Keeping you connected

Issue 1

:hager

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Welcome

Hi – and welcome to our first issue of **Keeping you connected.**

The world of electrical contracting – and let's face it, the world – has never changed so much, so fast.

So we're here as #PartOfYourTeam to help you stay connected.

We've brought together news, expert advice and product information to help you keep up-to-date with the latest developments from Hager – and the industry.

So grab a tea and take a minute to discover how we're supporting businesses like yours. Find out more about the future of offsite construction. Get the lowdown from our experts on SPDs, RCDs and our flexible Klik system. And see Hager products in action in projects across the UK; from schools to new homes.

Don't forget, you can also find out more at hager.com/uk – from at-a-glance product flyers to in-depth technical guides and comprehensive catalogues. And if you have a question, we're always here to help.

Happy reading – and stay safe!

The Hager Team

Collaboration

The secret of successful offsite construction

Offsite construction can play a key role in meeting the ongoing demand for new housing in the UK. Our new white paper, 'Come together to build better outcomes', explores how…

The government has committed to building 300,000 new homes each year by the middle of this decade. But there are already signs that it will be a challenge. As the pressure intensifies, the spotlight's on alternative methods to improve efficiencies and productivity in the construction process.

So how can offsite construction of housing stock help to ease the pressure on traditional building methods?

To help inform the debate, we've released a white paper, 'Come together to build better outcomes'. It looks at the main challenges confronting offsite construction and asks how we can help get those much-needed new homes built.

We stress the need for much closer stakeholder collaboration from an early project stage, greater standardisation of products across the supply chain and higher levels of investment to support the sector.

"Offsite construction has the potential to have a real impact on the productivity and efficiency of UK housing stock delivery," says Jane Yorke, our Residential Market Manager.

"It will take early and sustained collaboration, partnership, intervention, standardisation and the sharing of best practice knowledge to continue its progress.

"All stakeholders across the supply chain must be mindful of the potential barriers to success. They include building regulation constraints, current procurement practices and existing workforce skill sets. Our white paper sets out to explore these and help contribute to the ongoing debate so that everyone in the sector can move forward together."

Want to know more?

Download our new white paper, **'Come together to build better outcomes'.**

Here when you need us most

How do we stay connected in these challenging times? Paul Collins, Training and Technical Manager at Hager, says it's never been more important for electrical contractors to lean on manufacturers for helpful training tools and ways to enhance their product.

These times are new to us all. We're all working out how best to navigate the restrictions we face. And the electrical trade is no different, as it realigns its day-to-day working operations. Chances are your working day has seen a lot of changes. That's why it's so important that the industry and manufacturers like us don't waver in their commitment to supporting electrical professionals like you.

To help you through the current uncharted waters in readiness for a return to a more recognisable working environment, we continue to offer a combination of helpful on and offline tools and resources. We believe it's key to make sure essential technical information, learning and development and connections to colleagues in the industry via social media, remain available.

Experts at hand

Hager's technical team are still on hand to assist with technical and product queries both by phone and online. So, whatever the query, industry experts are on hand to help and support you with any issues.

Connected on social

The #HagerGang community on social media allows electrical contractors to connect with like-minded individuals and stay up-to-date with the latest news on Hager and the wider industry. It's a great way to keep in touch, swap experiences and pass on tips – especially at a time when getting out and about is restricted.

Support online

Our wide range of online tools is helping the trade keep up-to-date with information, news and business updates.

At work?

Our eCat mobile app gives you handy digital access to product information, technical data, descriptions and trade prices. Or check out our other online resources – to help inform product selection – advisory white papers, in-depth product brochures and BIM support – all through the Hager website.

Got some downtime?

Now's the perfect time to expand your industry knowledge. Take a look at online training courses from providers including the NICEIC.

Surge protection at a glance

Helping you choose the right solution

Protecting expensive and important equipment against transient overvoltages means surge protection devices (SPDs) are critical to successful and safe commercial installations. Yet almost one in three contractors say they're unsure about their responsibilities around surge protection – particularly when it comes to selecting the right solution. To help contractors better understand their responsibilities to remain compliant, we've produced a handy guide to making the right decision.

Get the guide: **Surge protection at a glance**

A solution from Hager to SPD performance testing in assemblies

Through development trials, using fast transient generators and fast scan oscilloscopes, we've re-engineered the integration of the SPD devices. That's included changing the location of the SPD in the distribution board where required and in some cases replacing cable connections with solid copper links for Line, Neutral and Earth connections, to achieve enhanced Up values as measured at the distribution board.

Want to know more about our surge protection kits?

Just head to our website

Thinking about training?

We know that having some downtime has given many of our customers a chance to think about boosting their skills. We're here, whatever the circumstances, to keep supporting you. Find out more about how we can help you learn from home – and discover the training on offer at our popular Training Academy.

Expert training at the Hager Training Academy

Thousands of electrical professionals have boosted their skills and knowledge at Hager's popular UK training academy. Since 2018, we've been offering ongoing learning at our Telford headquarters. It's the perfect setting for electrical contractors – both domestic and commercial installers – to better understand changing regulations, including the 18th Edition of the IET Wiring Regulations. Boasting the latest in learning technology, the interactive learning environment is an inspiring place to build on your knowledge and gain certification from City & Guilds accredited courses and seminars. There's an 86" full 4K interactive display and each desk is equipped with power outlets, making this modern environment the perfect place to learn.

"The fact we've managed to achieve a pass rate of 99% is proof of the dedication those working in the sector have for their profession."says Paul Collins, Technical and Training Manager.

Find out more about Hager's Training Academy. *[We're not currently running courses but hope to be open again soon. Watch out for updates on our website].*

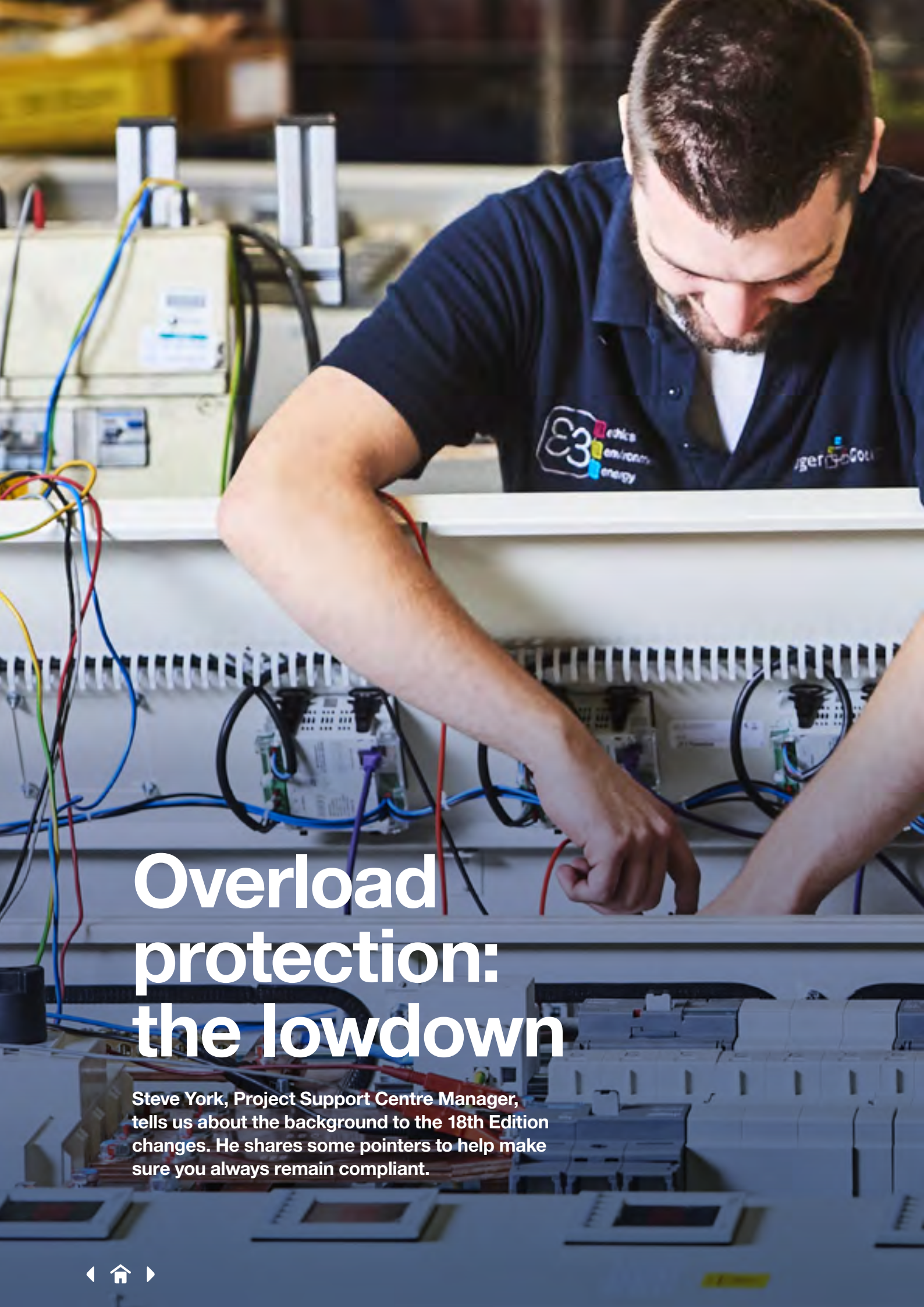
Training academy

Brush up your knowledge – from your sofa!

Make the most of your downtime with the wealth of information on our website. We've made it easy-to-use, so you can refresh your skills and take a look at the latest products without even leaving home.

Check out our handy at-a-glance guides and product catalogues, plus a bitesize guide to the 18th Edition.

Online resources



Overload protection: the lowdown

Steve York, Project Support Centre Manager, tells us about the background to the 18th Edition changes. He shares some pointers to help make sure you always remain compliant.

What's changed in the 18th Edition re the overload protection of devices?

The 18th Edition regulations state that devices such as RCCBs and switches provide no protection against overload, therefore they shall be protected by an overcurrent protective device (OCPD). In addition, a separate regulation states that overload protection of these devices shall not solely be based on diversity factors of downstream devices.

Why have the changes been made?

Devices such as switches and RCCBs in distribution boards and consumer units may have historically had their rated current determined after having taken diversity into account, but without having considered overload protection of the devices.

Where RCCBs or switches do not have the correct overload protection, there's a risk of overheating. This can affect the functional characteristics of devices and in extreme cases result in fire.

How can I achieve the protection required in the new regulations?

There are several options...

1. Ensure that the sum of the rated current of the downstream MCBs doesn't exceed the rated current of the switch or RCCB. This method would need to consider the consequences of any spare ways and later additions.

2. Ensure that the rated current of a switch or RCCB stated by the assembly manufacturer is not less than the rating of the upstream OCPD. In a domestic installation, this could be a 60 A, 80 A or 100 A cut-out fuse.

3. Select a consumer unit or distribution assembly that only utilises RCBOs on outgoing circuits. You'll still need to consider the rated current of the main switch.

What's Hager's recommendation?

Hager feels that the easiest and most flexible solution for installers is to use a consumer unit which is 100 A rated, with 100 A RCCBs fitted as standard.

This enables the installer/designer to be confident that the consumer unit allows conformity to the overload protection requirements for RCCBs and switches, regardless of the size of the upstream cut-out fuse fitted or the configuration of the downstream MCBs.

Want more support on the 18th Edition?

We've got lots of online resources to help you put the regulations into practice.

Find out more

Homing in on surge protection

Production of our surge protection-ready Design 30 consumer units has increased 10-fold as the electrical industry gets to grips with the new regulatory landscape.

Safety's the number one priority when it comes to building homes. Taylor Wimpey, one of the UK's largest housebuilding companies, is working closely with Hager to keep it that way with 'as standard' surge protection in all its new homes.

Following the introduction of the 18th Edition of the IET Wiring Regulations, Taylor Wimpey is rolling out Hager's Design 30 consumer units, pre-fitted with a surge protection device, across all its new build developments.

For the new property homeowner, it offers complete peace of mind, as property and valuable items are better protected from unpredictable surges in voltage. For the electrical contractor, it means a straightforward and fast on-site installation process as the surge protection devices come pre-wired. This helps to keep construction on schedule and doesn't hold up buyers. And it also takes the pressure off electrical contractors. They no longer have to make the decision around the suitability of surge protection for a home following the risk assessment. They can simply get on with the installation.

"Our long-standing relationship with Hager means we are totally confident we are specifying a quality, high performing solution thanks to the Design 30 consumer unit."

- Taylor Wimpey

Interested in Design 30?

Find out more

Top-class solutions

When Auchterellon Primary School in Aberdeenshire needed a major refurbishment, Hager energy distribution, wiring accessories, lighting connection and control systems were key to success of the year-long installation project.

Built in 1974, the totally open-plan school's existing legacy electrical and lighting systems were struggling to keep up with increased demand from users.

As a result, the local authority decided to invest in a complete overhaul of the school's electrical system – calling for a lighting system which was not only fully flexible, but also scalable.

The school's bespoke requirements saw the project's specification engineer specify Hager's distribution and panel boards, as well as its market-leading Klik lighting control system. Klik was simple to install. Its plug-in and socket connection options mean that luminaires were simply plugged-in in seconds without the need for circuit isolation. Its self-wired plugs now provide a highly adaptable solution whenever the system needs to be altered.

Klik gives the school the flexibility it needs. It can adjust to daylight levels to deliver an energy-efficient solution. It allows the school to, for example, dim light in specific areas for presentations or activities or make sure areas are not lit when unoccupied. Control is simple, so that full use of the system is accessible to all staff at the press of a button. And if the 400-pupil school grows in the future? The new system can be simply scaled up to match.

"The school's entire energy distribution and lighting control system has been future-proofed."

- David Strachan, Hager

"We're highly confident that the decision to specify Hager products ensures the systems installed will deliver the exact performance needs we require now and in the future."

- James Douglas, Aberdeenshire Council

Asking the experts. That's you!

"The creation of the Hager Insight Team takes our collaborative approach to a new level"

says Ian Smith, Marketing & Support Services Manager.

Did you know we've launched an Insight Team to help us make the most of our customers' expertise? We value what our customers think and what they have to say. So we've invited professional electricians to collaborate with us on new product development initiatives – benefiting from their years of on-the-job experience to help shape product concepts and services at Hager.

By working closely together with Hager's own team of industry and technical experts, the team will provide valuable opinion, on-the-job insight, recommendations and product feedback as the company develops its future products and services.

Interested in joining the Insight Team?

Want to share your expertise, help shape our products and services (and get a welcome package full of Hager goodies)? Find out more about the Insight Team and how you could join.

Join the Insight Team

Ask the expert RCDs

Paul Collins is one of our knowledgeable Technical and Training Managers here at Hager. He's got the answers to all your RCD questions.

RCD selection is an important aspect of any installation, ensuring adequate protection against potentially fatal electric shocks. Here are Hager's recommendations:

What type of RCD should I use?

You need to carefully consider the type of RCD required, depending on the type of equipment which may be connected in the installation. There are four types of RCD, with each reacting differently depending on the presence of DC components or different frequencies.

1 Type AC RCD – general purpose use

Type AC RCD can detect and respond to AC sinusoidal residual current only.

2 Type A RCD – equipment incorporating electric components

Type A RCD can detect alternating sinusoidal residual current and residual pulsating direct current suddenly applied or smoothly increasing. It is important to remember that Type A is also suitable for Type AC applications.

3 Type F RCD – equipment with frequency-controlled speed drives

Type F RCD can detect and respond to high-frequency residual current as well as pulsating DC residual current.

4 Type B RCD – electric vehicle chargers, PV supplies

Type B RCD can detect and respond to all types of residual current including smooth DC residual current.

What does Hager recommend?

Hager believes that the majority of electrical circuits in residential and commercial applications will require a Type A RCD solution.

What type of equipment/load is best protected by a Type A RCD solution?

Single-phase with electronic components, including:

- Single-phase inverters
- Class 1 IT and multimedia equipment
- Power supplies for Class 2 equipment
- Appliances such as a washing machine that's not frequency controlled
- Induction hobs
- Lighting controls such as a dimmer switch and home and building electronic systems
- Electric vehicle charging where any smooth DC fault current is less than 6 mA

Ask the expert Klik

With its pre-wired plugs, Klik is designed to save contractors time, eliminate the chance of poor connection, and allow enough flexibility to adapt as the building or office space needs change.

Here, Mike Lawrence, Commercial Market Manager, answers some of the most frequently asked questions about Klik.

Can I safely unplug a luminaire at the Klik plug without isolating the circuit?

Yes, the Klik plug provides safe on-load disconnection of luminaires without the requirement to isolate the circuit.

Can Klik only be used for on/off switching of standard luminaires?

No, while Klik 7 offers the ability for on/off control, it is also fully compatible with DALI control solutions, making it ideal for the very latest lighting systems.

Do I need a microprocessor-based lighting controller to perform daylight dimming and absence / presence type controls to achieve a typical commercial lighting system?

Klik 7 provides a fully scalable approach to lighting design and lighting control options. From simple absence / presence detection and timing functions via occupancy sensors, no controller is required. For more sophisticated lighting control functions, Klik 7 solutions can be designed with Hager's microprocessor LCM controller which is integrated into the Klik 7 marshalling box. Klik 7 also provides an efficient power and control distribution solution, when used with other lighting controllers.

If Hager doesn't have the control products my customer specifies, can I still use Klik?

Yes, Klik 7 distributes both power and control signals to lighting systems and is compatible with a wide range of manufacturers' control products.

Can Hager's control products and wiring accessories be easily integrated with Klik?

Yes, due to its plug-in convenience and versatility, Klik can deliver total compatibility with systems, from basic switching PIR sensors to DALI dimming to intelligent lighting control systems and KNX solutions.

Available in both 4 Pin and 7 Pin plug and socket connection options, luminaires can be simply plugged-in in seconds without the need for circuit isolation. In addition, Klik's self-wired plugs provide a highly adaptable solution whenever system alteration is needed.

Want to know more about Klik?
Find out more

New hybrid distribution board offers speed of installation and safety guarantees for student accommodation

Hager's arc fault detection device (AFDD) hybrid distribution board was specified on a major student accommodation construction project at Warwick University near Coventry. The 210-bedroom commercial development's main electrical contractor is Solihull-based, Orange Electrical Contractors.

With ongoing safety of occupants a primary concern for the accommodation developers and contractor, the Hager AFDD hybrid distribution board solution was selected to reduce the risk of fire resulting from faults, by ensuring the AFDD trips the affected circuit.

Complying with BS EN 62606, the AFDD, when combined with Hager's distribution systems, provides a hybrid solution which has been rigorously tested and validated to offer optimum protection against the harmful effects of dangerous electric arcs.

As part of the electrical protection system, 28 Hager commercial AFDD hybrid distribution boards have been installed, as Tom Kennedy, director at Orange Electrical Contractors explains: “The introduction of the 18th Edition of BS 7671 has further increased and improved safety standards to provide additional protection against fire on both domestic and commercial projects, including student accommodation. As such, the ability to fit the Hager AFDD hybrid distribution board brings several benefits. The boards are both aesthetically appealing and incredibly robust, so not only do they look good, but they also meet the specific requirements of its installation environment.”

As part of the project, Hager’s Engineered Solutions team worked closely with the developers to create the tailored solution which exceeded the unique requirements of the project. As a result, Hager was able to deliver 28 pre-configured hybrid distribution boards housing standard incoming and outgoing devices. Arriving on site fully terminated, the engineers had the straightforward task of simple connection and installation, saving on time by eliminating the need for collating boards, incomers, and devices on site.

“By using a tailored solution from Hager, the AFDD hybrid distribution boards offer plenty of space and accessibility so that our engineers can work comfortably and at ease. On a large-scale commercial project like this, installation speed is also of the essence and can be the difference in enabling us to stay on track with construction deadlines. The pre-assembled nature of the Hager hybrid distribution board has made a real difference to us.”

Tom Kennedy continues: “By working with the pre-configured boards, not only are we able to complete the job more quickly, but we also have the confidence of knowing that the boards have been rigorously tested by Hager before leaving their factory and that they meet all prevailing British Standards requirements. I have been so impressed that I fully intend to utilise the hybrid distribution board on future projects. I would recommend them 100%.”

Steve York, Project Support Centre Manager, explains how tailored solutions are providing commercial projects such as this with increased flexibility and performance. He says: “Working with commercial developers, it can be easy to fall into the routine of specifying products based on previous applications, however, this might not always be the ideal solution. By getting involved with a project at an earlier stage, we are able to work with engineers to develop the very best solution for the exact requirements. This collaboration means that we are able to understand the bespoke challenges developers, contractors and specifiers face and work with them to develop a tailored solution based on performance and need.”

Hager Ltd
Hortonwood 50, Telford,
Shropshire, TF1 7FT

Telephone +441952 675675
hager.co.uk