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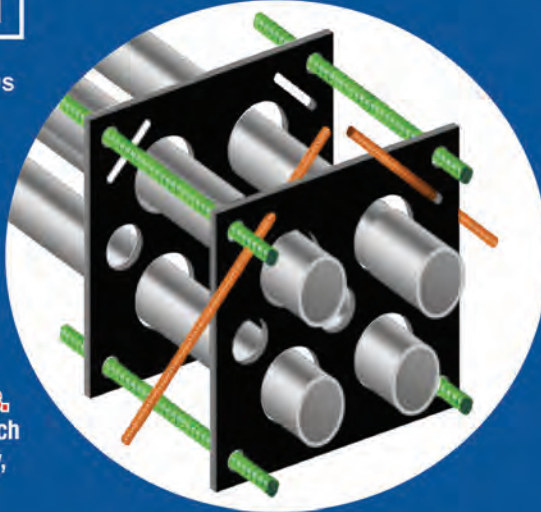
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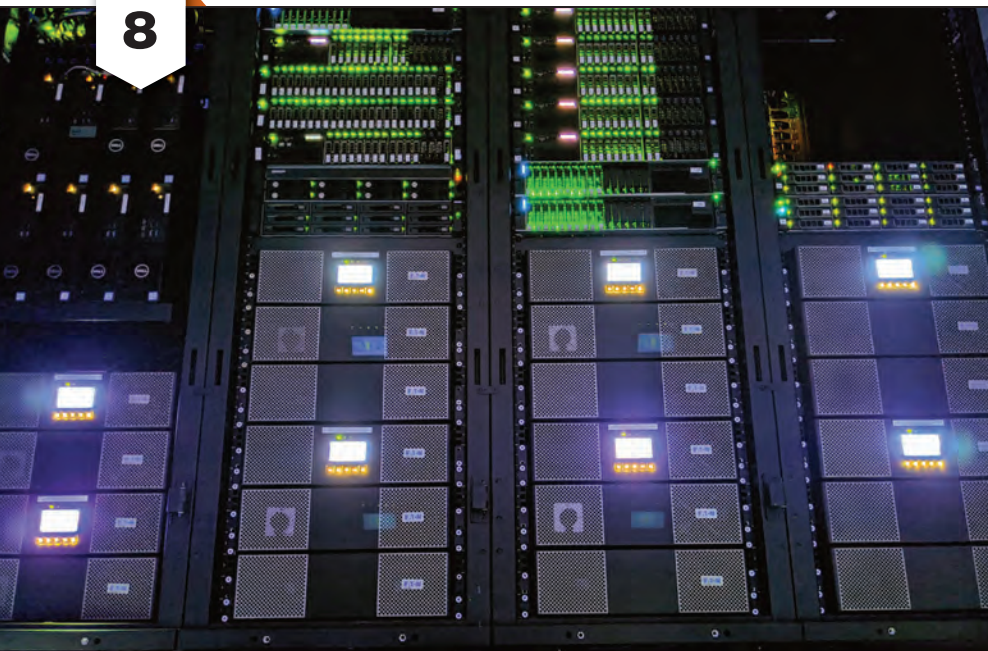
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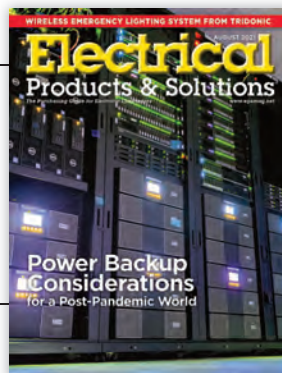
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Image courtesy of Eaton



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Generator InterLock Technologies, LLC

Generator InterLock Technologies, LLC, is a small-based company that manufactures and sells its products across the country. The company was founded after Hurricane Isabel hit the east coast in 2003. The product was developed to meet the need for a safe way to use portable generators to power homes in the event of power loss.

The initial inspiration for the product came from a persistent friend of an electrician working for Master Electrical Services. As electrical contractors, they had seen various unsafe and illegal methods that people had used to try to power their houses with their portable generators. The electrician set out to develop a product that would meet National Electrical Code requirements and at the same time be cost effective and convenient for the homeowner. From that original inspiration came a new company: Generator Interlock Technologies or GIT.

The Interlock Kit is a simple safety product that locks out the Main breaker in the existing home panel and allows for the portable generator to power the home through a back feed generator breaker. While many electrical inspectors liked the product; they all agreed that the product would have to be listed to UL standards. After thousands of dollars in fees, rigorous tests, a year of changes and modifications, the Interlock Kit was finally approved for production to be used with panels listed under UL Standard 67.

The company started filling orders in early 2005, using Master Electrical Services as its basis for customer awareness.

Starting with a few kits that fit the most recent Square-D and Cutler Hammer panels, the offerings grew to over 30 different models in less than one year. Generator Interlock Technologies now has kits for panels from 30 years ago to the most current and they continue to add new kits to meet their customer's needs. While contractors in Florida and the North East are the biggest customers, Interlock Kits have been sent throughout the United States and parts of Canada. Whether the power loss is due to coastal hurricanes or from crippling ice storms in the northern , GIT has a kit that will allow customers to keep the power on in their homes.

The Interlock Kits are designed to be installed by licensed electricians and are cost effective for both the customer and the installer. Other products on the market such as generator sub-panels and transfer switches require extensive rewiring of the home panel, often taking the electrical contractor 6 to 8 hours to install. With the Interlock Kit, a qualified electrician can install a complete system in 2 hours or less by simply mounting the correct kit to the face of the panel and wiring a gen-



erator convenience outlet to a breaker installed in the panel.

To use their portable generator, a homeowner plugs an extension cord from their generator to the new generator convenience outlet. He then starts the generator, turns off the main breaker, slides the Interlock Kit, turns on the generator breaker and selects the circuits for use up to the capacity of the generator.

Generator Interlock Technologies' Kit is a defining safety product that has been recognized as a Innovation Award Winner by *Electrical Contracting Products* magazine and one of the Top Products by *Electrical Products and Solutions* magazine.

Generator Interlock Technologies, LLC, has taken a problem of safety and convenience and developed a system to keep danger and expenses to a minimum. Starting with an idea of helping a friend in need, to helping thousands across the country, GIT continues to grow due to its commitment to deliver a quality product. Visit www.interlockkit.com for a complete list of products and details. □

With the Interlock Kit, a qualified electrician can install a complete system in 2 hours or less by simply mounting the correct kit to the face of the panel and wiring a generator convenience outlet to a breaker installed in the panel.

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Protect Yourself

Miller Safety Consultants — *A Leader in Arc Flash Protection*

Vince Miller started Miller Safety Consultants, a veteran owned business in 1999. The goal of the business was to provide cost effective safety consulting, employee training such as: confined space entry, fall protection, electrical safety and provide sales of electrical shock and flash protective equipment and fall protection equipment to businesses in the Washington DC area.

Reliance Industries provided fall protection products and much of the sales and training was on behalf of the supplier. In 2000, the owner decided to retire from his business, and Vince decided to discontinue the fall protection line of his business and concentrate more in the electrical training and products.

Vince had been a distributor for Certified Insulated Products (CIP), a manufacturer of electrical insulated tools and electrical arc flash clothing manufactured by Otex in Rochester, New York. As a distributor, Vince provided sales through his internet website and much through relationships with electrical contractors. His training was a classroom environment and was provided directly to customers but he also taught as a sub-contractor for other safety consulting companies and the

Chesapeake Safety Council in Baltimore, Maryland. In 2005, Vince partnered with Vivid Learning Systems in Cascades, Washington to provide on-line training in safe work practices.

Training in electrical safe work practices is still provided locally in the Washington DC area and as a partner with an electrical engineering firm and online. The training is based on the Occupational Health and Safety Administration (OSHA) standards and the National Fire Protection Association (NFPA) 70E standard.

Miller Safety Consultants is now a distributor for Cementex USA, Burlington, New Jersey, for insulated tools and equipment and clothing from OTEX Protective, Rochester, New York.

The majority of his sales of products are from the web-based store. Cementex is

nationally known for their quality equipment. Otex Protective is becoming more known for their quality clothing. For years, they have manufactured their products under other provider labels. Vince chose to not create his clothing line, but to sell the manufacturer product.

Vince has worked with many electrical company employees to fine-tune the clothing to be more comfortable for the user. Working closely with the manufacturer, they have made slight changes in how the cloth pattern was modified to meet final production. An example is the lightweight 40 Calorie vented hood offered by Otex.

The material is of the latest technology. The vented assembly is constructed for balance on the back of the hardhat and the airflow is 27 CFM to prevent fogging of the face shield and provide cooling to the worker. It took over a year to develop the product with the user prior to having the hood “flash tested”. This product is now standard issue with many electrical contractors.

Being a small business and having quality providers has resulted in satisfied customers for Miller Safety Consultants. Being a direct supplier for OTEX Protective, another small business means customized customer needs can be met. □

*For more information, visit
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Power Backup Considerations for a Post-Pandemic World

Five tips to help design the right uninterruptible power system

BY ED SPEARS



TO LOOK BEYOND THE COVID-19 PANDEMIC for many businesses requires contextualizing all the advancements that have helped guide them through it. Megatrends like digital transformation have been accelerated by our circumstances this past year. Innovations that have been introduced won't be going away or anywhere anytime soon.

Electrical contractors should consider how this changing IT landscape impacts power management demands for the customers they serve. We will explore key considerations for selecting backup power solutions in this article and provide additional tips (CONTINUED ON PAGE 10)

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for helping customers deploy the most reliable uninterruptible power systems (UPS) for the path forward.

Food for thought

Previously, I outlined important sizing considerations—including form factor, runtime, capacity, inputs and voltage requirements—that electrical contractors should be aware of when consulting customers on new UPS deployments. Having the right backup system positioned in each network closet or intermediate distribution frame (IDF) will help customers avoid potential vulnerabilities as the digital evolution continues to drive them to expand their distributed IT network.

In addition to sizing and configuration factors, there are many advanced capa-

bilities that electrical contractors should keep in mind as they tailor the right solution for their customers. Below are advanced options and specifications to consider in conjunction with UPSs to deliver resilient and reliable power.

1. Protect servers with a sine wave UPS

The waveform of electrical power (AC) is a sine wave. However, some UPS battery backup models provide a modified or square wave output while they're running on battery power. When it comes to protecting servers, IT teams should have a pure sine wave UPS to deliver efficient, reliable power with the traditional waveshape for IT loads. Standby UPS or offline UPS models are the most com-

mon types that don't provide pure sine wave output. Line-interactive and online UPSs almost always deliver a pure sine wave, but users should always read the technical specifications to verify this.

2. Add intelligence with monitoring, alerts and automation

Network closets and IDFs are typically remote, seldom occupied by IT staff and often neglected. An audible alarm of a UPS battery backup is useless if no one is there to hear it. However, by incorporating remote monitoring and alert notifications, users can be notified of potential issues and act accordingly. There are several possible solutions for customers depending on their application needs:

- **Single UPS system:** Network card—Users can typically monitor a single UPS battery backup through a network card. Network cards can essentially act as their own servers, recording event history, sending email and text message alerts, and providing remote access to real-time status. Using a network card is usually the best way to manage a single UPS system.
- **Multiple UPS installations:** Network card and software—For multiple UPS systems spread out across a network closet, campus or enterprise, leveraging power management software will help aggregate and manage these power devices in a dashboard view—including both UPSs and network-enabled rack PDU products. The software can even be used to trigger air gaps that help to improve network security.

(CONTINUED ON PAGE 12)





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- **Virtualization:** Integrated power management software—With the right power management software, IT staffs can integrate with their virtualization platforms. Eaton's IPM software application, for instance, possesses shutdown agent management capabilities that enable safe shutdown of virtualized servers – including servers in clusters running on the VMware vCenter Server. Live migrations can be triggered to transparently move virtual machines to an available server on the network for data integrity and zero downtime.

3. Choose a comprehensive warranty and service coverage

When comparing UPS models, electrical contractors should encourage customer diligence in evaluating the specifics of their warranty. Basic questions to consider include:

- How long does it last?
- Does it cover both the UPS and its batteries? Is shipping included?
- Are the batteries user-replaceable?

Most network closet UPS models are plug and play, and users can take advantage

of extended warranties and advance exchange plans where a replacement UPS is shipped out as soon as they request a replacement from the manufacturer.

4. Consider UPS maintenance bypass and redundancy

Depending on budget, businesses have the opportunity to both increase the reliability of a system and make their lives easier down the road. Adding a maintenance bypass allows users to service or replace a UPS battery without shutting down the connected equipment. An automatic transfer switch (ATS) PDU is an ideal fit to help facilitate this process. The ATS automatically transfers power between sources with no interruption if the primary source fails or requires maintenance to eliminate equipment downtime.

5. Think beyond the UPS

Finally, for a well-rounded solution, users can add a temperature and humidity probe; critical for proactive response in unmanned locations. For managing a fleet of UPSs, a remote monitoring service application could be a great option for a customer as well. With this service, the provider will handle monitoring of power devices and can promptly dispatch a field technician to an impacted area if something comes up.

Rounding it out

In many ways, you get what you put in when it comes to selecting a UPS. It's not just the monetary investment, but a high impact, business decision when considering the time and resources businesses commit in weighing all the options. Electrical contractors can be a knowledgeable resource for their customers in this process, particularly as they continue to transition in the midst of the digital transformation and begin to build their strategies to plan beyond the pandemic. By applying their knowledge and doing their due diligence, electrical contractors can help to ensure customers are satisfied and set up for sustained success. □

Electrical contractors can be a knowledgeable resource for their customers in this process, particularly as they continue to transition in the midst of the digital transformation and begin to build their strategies to plan beyond the pandemic.

Ed Spears is a product marketing manager in Eaton's Critical Power Solutions Division in Raleigh, North Carolina. A 40 year veteran of the power-systems industry, Ed has experience in UPS-systems testing, sales, applications engineering and training—as well as working in power-quality engineering and marketing for telecommunications, data centers, cable television and broadband public networks. He can be reached at EdSpears@Eaton.com, or find more information at Eaton.com.

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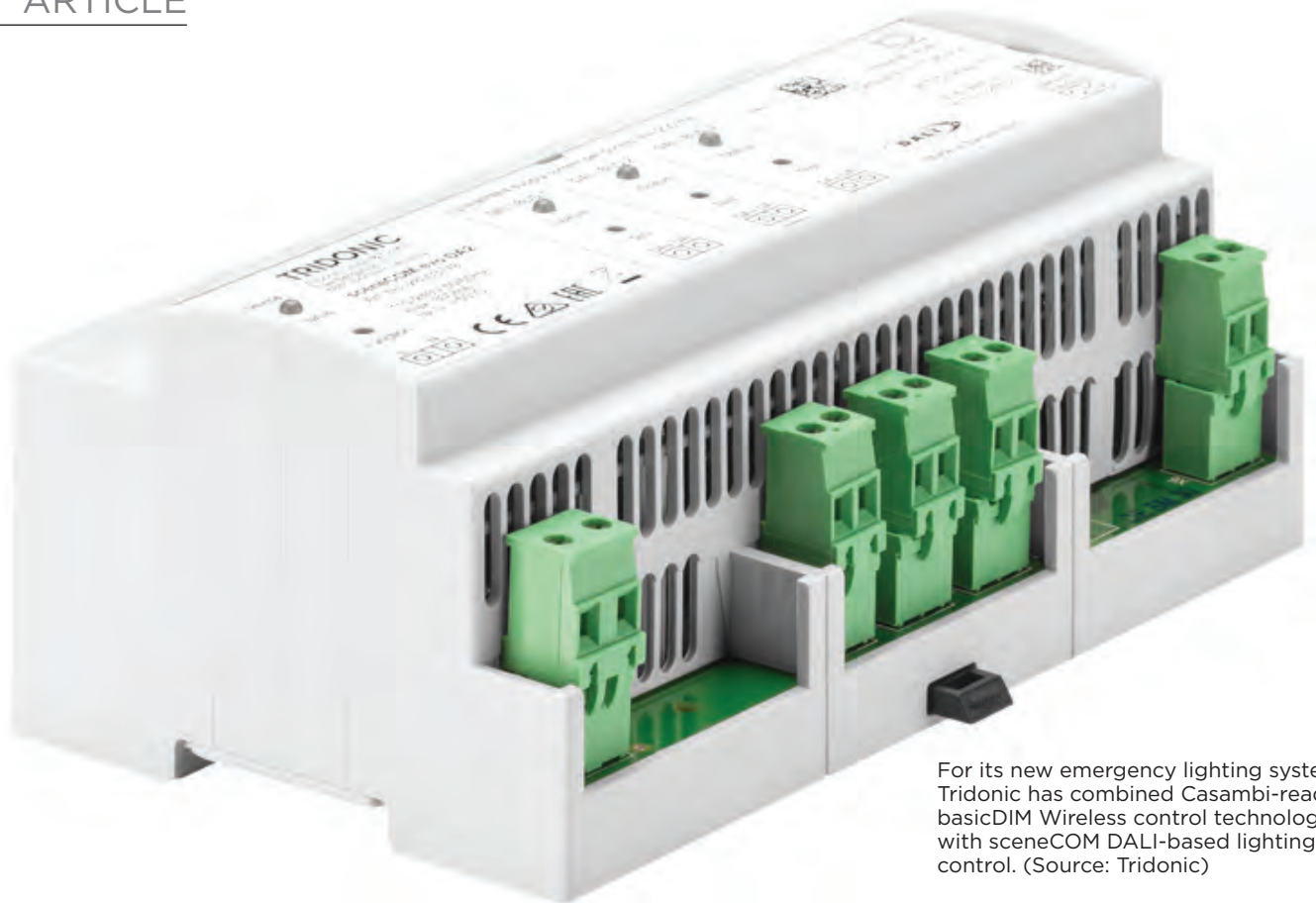


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For its new emergency lighting system Tridonic has combined Casambi-ready basicDIM Wireless control technology with sceneCOM DALI-based lighting control. (Source: Tridonic)

Wireless Emergency Lighting System from Tridonic

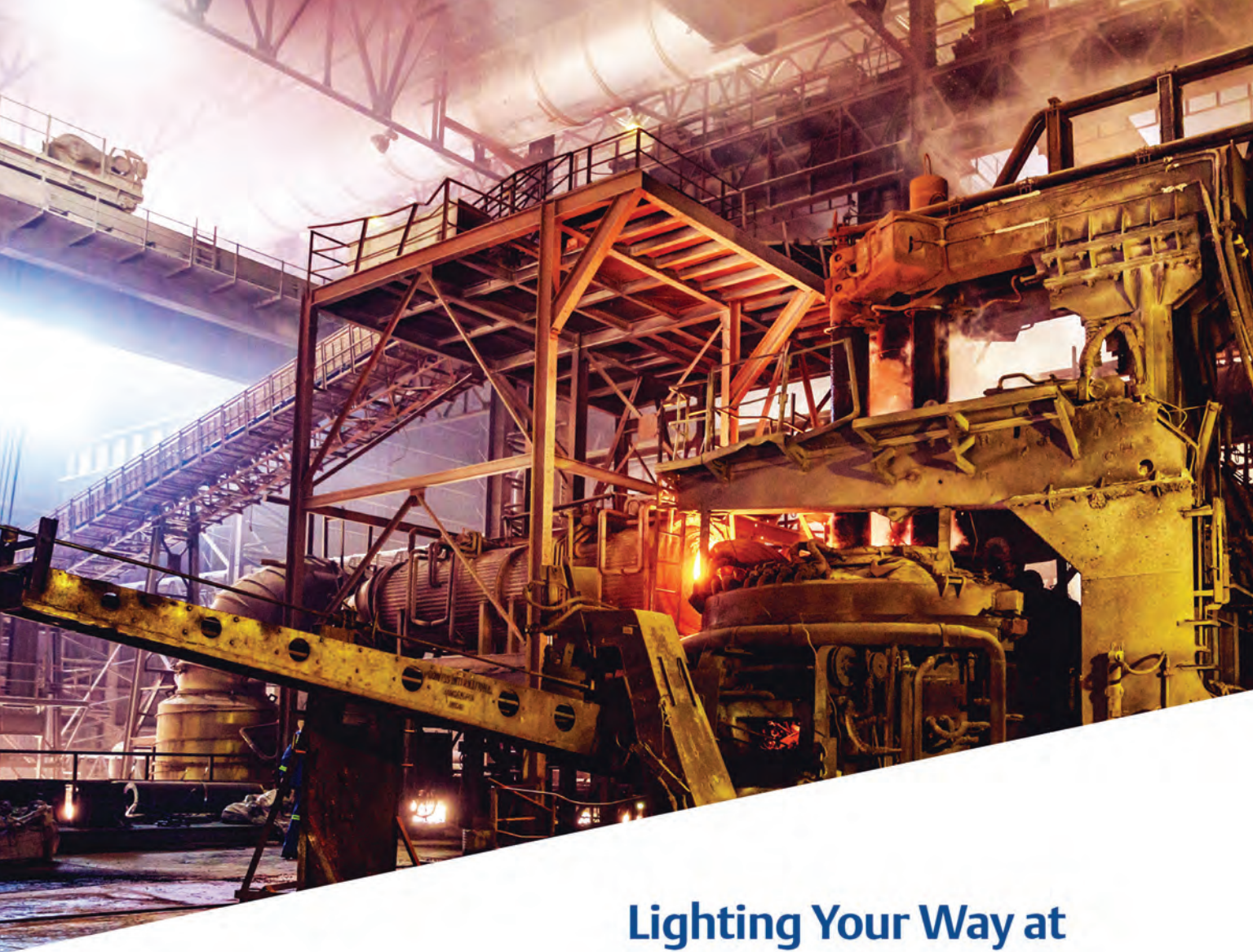
Tridonic offers easy testing and maintenance of existing systems

MODERN EMERGENCY AND SAFETY LIGHTING requires central monitoring and automatic testing of individual luminaires. In the case of existing systems, retrofitting is often difficult as additional wiring is needed for communication. Tridonic can remedy this with its new wireless emergency lighting system. It combines the proven Tridonic technologies of basicDIM Wireless and sceneCOM and is suitable for both renovations and new installations.

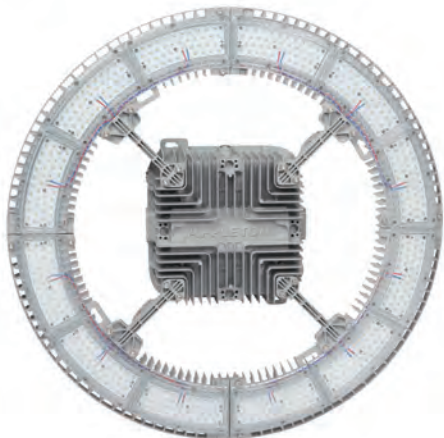
In a connected industrial society, a power outage means not only high economic damage but also the risk of accidents. Safety and emergency lighting systems play an important role in build-

ing safety. Operating independently of the existing power supply, these systems help people quickly find their way out of the building in an emergency and thus to safety.

Strict maintenance and testing regulations therefore apply to safety and emergency lighting systems: Not only must they be regularly checked by trained specialists, their condition must also be documented in a test log. To make sure that testing and maintenance work is properly documented, thereby increasing building safety, more and more countries require central monitoring and control for the automated testing of single battery powered systems. For example, German pre-standard DIN VDE V 0108 and Austrian standard OVE E 8101 recommend or require central reporting of operational readiness, (CONTINUED ON PAGE 16)



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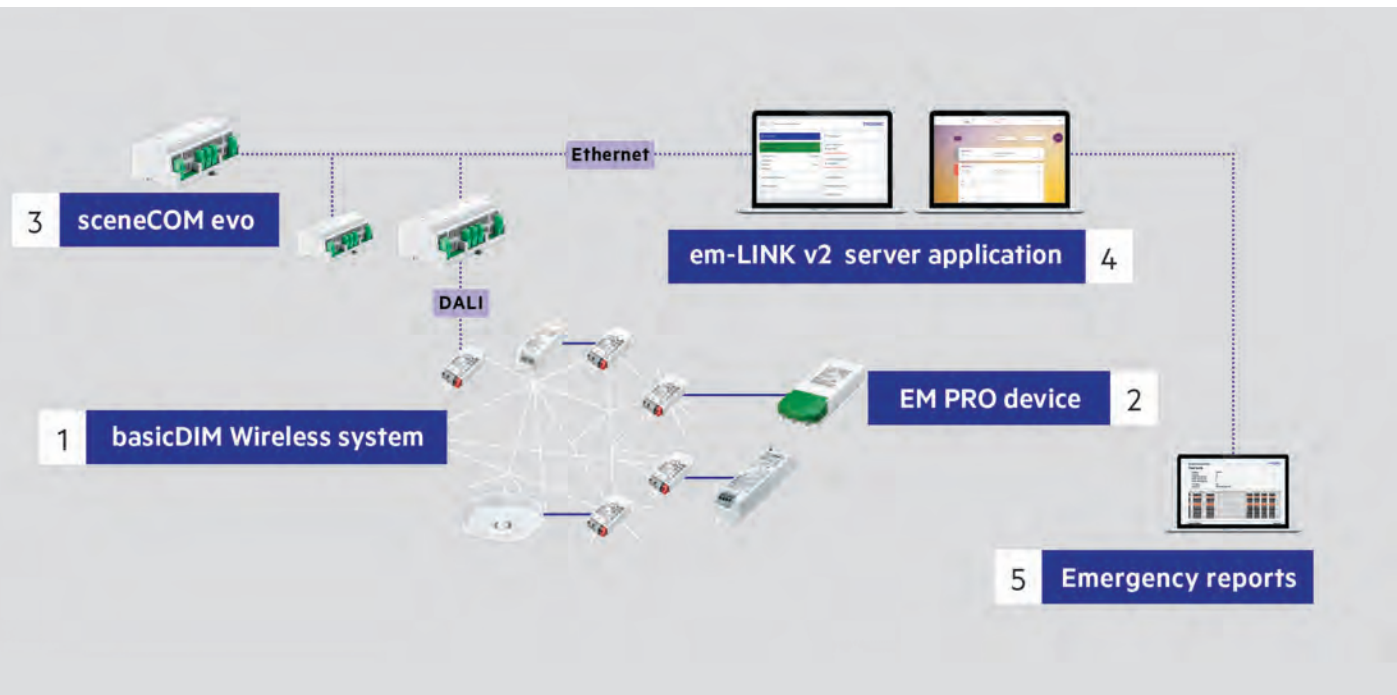
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operating mode and collective faults of safety lighting systems. This means that in future, emergency luminaires for single battery operation in both countries will have to be equipped for central testing instead of manual testing as before. Both new regulations apply to new buildings as well as to the renovation of existing installations. As standards and regulations become increasingly international, it is safe to assume that further European countries will adapt the existing directives for emergency and safety lighting systems accordingly.

Standard-compliant retrofitting is difficult in existing buildings

This is putting pressure on many emergency lighting operators. Complying with the requirement for a central test facility calls for intensive planning and involves high costs. In the case of existing systems, central monitoring can only be implemented by installing additional wiring. At best, this is a time-consuming and labour-intensive operation, and at worst may not be possible at all. Alternatives are needed in order to continue to comply with the regulations.

Help is at hand in the form of Tridonic's new wireless emergency lighting system. It can be integrated into existing installations without the need for

additional wiring and conforms to the relevant standards. The wireless system also offers advantages for new buildings. There are overall cost savings as less time and effort is needed for planning and commissioning, and material costs are also reduced.

All the benefits of a central monitoring system - with minimal installation work

For its new emergency lighting system Tridonic combines its user-friendly Casambi-ready basicDIM Wireless control technology with sceneCOM DALI-based lighting control. Tridonic uses the proven basicDIM Wireless system as the backbone of the new solution, providing wireless connectivity for the emergency luminaires via a fail-safe mesh network without any additional cabling or structural changes. The luminaires are set up via Bluetooth Low Energy (BLE). Existing DALI emergency luminaires with a PRO emergency lighting unit can be easily upgraded and integrated into the wireless network. For this purpose, Tridonic offers the also new, compact basicDIM Wireless G2 module.

A gateway connects all the wireless emergency luminaires to a sceneCOM evo controller. Once commissioned, the controller acts as the "brain" and takes

over command of the entire lighting solution – fully automatic and exactly as the user requires. This also applies to the required central monitoring and automatic testing of emergency and safety lighting systems. Tridonic has developed a control logic that enables the controller to automatically test the individual luminaires integrated in the network and to display the system status in real time. The test and system data is accessed via Ethernet from any web browser. Up to 192 luminaires can be connected to each sceneCOM evo controller.

Automatic testing and log book at the touch of a button

With its wireless emergency lighting system, Tridonic provides building operators and electrical engineers with a simple solution that automatically checks the installation at the prescribed intervals and records the condition of each individual luminaire in the wireless network in real time.

In conventional installations without central monitoring, appropriately qualified personnel must operate each individual emergency luminaire in the building and check it manually. The new Tridonic solution means that the luminaires are now centrally monitored and automatically tested.

(CONTINUED ON PAGE 18)

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Luminaire manufacturers can easily convert standard emergency luminaires equipped with a PRO emergency lighting unit into wireless emergency luminaires with the new Tridonic basicDIM Wireless G2 module.

External access is via a PC, notebook, tablet or other internet-enabled device. The dashboard provides information at a glance about the current state of the system and the latest test results. And with just a few clicks, you can get detailed information about the status of each luminaire in the network. This includes the condition of the battery as well as the status of the LEDs and associated electronics. At the touch of a button, the system also automatically creates a standard-compliant log book with all the relevant information for downloading as a PDF or XML file. If a fault occurs in the lighting system, it can be seen on the dashboard. On request, a software package can inform the asset manager about faults and errors via email.

Thanks to new em-LINK v2 server application from Tridonic, all of these features are also available for large installations with multiple sceneCOM evo controllers, such as all the buildings on a large campus or retail outlets at different locations. It can connect up to 200 sceneCOM evo controllers and therefore as many as 38,400 individual luminaires. A web application makes it easy to select

the separate installations and check their status. The building managers are thus spared routine travel to the various buildings or branches; they are only required on site in the event of a malfunction or for replacing individual system components. This greatly reduces the time and resources required, and specialist staff can concentrate on their work without unnecessary travel.

Easy retrofitting, easy planning and automatic testing – with no unnecessary effort or materials

The benefits of the wireless emergency lighting system from Tridonic are self-evident. As no additional cabling is needed, electrical engineers benefit from simplified planning. Only the power supply has to be taken into account. That makes installation easier. Thanks to simple cable routing, very little material is required, and the time needed for the job is manageable. However, the system still complies with all current standards relevant to emergency lighting – even in the case of retrofitting in existing buildings.

The wireless system saves time for the

electricians responsible for maintaining the installations. Central automatic testing of separate installations and direct access to the system data reduces the workload enormously. Less time is required to test the individual emergency luminaires and less time is spent in the car travelling from installation to installation. With the aid of the web application, the luminaires can be easily assigned to rooms during or after commissioning and can be named accordingly.

Luminaire manufacturers can easily convert standard emergency luminaires equipped with a PRO emergency lighting unit into wireless emergency luminaires with the new Tridonic basicDIM Wireless G2 module. As a space-saving wireless unit, the Casambi-ready module is ideal for installation in the luminaire. It has an integrated DALI supply so no additional device is required. Firmware updates are available wirelessly on any Android or iOS device.

The relevant components of the wireless emergency lighting system are BSI Kitemark certified and comply with all standards and regulations relevant to emergency lighting. □

ABOUT TRIDONIC

Tridonic is a world-leading supplier of lighting technology, supporting its customers with intelligent hardware and software and offering the highest level of quality, reliability and energy savings. As a global driver of innovation in the field of lighting-based network technology, Tridonic develops scalable, future-oriented solutions that enable new business models for lighting manufacturers, building managers, systems integrators, planners and many other types of customer.

To promote the vision of the “Internet of Light”, Tridonic relies on partnerships with other specialists. The goal is the joint development of innovative technological solutions that convert lighting systems into intelligent networks and thereby enable associated services. Its profound, technical industry expertise makes Tridonic an ideal partner for established brands and for newcomers to the market.

Tridonic is the technology company of the Zumtobel Group and is headquartered in Dornbirn, Austria. In the 2020/21 business year, Tridonic generated sales of Euro 302.8 million. 1,808 highly skilled employees and a worldwide sales presence in over 70 countries reflect the company's commitment to the development and deployment of new, smart and connected lighting systems.

www.tridonic.com

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and fiber optics.*



STEP 1
Remove damaged
conduit



STEP 2
Cut split duct
conduit to fit



STEP 3
Snap in
place

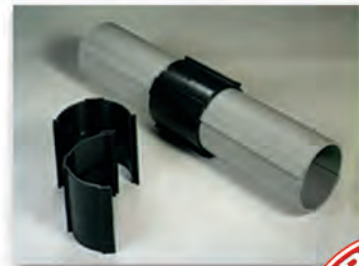
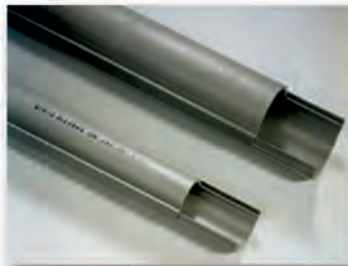
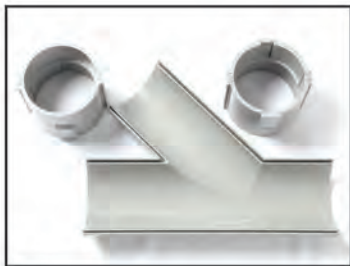
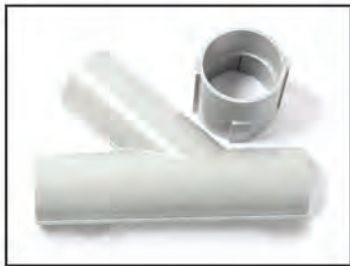


STEP 4
Attach
adapters



STEP 5
Finish job in
record time

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Threaded Block for Vertical Rod OR **Threadless Block for Vertical Rod**



For Vertical Rod 1/4" or 3/8"

Specify bolt size 1/4" or 3/8" for the conduit clamp

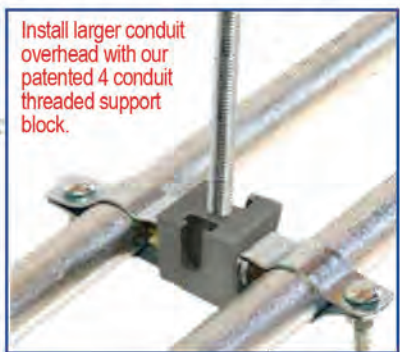
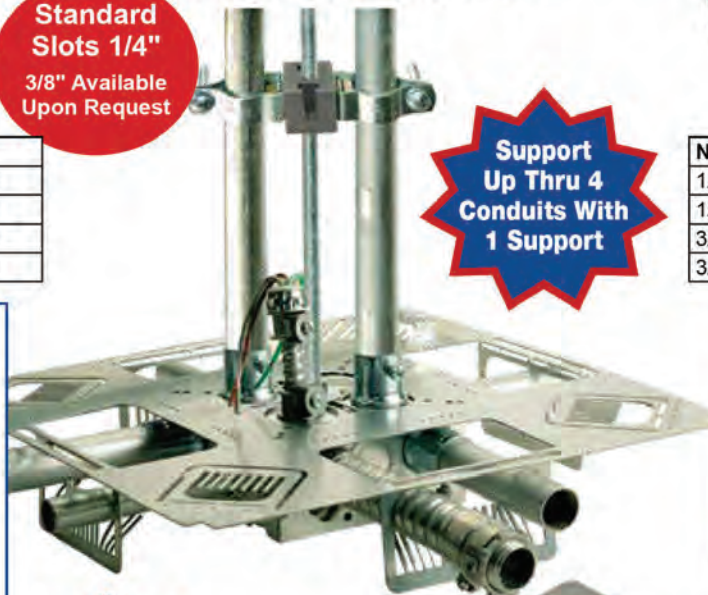
ST=(side thread) 1/4" or 3/8"

Standard Slots 1/4"
3/8" Available Upon Request

Support Up Thru 4 Conduits With 1 Support

THREADED BLOCK	
1/4 inch rod = Cat# TBT25-ST25	
1/4 inch rod = Cat# TBT25-ST38	
3/8 inch rod = Cat# TBT38-ST25	
3/8 inch rod = Cat# TBT38-ST38	

NON-THREADED BLOCKS	
1/4 inch rod = Cat# TBT25-NT-ST25	
1/4 inch rod = Cat# TBT25-NT-ST38	
3/8 inch rod = Cat# TBT38-NT-ST25	
3/8 inch rod = Cat# TBT38-NT-ST38	



New Block

AVAILABLE SOON
For Vertical Rod 1/4" or 3/8"



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Specify bolt size 1/4" or 3/8" required for the conduit clamp

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FAST & EASY TO INSTALL

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- 3** Attach Minis Tighten Nuts
- 4** Minis Attached Ready for Conduit to be Inserted
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IP19-20

Electri-Flex Company Announces New Purchasing Manager

ELECTRI-FLEX COMPANY, Roselle, IL, announces changes to the Purchasing Department as current Director of Purchasing, Ken Kuhnlohe, announces retirement. Tony Ambrogio joins the Company as Purchasing Manager and brings with him a diversified background in commodities purchasing, as well as electrical industry purchasing experience.

Tony comes to Electri-Flex with an understanding of supply chain management, inventory control, and contract negotiat-

ing with over 9 years purchasing experience, and 5 of those years in the electrical industry. Tony held purchasing roles for distributors, contractors, and other manufacturers throughout his career.

Ken, outgoing Dir. Of Purchasing, dedicated more than 40 years to this role, with 20 of those years at Electri-Flex Company. He has played an instrumental role within the Company, helping to maintain the high-quality standards and support to our supply chain service lev-



Tony Ambrogio
Purchasing Manager

Ken Kuhnlohe
Director of Purchasing

els which Electri-Flex is known for in the industry. "I want to thank Ken for his tenacity, frugality, thoughtfulness, and leadership," said Roy Hunn, VP-Operations, "but most of all we will miss his friendship." Ken's last day with Electri-Flex will be August 31, 2021.

Meet the Electri-Flex team by visiting <https://www.electriflex.com/about/meet-the-team/>. □

ABOUT ELECTRI-FLEX COMPANY

Electri-Flex Company, a leader in electrical conduit design and manufacture for over 65 years, produces Liqueflex®, the most diverse line of liquidtight flexible electrical conduit in the industry. The company offers custom design, engineering, quality assurance and testing capabilities. For more information on Electri-Flex Company, call (630) 529-2920 or (800) 323-6174; fax: (630) 529-0482; e-mail: mktg@electriflex.com; visit: www.electriflex.com; or write: 222 West Central Avenue, Roselle, IL, 60172-1994.



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Three red metal platforms for handling reels, labeled Style A, Style B, and Style C. They are shown from different angles to highlight their features.

Style A

Style B

Style C

(Styles shown with optional side rollers)

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DEWALT® Unveils Cordless, Compact 20V MAX* 2.5 Gallon Cordless Air Compressor With FLEXVOLT ADVANTAGE™ Technology

Achieve Up To 81% More Nails Per Cycle When Paired with DEWALT FLEXVOLT® Batteries

DEWALT announces the 20V MAX* 2.5 Gallon Cordless Air Compressor with FLEXVOLT ADVANTAGE Technology (DCC2520). When paired with DEWALT FLEXVOLT batteries, the compressor delivers max 140 PSI, allowing up to 81% more nails per cycle**, and more than 1,100 linear feet of shoe molding per charge***. The OneTurn™ Regulator allows users to precisely adjust the regulated pressure quickly and efficiently without manually gauging pressure, and with a cordless compact design at just 21.5 lbs. (bare tool), the compressor can be easily transported, carried, and stored without the hassle of extension cords and power sources. When paired with 20V MAX* batteries, a max PSI of 125 is achieved. The compressor is compatible with all 20V MAX* and 20V/60V MAX* DEWALT FLEXVOLT batteries for versatility and convenience.

Made in the USA with global materials, the 20V MAX* 2.5 Gallon Cordless Air Compressor with FLEXVOLT ADVANTAGE Technology is ideal for general contractors, remodelers, finish carpenters, and cabinet and trim installers, and can be paired with DEWALT staple guns and brad or finish nailers for a wide range of fastening applications. The brushless motor and oil-free pump provide efficiency and long compressor life, while the covered On/Off switch and heavy duty rollcage offer durability on the jobsite. The compressor also has 1.0 SCFM+ for quick fill-up and only 80 dBA while in use△.

The 20V MAX* 2.5 Gallon Cordless Air Compressor with FLEXVOLT ADVANTAGE™ Technology is available online now and will in-store in mid-September. The compressor will be sold as a bare unit (DCC2520) for \$199 MSRP, or as a kit (DCC2520T1), which includes a DEWALT 6.0 Ah Battery (DCB606) and charger (DCB1106) for \$299 MSRP.



**For more information, visit
www.DEWALT.com**



Klein Tools® Launches 2-Color Headlamp to Meet Multiple Lighting Needs

Klein Tools, for professionals since 1857, introduces the Rechargeable 2-Color LED Headlamp, which offers multiple light settings and modes for your everyday lighting needs.

- Rechargeable 2-Color LED Headlamp with Adjustable Strap (Cat. No 56414)
- Rechargeable Headlamp is 3 lights in 1: a focused, long-range white spotlight, a wide white floodlight and low-intensity red LEDs
- Low intensity red LEDs for non-blinding night vision and a long-lasting red strobe
- Light can be removed from bracket for recharging or attached directly to Klein-Æ hard hats (equipped with bracket system)
- Silicone infused, adjustable fabric strap features a convenient marker and pencil holder
- Magnet allows for use as hands-free work light
- Slim profile also pivots allowing up to a 64-degree lighting angle
- Battery gauge indicates level of battery life with colored LED lights
- Rechargeable via USB-C cable (included)
- Drop-test rating of 10-feet (3m), dustproof and water-resistant



“Having a headlamp with a variety of light settings and modes makes the job of tradespeople easier, which is ultimately our goal in designing any new tool,” says Laura Ranieri, senior product manager at Klein Tools. “This headlamp gives users a long-reaching white spotlight, a wide white floodlight, and low intensity red LEDs for non-blinding night vision and a long-lasting strobe, meaning lighting needs of all kinds are met from a single headlamp. That paired with the lamp’s ability to be attached to a hardhat or used as a magnetic work light makes it a highly versatile tool.”

**For more information, visit
www.kleintools.com/new-products**

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—Phil Rose, President, Roman Electric Company



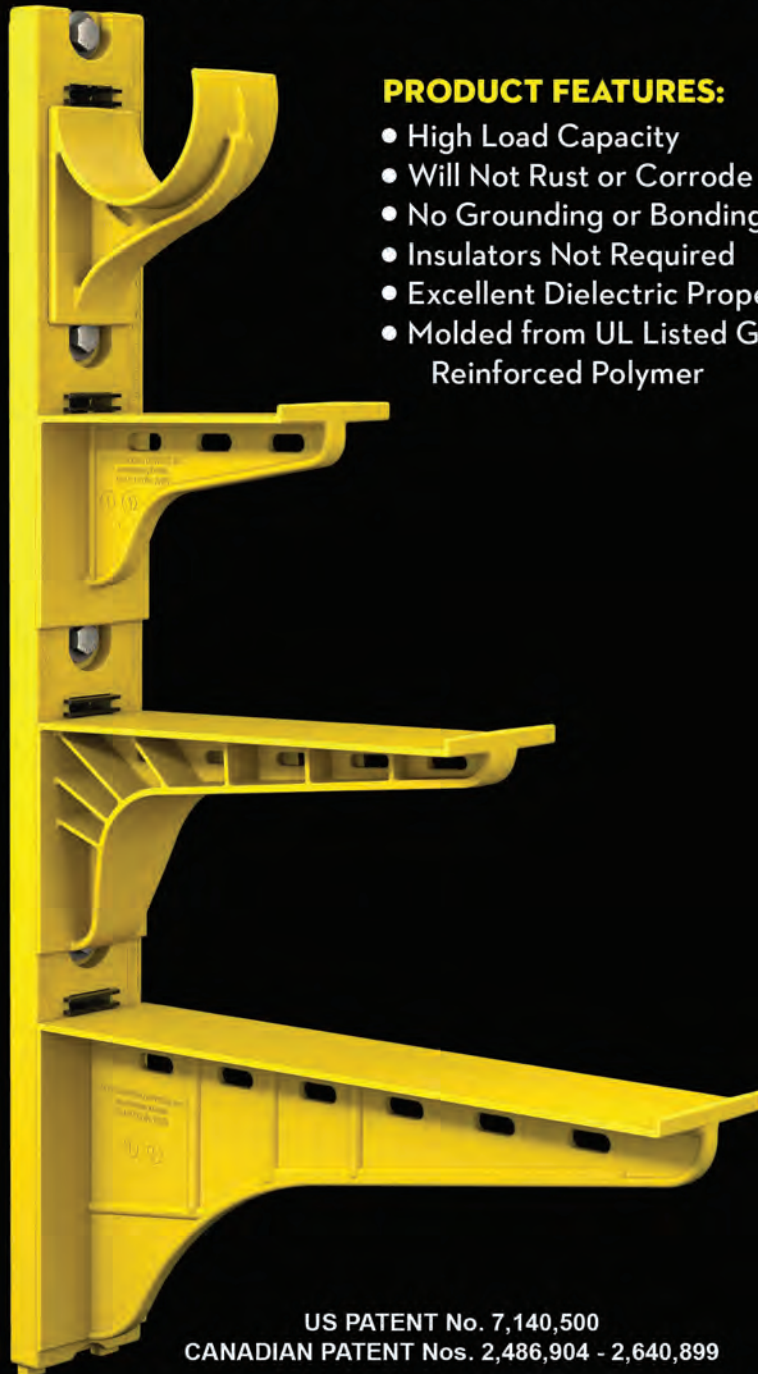
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HDL Arm Lock shown with
RA04 Arm and CR36-B Stanchion



3HDS - 3" throat saddle shown with
a cable secured by cable ties.



RA08 - 8" arm shown with three
cables secured by cable ties.

US PATENT No. 7,140,500
CANADIAN PATENT Nos. 2,486,904 - 2,640,899

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Milwaukee® Delivers Better Protection & More Comfort with New Safety Helmets

Milwaukee Tool adds to their Personal Protective Equipment lineup with the highly anticipated introduction of Milwaukee® Safety Helmets available in Front Brim and No Brim styles, and in Vented (Class C) and Unvented (Class E) options. The new Helmets provide better protection and more comfort than other options currently available.

“With more than half of fatal work-related traumatic injuries resulting in falls, workers are becoming more aware of the dangers of slips, trips, and falls. For that reason, there is a growing trend in helmet adoption by general contractors and sub-contractors because helmets offer side protection whereas traditional hard hats only include the top of head protection,” said Zach Richman, Group Product Manager for Milwaukee Tool. “Unfortunately, some helmets on the market today often sacrifice safety for comfort and style (and vice versa). With our new Safety Helmets, you don’t need to make that trade-off, as they provide a high level of both safety and comfort.”

The Milwaukee® Safety Helmets are designed to give users better protection by offering protection from both top and side impacts. The helmets are BOLT™ compatible with four BOLT™ accessory slots and two universal accessory slots, allowing users to adapt to their jobsite and easily attach additional personal protective equipment and accessories. Additionally, the helmets include a BOLT™ Headlamp Mount that is suitable for most headlamps and a BOLT™ Marker clip so users can attach and easily access pens, pencils, and markers.

Each helmet is constructed with a comfortable padded suspension that includes an adjustable swinging ratchet for quick adjustment and better comfort. The climbing style helmet also has a comfortable fitting, adjustable buckle chin strap for security.

The new helmet is designed with an anti-microbial sweatband and helmet liner that prevents odor and bacteria build up and can be removed to be machine washed.



**For more information, visit
www.milwaukeetool.com/ppe**

Fluke 393 FC CAT III 1500 V True-rms Clamp Meter with iFlex delivers safe, fast measurements in 1500 V dc environments

The new meter's thin jaw, CAT III 1500 V safety rating, and IP54 rating for dust and water make it ideal for installation and troubleshooting in solar environments.

Fluke Corporation introduces the Fluke® 393 FC CAT III 1500 V True-rms Clamp Meter with iFlex, the world's only 1500 V CAT III, IP54 rated, thin jaw clamp meter. With its CAT III 1500 V / CAT IV 600 V safety rating, the 393 FC provides exceptional safety for work in dc environments up to 1500 volts, like solar arrays, wind power, electric railways, and datacenter battery banks for uninterruptible power supplies. The thin jaw allows it to be used in combiner boxes, inverters, and tight spaces making it ideal for solar energy applications.

The meter measures up to 1500 V dc, 1000 V ac, and up to 999.9 A dc or ac through the clamp jaw. The included iFlex flexible current probe extends ac current measurements up to 2500 amps. When measuring ac current, the iFlex probe can be twisted through extremely small spaces giving technicians access to cables that would otherwise be difficult or impossible to clamp a probe around.

“The Fluke 393 FC delivers unparalleled safety and performance in 1500V dc environments, like solar energy,” said Susan Isaac, product manager for the Fluke 393. “It was designed specifically to address

the unique challenges solar technicians deal with every day and help them get their jobs done faster and safer.”

The Fluke 393 FC features:

- IP54 rating for dust and water making it ideal for work outdoors on solar arrays and wind power systems.
- DC power measurement, showing readings in kVA.
- Audio and Visual Polarity to ensure photovoltaic panels are properly installed with the help of an audio beep and a light to indicate correct polarity.
- Visual Continuity that provides a bright green indicator light in the display for working in dark and noisy environments.
- Logging, sharing and reporting of test results via Fluke Connect software.

Dedicated tools for solar design, installation, and troubleshooting

The 393 FC is the latest addition to the Fluke portfolio of test tools designed for the solar energy industry. Fluke tools operate reliably in the extreme environments — dusty, wet, cold and hot — that solar professionals work in, and are tested to survive drops that can occur in field work. Fluke tools are designed to keep workers safe in potentially dangerous electrical environments, meeting or exceeding all recommended safety standards.

**For more information, visit
www.fluke.com/393fc**

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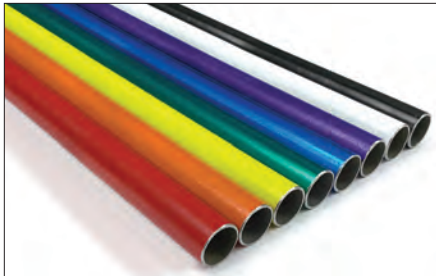
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Identify Multiple Circuits Instantly with Atkore's True Color™ EMT

Durable cable protection in eight colors saves time and guesswork

An even more vibrant color-coded electrical metallic tubing (EMT) system that provides superior protection while enabling quick, visual identification of multiple circuit systems is now available from Atkore™, under the Allied Tube & Conduit® brand.

True Color™ EMT provides a user-friendly way to separate a variety of critical cables in any setting. Available in eight fresh, vibrant colors, it reduces work time by making it possible

to quickly identify and distinguish multiple circuits – including fire alarm circuits, power wiring and communications, among others. It also eliminates the manual task of marking tubing with paints, powder coats or tapes.

Long-lasting, easy-to-install, scratch-resistant protection made in the USA

True Color EMT combines strength with ductility – it's easy to bend, cut and join while resisting flattening, kinking and splitting.

Precision manufactured from high-grade mild strip steel for durability and long-lasting life, True Color EMT is hot galvanized using a patented inline Flo-Coat process. This process combines zinc, a conversion coating, and a clear organic polymer topcoat to form a triple layer of protection against corrosion and abrasion.

True Color EMT has a special low-friction interior coating called E-Z Pull® that improves the slip properties between conduit and wire. With E-Z Pull EMT, wire pulls through the EMT smoothly, making installation easier and faster. The product features improved scratch resistance and is available in trade sizes ½ (16) to 4 (103).

EMI Shielding

True Color EMT offers excellent mechanical protection for conductors. It reduces electromagnetic field levels for encased power distribution circuits, shielding computers and other sensitive electronic equipment from the effects of electromagnetic interference. (See GEMI software analysis program.)

Codes & Standards Compliance

True Color EMT is listed to Underwriters Laboratories Safety Standard UL 797 and manufactured in accordance with ANSI C80.3 – standards that have been adopted as federal specifications in lieu of WWC 563. EMT is recognized as an equipment grounding conductor by NEC Section 250-118.

**For more information, visit
www.alliedeg.us**



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