

# Integrated Installation Systems

Plug and Play solutions for electrical systems



**Schneider**  
Electric



## Pre-built and pre-tested Integrated Installation Systems – designed to make your projects easier, safer and more efficient.

### What are Integrated Installation Systems (IIS)?

Modern methods of construction set out to improve logistics within the building process and make installations simpler. Using these principles, Schneider Electric’s Integrated Installation Systems (IIS) are designed to make installers’ lives easier, safer and more efficient. Furthermore, pushing the boundaries of innovation means we can offer more flexible ways of working to help you meet energy legislation and regulations.



**In an ideal world we could install everything from the distribution board to the 13A plug without tools or any compatibility issues – at Schneider Electric we don’t see why we can’t make this happen.**

We offer a range of pre-assembled products, ideal for schools, hospitals, offices and public buildings, that simply link together – saving you valuable time and labour costs.

#### Opposite page:

Integrated Installation System undergoing assembly by a Schneider Electric engineer

#### Above:

On-site electrician installing pre-constructed Integrated Installation System



Limited skilled labour hours

+



Schneider Electric’s range of IIS products

=



Fast installation saving you time and money

# Finish on time and on budget

Penalty clauses are often incurred for late installations due to complications or because the right people aren't available on site for first fixes.

Our approach saves time when installing, limits the risk of complications and enables one person installations – keeping every project on track.



Traditional installations can be cumbersome to install and time consuming to test.



Dramatically reduce installation times with our reliable 'plug and play' technology – pre-built and pre-tested by Schneider Electric.

Schneider Electric has pioneered an innovative approach to the design, construction and installation of pre-assembled electrical distribution schemes, so that electrical engineers spend less time on site. Panels that are already tested to exacting factory standards can be delivered and the connections can be made quickly and simply allowing you to utilise your less qualified/skilled employees.

Full solutions such as IIS offer cost certainties that cannot always be achieved by installing traditional products. IIS products are designed to link together without additional connectors or cabling – additions that can mount up in cost over an entire project.

## Safe and secure

Schneider Electric always has safety as a paramount consideration. Our panels and solutions have components that are factory tested before they are distributed to your site and because they are high quality, you can trust our products won't let you down. This means you can rest assured that your customers are safe and unnecessary post

installation call backs will be eliminated; after all, return visits to fix problems cost you time and money! Finally, the fact that our pre-assembled equipment can be fitted so swiftly contributes to site safety and greatly reduces any time spent working at height.

## Lower impact installations

By using Integrated Installation Systems (IIS) products, you are choosing to buy a complete solution rather than individual products. By using one supplier, logistics are simplified because fewer parts are shipped to site – reducing the amount of road transport required. In addition, at Schneider Electric waste material is reduced to zero and we always use as little packaging as possible.

In addition, with our approach to electrical installations, environmental impact is minimised. At Schneider Electric, our products are always as energy efficient as possible and we are constantly striving to improve these further. In addition we can help customers monitor and reduce the amount of energy they consume with products such as meters and sub-meters.



Pre-tested plug and play connection

## Modular wiring

### An offer greater than the sum of its parts

The complete Schneider Electric IIS offer incorporates a large range of high quality parts, which, when combined, present a complete solution for speedy, high quality and reliable electrical distribution schemes.

### Additional services

At Schneider Electric we believe in offering complete solutions, not just a great product range. Not only does the IIS range include a fully compatible, extensive offering of wiring products but there is also an expert consultancy and project management service to help you every step of the way, from drawing take-offs, through the design, specification, construction of panels and installations, to the final commissioning stages.



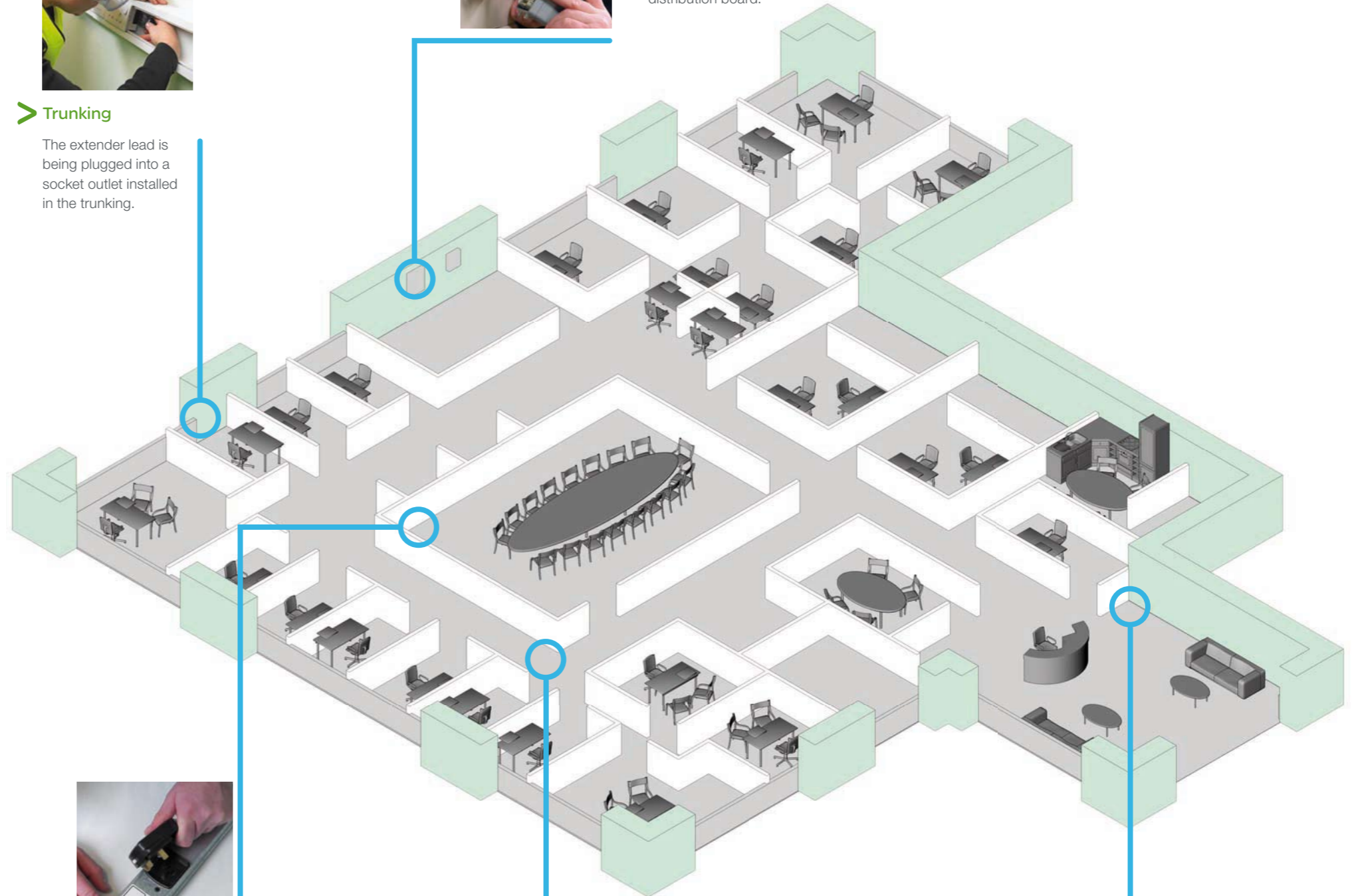
#### > Trunking

The extender lead is being plugged into a socket outlet installed in the trunking.



#### > Distribution board

The male connector on the Master Distribution Box being connected into the female socket on the distribution board.



#### > Powertrack

The connector is being plugged into the track to provide power to a floor box.



#### > Master Distribution Box

The MDB has been installed on the wire cable tray, the home run cable has been run back to the distribution board. Extender leads are being plugged in to provide a supply to power and lighting loads.



#### > Dry lining

The cable has been connected to the socket outlet and the final fix is being completed.

# Integrated Installation Systems

## Product range

### Ready to install equipment



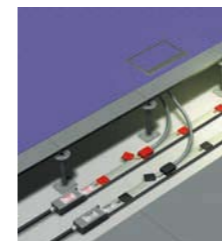
#### > Panelboards

We can provide a service to pre-assemble or build customised solutions for both panelboards and distribution boards. Suitable for installation in all types of sub-distribution and final distribution applications, these can be designed and customised to meet your specific requirements.

**Larger and more complex assemblies can also be engineered to accommodate:**

- Control and command equipment
- Contactor control
- Power factor correction
- BMS interface facilities
- Auto-source changeover
- Protective functions such as earth fault and surge protection

**BS EN 60439-1** Low-voltage switchgear and control gear assemblies. Type-tested and partially type-tested assemblies.



#### > Powertrack underfloor Busbar

In most modern offices, the use of raised floors has allowed the development of flexible, pre-wired underfloor systems to provide efficient power distribution. Busbar systems help to save time and money and for increased flexibility. Schneider Electric has developed a 63A underfloor busbar system, available in standard and clean-earth versions.

Key and colour coded snap-fit couplers, tap-offs and feed units, can allow installers to connect these fittings to the powertrack in a matter of seconds, with a minimum risk of error.

Floor boxes, grommets and desk modules can all be prewired and configured to suit any application. Integrated tap-offs can be plugged directly in to the Powertrack at any appropriate position.

**BS EN 60439-2** Low voltage switchgear and controlgear assemblies. Particular requirements for busbar trunking systems (busways).  
**BS7671** Requirements for electrical installations. IEE Wiring Regulations. 17th edition intended to be installed in places where unskilled persons have access.



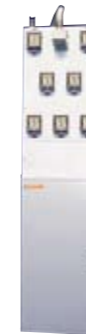
#### > Rising Busbar

Rated at 400-800A, Canalis KSR is the first rising main busbar trunking to use aluminium conductors as standard. The system is lighter and easier to handle than conventional copper busbar trunking, allowing fast installation. Being half the weight of traditional copper conductor based busbar trunking, Canalis KSR can be fitted in many installations by one person, rather than two.

Being lightweight also means it needs fewer mechanical fixings, making it even faster to install. A quick installation not only reduces costs, but allows contractors to meet today's tight deadlines.

The trunking can be mounted edgewise, flat or vertically, without any de-rating of the current. This design also eliminates the need for fire barriers where the trunking passes through building slab floors or firewalls, and has a two-hour fire resistance rating as defined by ISO 834.

**BS EN 60439-2** Low voltage switchgear and control gear assemblies. Particular requirements for busbar trunking systems (busways).



#### > Three phase distribution boards

The distribution boards are assembled from standard products, which are built, configured and tested in controlled conditions. Rather than wasting time assembling products on site, all boards are assembled within our own quality assured facilities and shipped directly to site.

systems up to 250A and can be fitted with incoming devices up to the same rating.

The wiring within the boards is configured to meet the requirements of the project, providing a flexible and adaptable solution. In addition, they can also accommodate control equipment to assist in the management of the building and extension boxes to house key switches for the testing of lighting systems.

Options available range from 4 to 24 ways as well as split metering versions; all boards have busbar

**BS EN 60439-3** Specification for low-voltage switchgear and controlgear assemblies. Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access to their use. Distribution boards.



#### > Plug-on distribution board

The new Canalis plug-on distribution board has been specifically designed for use in applications where rising mains are present. The compact design makes this product ideally suited for applications where space is limited. By combining a type B distribution board and moulded case circuit breaker tap-off in one unit, this product not only gives you all the benefits and safety features found throughout the Canalis range of tap-off

units, but will also greatly reduce installation times and labour costs by eliminating the need for a stand alone distribution board and cabling.

Available now in a choice of 4 to 24 outgoing ways and supplied with a factory fitted 250A Compact NS incomer, plus the option of a pre-wired pulsed output meter, this type tested solution is guaranteed to meet all your distribution requirements.

**BS EN 60439-3** Specification for low-voltage switchgear and controlgear assemblies. Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access to their use. Distribution boards.



#### > Single phase boards

These products are individually configured at the factory to suit your specific requirements. They can be supplied with incoming connectors rated up to 63A and outgoing connectors rated up to 20A. They are therefore, ideally suited for use in installations

where a radial topology has been adopted for power distribution. To ensure maximum versatility, the boards can also incorporate other protective devices such as RCCBs and RCBOs along with simple control circuitry.

**BS EN 60439-3** Specification for low-voltage switchgear and controlgear assemblies. Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access to their use. Distribution boards.

# Integrated Installation Systems

## Product range

### Prefabricated wiring system

Modular wiring can speed up the process of wiring an installation and, the earlier they are incorporated in the design, the greater the benefits.

#### > Home Run + Master Distribution Box (MDB)



The master distribution box provides supplies to power and lighting circuits within a zone of an installation. The MDB has nine outgoing 20A single phase ports. The outgoing connection on the MDB is defined by whether it is for a lighting or power circuit by the breaker fitted within the distribution board.

All the cables from the MDB are all contained within a flexible metallic conduit that provides protection to the cables - this is called the home run. The home run cable is wired to a male connector which then simply plugs into a socket which is installed on the distribution board.

#### > Power Distribution Box (PDB)



The PDB box is rated at 63A and has a home run cable, which is fitted to a three phase outgoing socket on the distribution board. The home run is contained within a flexible metallic conduit that provides protection to

the cables. The PDB has three outgoing single phase sockets which then can provide supplies to either single phase A boards or consumer units.

#### > Extender cables

All cables conform to BS7211 and are LSOH, cable assemblies are fitted with 4 pole connector and can be either 3 or 4 core. Cable sizes available are 1.5mm, 2.5mm and 4mm<sup>2</sup>.

<b>BS8488-1</b>	Prefabricated Wiring Systems intended for permanent connection in fixed installations.
<b>BS5733</b>	Specification for general requirements for electrical accessories.
<b>BS61535</b>	Installation Couplers Intended for Permanent Connection.
<b>BS7671</b>	Requirements for electrical installations. IEE Wiring Regulations. 17th edition.
<b>BS EN 61984</b>	Connectors. Safety requirements and tests.

### Final circuit accessories

Schneider Electric has developed unique final circuit accessories that have numerous patents to help increase the speed of installation at this point of the system.

#### > Trunking



A plug and play two gang switched socket that complies with clause 543.7 of BS7671 in relation to earthing requirements of equipment requiring high protective conductor currents. The accessory is from the GET Ultimate range and complies with BS1363 and also part M of the building regulations. The assembly fits with Schneider Electric's trunking.

By using a close coupling device it is possible to achieve a high concentration of socket outlets which is perfectly suited to applications such as in schools, hospitals, commercial buildings and libraries.

A range of cables lengths compliments the offer allowing interconnection between the outlets to be achieved.

#### > Dry lining



The socket outlets are easily installed; the cables within the cavity of the wall are simply plugged into the outlet. The outlet is quickly installed – the backbox is fitted with

spring loaded wings that simply fire out once through the cavity and is then simply tightened to ensure a positive fit with the wall.

### Metering and monitoring your energy

Without knowing what you use, it's hard to make improvements



Energy metering has become both a prerequisite for many installations and the norm for others. When constructing commercial premises, such as offices, Part L2 of the Building Regulations states that 'to enable owners or occupiers to measure their actual energy consumption, the building and engineering services should be provided with sufficient energy meters and submeters'.

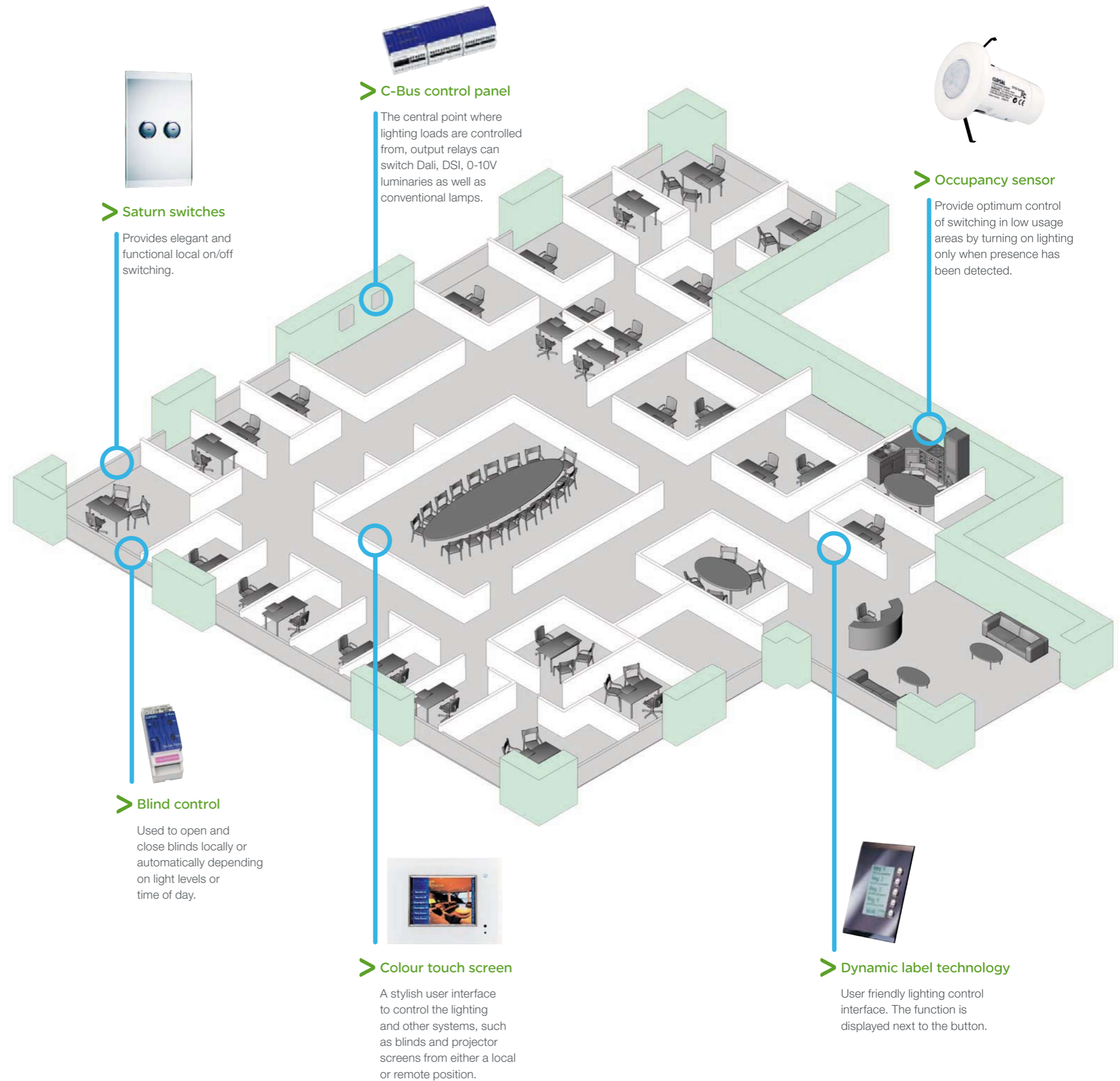
Sub-metering allows separate metering of lighting and power so that energy usage can be monitored and reduced. By installing sub-metering you can reduce energy usage by:

- Comparing actual consumption with targets
- Identifying unusual periodic changes in usage
- Keeping annual records of seasonal consumption changes

**IEC61036** Alternating current static watt-hour meters for active energy (Classes 1 and 2).

## C-Bus lighting control

The Clipsal C-Bus® system is a microprocessor based wiring system to control lighting and other electrical services. Whether on/off control of a lighting circuit or analogue type control such as dimming electronic fluorescent ballasts, C-Bus can be used to control and automate virtually any type of electrical load. To ensure fast and reliable operation, each device has its own inbuilt microprocessor, which can be individually programmed via 'point and click' PC based software, or via 'learn mode' which doesn't require a PC.



# C-Bus lighting control

## Product range



### > Saturn switches

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control.



### > Dynamic label technology

The dynamic labelling technology allows the function of the key to be programmed and displayed onto a LCD display next to the switch button.

The DLT switch features a page scroll button that permits the user to navigate between pages, to access all control options.



### > Colour touch screen

The colour touch screen provides a simple, elegant and functional interface to a C-Bus management and control system.

It is wall mounted, touch sensitive, high resolution LCD screen that supports user defined graphics such as

sliders, bitmaps and images and text characters. The menus are fully customised at the time of installation, and may be changed at any time thereafter.



### > Indoor multi sensor

The units are used to detect movement by sensing natural thermal radiation emitted from any moving body. When movement is detected, the unit issues commands over the C-Bus network to control C-Bus output devices. In addition, the unit features a light level sensor to automatically switch lighting on, under low light conditions.



### > Blind control

Is used for the control of motorised blinds, curtains and shutters.

Nationwide support on one number -  
call the Customer Information Centre on

**0870 608 8 608**

Fax 0870 608 8 606

### Schneider Electric's local support

Schneider Electric is committed to supporting its customers at every stage of a project. Our 180 sales engineers, the largest dedicated sales force in the UK electrical industry, operate from 4 customer support centres.

Our sales engineers are skilled at assessing individual requirements and combined with the expert support of our product specialists, will develop the most effective and economical answer taking relevant regulations and standards fully into account.

To access the expertise of the Schneider Electric group, please call 0870 608 8 608. Each customer support centre includes facilities for demonstrations and training, and presentation rooms fully equipped with audio visual and video, providing excellent meeting facilities.

#### Merlin Gerin

**Merlin Gerin** is a world leader in the manufacture and supply of high, medium and low voltage products for the distribution, protection, control and management of electrical systems and is focused on the needs of both the commercial and industrial sectors. The newly launched VDI Network Solutions offer provides flexible, configurable ethernet systems for all communication needs.

#### Square D

**Square D** is a total quality organisation and its business is to put electricity to work productively and effectively, protecting people, buildings and equipment. Its low voltage electrical distribution equipment, systems and services are used extensively in residential and commercial applications.

#### Telemecanique

**Telemecanique** is a UK market leader and world expert in automation and control. It provides complete solutions, with it's range of components, Modicon range of high technology programmable controllers (PLCs), multiple fieldbus and ethernet communication networks, HMI, motion control systems, variable speed drives and communications software. In addition, it offers power distribution through prefabricated busbar trunking.

### Local customer support centres

Scotland  
Schneider Electric Ltd  
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Kinning Park  
Glasgow G41 1AA

South West  
Schneider Electric Ltd  
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Langley Road  
Chippenham  
Wiltshire SN15 1JJ

North West  
Schneider Electric Ltd  
First Floor  
Market House  
Church Street  
Wilmslow  
Cheshire SK9 1AY

### Product showrooms

#### Industrial systems and solutions showroom

Schneider Electric Ltd, University of Warwick Science Park, Sir William Lyons Road, Coventry CV4 7EZ

#### Building systems and solutions showroom

Schneider Electric Ltd, Stafford Park 5, Telford, Shropshire TF3 3BL

#### Energy and Infrastructure systems and solutions showroom

Schneider Electric Ltd, 123 Jack Lane, Hunslet, Leeds LS10 1BS

