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ELECTRAK®

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rotasoc®

supplying power, telecommunications and data to the workplace

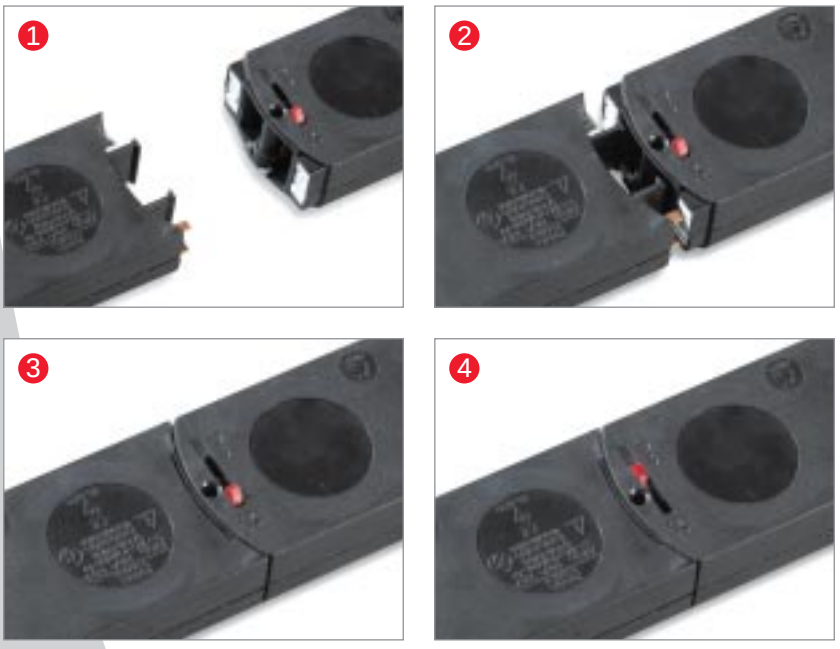
rotasoc®

Quality assurance
ISO9002 approved

BSI Kitemark
approved

- Fully 360˚ rotatable socket outlets (on or off load)
- Totally modular in design, additional sockets can be simply added
- Modules securely lock together by cam-lock lever
- All sockets are busbar interconnected (no terminals, no soldering)
- Maximum rating 32A
- Manufactured in the UK from high quality materials
- Standard power system
- Low noise (clean earth) system
- Dual power system (standard and low noise together)
- Conforms to BS7671:2001 Section 607 High Protective Conductor Currents
- Integrated Telecommunications and Data modules
- The total solution for all types of workstations

‘Cam-lock’ Lever System - secure and innovative



Cam-lock system - modules simply push fit together and are secured to each other by innovative cam-lock lever.

Integral touch-proof fusing

Patented rotational socket (GB 2330700) and patented locking fuse (GB 2330955).
Other international patents pending.

Rotasoc power units connected to underfloor power track system

The Rotasoc system - the definition of simplicity

Rotasoc is a comprehensive modular power system designed to meet the increasing power and communication needs of the 21st century workplace. Its many unique design features allow rapid configuration and changes or relocation of workstations. Due to its 3 main product groupings – standard power, low noise power (clean earth) and dual power (standard and low noise together), Rotasoc can be used in various environments including those where an uninterrupted power supply is critical.

In today's workplace, due to office esthetics, space restrictions and health and safety requirements, cable management needs to be carefully planned. Rotasoc facilitates easy and safe accommodation of large amounts of cables and bulky transformers as each socket can rotate 360° in either direction.

Rotasoc modules are designed for speed of installation – they can be factory configured or assembled in situ. The modularity of the system permits units to be expanded easily and safely for increased power demand. When additional power is required, the modules can be simply pushed together and locked using the 'cam-lock' lever system. Modules are colour coded and keyed to ensure the three product types cannot be inadvertently mixed when additional modules are attached.

In-feed modules can be safely connected to the power supply prior to workstation installation, allowing circuits to be electrically tested, signed off and carpets laid. Telecom/data modules can be locked onto power modules to form one unit, but wired separately or used as stand alone units. Using the dual power system, overall length can be minimised utilising one In-feed module.

16A systems can be upgraded to 32A; by simply changing the infeed module and supply cables to 32A in addition to any Interconnection modules, which may be on the system, to 32A.

Ease of installation is further permitted by the use of the central through fixing method, which allows the modules to be easily installed into all types of desk and screens.

All these features would therefore permit dealer support workstations to be reconfigured to dealer workstations in minutes using additional power modules, thereby keeping time and budgetary costs to a minimum.

System components (standard system parts shown)

In-feed 16A

External
earth kit

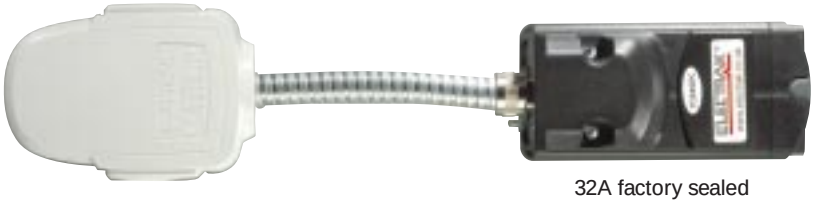
16A in-feed
rewirable

16A in-feed
neon rewirable

16A in-feed switch/
neon rewirable

16A in-feed switched
neon with fuse rewirable

In-feed 32A



32A factory sealed
non-rewirable in-feed

32A in-feed
rewirable

Protection

MCB 6A, 16A, 20A or 32A

RCBO/RCD, 16A, 20A or 32A

16A Power and spike filter

Neon

BS 1362 fuse

Neon & BS 1362 fuse

Switch/neon &
BS 1362 fuse

Sockets

2 gang socket unfused

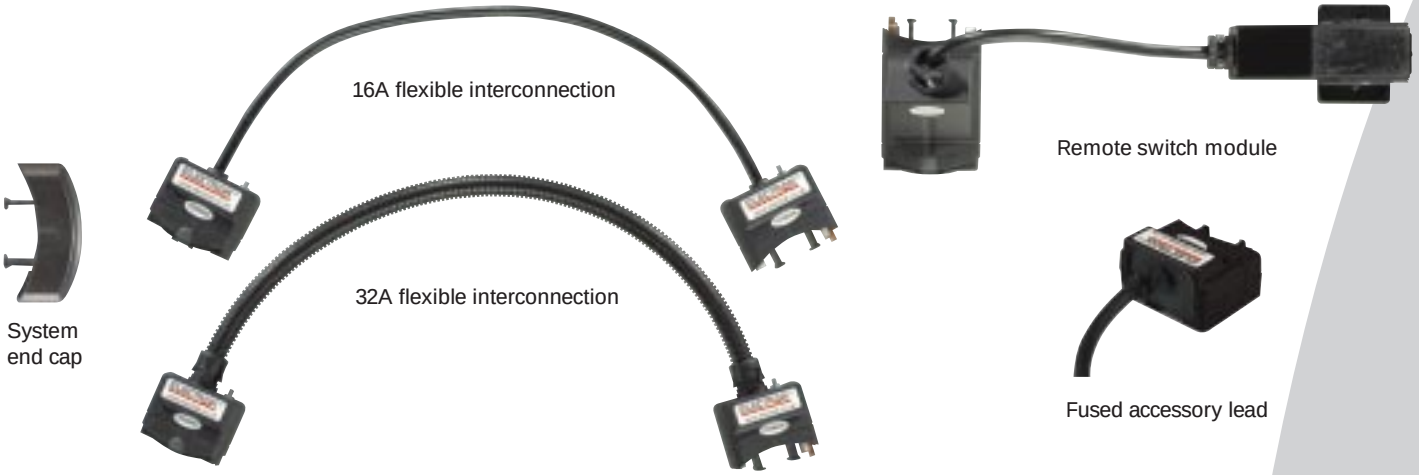
3 gang socket unfused

4 gang socket unfused

2 gang socket fused

3 gang socket fused

4 gang socket fused

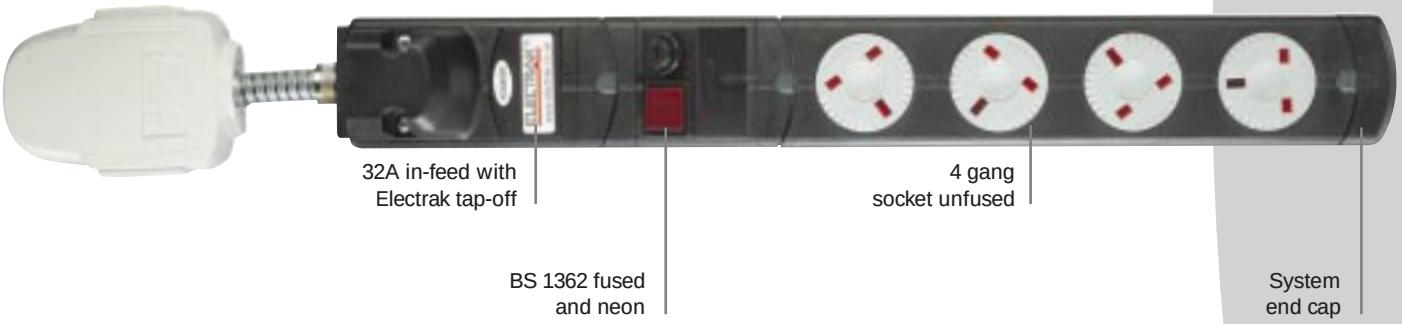


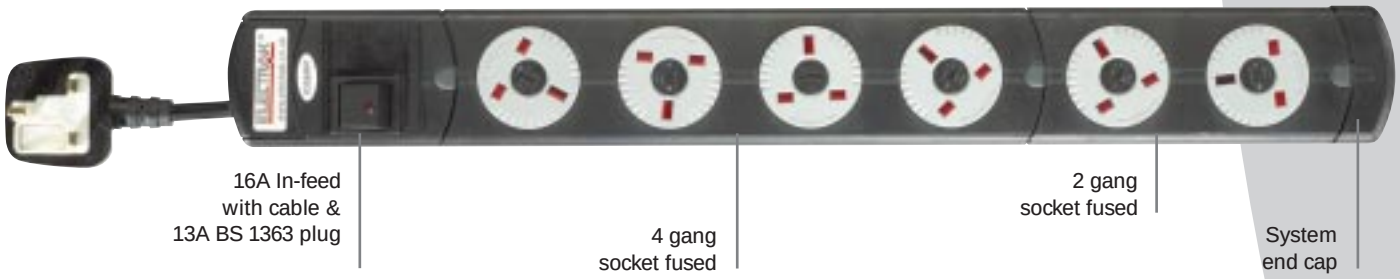
Telecommunications & data

Telecommunications/data module
connected to power modules

Telecommunications/data
module standalone

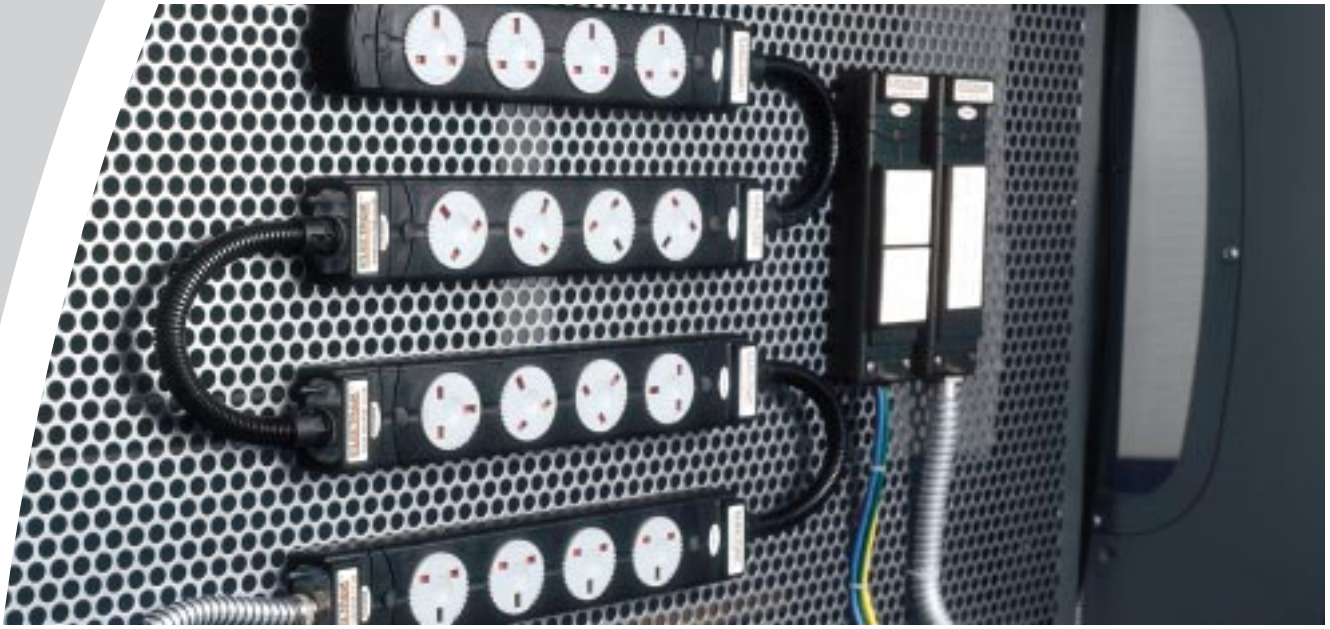
Examples





Product configuration

1 Select the type of distribution system - Standard, Low Noise or Dual (others available)
2 Select the means of powering the system - Cable or Power track tap-off
3 Select the type of In-feed module to match the cable capacity - 16A or 32A
4 Select the Protection module if required
5 Select the number of Sockets modules from the - 2, 3, 4, gang range (individually fused or non-fused)
6 Select the Interconnection units if required and specify length of cable or conduit
7 Finish system with the end cap or a Communication module
(All modules push fit and lock together on-site or can be factory assembled to customer requirement).



Rotasoc standalone data module shown alongside Rotasoc power modules

In-built innovation and versatility

The Rotasoc system comprises of three main product groups: -

Standard Power
Low Noise Power (clean earth)
Dual Power (standard and low noise together)
Other product groups are available

All product groups are fully approved and certified by British Standards with the range carrying the BSI Kitemark. The system can be wired to conform to the BS7671 section 607 High Protection Conductor Currents where leakage onto earth is in excess of 3.5mA.

The Rotasoc system comprises of units made up from a number of self contained flame retardant ABS modules. Each module contains from three to six vertically stacked 32A busbar conductors, which distribute power to each socket outlet with each socket able to rotate 360° in both directions facilitating optimal cable management.

All modules are ultrasonically welded for high electrical and mechanical integrity, with no integral serviceable terminals apart from the rewirable In-feeds therefore maintenance is minimal.

Rotasoc modules incorporate a secure and innovative locking device 'Cam-Lock' Lever System. This provides safe and reliable interlocking of the modules but easy tool release should more modules need to be added, thus making Rotasoc a truly modular and flexible system.

Integral touch-proof fusing incorporated into the centre of the unique and patented rotating socket outlet is used to comply with BS6396 where units are connected to the power supply via a 13A three-pin plug. (All other applications not using a power supply with a 13A three-pin plug connection do not have to comply with this standard.)

Rotasoc modules can be inter-linked to other remote units by using the Interconnection module, which is supplied with flexible cable, the length of which is determined by the customer. These modules then just plug into the end of each power module and are locked together by the cam-lock lever.

A major benefit to the speed of installation is the capability of connecting the In-feed modules to the power supply prior to the workstation arriving. This allows the electrical contractor to test and sign off the circuit continuity, leaving the socket modules to be simply fitted at the most convenient time during or after the workstation is installed.

Various Rotasoc modules in desk configuration

Standard power distribution (grey socket outlets)

This system is used for standard L, N, E power distribution utilising flexible cable, standard power track tap-offs or SWA cable.

External earth kit

16A Switched neon and fused in-feed

32A Non rewirable in-feed

32A Rewirable in-feed

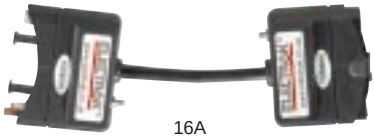
BS1362 fused

MCB module

Unfused

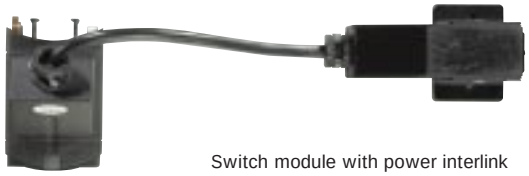
Fused

End cap



16A

32A



Switch module with power interlink

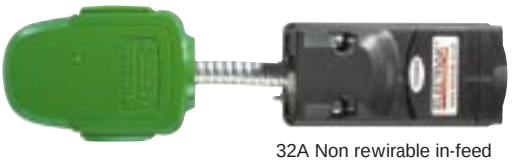
Catalogue No.	
	In-feed Modules
	16A In-feed modules are rewirable and are normally supplied with a 3 core flexible cable with a moulded on 13A plug. Customer to specify cable length and plug type.
	External earth kit for bonding to furniture
RAB 201A	**16A In-feed module non-switched/non-fused**
RAB 202A	**16A In-feed module neon power indication**
RAB 203A	**16A In-feed module master-switched neon/non-fused**
RAB 204A	**16A In-feed module master-switched neon and fused**
	32A In-feed modules connect to the power supply via a power track tap off or SWA cable. Both have additional external earth connections. The non-rewirable In-feed module requires customer to specify the type of tap off or SWA cable connection for factory fitting. 32A In-feed modules are non-switched & non-fused.
RAB 301A	**32A 2 pole +E rewirable In-feed module**
RAB 302A	**32A 2 pole +E pole non-rewirable In-feed module**
	Protection Modules
	These modules are utilised for the protection and switching of circuits from the In-feed modules where required. Customer to select fuse or breaker sizes.
RAB 401A	**BS1362 Fuse module**
RAB 402A	**BS1362 Fuse and switch neon module**
RAB 403A	**BS1362 Fuse and neon module**
RAB 404A	**Isolation module 32A maximum**
6A: RAB 410A, 16A: RAB 420A, 20A: RAB 430A, 32A: RAB 440A	**MCB module type "C" 6 to 32A**
16A: RAB 450A, 20A: RAB 460A, 32A: RAB 470A	**RCBO type "C" 16 to 32A**
RAB 405A	**RCD 30mA 32A**
RAB 480A	**16A Line conditioning and spike protection module**
	Socket Modules
	These modules are available in 2, 3 and 4 gang options. They can be connected to each other to give any combination of sockets. The range is also available with individual 3.15A or 5A fuses within each socket to meet BS6396. (See page 11 for details)
RAB 502A	**2 Gang non-fused socket module**
RAB 503A	**3 Gang non-fused socket module**
RAB 504A	**4 Gang non-fused socket module**
RAB 552A	**2 Gang individually fused 3.15A socket module**
RAB 553A	**3 Gang individually fused 3.15A socket module**
RAB 554A	**4 Gang individually fused 3.15A socket module**
	System End Cap
	This module is used to cover the end of the last module unless a Communication module is fitted.
RAZ 001A	**Standard end cap**
	Interconnection Modules
	16A Interconnection modules are supplied with 1.5mm^2 x 3 core flexible cable and used to interconnect between units within the 16A range of products. Customer to specify length of cable.
.3M: RAB 603A, .5M: RAB 605A, 1M: RAB 610A, 2M: RAB 620A	**16A Male to Female Interconnection module**
	32A Interconnection modules are supplied with 4.0mm^2 x 3 singles in conduit and is used to interconnect between units within the 32A range of products. Customer to specify length of flexible conduit.
.3M: RAB 703A, .5M: RAB 705A, 1M: RAB 710A, 2M: RAB 720A	**32A Male to Female Interconnection module**
	Remote Switch Module
	These modules allow for remote isolation of individual socket modules. They are available in 16A and 32A formats. Customer to specify length of cable between switch unit and socket module.
	16A Steel desk mounted switch module with power interlink
	32A Steel desk mounted switch module with power interlink
	Fused Accessory Lead
	These modules are used to supply equipment that may require permanent connection other than a 13A plug. For example underdesk lighting. Customer to specify length of cable and fuse requirement.

Low noise (clean earth) power distribution (red socket outlets)

This system is used for low noise L, N, E & CE power distribution utilising flexible cable, clean or low noise power track tap-offs or SWA cable.

External earth kit

16A Switched neon and fused in-feed



32A Non rewirable in-feed

32A Rewirable in-feed

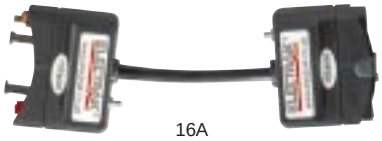
BS1362 Switch neon and fused

Module

Unfused

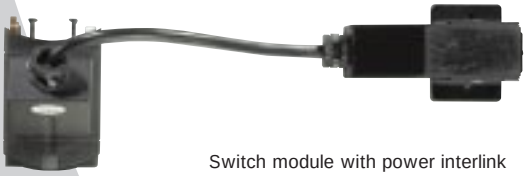
Fused

End cap



16A

32A



Switch module with power interlink

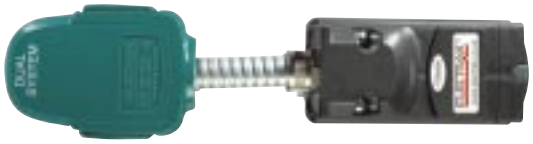
Catalogue No.	
	In-feed Modules
	16A In-feed modules are rewirable and are normally supplied with a 3 core flexible cable with a moulded on 13A plug. Customer to specify cable length and plug type.
	External earth kit for bonding to furniture
RAC 201A	**16A In-feed module non-switched /non-fused**
RAC 202A	**16A In-feed neon power indication**
RAC 203A	**16A In-feed module master-switched / non-fused**
RAC 204A	**16A In-feed module master-switched and fused**
	32A In-feed modules connect to the power supply via a power track tap off or SWA cable. Both have additional external earth connections. The non-rewirable In-feed module requires customer to specify the type of tap off or SWA cable connection for factory fitting. 32A In-feed modules are non-switched and non-fused.
RAC 301A	**32A 2 pole +E rewirable In-feed module**
RAC 302A	**32A 2 pole +E pole non-rewirable In-feed module**
	Protection Modules
	These modules are utilised for the protection and switching of circuits from the In-feed modules. Customer to select fuse or breaker sizes.
RAC 401A	**BS1362 Fuse module**
RAC 402A	**BS1362 Fuse and switch neon module**
RAC 403A	**BS1362 Fuse and neon module**
RAC 404A	**Isolation module 32A maximum**
6A: RAC 410A, 16A: RAC 420A, 20A: RAC 430A, 32A: RAC 440A	**MCB module type "C" 6 to 32A**
16A: RAC 450A, 20A: RAC 460A, 32A: RAC 470A	**RCBO type "C" 16 to 32A**
RAC 405A	**RCD 30mA 32A max**
RAC 480A	**16A Line conditioning and spike protection module**
	Socket Modules
	These modules are available in 2, 3 and 4 gang options. They can be connected to each other to give any combination of sockets. The range is also available with individual 3.15A or 5A fuses within each socket to meet BS6396. (See page 11 for details)
RAC 502A	**2 Gang non-fused socket module**
RAC 503A	**3 Gang non-fused socket module**
RAC 504A	**4 Gang non-fused socket module**
RAC 532A	**2 Gang individually fused 3.15A socket module**
RAC 533A	**3 Gang individually fused 3.15A socket module**
RAC 534A	**4 Gang individually fused 3.15A socket module**
	System End Cap
	This module is used to cover the end of the last module unless a Communication module is fitted.
RAZ 001A	**Standard end cap**
	Interconnection Modules
	16A Interconnection modules are supplied with 1.5mm^2 x 3 core flexible cable and is used to interconnect between units within the 16A range of products. Customer to specify length of cable.
.3M: RAC 603A, .5M: RAC 605A, 1M: RAC 610A, 2M: RAC 620A	**16A Male to Female Interconnection module**
	32A Interconnection modules are supplied with 4.0mm^2 x 3 singles in conduit and is used to interconnect between units within the 32A range of products. Customer to specify length of cable.
.3M: RAC 703A, .5M: RAC 705A, 1M: RAC 710A, 2M: RAC 720A	**32A Male to Female Interconnection module**
	Remote Switch Module
	These modules allow for remote isolation of individual socket modules. They are available in 16A and 32A formats. Customer to specify length of cable between switch unit and socket module.
	16A Steel desk mounted switch module with power interlink
	32A Steel desk mounted switch module with power interlink
	Fused Accessory Lead
	These modules are used to supply equipment that may require permanent connection other than a 13A plug. For example underdesk lighting. Customer to specify length of cable and fuse requirement.

Dual power distribution (standard & low noise together)

This system is used for Dual L_1, N_1, E & L_2, N_2, CE power distribution utilising flexible cable, standard, low noise and dual power track tap-offs or SWA cable.

External earth kit

16A 2 x Switched neon



Non-rewirable 32A in-feed module can have one Dual tap-off as shown or one Standard and one Low Noise connected

BS1362 2 x fused

2 x MCB module

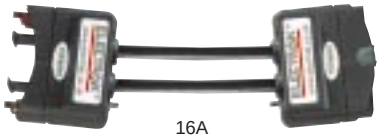
Unfused standard

Unfused low noise

Fused standard

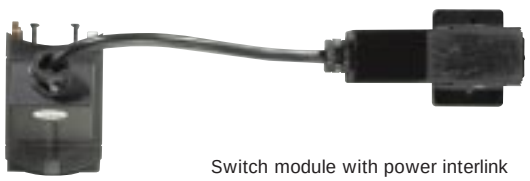
Fused low noise

End cap



16A

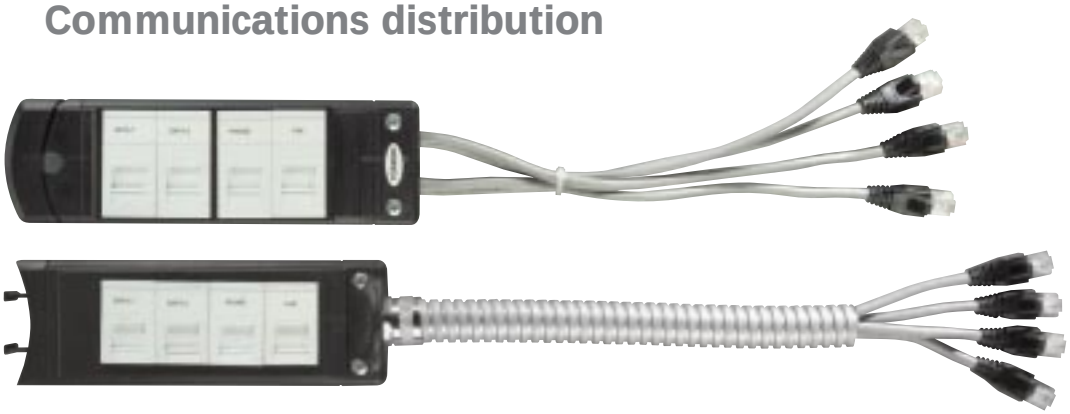
32A



Switch module with power interlink

Catalogue No.	
	In-feed Modules
	16A In-feed modules are rewirable and are normally supplied with two 3 core flexible cables with moulded 13A plugs. Customer to specify cable length and dedicated plug types.
	External earthing kit for bonding to furniture
RAD 201A	**16A In-feed module non-switched/non-fused**
RAD 202A	**16A In-feed module 2 x neon power indication**
RAD 203A	**16A In-feed module 2 x master-switched**
RAD 204A	**16A In-feed module 2 x master fused**
	32A Rewirable in-feed modules connected to the power supply via a standard and low noise or Dual tap-off or SWA cable. The In-feed module has an additional external earth. Power supply can be factory fitted to customer specification. 32A In-feed modules are non-switched and non-fused.
RAD 301A	**32A 4 pole +E rewirable In-feed module**
RAD 302A	**32A 4 pole +E non-rewirable In-feed module**
	Protection Modules
	These modules are utilised for the protection and switching of circuits from the In-feed modules. Customer to select fuse or breaker sizes.
RAD 401A	**BS1362 2 x Fuse module**
RAD 403A	**2 x Neon module**
RAD 402A	**2 x Switch neon module**
RAD 404A	**2 x Isolation module 32A maximum**
6A: RAD 410A, 16A: RAD 420A, 20A: RAD 430A, 32A: RAD 440A	**2 x MCB module type "C" 6 to 32A**
RAD 480A	**2 x 16A Line conditioning and spike protection module**
	Socket Modules
	These modules are available in 2, 3 and 4 gang options. Dual circuit continuity is provided through bypass busbars. They can be connected to each other to give any combination of sockets. The range is also available with individual 3.15A or 5A fuses within each socket to meet BS6396. (See page 11 for details)
RAD 502A	**2 Gang non-fused socket module***
RAD 503A	**3 Gang non-fused socket module***
RAD 504A	**4 Gang non-fused socket module***
RAD 532A	**2 Gang individually fused socket module***
RAD 533A	**3 Gang individually fused socket module***
RAD 534A	**4 Gang individually fused socket module***
	(*specify standard or low noise)
	System End Cap
	This module is used to cover the end of the last module unless a Communication module is fitted.
RAZ 001A	**Standard end cap**
	Interconnection Modules
	16A Interconnection modules are supplied with 1.5mm^2 x 6 core flexible cable and is used to interconnect between units within the 16A range of products. Customer to specify length of cable.
.3M: RAD 603A, .5M: RAD 605A, 1M: RAD 610A, 2M: RAD 620A	**16A Male to Female Interconnection module**
	32A Interconnection modules are supplied with 4.0mm^2 x 6 singles in conduit and and is used to interconnect between units within the 32A range of products. Customer to specify length of cable.
.3M: RAD 703A, .5M: RAD 705A, 1M: RAD 710A, 2M: RAD 720A	**32A Male to Female Interconnection module**
	Remote Switch Module
	These modules allow for remote isolation of individual socket modules. They are available in 16A and 32A formats. Customer to specify length of cable between switch unit and socket module.
	16A Steel desk mounted switch module with power interlink
	32A Steel desk mounted switch module with power interlink
	Fused Accessory Lead
	These modules are used to supply equipment that may require permanent connection other than a 13A plug. For example underdesk lighting. Customer to specify length of cable and fuse requirement.

Communications distribution



This system is used for distribution of communications either with patch leads supplied or direct on site wiring.

Communications Modules

These modules are for in line socket connection and are rewirable. They can be supplied with pre-terminated leads. Customer to specify length of cable and type of connectors if required.

RAF 101A **4 Way Communications module for 50/25mm face plate**
RAF 102A **4 Way Communications module for 50/25mm face plate with conduit entry**
RAF 103A **4 Way Communications module for 37/22mm face plate**
RAF 104A **4 Way Communications module for 37/22mm face plate with conduit entry**

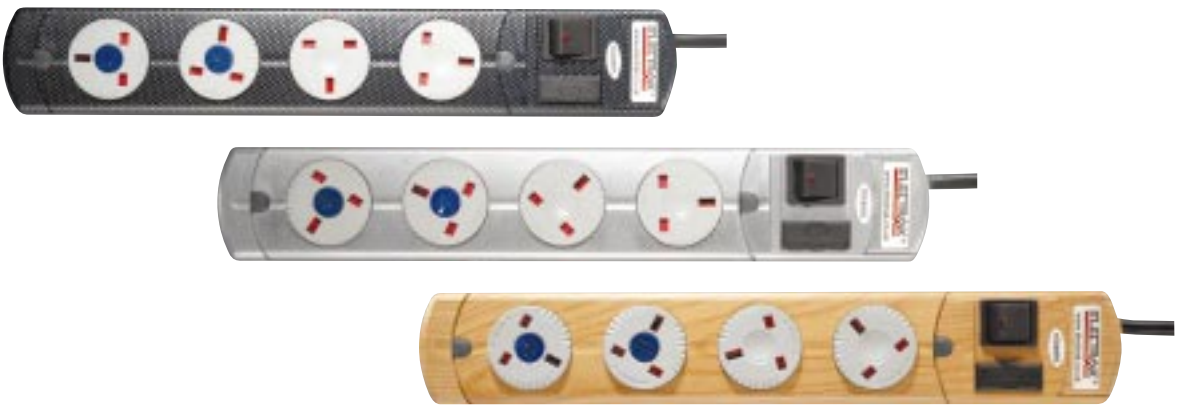
These modules are standalone and therefore will not connect with the Rotasoc sockets. They are rewirable and can be supplied with pre-terminated leads. Customer to specify length of cable and type of connectors if required.

RAF 210A **Standalone 4 Way Communications module for 50/25mm face plate**
RAF 211A **Standalone 4 Way Communications module for 50/25mm face plate with conduit entry**
RAF 212A **Standalone 4 Way Communications module for 37/22mm face plate**
RAF 213A **Standalone 4 Way Communications module for 37/22mm face plate with conduit entry**

Data, Telecom and Fibre optic cables are made to measure and can be plugged into floor boxes and wall plates.

Rotasoc colour co-ordination

All modules within the Rotasoc range can be coloured and finished to match their surroundings. This is a special finish that is extremely hard wearing. Please enquire for further details.



Technical information

BSI Kitemark approved to BS5733 and BS1363 part 2
BSI Kitemark Licence

Manufacturing approved to ISO9002: 1994
Quality Assurance Certificate No. 10270

Electrical test data

Rated Current		32A
Rated Voltage		230V~
Frequency		50/60Hz
Conductor resistance		
2 Socket module		0.6mΩ
3 Socket module		0.9mΩ
4 Socket module		1.2mΩ
Volt drop		
Live & neutral		
2 Socket module		1.2mV/A
3 Socket module		1.8mV/A
4 Socket module		2.4mV/A
Protection module		4.0m/V/A
In-feed	16A	3.0mV/A
	+1.5mm^2	25mV/A/m
	32A	1.2mV/A
	+4mm^2	10mV/A/m
Interconnection	16A/32A	1.0mV/A
	+1.5mm^2	25mV/A/m
	+4mm^2	10mV/A/m
Earth Fault loop impedance		
2 Socket module		1.2mΩ
3 Socket module		1.8mΩ
4 Socket module		2.4mΩ
Protection module		4.0mΩ
In-feed	16A	3.0mΩ
	+1.5mm^2	25mΩ/m
	32A	1.2mΩ
	+4mm^2	10mΩ/m
Interconnection	16A/32A	1.0mΩ
	+1.5mm^2	25mΩ/m
	+4mm^2	10mΩ/m

Mechanical Data

Number of conductors	3-6
Busbar conductor cross sectional area	5mm^2
16A Rewirable In-feed terminal capacity	1.5mm^2
32A Rewirable In-feed terminal capacity	6mm^2

Material Specification

Module Housing	VØ Flame retardant ABS
Socket Outlets	VØ Flame retardant ABS
Busbars & socket rings	High conductivity copper C101
Other metalwork	Phosphor bronze PB102

British Standards

Reference must be made to all relevant and associated standards.

BS6396: 1995 Electrical systems in office furniture and office screens.

BS7671: 2001 Requirements for Electrical Installation (IEE Wiring Regulations 16th Edition)

Electricity at Work Regulations 1989

Health and Safety Legislation.

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

BS6396: 1995 was published with regard to the use of electrical equipment within general office furniture and screens. This standard sets out in its scope the use and testing of electrical socket outlets and associated wiring when used together with a 13A fused plug and makes provision for the routing of cables through furniture.

Equipment having a rating above 5A must be supplied separately from the buildings main supply.

For safety and compliance with this standard please see below for socket configurations which must not be exceeded.

BS7671: 2001 16th edition. The Health and Safety Executive states that Installations which conform to the standards laid down in BS7671: 2001 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 Section 607 within BS7671: 2001 Earthing requirements for the installation of equipment having high protective conductor currents.

Section 607 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 protective current exceeds 3.5mA in normal use. Due to current in the protective conductor arising from the use of IT equipment, there is a requirement to provide either a 10mm^2 conductor (607-02-04(i)) or a 4mm^2 conductor (607-02-04(ii)). Rotasoc achieves this when wired in accordance with the installation sheets by providing up to two mechanically protected 5mm^2 earth conductors within the product.

BS6396: 1995 Socket configurations

2 outlets non-fused

4 outlets individually fused 5A

6 outlets individually fused 3.15A

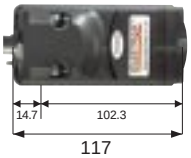
MCB option instead of master fuse

4 outlets master fused 7A

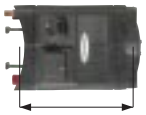
6 outlets master fused 7A

Fixing dimensions

95.3
16A In-feed Module
33.1 High



117
32A In-feed Module
64.7 High



79.3
BS 1362 Protection Module
56.1 High

162.5
MCB, RCD Protection Module
81.6 High

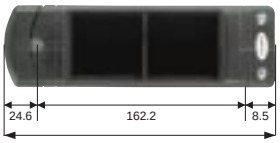
24.5
End Cap
31 High

44.8 44.5
16A & 32A Interconnection
35.7 High

131
2 Gang Socket Module
32.9 High

190.9
3 Gang Socket Module
32.9 High

250.8
4 Gang Socket Module
32.9 High

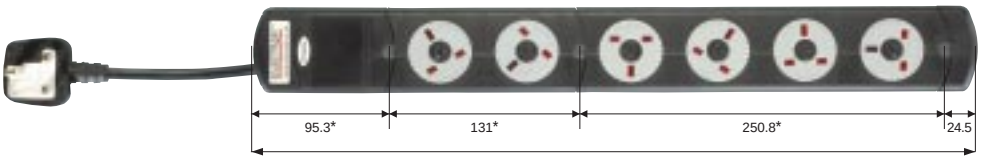


195.3
Standalone Data Module
41.3 High

171.7
Data Module
(Connects to power module)
41.3 High

Example

16A unit made up from 16A in-feed, 2 gang & 4 gang socket modules and end cap.



501.6

Note: All modules are 60mm wide. All dimensions are in millimetres.
*Fixing hole dimensions.

Other products

Lightrak Busbar Trunking and EIB Lighting Control System

Access Floor Grommet outlets

Quick Fit Consett Range floor service outlet boxes

Underfloor Powertrack

BS 5733

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