

# Solutions for Rail



## Railway solutions

### From traction power to energy management

Offer area	Application	Description and example ranges	
Traction power	Electrical supply for traction power	Traction & catenary equipment for main lines including: GHA Rail, WI Rail, WS, VXA, VXB, CBR, SDR, Visax-S, Containerised substations (25 & 36kV)	
Traction power	Substation Automation	IEC 61850 compliant protection and control systems	
Traction power	Traction power transformers	Autotransformers 6 or 12 kA & Booster transformers (oil filled)	
Traction power	Upgrade of existing trackside equipment	Retrofit for 25kV trackside supplies, including VMX Retrofit, VG4L interrupter kit	
Signalling power	Electrical distribution	Low voltage switchboards, circuit breakers & protection designed to operate individually or together as part of a system. Ranges include: Okken, Prisma, NSX, Masterpact, Safepact, Varplus, Varsset, Sinewave	
Signalling power	Principal & functional supply points	Compact Principal Supply Points & Functional supply points for the provision of signalling supplies	
Signalling power	Cable management	GRP cable management systems for trackside and substation applications. Systems including: Canalis, Performa & Wibe	
Signalling power	Critical power	Automatic Supply Restoration Automatically restores power to signalling equipment following FSP or cable faults	
Stations	Medium voltage electrical distribution	Medium voltage switchgear for primary and secondary distribution, including: Genie Evo, Ringmaster, YSF6 Vacuum retrofit  Fluid filled, cast resin & low loss transformers.	
Stations	Building management systems: security, access control, video security, video analytics and fire detection	Integrated security solutions allowing you to control your entire security landscape from a single user interface. Ranges include: Pelco by Schneider Electric, Vista, Andover Continuum	
Stations	Retail energy distribution and metering	A full range of metering and monitoring products and solutions, scaleable from simple metering and analysis to remote online enterprise wide power management solutions. Ranges include PowerLogic, VigiloHM, current transformers, panel instruments	
Stations	Energy efficiency	Measure energy use to identify potential savings and dysfunctions. Install low consumption equipment and systems Improve long term use by deploying automation management, consulting, training and tracking resources. Continuously analyse energy savings through maintenance, supervision and monitoring.	
Stations	Condition monitoring/Automation & control	An extensive range of products, from programmable relays through to high performance motion controllers and interface modules including control & signalling, drives & motion, automation controllers & safety devices	
Stations	Lighting control / automated emergency test and monitoring	Range of modular control products include equipment for protection, control, measurement, monitoring, display and energy. Lighting management ranges include KNX and C-Bus Cat 5 based control & automation system	
Car parking	Security	Integrated security solutions allowing you to control your entire security landscape from a single user interface. Ranges include: Pelco by Schneider Electric, Vista, Andover Continuum	
Car parking	Electrical distribution	Low voltage switchboards and circuit breakers designed to operate individually or together as part of a system. Ranges include: Okken, Prisma, NSX, Masterpact, Safepact, Varplus, Varsset, Sinewave	
Car parking	Electric vehicle charging	Electric vehicle charging infrastructures for car parks & fleets	
Car parking	Energy efficiency	Energy audits, metering solutions, monitoring & targeting systems, demand response, remote energy management	
Services	Installed base services	Retrofit & upgrade, maintenance & repair and spare parts	
Services	Support contracts	Electrical distribution support contracts and Automation support contracts	
Services	Power consultancy	Protection studies, Reliability studies and Electrical health checks	
Services	Training	Product training including HV/LV switchgear and protection devices, Drives, PLCs's and automation software. Legislative training including Authorised Persons HV and LV Schneider Electric are members of the association of railway training providers (ARTP) and the National Skills Academy for Railway Engineering (NSARE)	
Energy management	Energy services	Energy audits, metering solutions, M&T systems, demand response and remote energy management	
Energy management	Power management	SmartSwitch electronic remote control panels, PC Mimic Diagram electrical network modelling, PowerLogic SCADA, Automatic Supply Restoration for signal power supplies	
Management	Operations and Asset Management	Predictive monitoring for early warning of equipment health and performance problems Advanced pattern recognition based machine learning Diagnostics and fault identification	

For more information visit [www.schneider-electric.com/rail/uk](http://www.schneider-electric.com/rail/uk)

## Stay on track with the solutions you need



The UK rail market is faced with increasing demand from both passenger travel and the rail freight industry coupled with the ongoing need for asset replacement of the network. These drivers together with the focus on meeting the industry's regulatory requirements generate additional pressures on an already very busy network.

To ensure safety, security and reliability, rail operators need intelligent solutions to monitor, control and optimise the electrical assets on the rail network.



**As these critical transportation systems continue to expand and modernise, new technologies such as digitalisation and automated processes can mean faster service, safer travel, stronger security and fewer unforeseen problems.**

But at every moment, you face potential issues – security threats, changing environmental conditions, service disruptions due to track damage, cable theft, accidents and other unpredictable hazards which can compromise your ability to deliver a safe and timely journey for your passengers.

Whilst you can't control all of these possibilities, it's important to take steps to protect the most crucial aspect of your systems: availability.

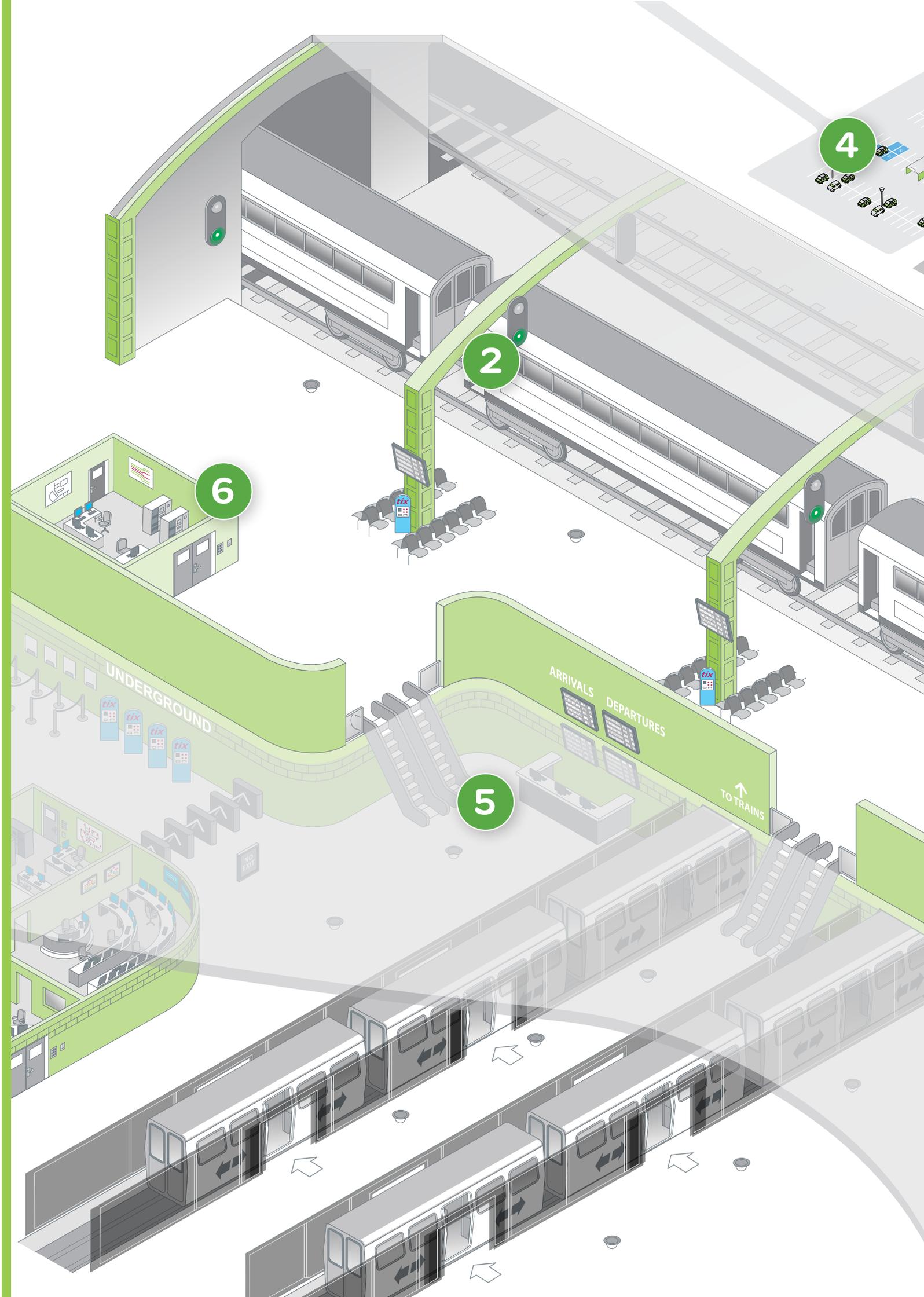
In order to ensure the safety of a high volume of travellers, preserve the precise daily schedules your passengers rely upon, comply with stricter security and safety regulations and also achieve operational efficiency and profitability, a safe and reliable power supply is critical.

Add the rising cost of energy and environmental concerns and it becomes essential to protect your power with solutions which not only meet your availability demands but are energy efficient too.

### Schneider Electric's rail industry references



- > London Underground
- > Tyne & Wear Metro
- > French Railways
- > Channel Tunnel
- > Australian Railways
- > Madrid Subways
- > Network Rail
- > Beijing Railway Bureau
- > Beijing City Subway



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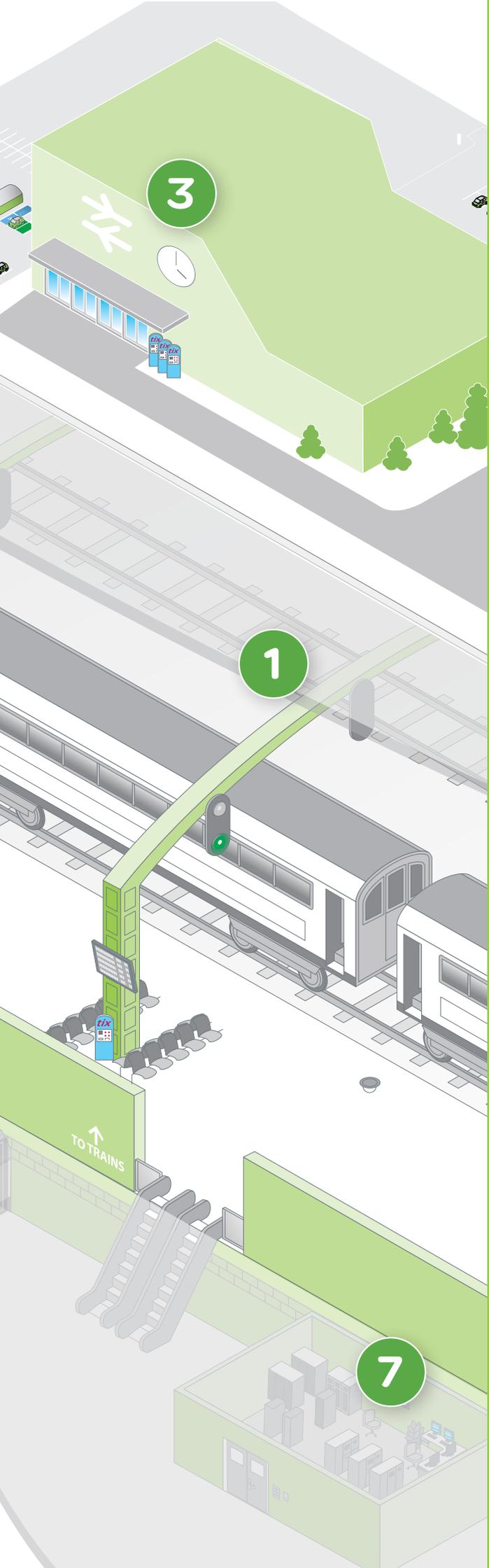
UNDERGROUND

ARRIVALS DEPARTURES

↑ TO TRAINS

NO EXIT

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## 1) Traction power

As safety is paramount in rail installations, our Traction power supply range provides a quality solution which has been specially designed to meet the specific needs of the UK rail market and is why major industry players rely on us as their supply partner.

## 2) Signalling power

Schneider Electric's experience of infrastructure expands outside the rail industry, so we can use our knowledge to provide innovative technologies for every Signalling power project, providing a low cost and low risk path for new innovations for both overground and underground applications.

## 3) Stations

Our integrated solutions for railway stations are less expensive to design, install and operate. We offer a single point of control for a broad range of building systems including access control, video security, fire protection, HVAC and lighting.

## 4) Car parking

Transportation is evolving, the electric vehicle will play an important part in everyday travel and users will require a means to charge their vehicles. Parking facilities are ideal locations to offer users the facility to charge their vehicles before continuing their journeys.

## 5) Services

Electrical equipment is a major investment for customers and ensuring you consider not only the capital cost but the entire lifetime costs of equipment is vital. Schneider Electric's installed base services, solutions and professional services help you to increase performance throughout the life cycle of your installation.

## 6) Energy management

World energy consumption has risen by 45% since 1980 and it is projected to be 70% higher by 2030. To help meet this demand, we have developed a strategy that can help achieve 30% savings in energy. We recommend following our 4 simple steps to achieve energy efficiency:

**1. Measure | 2. Fix the basics | 3. Automate | 4. Monitor and improve**

## 7) Operations and Asset Management

Schneider Electric Asset Management Solutions span enterprise asset management, mobile workforce, reporting and analysis, workflow and condition management. Offering real-time answers for reducing costs while maximising asset reliability and performance, organisations utilising these solutions realise outstanding return from all their assets, including people, processes and equipment.

**For more information**

[www.schneider-electric.com/rail/uk](http://www.schneider-electric.com/rail/uk)



## UK contact details -

# 0870 608 8 608

Fax 0870 608 8 606

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## Ireland contact details -

# 01 601 2200

Fax 01 601 2201

As a global specialist in energy management and automation with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in Non-residential & Residential Buildings, Industries & Machines Manufacturers, Utilities & Infrastructure and Data Centers & Networks.

Focused on making energy safe, reliable, efficient, productive and green, the Group's 170,000 employees achieved revenues of 25 billion euros in 2014, through an active commitment to help individuals and organisations make the most of their energy.

We are changing our brand names and becoming one Schneider Electric. You'll get the same great quality products, but from one name you can remember and trust. This provides you and your customers with the reassurance associated with Schneider Electric.

Some of our market leading brands have already become Schneider Electric including **Merlin Gerin, Telemecanique, Square D, GET, Mita, Sarel, Himel, Thorsman, Tower and TAC.**

Working as one Schneider Electric makes it clearer that our ranges are highly compatible for integrated solutions.

## Schneider Electric Ltd

United Kingdom  
Stafford Park 5,  
Telford  
Shropshire  
TF3 3BL  
Tel: 0870 608 8 608  
Fax: 0870 608 8 606  
[www.schneider-electric.com/uk](http://www.schneider-electric.com/uk)

Ireland  
Head office,  
Block a  
Maynooth Business Campus  
Maynooth, Co. Kildare  
Tel: (01) 601 2200  
Fax: (01) 601 2201  
[www.schneider-electric.com/ie](http://www.schneider-electric.com/ie)

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Registered number: 1407228. Registered office: Stafford Park 5, Telford, Shropshire TF3 3BL.

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