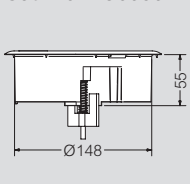


■ 169 mm Ø plastic floor grommets

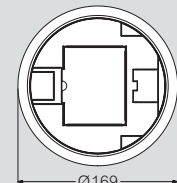
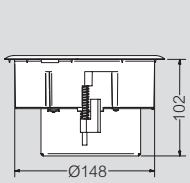
Dimensions

Access grommet

Cat. No. EG0030



Power grommet



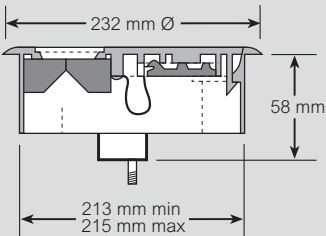
Recommended hole cutter is a 6"/152 mm hole saw blade

■ 232 mm Ø plastic floor grommet

Dimensions

Large quick fit grommet

Cat. No. EG0055



Floor panel cut-out diameter

Recommended hole cutter is a adjustable hole saw blade with Ø range of 40 mm - 300 mm

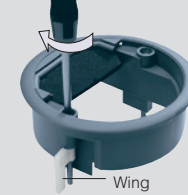
■ To install plastic floor grommets

A



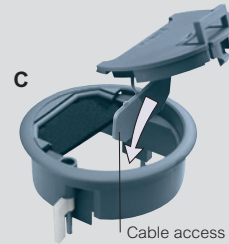
Lift handle and pull to remove lid

B



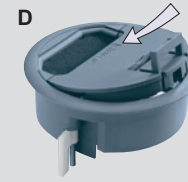
Push grommet into raised floor tile aperture
Push down spring loaded screws and rotate quarter turn to secure
Ensure wings are located under floor panel
For honeycombed floor panels one wing should face downwards and one wing should face upwards

C



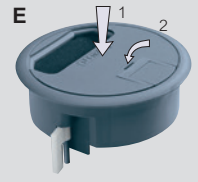
Drop cable access insert into housing opening

D



Slide lid into lug holes

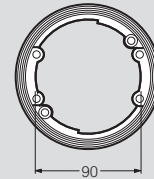
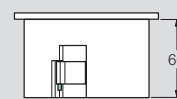
E



(1) Push down lid to close
(2) If grommet is not in use, replace cable access insert

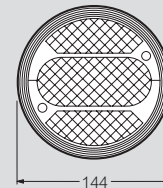
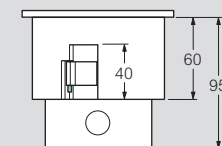
■ 144 mm Ø aluminium grommets

Access grommet



Cat. No. EG0015

13 A power grommet



Cat. No. EG0025

Recommended hole cutter is a 5"/127 mm hole saw blade

INTERSOC-R™

fast, reliable, adaptable

modular
desk power





COMPLETE SOLUTIONS FOR DEMANDING ENVIRONMENTS

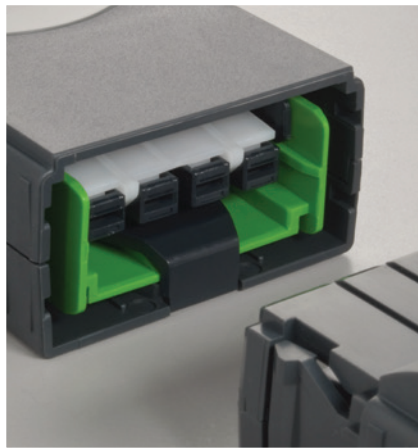
Intersoc-R is a modular desk power system designed to meet the demands of modern workplaces for faster and more adaptable solutions.

Designed with speed of installation and flexibility in mind, Intersoc-R's modular configuration enables thousands of different combinations to be made - providing solutions for every installation requirement.

- Modular system - rapid configuration and easy workstation relocation
- Push-fit connection - modules can simply be disconnected and additional modules inserted
- Busbar interconnection - no need for wiring
- Easily adapted to meet the changing demands of the workplace



The next GENERATION of power distribution



Available in standard and clean earth versions, with fixed or rotatable socket options and a safe shuttered electrical connection, Intersoc-R is the next generation of power distribution...

- Simple push-fit, module connection with auto-lock mechanism creates robust joints and makes installation quicker and easier
- 32 A system with safe shuttered electrical connections for additional safety, meets the requirements of BS 7671 : 2018 (including section 543.7)
- MCB, RCD and RCBO modules, with reversible hinged covers, provide a full range of circuit protection options
- 2, 3 or 4 gang British standard socket modules with fixed or rotatable, fused or unfused (BS 6396) sockets options - all the options you need to meet the requirements of any installation
- Outgoing connections: flexible interlink or end cap with ST or GST options

NEW
Intersoc On-desk
Personal power and data system

Find out more
on page 48



Intersoc-R™ desk modules

protection, BS sockets, end caps and interlinks



IAC502R



IAB402A



IAZ001A



IAB703A



IAB533F



IAB450A



IAB610B



IAB600B



IAB504R

 Dimensions and technical information p. 44-47

The BS version is available with fixed or rotatable sockets. Individually fused sockets are available to meet the requirements of BS 6396 : 2008 + A1 2015 (5 x 20 mm anti-surge ceramic fuses)
A wide range of interconnection solutions are available. When 16 A cabling interconnection is used with 32 A under desk solutions, suitable de-rating protection devices must be incorporated to protect the cables
All protection and switching modules, end caps and interlinks are universally compatible with standard and clean earth / low noise systems

Pack Cat. Nos. Protection and switching modules

1	IAB401A	With 13 A fuse
1	IAB402A	With 13 A fuse and sw/neon
1	IAB403A	With 13 A fuse and neon
1	IAB404A	32 A max. single isolation module
1	IAB405A	With 30 mA RCD
1	IAB408A	With neon indicator
1	IAB420A	With 16 A MCB
1	IAB430A	With 20 A MCB
1	IAB440A	With 32 A MCB
1	IAB450A	With 16 A RCBO
1	IAB460A	With 20 A RCBO
1	IAB470A	With 32 A RCBO

Socket modules – standard (grey sockets)

		2 gang unfused
1	IAB502F	Fixed sockets
1	IAB502R	Rotatable sockets
		2 gang individually fused
1	IAB532F	3·15 A – fixed sockets
1	IAB532R	3·15 A – rotatable sockets
		3 gang unfused
1	IAB503F	Fixed sockets
1	IAB503R	Rotatable sockets
		3 gang individually fused
1	IAB533F	3·15 A – fixed sockets
1	IAB533R	3·15 A – rotatable sockets
		4 gang unfused
1	IAB504F	Fixed sockets
1	IAB504R	Rotatable sockets
		4 gang individually fused
1	IAB534F	3·15 A – fixed sockets
1	IAB534R	3·15 A – rotatable sockets

Socket modules – low noise / clean earth (green sockets)

		2 gang unfused
1	IAC502F	Fixed sockets
1	IAC502R	Rotatable sockets
		2 gang individually fused
1	IAC532F	3·15 A – fixed sockets
1	IAC532R	3·15 A – rotatable sockets

Pack Cat. Nos. Socket modules – low noise / clean earth (green sockets) (continued)

		3 gang unfused
1	IAC503F	Fixed sockets
1	IAC503R	Rotatable sockets
		3 gang individually fused
1	IAC533F	3·15 A – fixed sockets
1	IAC533R	3·15 A – rotatable sockets
		4 gang unfused
1	IAC504F	Fixed sockets
1	IAC504R	Rotatable sockets
		4 gang individually fused
1	IAC534F	3·15 A – fixed sockets
1	IAC534R	3·15 A – rotatable

End cap

1	IAZ001A	Blank end cap
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Intersoc to Intersoc pre-wired interconnection

		16 A
1	IAB603A	0·3 m length
1	IAB605A	0·5 m length
1	IAB610A	1 m length
1	IAB620A	2 m length
1	IAB630A	3 m length
1	IAB650A	5 m length
		32 A
1	IAB703A	0·3 m length
1	IAB705A	0·5 m length
1	IAB710A	1 m length
1	IAB720A	2 m length
1	IAB730A	3 m length
1	IAB750A	5 m length

Power out end caps 16 A

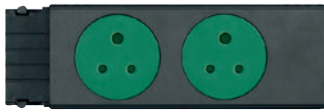
		Without flex
1	IAB600B	End cap with female GST connector
1	IAB600C	End cap with female ST connector
		With flex to female GST connector
1	IAB610B	1 m length
1	IAB620B	2 m length
1	IAB630B	3 m length

Intersoc-R™ desk modules

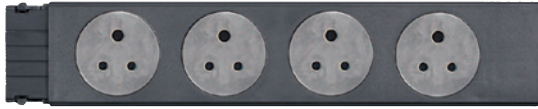
protection, BS sockets, end caps and interlinks

Intersoc-R™ desk modules

technical information



IAC5P2F



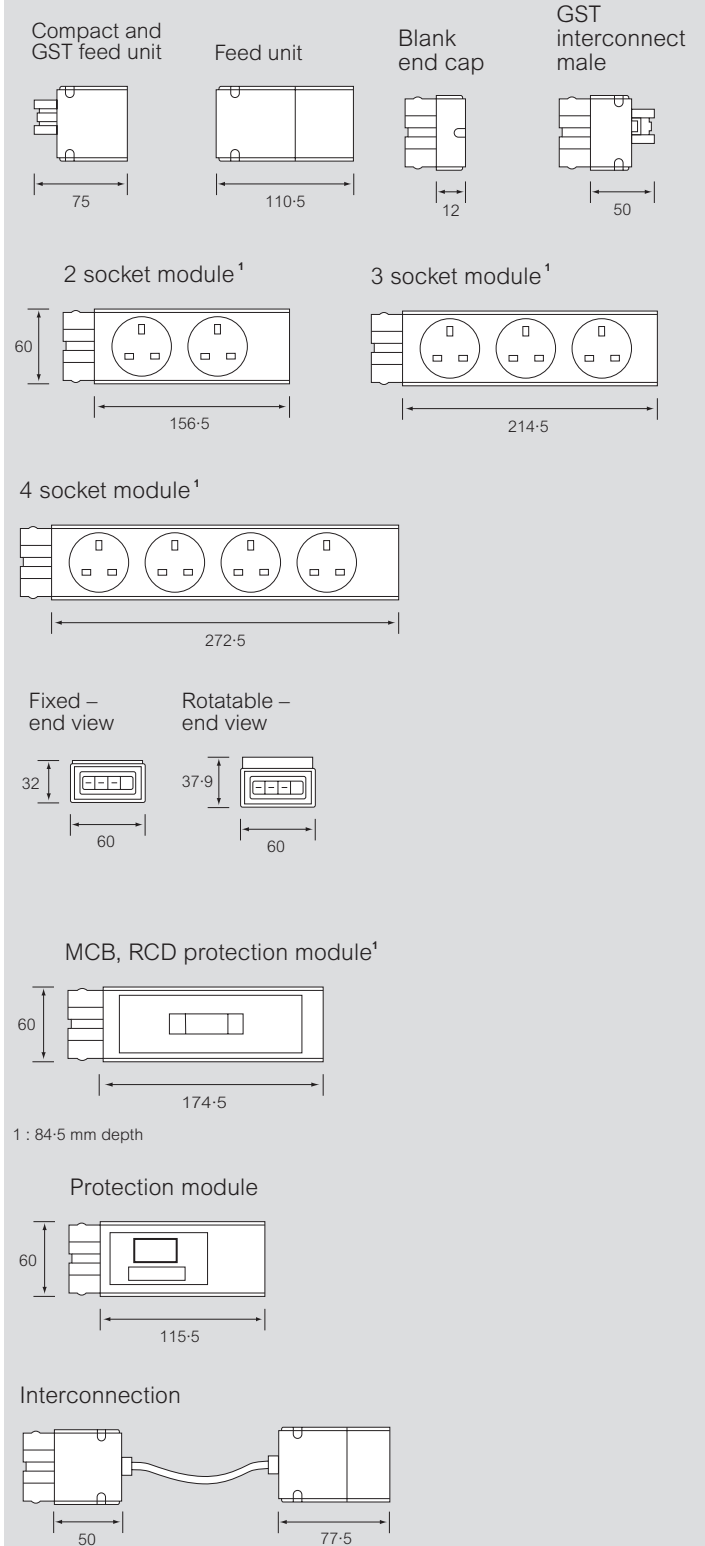
IAB5P4F

Dimensions and technical information p. 42-45

The Intersoc 32 A under-desk range is a complete modular power system. Intersoc offers a wide range of international socket options. The Intersoc modular system features safe shuttered electrical connections and a robustly designed rigid joint between modules. All modules connect with single push-fit action and auto lock.

Pack	Cat. Nos.	6 A Indian socket modules
2 gang fixed 90° – IS 1293		
1	IAB5P2F	Grey – 2 P + E
1	IAC5P2F	Green – 2 P + CE
3 gang fixed 90° grey – IS 1293		
1	IAB5P3F	Grey – 2 P + E
1	IAC5P3F	Green – 2 P + CE
4 gang fixed 90° grey – IS 1293		
1	IAB5P4F	Grey – 2 P + E
1	IAC5P4F	Green – 2 P + CE

Under-desk dimensions (mm)



All dimensions (mm) are nominal

Testing and accreditation



Intertek

Independently approved by Intertek
Complies with BS 5733 and relevant parts of BS 1363-2
Manufactured within an approved ISO 9001 : 2015 and
ISO 14001 : 2015 facility
Assessed quality assurance certificate No. 2029

Electrical test data

Rated current	up to 32 A
Rated voltage	250 V ~
Frequency	50 Hz

Conductor resistance at 20°C

	Fixed	Rotatable
2 socket module	0.8 mΩ	0.9 mΩ
4 socket module	1.6 mΩ	1.7 mΩ

Volt drop Live and neutral

2 socket module	1.5 m V/A
4 socket module	3.0 m V/A
Protection module	4.0 m V/A
	(depending on device)

In-feeds :

16 A	4.0 m V/A
+1.5 mm ²	29 m V/A/m
32 A	2.0 m V/A
+4 mm ²	11 m V/A/m

Interconnections :

16 A/32 A	2.0 m V/A
+1.5 mm ²	29 m V/A/m
+4 mm ²	11 m V/A/m

Earth fault loop impedance

2 socket module	1.5 mΩ
4 socket module	3.0 mΩ
Protection module	4.0 mΩ
	(depending on device)

In-feeds :

16 A	2.0 mΩ
+1.5 mm ²	29 mΩ/m
32 A	2.0 mΩ
+4 mm ²	11 mΩ/m

Interconnections :

16 A/32 A	4.0 m V/A
+1.5 mm ²	29 mΩ/m
+4 mm ²	11 mΩ/m

Mechanical data

Number of conductors	3
Busbar conductor cross-sectional area	5 mm ²
16 A rewirable in-feed terminal capacity	10 mm ²
32 A rewirable in-feed terminal capacity	10 mm ²

British Standards

BS 6396 : 2008 + A1 2015 Electrical Systems in Office Furniture and Educational Furniture Specification

BS 7671 : 2018 incorporating amendment No. 3 : 2015. Requirements for Electrical Installation (IET Wiring Regulations 18th Edition)

Electricity at Work Regulations 1989

Health & Safety Legislation

Below is a brief outline of the main criteria within the standards :

BS 6396 : 2008 + A1 2015 was published with regard to the use of electrical equipment within general office and educational furniture. This standard sets out in its scope the use and testing of electrical socket outlets and associated wiring when used together with a 13 A BS 1363 fused plug for mains supply and makes provision for the routing of cables through furniture.

For compliance with this standard, socket outlet configurations of up to 4 outlets should be individually fused at 5 A and up to 6 outlets individually fused at 3.15 A.

A note on individual socket fusing – BS 6396 Compliance :

The standard requires individual socket fusing (as per the table below)

Total number of sockets	Individually fused at
2, 3 or 4 sockets	5 A
5 or 6 sockets	3.15 A

Meets the requirements of BS 7671 : 2018

The Health and Safety Executive states that installations which conform to the standards laid down in BS 7671 : 2018 are regarded by the HSE as likely to achieve conformity with the relevant parts of the Electricity at Work Regulations 1989.

Special note should be taken of regulation 543.7 within BS 7671 : 2018 - Earthing requirements for the installation of equipment having high protective conductor currents.

Regulation 543.7 has particular importance when there is a requirement for a quantity of information technology equipment being supplied from a final circuit in a location where the sum of their protective currents exceeds 10 mA in normal use. Due to current in the protective conductor arising from the use of IT equipment, there is a requirement to provide mechanically protected 4 mm² conductor (543.7.203 (ii)). Intersoc achieves this when wired in accordance with the installation sheets by providing mechanically protected 5 mm² protective conductors within the product.

Material specification

Module housing	heat resistant ABS
Socket outlets	polycarbonate
Busbars	high conductivity copper CW004A (C101)
Other metalwork	phosphor bronze CW451K (PB102), CW452K (PB103)
	brass CW507L (CZ107), CW508L (CZ108)
	high conductivity copper CW004A (C101) ¹

¹ : European grades with nearest British Standard shown in brackets

All dimensions (mm) are nominal

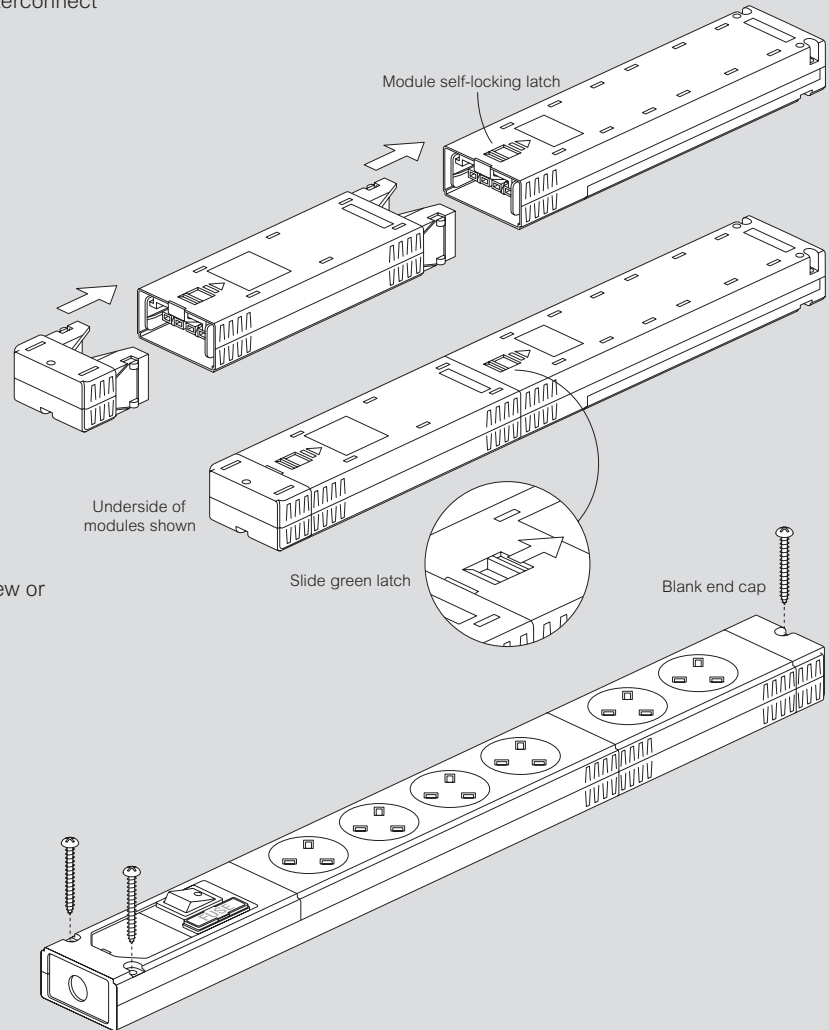
Intersoc-R™ desk modules

installation and configuration

Installation

To connect and disconnect Intersoc modules

1. Connection / disconnection to be made by a competent person
2. Before connecting modules ensure they are the correct way up and in line
3. Push modules together one at a time
4. Modules self-lock when fully pushed together
5. To disconnect modules slide green latch to unlock module and pull apart
6. Always end module run with blank end cap or interconnect

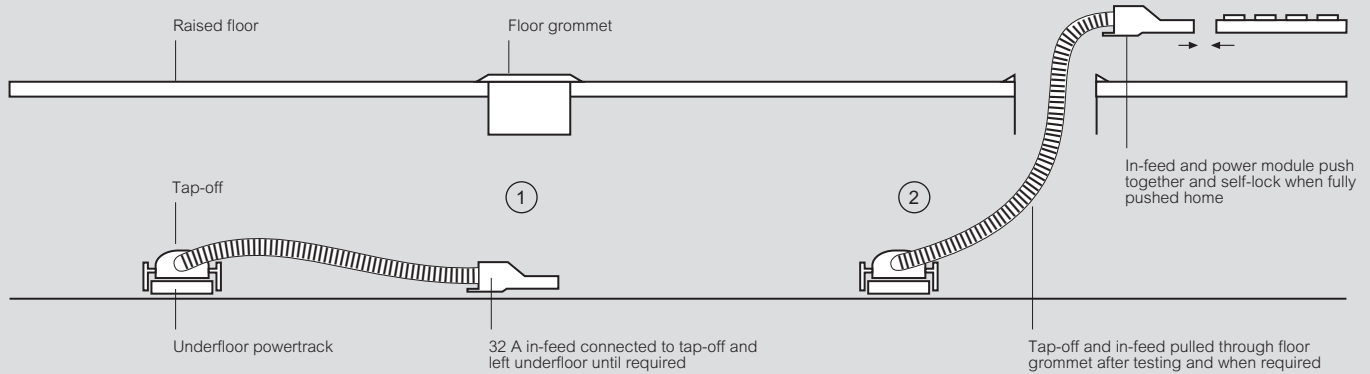


To fix modules to surface

1. Insert through all fixing holes no. 8 pozi-pan screw or M4 bolt to required length
2. Tighten screw / bolt down to mounting surface

Product configuration

1. Select the type of distribution system - standard, or low noise / clean earth
 2. Select the means of powering the system - cable or powertrack tap-off
 3. Select the type of in-feed module to match the cable capacity - 16 A or 32 A
 4. Select the means of protection
 5. Select the number of socket modules from the 2, 3 or 4 gang range (individually fused or unfused)
 6. Select fixed or rotatable sockets
 7. Select the interconnection units if required
 8. Finish system with the end cap
- (All modules push fit and lock together on-site or can be factory assembled to customer requirement)



ON-DESK

power and data for
modern workspaces



ON-DESK RANGE BRINGS POWER, DATA AND RAPID USB CHARGING TO THE MODERN WORKSTATION

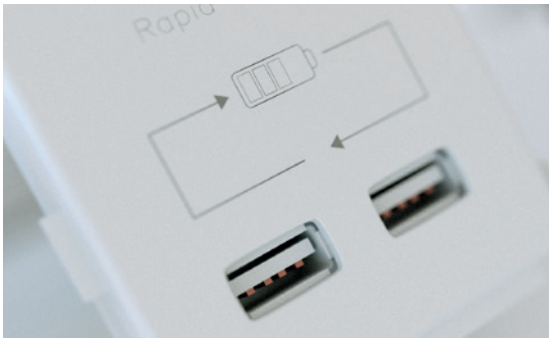
With clean lines and a stylish aluminium and mirror white finish, Electrak on-desk's ergonomic design blends in perfectly with contemporary office design schemes and enhances the functionality of the desk space.



Tailored to your requirements

Configuring on-desk modules to your exact requirements couldn't be simpler. Select any combination of power sockets and USB charging modules, and further enhance functionality with plug and play data solutions or Euro modules. Legrand's modular wiring accessories, including a range of AV solutions, can also be incorporated.

Putting 'personal' back into desk power and data... Intersoc on-desk can be tailored to the demands of any workstation



RAPID USB CHARGING

Intelligent twin USB modules offer a high specification, rapid charge facility that keeps your mobile devices ready should you need to work on the move. Up to two devices (e.g. tablet and smart phone) can be simultaneously charged at a faster rate than common, lower output chargers.



HIGH PERFORMANCE DATA

On-desk offers plug and play CAT 5e and CAT 6 data options or CAT 6A keystone jack modules for higher performance. Euro module options are also available to accommodate a customer's specific data requirements. The innovative design of Intersoc on-desk enables data cables to neatly feed through the rear of the unit (see below).



Watch the on-desk video at www.youtube.com/LegrandtvUK

The entire Electrak system is powered by a reliable busbar backbone, from powertrack right through to on-desk modules.



Power is fed to the on-desk unit via a choice of 13 A pre-wired plug, GST connector or an Intersoc-R under-desk connector.



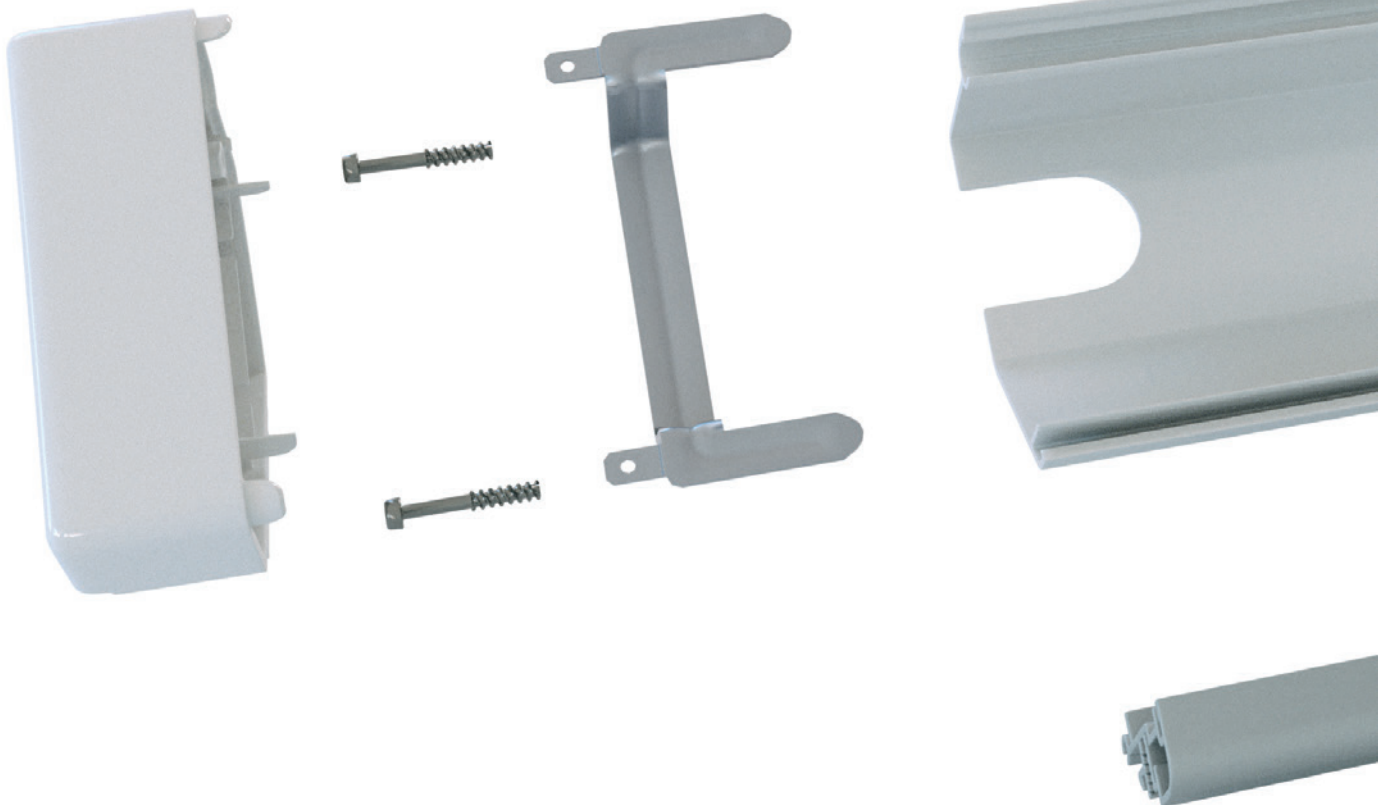
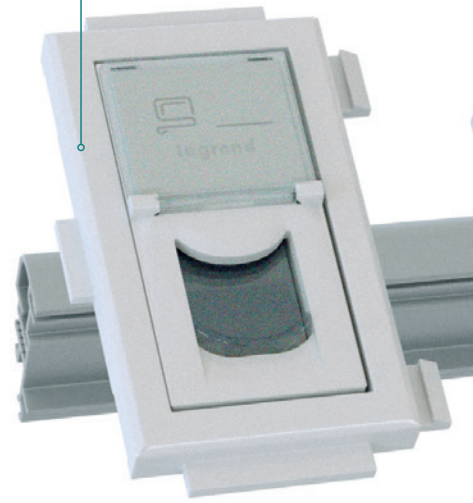
CAT 5e and CAT 6 data outlets are fed neatly from the rear of the unit via simple RJ45 connection (patch leads not supplied).

RELIABLE DESKTOP CONNECTIVITY

CAT 5e / 6 / 6A
RJ45 outlets

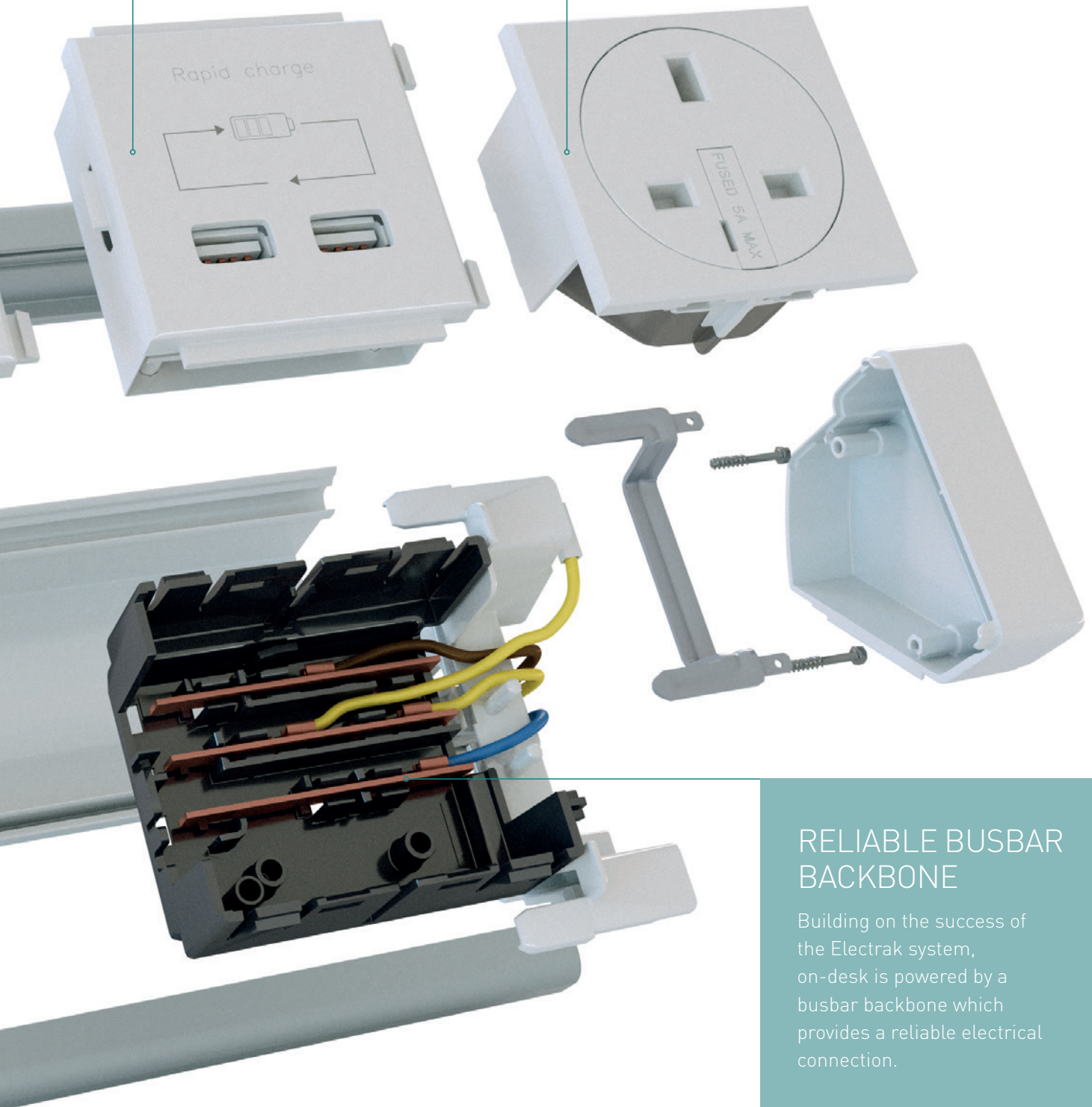
ON-DESK...
DELIVERING POWER,
DATA AND RAPID USB
CHARGING TO THE
MODERN WORKPLACE

The fast pace of modern work practices combined with the need for instant connectivity is placing an ever greater reliance on the use of multiple devices, whether it be at our workstation or whilst we're on the move. The new range of Electrak on-desk modules offers a convenient answer to the growing demand for user-specific desk power and data access.



Rapid dual
USB charging


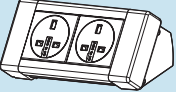
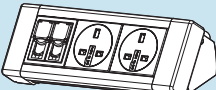
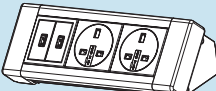

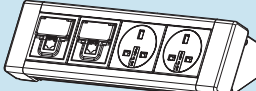
BS and
International
socket options



RELIABLE BUSBAR BACKBONE

Building on the success of the Electrak system, on-desk is powered by a busbar backbone which provides a reliable electrical connection.

On-desk modules

		Pre-wired with 3 m flex and BS 1363 plug 	Pre-wired with 1.5 m flex and GST connector 	Pre-wired with 1.5 m flex and Intersoc-R connector 	
	Description	Cat. Nos.	Cat. Nos.	Cat. Nos.	
	2 x sockets individually fused at 3·15 A	PA3320AA	PB1320AA	PD1320AA	
	3 x sockets individually fused at 3·15 A	PA3330AA	PB1330AA	PD1330AA	
	4 x sockets individually fused at 3·15 A	PA3340AA	PB1340AA	PD1340AA	
	2 x sockets individually fused at 3·15 A plus 1 x rear pluggable CAT 5e / CAT 6 RJ45 outlet	PA3320AB	PB1320AB	PD1320AB	
	2 x sockets individually fused at 3·15 A plus 2 x rear pluggable CAT 5e / CAT 6 RJ45 outlets	PA3320AC	PB1320AC	PD1320AC	
	2 x sockets individually fused at 3·15 A plus 1 x rear pluggable data USB outlet	PA3320AD	PB1320AD	PD1320AD	
	2 x sockets individually fused at 3·15 A plus 2 x rear pluggable data USB outlets	PA3320AE	PB1320AE	PD1320AE	
	2 x sockets individually fused at 3·15 A plus 1 x CAT 6A RJ45 outlet with 3 m data lead	PA3320AF	PB1320AF	PD1320AF	
	2 x sockets individually fused at 3·15 A plus 2 x CAT 6A RJ45 outlets with 3 m data leads	PA3320AG	PB1320AG	PD1320AG	

Fixings

Description	Cat. No.
Desk clamp	0546 99





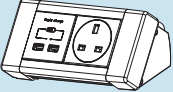
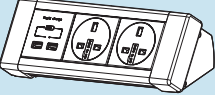
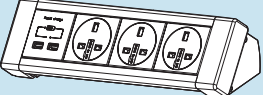
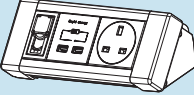
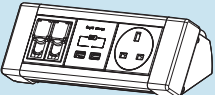
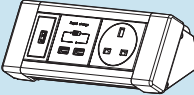
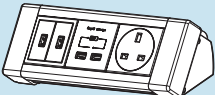
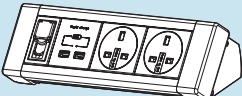
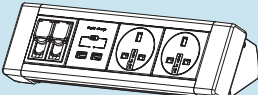
		Pre-wired with 3 m flex and BS 1363 plug	Pre-wired with 1.5 m flex and GST connector	Pre-wired with 1.5 m flex and Intersoc-R connector
	Description	Cat. Nos.	Cat. Nos.	Cat. Nos.
	2 x sockets individually fused at 3.15 A plus carrier to accept 1 x Euro Module (25 x 50 mm)	PA3320AK	PB1320AK	PD1320AK
	2 x sockets individually fused at 3.15 A plus carrier to accept 2 x Euro Modules (50 x 50 mm)	PA3320AL	PB1320AL	PD1320AL
	3 x sockets individually fused at 3.15 A plus 1 x rear pluggable CAT 5e / CAT 6 RJ45 outlet	PA3330AB	PB1330AB	PD3330AB
	3 x sockets individually fused at 3.15 A plus 2 x rear pluggable CAT 5e / CAT 6 RJ45 outlets	PA3330AC	PB1330AC	PD1330AC
	3 x sockets individually fused at 3.15 A plus 1 x rear pluggable data USB outlet	PA3330AD	PB1330AD	PD1330AD
	3 x sockets individually fused at 3.15 A plus 2 x rear pluggable data USB outlets	PA3330AE	PB1330AE	PD1330AE
	2G 6A Indian non-switched – 1.5 ISOC and no data	–	–	PD1P20AA
	2G 6A Indian non-switched – 1.5 ISOC and 1 x C5/6	–	–	PD1P20AB
	2G 6A Indian non-switched – 1.5 ISOC and 2 x C5/6	–	–	PD1P20AC

Notes:

Other options are available to special order. Contact us on +44 (0) 345 605 4333
 CAT 5e / CAT 6 outlets have a rear facing RJ45 that will accept either CAT 5e or CAT 6 data cabling (no data cabling is included with the product)
 CAT 6A outlets are supplied with 3 m pre-wired lead and performance certificate
 The data USB outlets have a short flying lead at the rear for USB connection to the PC (no additional data cabling is included with the product)
 Units supplied with carriers to accept Euro Modules will be supplied with apertures at the rear for the passing of data or AV cables

On-desk modules

with twin outlet USB charger

		Pre-wired with 3 m flex and BS 1363 plug 	Pre-wired with 1.5 m flex and GST connector 	Pre-wired with 1.5 m flex and Intersoc-R connector 	
	Description	Cat. Nos.	Cat. Nos.	Cat. Nos.	
	1 x unfused socket plus twin outlet USB charger	PA3012AA	PB1012AA	PD1012AA	
	2 x sockets individually fused at 3.15 A plus twin outlet USB charger	PA3322AA	PB1322AA	PD1322AA	
	3 x sockets individually fused at 3.15 A plus twin outlet USB charger	PA3332AA	PB1332AA	PD1332AA	
	1 x unfused socket, twin outlet USB charger plus 1 x rear pluggable CAT 5e / CAT 6 RJ45 outlet	PA3012AB	PB1012AB	PD1012AB	
	1 x unfused socket, twin outlet USB charger plus 2 x rear pluggable CAT 5e / CAT 6 RJ45 outlets	PA3012AC	PB1012AC	PD1012AC	
	1 x unfused socket, twin outlet USB charger plus 1 x rear pluggable data USB outlet	PA3012AD	PB1012AD	PD1012AD	
	1 x unfused socket, twin outlet USB charger plus 2 x rear pluggable data USB outlets	PA3012AE	PB1012AE	PD1012AE	
	2 x sockets individually fused at 3.15 A, twin outlet USB charger plus 1 x rear pluggable CAT 5e / CAT 6 RJ45 outlet	PA3322AB	PB1322AB	PD1322AB	
	2 x sockets individually fused at 3.15 A, twin outlet USB charger plus 2 x rear pluggable CAT 5e / CAT 6 RJ45 outlets	PA3322AC	PB1322AC	PD1322AC	

Fixings

Description	Cat. No.
Desk clamp	0546 99

		Pre-wired with 3 m flex and BS 1363 plug	Pre-wired with 1.5 m flex and GST connector	Pre-wired with 1.5 m flex and Intersoc-R connector
	Description	Cat. Nos.	Cat. Nos.	Cat. Nos.
	2 x sockets individually fused at 3.15 A, twin outlet USB charger plus 1 x rear pluggable data USB outlet	PA3322AD	PB1322AD	PD1322AD
	2 x sockets individually fused at 3.15 A, twin outlet USB charger plus 2 x rear pluggable data USB outlets	PA3322AE	PB1322AE	PD1322AE
	2 x sockets individually fused at 3.15 A, twin outlet USB charger plus 1 x CAT 6A RJ45 outlet with 3 m data lead	PA3322AF	PB1322AF	PD1322AF
	2 x sockets individually fused at 3.15 A, twin outlet USB charger plus 2 x CAT 6A RJ45 outlets with 3 m data leads	PA3322AG	PB1322AG	PD1322AG
	2 x sockets individually fused at 3.15 A, twin outlet USB charger plus carrier to accept 1 x Euro Module (25 x 50 mm)	PA3322AK	PB1322AK	PD1322AK
	2 x sockets individually fused at 3.15 A, twin outlet USB charger plus double carrier to accept 2 x Euro Modules (50 x 50 mm)	PA3322AL	PB1322AL	PD1322AL
	2G 6A Indian non-switched – 2 USB : 1.5 m ISOC and no data	–	–	PD1P22AA
	2G 6A Indian non-switched – 2 USB : 1.5 m ISOC and 1 x C5/6	–	–	PD1P22AB
	2G 6A Indian non-switched – 2 USB : 1.5 m ISOC and 2 x C5/6	–	–	PD1P22AC

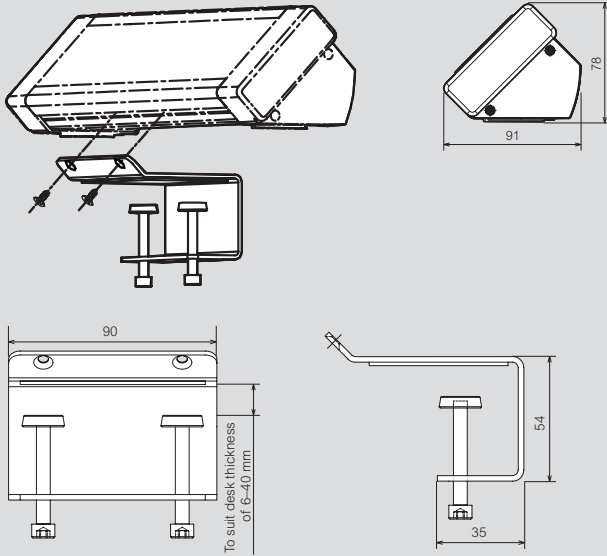
Notes:

Other options are available to special order. Contact us on +44 (0) 345 605 4333
 CAT 5e / CAT 6 outlets have a rear facing RJ45 that will accept either CAT 5e or CAT 6 data cabling (no data cabling is included with the product)
 CAT 6A outlets are supplied with 3 m pre-wired lead and performance certificate
 The data USB outlets have a short flying lead at the rear for USB connection to the PC (no additional data cabling is included with the product)
 Units supplied with carriers to accept Euro Modules will be supplied with apertures at the rear for the passing of data or AV cables

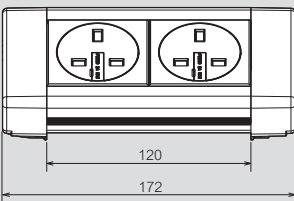
On-desk modules

technical information

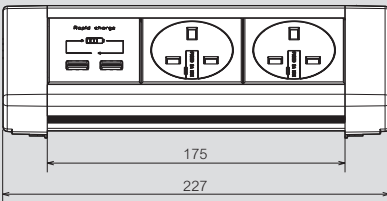
On-desk dimensions (mm)



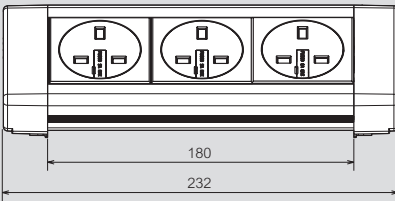
PA3320AA



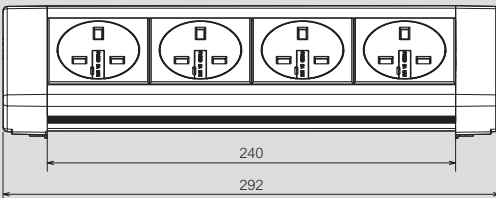
PA3322AA



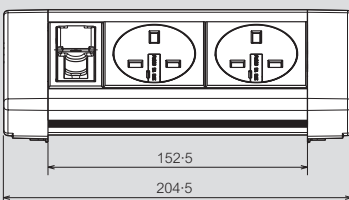
PA3330AA



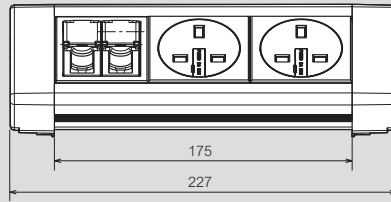
PA3340AA



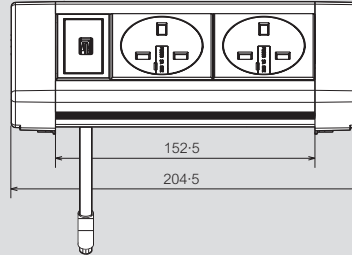
PA3320AB



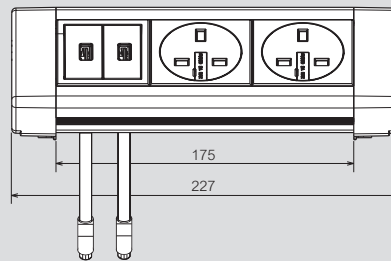
PA3320AC



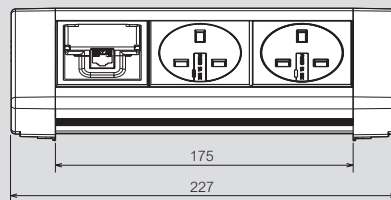
PA3320AD



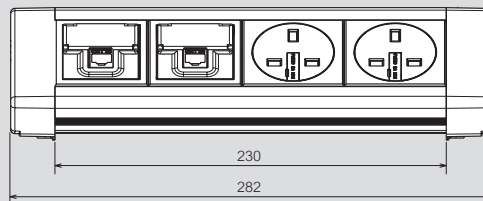
PA3320AE



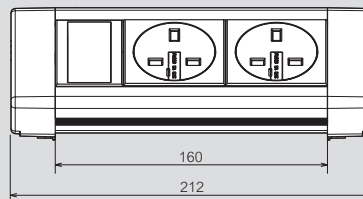
PA3320AF



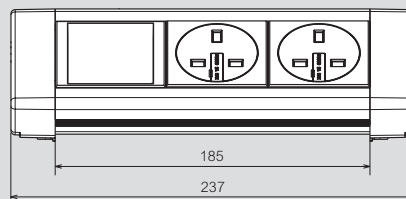
PA3320AG



PA3320AK



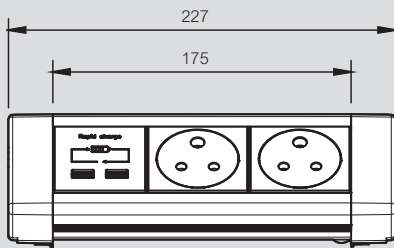
PA3320AL



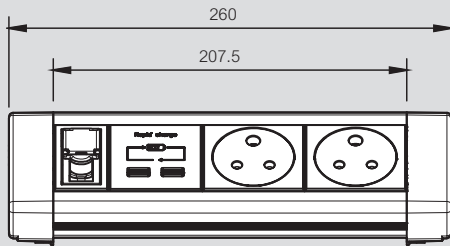
All dimensions (mm) are nominal

■ On-desk dimensions (mm) (continued)

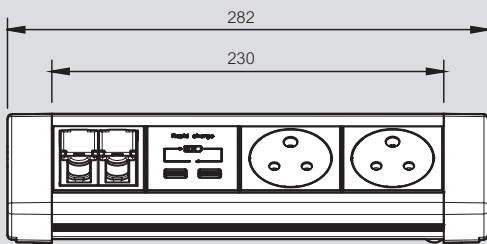
PD1P22AA



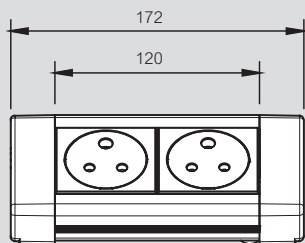
PD1P22AB



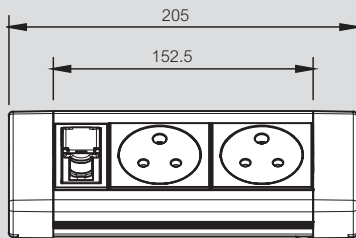
PD1P22AC



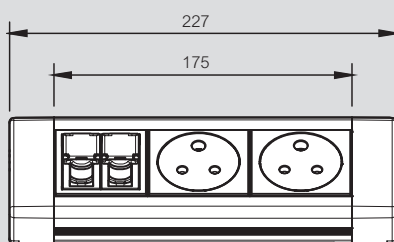
PD1P20AA



PD1P20AB



PD1P20AB



■ Testing and accreditation



Complies with BS 5733 and relevant parts of BS 1363-2
Manufactured within an approved ISO 9001 : 2015 and ISO 14001 : 2015 facility

■ BS 6396 : 2008 + A1 2015

Electrical Systems in Office Furniture and Educational Furniture Specification

Below is a brief outline of the main criteria within the standards :

BS 6396 : 2008 + A1 2015 was published with regard to the use of electrical equipment within general office and educational furniture. This standard sets out in its scope the use and testing of electrical socket outlets and associated wiring when used together with a 13 A BS 1363 fused plug for mains supply and makes provision for the routing of cables through furniture

The standard requires individual socket fusing (as per the table below)

Total number of sockets	Individually fused at up to
2, 3 or 4 sockets	5 A
5 or 6 sockets	3·15 A

BS 6396 : 2008 + A1 2015 requires RCD protection for electrical sockets

Material specification

Module housing	aluminium / PVC
Module fascia	polycarbonate / ABS
Socket outlets	polycarbonate
End caps	ABS

USB charger module specification

Supply voltage (nominal)	230 V (AC)
Supply current	1·3 mA
Power consumption (max.)	0·3 W
Frequency	50 Hz
Output voltage	+5·0 V ± 0·25 (DC)
Output current	3·1 A
Output power	15 W (max.)
Over current protection	3·8 A (max.)
Output connectors	2 x USB Type A sockets
Current per socket	2·1 A (max.)

All dimensions (mm) are nominal

ELECTRAK IN-DESK

enhancing the workstation



IN-DESK BRINGS STYLE AND FLEXIBILITY TO THE WORKSTATION

Made from high quality brushed stainless steel, In-desk is designed to complement the aesthetic of modern workspaces, giving users power when they need it and minimal, sleek design when they don't.

With the simple touch of a button, the unit elegantly rises from the desk in a smooth action to reveal either a traditional twin socket arrangement or a single socket with twin USB outlets for charging mobile devices.



EASY INSTALLATION

The Electrak In-desk range is pre-wired with a BS plug, GST or Intersoc-R connector for simple tool-free electrical connection.

MINIMAL AND DISCREET

When power isn't required, the ultra-slim brushed stainless steel cover closes to fit discreetly into the desktop.

POWER SET FREE

wireless charging

Legrand's Qi certified induction charger can be easily installed into desks, tables and other furniture – allowing Qi enabled smartphones and other mobile devices to be charged simply by placing them on top. Charging has never been more simple.

Extra flat, supplied with a micro USB/USB cable and a USB mobile power supply (Cat. No. 077580).




In-desk units



POPA3012AA



POPA3020AA



077580

 Dimensions and technical information **p. 61**

Classification of In-desk flush-mounting boxes according to
 NFC 61-314 / EN 60670-1 : 2005 + A1 : 2013
 Protection against mechanical impact: IK 07
 Degree of ingress protection: IP 30 cover open, IP 40 cover closed

Pack	Cat. Nos.	In-desk units
		USB power supply for recharging portable devices Consumes in passive mode < 0.1 W Double USB sockets - 5 V - 2400 mA For fast charging telephones, smartphones, MP3/MP4 players and tablet PC British standard socket outlet: shuttered for child safety ASTA licenced Conforms to BS 1363 Part 2
		Unit with single socket and twin USB outlets
1	POPA3012AA	Unit with 3m lead and BS 1363 plug
1	POPB1012AA	Unit with 1.5m lead and GST connector
1	POPD1012AA	Unit with 1.5m lead and Intersoc-R connector
		Unit with twin sockets
1	POPA3020AA	Unit with 3m lead and BS 1363 plug
1	POPB1020AA	Unit with 1.5m lead and GST connector
1	POPD1020AA	Unit with 1.5m lead and Intersoc-R connector
		Wireless charging unit
		Qi certified induction charger
1	077580	1000 mA wireless charger for furniture Wireless charging for Qi enabled smartphones and other mobile devices Designed for mounting horizontally into furniture Supplied complete with required accessories for installation into furniture

In-desk units and wireless charging unit

technical information

In-desk units

Technical characteristics

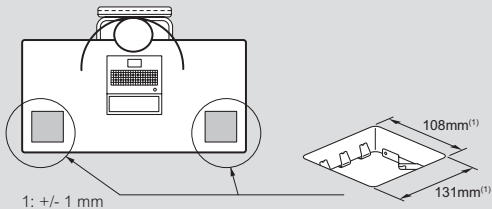
Electrical characteristics	
Earthing system	R < 0.05 Ohms
Resistance to vertical load applied through small surface area	1500 N cover open 3000 N cover closed
Rated voltage	U 500 V - R > 5 MOhms
Electric strength	2000 V
Protection class	II - low voltage

Material: Halogen free material, fire proofed and no propagator of the flame

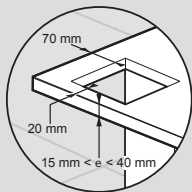
Resistant to corrosion and to temperature changes
Finish: Brushed Stainless steel, zamak nickel coating
Safety: You must earth the system

Cleaning: The exterior should only be cleaned using a damp cloth (avoid contact with the active parts). Do not use abrasive detergent

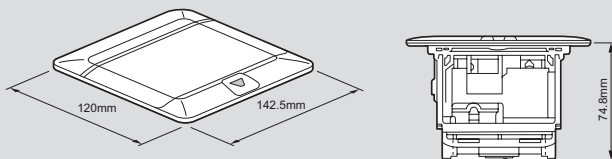
Installation



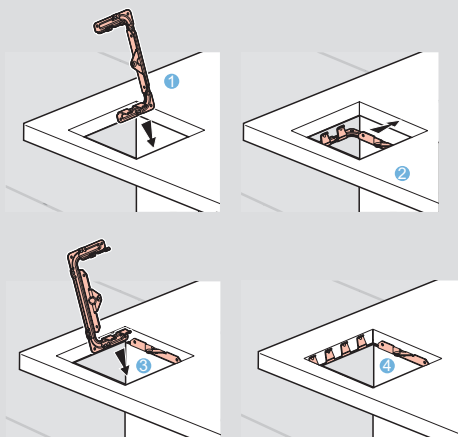
Minimum distance from to the edges of the furniture:



Dimensions



Positioning of the fixing supports



Wireless charging unit - 1000 mA

Technical characteristics

Electrical characteristics	
Nominal input voltage	110 - 230 V ~
Nominal output voltage	5 V ~
Frequency	50 - 60 Hz
Maximum input current	150 mA
Maximum output current	1000 mA
Standby consumption	< 0.07 W
Energy efficiency	> 85%
Protection class	II - low voltage

Average charging time for a smartphone equipped with an induction receiver

80% charge : < 2 hrs
100% charge : < 2 hrs 45 mins

Climate characteristics

Storage temperature : 20°C to +70°C
Operating temperature : 0°C to +45°C

Standards and approvals

WPC QI
BS EN 62479
ICNIRP

Mechanical characteristics

Impact resistance : IK 08
Resistance to ingress of solid bodies and liquids :
• IP 43
• IP 44 for upper part installed on furniture

Material characteristics

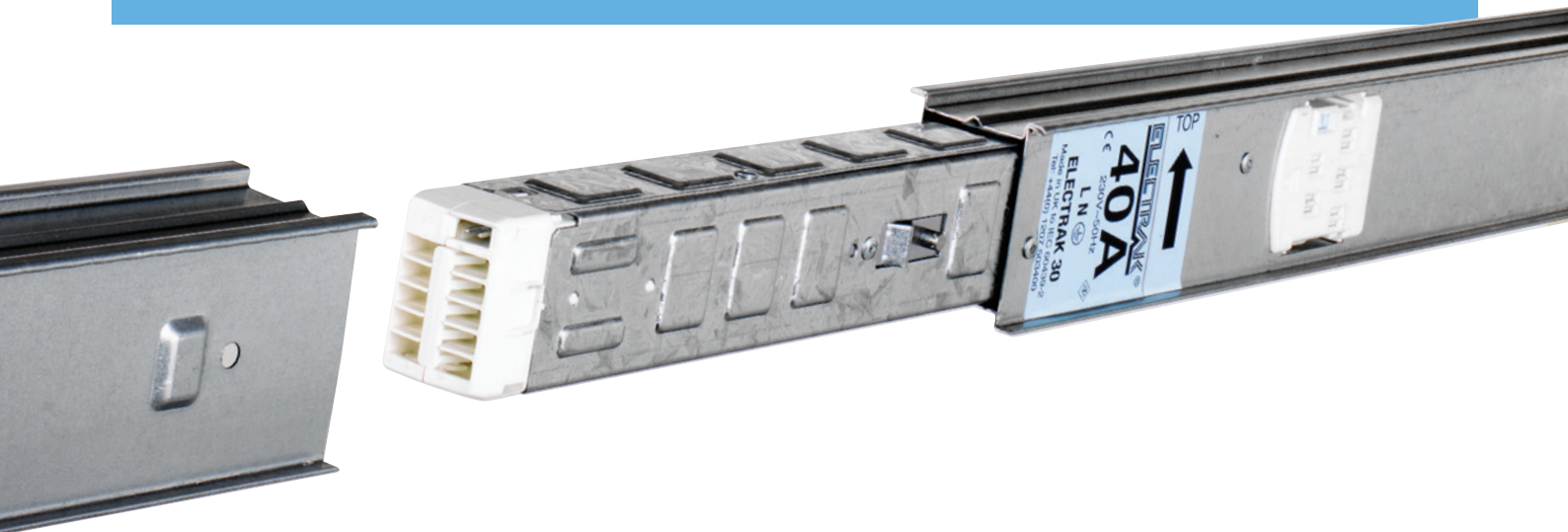
ABS
Halogen free
UV resistant
Self-extinguishing :
• 750°C / 30 s for parts made of insulating materials holding live parts in place
• 650°C / 30 s for other insulating components

All dimensions (mm) are nominal

BUSCOM TRUNKING

a unique

power & data backbone



Buscom is at the heart of Electrak's lighting control solutions... It provides a flexible and simple alternative to cabled installations.



THE HEART OF YOUR LIGHTING CONTROL SYSTEM

Installing a matrix of Buscom trunking creates an accessible power and communications backbone. The backbone can be tapped into at any point to facilitate instant connection to power and control circuits. Buscom incorporates an integral shielded twisted pair, and is suitable for use with any lighting control protocol, including: KNX, LonWorks and DALI.

MODULAR. FLEXIBLE. SIMPLE.

Trunking lengths simply push fit together, saving time and money on installation. With cable terminations only required for power and control circuits in the feed unit, Buscom delivers a plug and play solution that allows for future lighting layout changes to be made quickly and efficiently.

BUSCOM ADDS A NEW DIMENSION TO LIGHTING BUSBAR

Buscom extends the unquestionable plug and play advantages from the power circuit to the control circuit.

This unique system for distributing lighting control signals delivers unrivalled flexibility, regardless of the location of the intelligence...

- Power and communications within a single trunking system
- Suitable for use with any lighting control protocol, including: KNX, LonWorks and DALI
- Modular, flexible system which is quick and simple to install and adapt
- Reduced potential points of failure in comparison with traditional wiring installations

THE INTELLIGENT SOLUTION

INTELLIGENCE IN THE PANEL



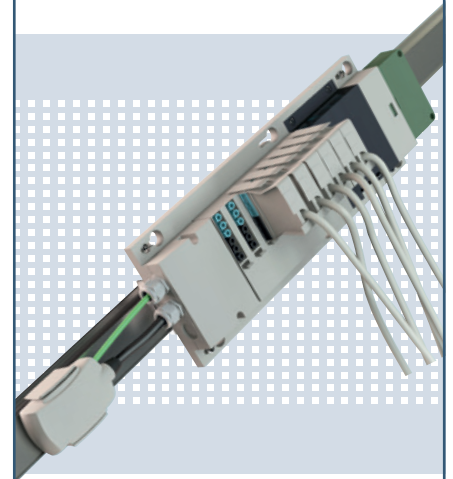
Lighting control modules located in a central cabinet are connected to the Buscom system via communication circuits. Control signals are then distributed along the trunking run and made available at any tap-off outlet.

INTELLIGENCE IN THE BUSBAR



Integrating lighting control technology into Buscom trunking is particularly effective for DALI control. Each trunking run converts to an individual DALI network into which luminaires can tap-in at any point.

INTELLIGENCE IN THE LCU



Lighting control units (LCUs) are mounted onto and plugged into Buscom trunking, providing a hub for multiple luminaires and switching devices to plug into. Buscom's integrated communication bus provides the backbone network to control all devices.

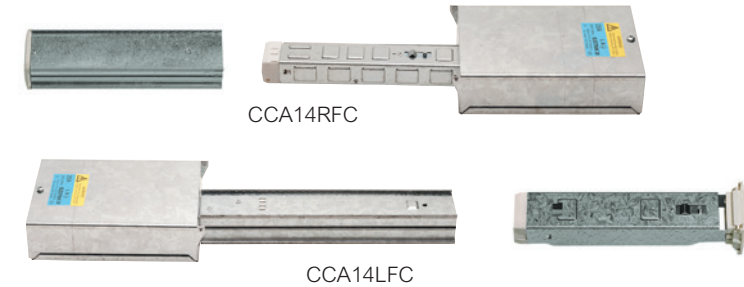
Visit www.legrand.co.uk for more information

Electrak® 30 2P + E buscom trunking

power and communication distribution



CCA2145C



CCA14RFC

CCA14LFC

Dimensions and technical information p. 68-73

Integral communication bus suitable for KNX, Lonworks, DALI protocols, etc. 25 A and 40 A systems
 IP 4X ingress protection
 Fast installation (trunking push fits together in seconds). High quality materials

Pack	Cat. Nos.	Electrak 30 2P + E with comms									
		2P + E buscom trunking system with integral communications bus circuit Socket outlets colour coded white									
		Trunking lengths									
		Trunking lengths push fit into each other, and feed units. Trunking lengths can be suspended using the various bracket options									
		<table border="1"> <thead> <tr> <th>Length (m)</th> <th>Tap-off outlets</th> <th>Weight (kg)</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>6</td> <td>4.47</td> </tr> <tr> <td>2</td> <td>4</td> <td>3.27</td> </tr> </tbody> </table>	Length (m)	Tap-off outlets	Weight (kg)	3	6	4.47	2	4	3.27
Length (m)	Tap-off outlets	Weight (kg)									
3	6	4.47									
2	4	3.27									
1	25 A BBA3145C										
1	BBA2145C										
1	40 A CCA3145C										
1	CCA2145C										

Pack	Cat. Nos.	Electrak 30 2 P + E without comms									
		2P + E busbar (power only) trunking system Socket outlets colour coded white									
		Trunking lengths									
		Trunking lengths push fit into each other, and feed units or flexible lengths. Trunking lengths can be surface mounted suspended using the various bracket options									
		<table border="1"> <thead> <tr> <th>Length (m)</th> <th>Tap-off outlets</th> <th>Weight (kg)</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>6</td> <td>4.47</td> </tr> <tr> <td>2</td> <td>4</td> <td>3.27</td> </tr> </tbody> </table>	Length (m)	Tap-off outlets	Weight (kg)	3	6	4.47	2	4	3.27
Length (m)	Tap-off outlets	Weight (kg)									
3	6	4.47									
2	4	3.27									
1	25 A BBA3145										
1	BBA2145										
1	40 A CCA3145										
1	CCA2145										

Pack	Cat. Nos.	Feed units (with comms)					
		Feed units come with 2 x 25 mm Ø and 2 x 16 mm Ø cable entry holes and single screw cable terminals for power and data Left feed units are supplied with right end stop Right feed units are supplied with left end stop					
		Suspended					
		<table border="1"> <thead> <tr> <th>Weight (kg)</th> </tr> </thead> <tbody> <tr> <td>1.22</td> </tr> <tr> <td>1.49</td> </tr> <tr> <td>1.27</td> </tr> <tr> <td>1.49</td> </tr> </tbody> </table>	Weight (kg)	1.22	1.49	1.27	1.49
Weight (kg)							
1.22							
1.49							
1.27							
1.49							
1	BBA14LFC	25 A left					
1	BBA14RFC	25 A right					
1	CCA14LFC	40 A left					
1	CCA14RFC	40 A right					

Pack	Cat. Nos.	Feed units (without comms – power only)					
		Feed units come with 2 x 25 mm Ø cable entry holes and single screw cable terminals Left feed units are supplied with right end stop Right feed units are supplied with left end stop					
		Suspended					
		<table border="1"> <thead> <tr> <th>Weight (kg)</th> </tr> </thead> <tbody> <tr> <td>1.22</td> </tr> <tr> <td>1.49</td> </tr> <tr> <td>1.27</td> </tr> <tr> <td>1.49</td> </tr> </tbody> </table>	Weight (kg)	1.22	1.49	1.27	1.49
Weight (kg)							
1.22							
1.49							
1.27							
1.49							
1	BBA14LF	25 A left					
1	BBA14RF	25 A right					
1	CCA14LF	40 A left					
1	CCA14RF	40 A right					

Electrak® 32 4P + E (dual circuit) buscom trunking

power and communication distribution



CCC3145C



CCC2145C



CCC14RFC

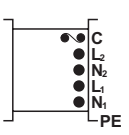


CCC14LFC

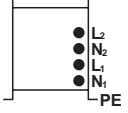
 Dimensions and technical information p. 68-73

Integral communication bus suitable for KNX, Lonworks, DALI protocols, etc. 25 A and 40 A systems
IP 4X ingress protection
Fast installation (trunking push fits together in seconds). High quality materials

Pack	Cat. Nos.	Electrak 32 4P + E (dual circuit) with comms
		Dual circuit buscom trunking system with integral communications bus circuit Socket outlets colour coded white
		Trunking lengths
		Trunking lengths push fit into each other, and feed units. Trunking lengths can be suspended using the various bracket options
	25 A	
1	BBC3145C	Length (m) 3
1	BBC2145C	Tap-off outlets 6
		Weight (kg) 4.77
	40 A	
1	CCC3145C	Length (m) 3
1	CCC2145C	Tap-off outlets 6
		Weight (kg) 4.97
		Weight (kg) 3.61



Pack	Cat. Nos.	Electrak 32 4P + E (dual circuit) without comms
		Dual circuit busbar trunking system Socket outlets colour coded white
		Trunking lengths
		Trunking lengths push fit into each other, and feed units. Trunking lengths can be suspended using the various bracket options
	25 A	
1	BBC3145	Length (m) 3
1	BBC2145	Tap-off outlets 6
		Weight (kg) 4.77
	40 A	
1	CCC3145	Length (m) 3
1	CCC2145	Tap-off outlets 6
		Weight (kg) 4.97
		Weight (kg) 3.61



Pack	Cat. Nos.	Feed units (with comms)
		Feed units come with 2 x 25 mm Ø and 2 x 16 mm Ø cable entry holes and single screw cable terminals for power and data Left feed units are supplied with right end stop Right feed units are supplied with left end stop
		Suspended
		Weight (kg)
1	BBC14LFC	25 A left 1.29
1	BBC14RFC	25 A right 1.52
1	CCC14LFC	40 A left 1.38
1	CCC14RFC	40 A right 1.61

Pack	Cat. Nos.	Feed units (without comms – power only)
		Feed units come with 2 x 25 mm Ø cable entry holes and single screw cable terminals Left feed units are supplied with right end stop Right feed units are supplied with left end stop
		Suspended
		Weight (kg)
1	BBC14LF	25 A left 1.29
1	BBC14RF	25 A right 1.52
1	CCC14LF	40 A left 1.38
1	CCC14RF	40 A right 1.61



For the full Buscom range please see the Lightrak lighting control catalogue, visit www.legrand.co.uk/downloads



Electrak® buscom trunking tap-offs

power and communication distribution



DDJ45C



DDJ45



DDK4F

Dimensions and technical information p. 68-73

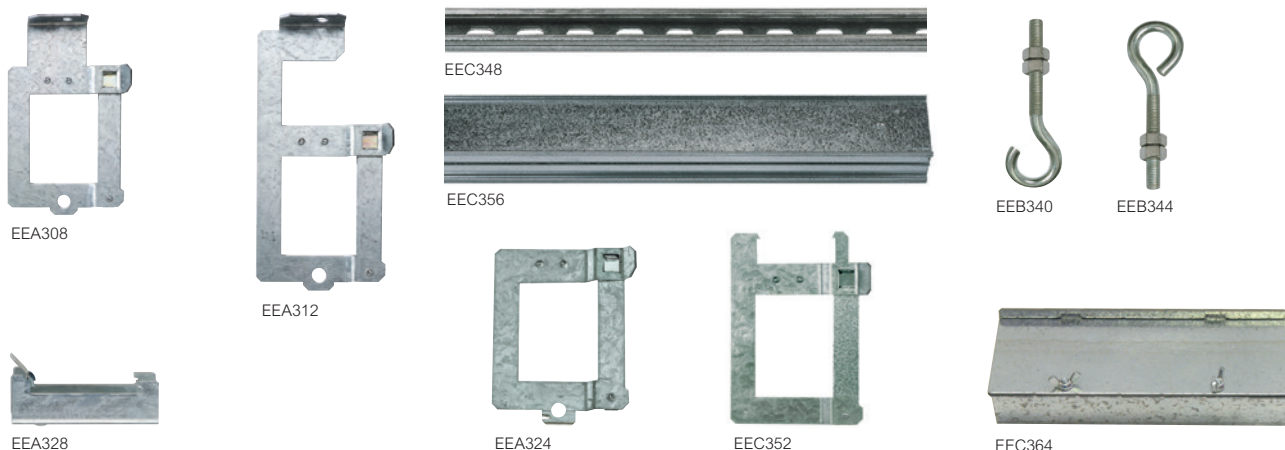
Pack	Cat. Nos.	Tap-off units with comms		
		Tap-offs with comms can only be plugged into outlets that have the comms facility		
		16 A unfused tap-off units		
		Pre-wired tap-off units to pick up L1+N1 or L2+N2, colour coded white		
		Length (m)	Fixed polarity	Weight (kg)
1	DDE43C	3	L1 + N1	0.5
1	DDE45C	5		0.6
1	DDJ43C	3	L2 + N2	0.5
1	DDJ45C	5		0.6
		13 A fused tap-off units		
		Pre-wired tap-off units to pick up L1+N1 or L2+N2, supplied with BS 1362 fuse, colour coded white		
		Length (m)	Fixed polarity	Weight (kg)
1	DDE43FC	3	L1 + N1	0.5
1	DDE45FC	5		0.6
1	DDJ43FC	3	L2 + N2	0.5
1	DDJ45FC	5		0.6

Pack	Cat. Nos.	Tap-off units without comms (power only)		
		Power only tap-offs can plug into any tap-off outlet		
		16 A unfused tap-off units		
		Pre-wired tap-off units to pick up L1+N1 or L2+N2, colour coded white		
		Length (m)	Fixed polarity	Weight (kg)
1	DDE43	3	L1 + N1	0.5
1	DDE45	5		0.6
1	DDJ43	3	L2 + N2	0.5
1	DDJ45	5		0.6
		13 A fused tap-off units		
		Pre-wired tap-off units to pick up L1+N1 or L2+N2, supplied with BS 1362 fuse, colour coded white		
		Length (m)	Fixed polarity	Weight (kg)
1	DDE43F	3	L1 + N1	0.5
1	DDE45F	5		0.6
1	DDJ43F	3	L2 + N2	0.5
1	DDJ45F	5		0.6

Pack	Cat. Nos.	Tap-off units without comms – rewirable	
		16 A unfused tap-off units	
		Rewirable tap-off units to pick up required circuit, colour coded white, can plug into any tap-off outlet	
		Fixed polarity	Weight (kg)
1	DDF4	L1 + N1	0.14
1	DDK4	L2 + N2	0.14
		13 A fused tap-off units	
		Rewirable tap-off units to pick up required circuit, supplied with BS 1362 fuse, colour coded white, can plug into any tap-off outlet	
		Fixed polarity	Weight (kg)
1	DDF4F	L1 + N1	0.14
1	DDK4F	L2 + N2	0.14

Electrak® buscom trunking accessories

fixings and ancillary items



 Dimensions and technical information **p. 68-73**

Brackets are manufactured from robust galvanised steel, ensuring that the entire installation can be expected to stand up to all normal site conditions

Pack	Cat. Nos.	Fixings
1	EEA308	Trunking suspended fixing bracket
1	EEA312	Trunking suspended fixing bracket c/w cable duct stirrup. Used when running cable duct on top of buscom trunking
1	EEA324	Luminaire suspension fixing bracket
1	EEA328	Luminaire 45 mm edge suspension fixing bracket (clip on)
1	EEB340	Open hook luminaire suspended bracket
1	EEB344	Closed ring on luminaire
1	EEC348	Cable duct 3 m long x 50 mm(w) x 13 mm(h)
1	EEC357	Joint bracket cable duct
1	EEC352	Cable duct fixing bracket

Pack	Cat. Nos.	Ancillary items
1	EEC356	2 m empty length for adjusting the length at the end of a run (to be cut)
1	EEC364	Joint sleeve is used if load is hung off trunking joint or near when joint is centre of a fixing span
1	EEC366	Left hand end stop spare
1	EEC368	Right hand end stop spare



For the full Buscom range please see the Lightrak lighting control catalogue, visit www.legrand.co.uk/downloads



Electrak® buscom trunking

technical information

Standards



Intertek

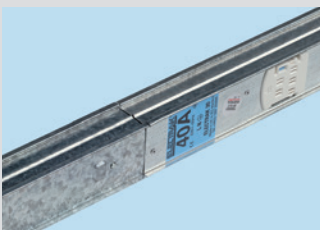
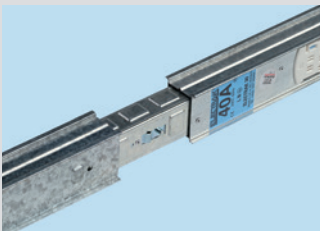
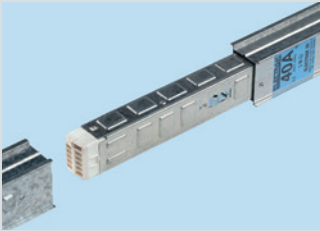
ASTA approved to BS EN 61439-6
 Designed to meet the requirements of BS EN 61534-22 : 2014
 Manufactured within an approved ISO 9001 : 2015 and
 ISO 14001 : 2015
 Assessed Quality Assurance Certificate No. 10679
 Electrak Buscom fully complies with the requirements of BS 7671 : 2018

Buscom trunking options

- L
- N
- PE
- L2
- N2
- L1
- N1
- PE
- Communication bus

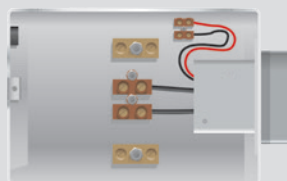
Electrak buscom trunking can be used with Electrak's cost effective lighting control system, Lightrak KNX, or any other systems using control protocols such as KNX, Lonworks, DALI, etc.
 Electrak's overhead trunking couples high quality engineering with rigidity of design, and provides power for a variety of applications including lighting, heating and ventilation. The robust easy fix modular system permits loads to be suspended directly from the trunking using Electrak's various fixing brackets
 Push fit connection keeps installation costs to a minimum

Track lengths simply push fit together



Feed units

25 A rated - max. conductor size 6 mm²
 40 A rated - max. conductor size 16 mm²
 IP 4X galvanised steel



2 pole + earth + comms
 Comms bus
 Max. conductor size 1.5 mm²
 Red +
 Black -

Electrical test data	25 A	40 A	UOM
Derating factor for Electrak 32 single sided	–	0.8	–
Rated operational voltage (Ue)	230/400	230/400	V~
Rated insulation voltage (Ui)	500	500	V~
Frequency (f)	50	50	Hz
Rated impulse withstand voltage	4.0	4.0	KV
Busbar resistance (R ₂₀)	3.9	2.7	mΩ/m
Resistance (R ₁)	4.2	3.0	mΩ/m
Impedance (Z ₁)	4.8	3.4	mΩ/m
Reactance (X ₁)	2.5	1.6	mΩ/m
Protective conductor	1.5	1.5	mΩ/m

Volt drops	25 A	40 A	UOM
Live and neutral : busbars	9.0	6.0	mV/A/m
(R ₁ +R ₂) Feed unit	3.0	2.4	mV/A
Tap-off 0.8 m	22.0	22.0	mV/A
Tap-off 2.0 m	52.0	52.0	mV/A

Earth fault loop	25 A	40 A	UOM
Impedance : busbar	4.5	3.0	mΩ/m
Earth housing	1.5	1.5	mΩ/m
Feed unit	2.4	2.4	mΩ
Tap-off 0.8m	23.0	23.0	mΩ
Tap-off 2.0m	53.0	53.0	mΩ
Rated conditional short-circuit current (I _{cc})	16.0	16.0	KA
Rated short time withstand current (I _{cw}) at 1 sec	0.65	1.0	KA
Rated peak short-circuit current (I _{pk})	0.975	1.5	KA
Ambient temperature	35.0	35.0	°C

Mechanical data	25 A	40 A	UOM
Number of conductors	2.6	2.6	–
Busbar conductor cross-sectional area	4.0	6.0	mm ²
Cable terminal capacity	6.0	16.0	mm ²
Cable terminal capacity bus	1.5	1.5	mm ²
Tap-off cable 16 A	1.5	1.5	mm ²
Tap-off cable 13 A fused	1.5	1.5	mm ²
Tap-off entry	16.0	16.0	mmØ
Feed unit entry holes power	25.0	25.0	mmØ
Feed unit entry holes bus	16.0	16.0	mmØ
IP rating	4 X	4 X	–

Direct protection by enclosure. Indirect protection by protective circuit

All dimensions (mm) are nominal

Electrak® buscom trunking

technical data

Communication control circuit	
Type	Bus cable (LSOH)
Construction	Sheathed 0.5 mm ² copper twisted pair
Insulation - conductor	Flame retardant low emission HCL
Sheath	LSOH material
Rated insulation voltage (Ui) (between power circuit and bus)	500 V
Max. bus operating voltage	50 V
Max. bus operating current	0.65 A
Max. conductor resistance (@20°C)	73.2 Ω/km
Max. mutual capacitance	100 nf/km
Material specifications	
Buscom trunking housing	Galvanised steel
Busbars	High conductivity copper
Busbar insulator	Flame retardant LSOH to BS 7211
Trunking connector / tap-off entry box / cable connector	Flame retardant polycarbonate
Tap-off housing	Flame retardant polycarbonate
Trunking connector blades / tap-off blades	Copper
Feed unit IP 4X	Galvanised steel
Feed unit IP 54	ABS
Flexible length conduit	Flame retardant LSOH nylon
Feed unit terminals / earth block	Brass
Brackets	Galvanised steel
13 A tap-off, fuse	To BS 1362, ASTA approved

Durability

Electrak power and communications distribution systems are well designed and extremely robust. They can be expected to stand up to all normal site conditions. Electrak Buscom has been short circuit strength tested by ASTA

Earth fault loop impedance

BS 7671 : 2018 require accurate determination of the total earth loop impedance, which must be sufficiently low to allow the protective device to operate within the specified time, which for socket outlets is 0.4 seconds

The values relevant to Electrak Buscom for calculating the earth fault loop impedance are shown in the electrical test data table, see opposite

Buscom trunking rating in ambient temperatures

Average ambient air temperature	25°C	30°C	35°C	40°C	45°C	50°C
Rating factor (K1)	1.1	1.05	1	0.95	0.90	0.85

For ambient temperatures other than 35°C apply the multiplier factor K1 to the rated current

Buscom trunking mechanical loading

For point loads and evenly distributed loads the maximum weight that can be supported is given below

Maximum loading for suspended buscom trunking

Fixing distance (m)	1.5	2	2.5	3	3.5	4
Max. point load (deflection = 1/500 x span) (Kg)	20	17	13	12	9	7
Max. distributed load (deflection = 1/500 x span) (Kg)	33	28	22	20	15	12
Max. point load (deflection = 1/350 x span) (Kg)	33	24	18	16	10	9
Max. distributed load (deflection = 1/350 x span) (Kg)	55	40	30	26	16	15

Notes

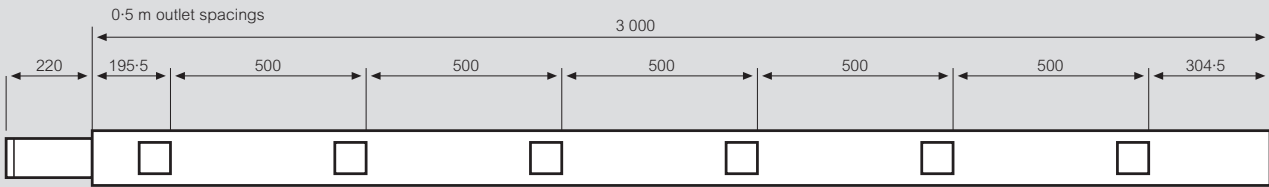
- Where trunking joints occur in the middle of the suspension span, and weight is to be suspended from that point, it is recommended to use a strengthening bracket EEC364 over the joint to stop deflection
- If the load requirements exceed the above figures, please contact us on +44 (0) 370 608 9020
For design information and technical specification, please contact us on +44 (0) 370 608 9020
Suspension rods and fixings should be of suitable size to carry the weight of both the track and suspended load

Electrak® buscom trunking

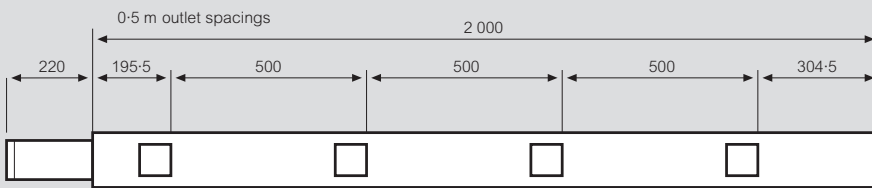
dimensions

■ Fixing dimensions

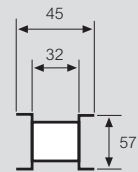
Buscom trunking 3 m



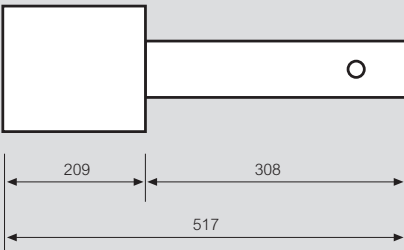
Buscom trunking 2 m



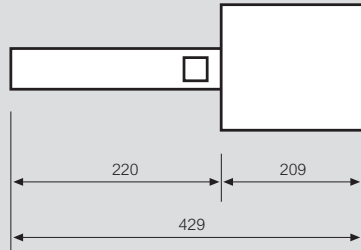
Buscom trunking end view



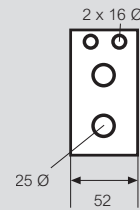
Feed unit – left



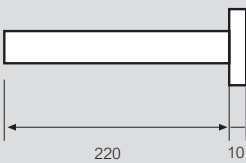
Feed unit – right



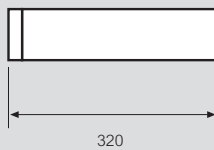
Suspended feed unit



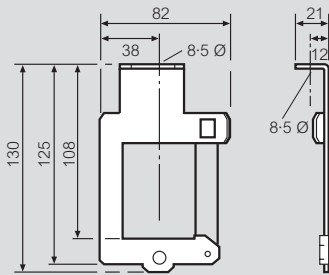
End stop – right



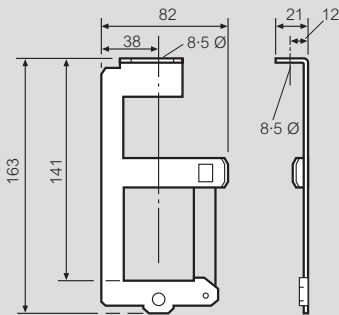
End stop – left



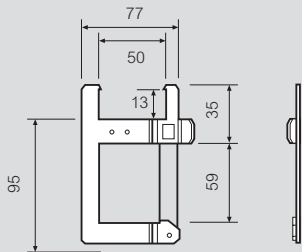
Cat. No. EEA308 Suspended trunking fixing bracket



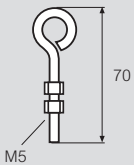
Cat. No. EEA312 Suspended trunking fixing bracket cable duct stirrup



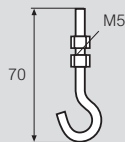
Cat. No. EEC352 Cable duct fixing bracket



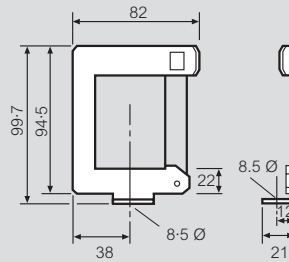
Cat. No. EEB344 Closed ring hook



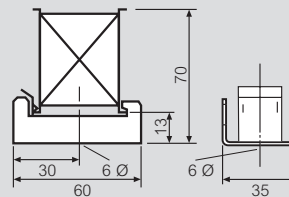
Cat. No. EEB340 Open hook



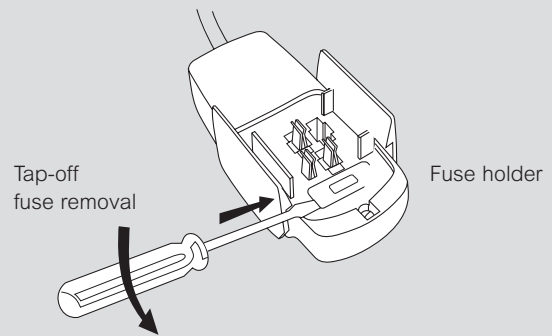
Cat. No. EEA324 Luminaire suspended fixing bracket



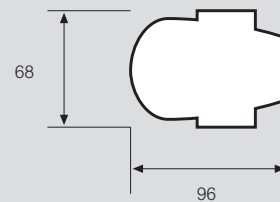
Cat. No. EEA328 Luminaire 45 mm edge suspension fixing bracket



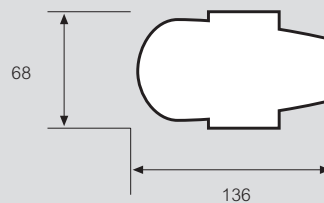
Fused tap-off



Pre-wired tap-offs – 33 mm deep



Rewirable and phase selection tap-offs – 35 mm deep



Electrak® buscom trunking

installation

■ Design and installation

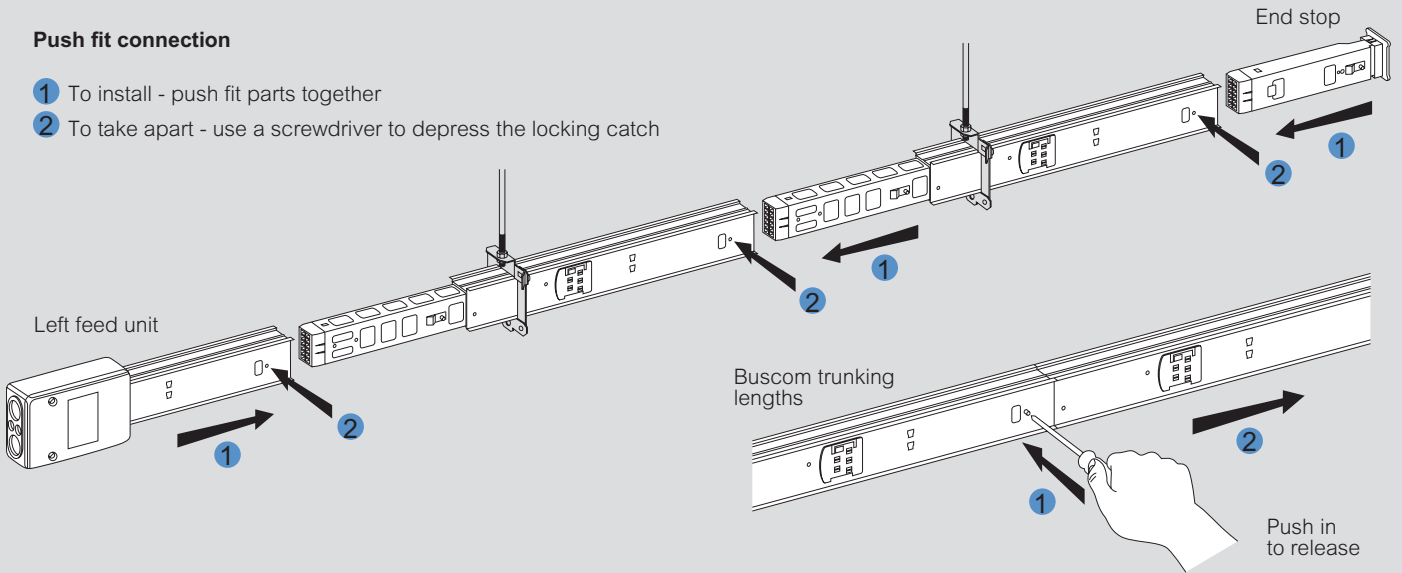
Electrak Buscom trunking system comprises continuous lengths of galvanised steel trunking available in 2 m and 3 m lengths with integral connectors and regular tap-off outlets

Each trunking run commences with a feed unit for electrical and comms bus cable termination. The connection between the trunking, the feed unit and subsequent trunking lengths is push fit and requires no tools to terminate the connection or ensure good earthing. Each complete track run is finished with an end stop

The trunking system is supplied with IP 4X ingress protection, fully factory tested and ASTA approved to BS EN 61439-6 : 2011 and is designed to meet the requirements of BS EN 61534-22 : 2014

Push fit connection

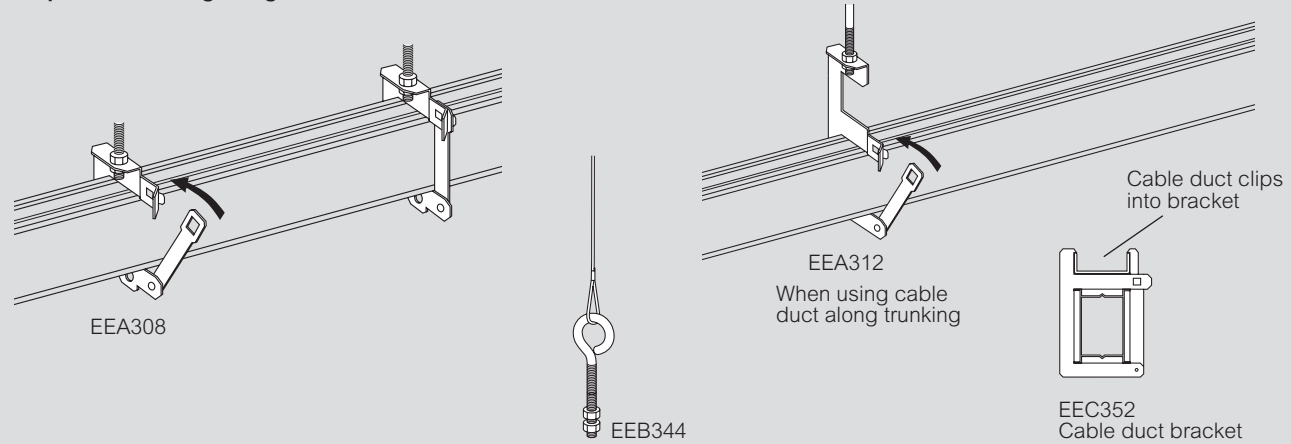
- 1 To install - push fit parts together
- 2 To take apart - use a screwdriver to depress the locking catch



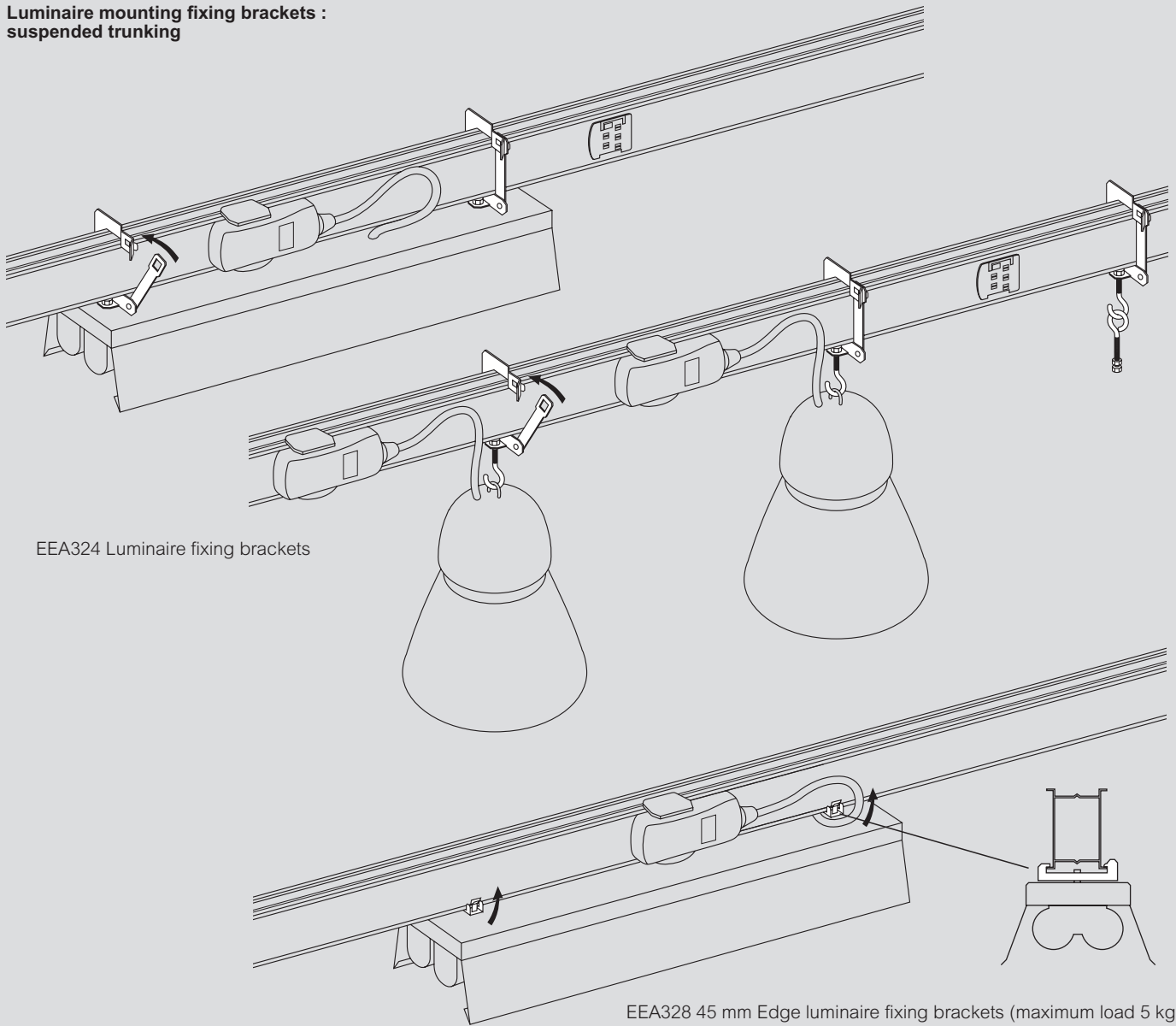
Considerations before installation

Calculate the distance between fixing brackets - the maximum fixing distance should not exceed 4 m. If loads are to be hung, please consult loading charts on page 69. The maximum buscom trunking weight is 2 kg/m. When fixing brackets to drop rods or surfaces, see mounting details below

Suspended trunking fixing brackets



Luminaire mounting fixing brackets :
suspended trunking



EEA324 Luminaire fixing brackets

EEA328 45 mm Edge luminaire fixing brackets (maximum load 5 kg)

CONTACT DETAILS

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