

**tyco**  
*Electronics*



**Connecting the World of Power**

*a vital part of your world*

**ENERGY DIVISION**



## Connecting the World of Power



The Energy Division, a global operating unit of Tyco Electronics develops manufactures and markets products and systems for the electrical power industry. Today, the Energy Division employs approximately 3.700 people and annual sales amount to \$670 million. Our products are extensively employed by power utilites and equipment manufacturers, in rail transport systems and in industry around the world. We are a leading global supplier of

Our global network of technical and sales representatives provides expert application and engineering assistance, hands-on field training and continuous after-sales support to help our customers successfully master the challenges of today's businesses. Expertise of over 40 years in materials science, product design and process engineering go into the invention, development, manufacture and marketing of our high-performance products.

- Cable Accessories
- Connectors and Fittings
- Insulators and Insulation
- Surge Arresters
- Switching, Protection and Lighting
- Power Measurement and Control

Our competitive advantages are well recognized in the market:

- Customer focused organization
- Innovation and technology driven
- Extensive product offering
- Multiple market segments presence
- Industry leadership and expertise
- Structural and financial strength

Our wide range of reliable and cost-effective solutions is continuously expanded through research-driven product development.

Energy headquarters  
Munich/Germany

Our manufacturing sites around the world:

Region	Country	Site
EMEA	Ireland	Shannon
	UK	Aldridge Witham
	Switzerland	Wohlen
	France	Gevrey Chambertin
	Germany	Ottobrunn Falkenberg Berlin
	UAE	Dubai
	Saudi Arabia	Damman
	India	Bangalore
	Czech Republic	Trutnov
	AMERICAS	Canada
Brazil		Braganza
Mexico		Juarez
US		Fuquay-Varina Kennesaw
ASIA / PACIFIC	Thailand	Bangkok
	Indonesia	Jakarta
	Malaysia	Kuala Lumpur
	China	Shanghai Zibo
	Australia	Wyong



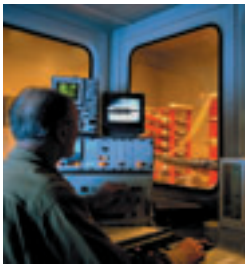


## **Global expertise and local support**

## **Committed to quality**



*With manufacturing facilities across five continents, we can react promptly to customer requirements and keep lead times and shipping distances to a minimum. An effective product supply chain ensures products move from origin to installation without lag time. Local customer service centers offer a single point of contact with staff that can provide country-specific support based on the needs of each region. By combining local knowledge with world-class research, product development and manufacturing capabilities, we set high standards of performance and user convenience.*



*ISO 9000 series and ISO 14001 certifications for almost all locations underline our continuing commitment to quality and the environment. All Energy products are subjected to extensive testing from the time they enter our plants as raw material until they leave as finished products. Requalification testing is carried out on a regular basis with installed components. Customers can thus have full confidence in the products, services and data supplied. In many cases, this saves the cost and inconvenience of any further downstream verification. All our electrical power products meet international specifications, such as IEC, CENELEC, IEEE, ANSI, and virtually all national standards.*



## Cable Accessories

The most innovative utilities and industries around the world use our power cable accessories. Designed to withstand environmental extremes and high pollution levels over long operating lifetimes, they help maintain service reliability in both overhead and underground installations. GURO and Raychem accessories offer a universal system for all cable types, low, medium and high voltage. Their specially formulated insulation materials resist tracking and degradation caused by erosion, ultraviolet light and other environmental stresses. All our cable accessories meet international specifications, such as IEC, CENELEC, IEEE and GOST.

- Low voltage accessories
- Medium voltage joints
- Medium voltage terminations
- Medium voltage switchgear connection systems
- High voltage accessories
- Nuclear qualified products





## Connectors and Fittings

Our full line of connectors and accessories for low, medium and high voltage cable and overhead networks, substations, grounding applications, rail transport infrastructure, industrial applications and accessories for overhead optical fiber lines (OPGW and ADSS) covers most applications in an electrical network. With connectors and fittings from AMP, B&H, Dulmison, Hellstern, La Prairie, SIMEL, and UTILUX we offer a large product selection in the industry from which our customers can choose the optimum solution for their specific application.



- Interconnection products for control wiring
- Solderless terminals and splices
- Terminal blocks
- Bolted connectors and clamps
- Insulation piercing connectors
- Copper compression connectors and lugs
- Bimetallic connectors and lugs
- Mechanical connectors and lugs
- Wedge pressure technology connectors
- Heliformed, cast and compression fittings
- Transmission line spacers and dampers
- Overhead powerline fittings
- Vibration control products
- Application tooling



## **Insulators and Insulation**

*Insulators and insulation enhancement products from Axicom, Dulmison, Morlynn, and Raychem have earned a world wide reputation for innovation, quality, service and technical expertise for an array of applications from utilities to railway systems. In long-term service, our brand products have an outstanding record for reliability and performance, in the toughest environments and applications. Our products are designed for use in distribution and transmission networks and fully qualified to IEC and ANSI standards.*

- *Insulators*
- *Insulation enhancement*





## **Surge Arresters**

*Bowthorpe EMP and Raychem are among the leading brands in the world-wide market for the protection of utility major assets. Their extensive range of polymeric and porcelain surge arresters are in service in over 130 countries and are protecting installations in all climatic conditions from the arctic circle to the tropics. Designed for use in distribution and transmission networks, all of the protection products and components Tyco Electronics Energy offers are designed and manufactured to IEC and ANSI standards.*

- Low voltage surge arresters
- Medium voltage surge arresters
- High voltage surge arresters



## Switching, Protection, and Lighting

Our products for street lighting and public services include low power components such as photocontrols, timers, circuit breakers, fuses and control boxes as well as high power devices such as electrical distribution switchboards with busbars from 800 to 6300 A and complete packaged substations, including transformers and 11 kV switchgear. Well-known brands such as ALR, Bowthorpe EMP, Dorman Smith, GURO, Raychem and SIMEL deliver the performance customers expect at prices they can afford. With our extensive range of surge protectors for mains power, voice, and data systems we are able to meet the requirements of demanding applications and diverse power and communication system environments around the world.

- Photocontrols
- Photocontrol accessories  
receptacles, shorting caps, relays
- H.P.S. starter
- Test equipment
- Time controls
- MCB distribution board systems
- Moulded case circuit breakers
- Fuse combination units
- Panel board systems
- Transient voltage surge suppression (TVSS) for mains power, data/network, telecommunication
- Flexible insulated bars



**ALR Bowthorpe EMP Dorman Smith  
GURO Raychem SIMEL**





## Power Measurement and Control

*Crompton Instruments products have earned a world wide reputation for quality, and offer proven reliability across power generation, process control, test and measurement, utility, marine, defence and energy management applications. With this brand Tyco Electronics Energy offers a large product portfolio of DIN, ANSI and JIS style instrumentation available to switchgear and generator set manufacturers, panel builders and OEMs. Our commitment to product development, quality and customer satisfaction is upheld with ISO accreditation and compliance to international standards, including UL, CSA, LRS, BV, ABS and ISSep approvals for many products.*

- Digital metering systems
- Kilowatt hour energy meters
- Transducers
- Protector trip relays
- Meter relays
- Digital indicators
- Analog instruments
- Current transformers
- Shunts
- Generator set controllers



## Enhanced properties for materials and products

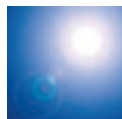
Systematic research into new materials has resulted in a wide range of products with enhanced properties to meet the changing needs of the electrical power industry:



Excellent resistance to surface electrical activity



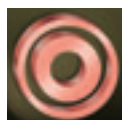
Moisture blocking



Excellent resistance to thermal aging and UV light



Electrical stress control



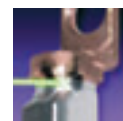
Insulation thickness memory



Reduced contact resistance



Void-free interfacial bonding



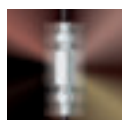
Excellent bimetallic interface



Impermeability to cable oils



Reliable, durable current interruption



Shape memory



Resin technology



Fiber reinforced resin



PowerGel



Total harmonic distortion analysis

# tyco

Electronics

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All of the above information, including drawings, illustrations and graphic designs, reflects our present understanding and is to the best of our knowledge and belief correct and reliable. Users, however, should independently evaluate the suitability of each product for the desired application. Under no circumstances does this constitute an assurance of any particular quality or performance. Such an assurance is only provided in the context of our product specifications or explicit contractual arrangements. Our liability for these products is set forth in our standard terms and conditions of sale. ALR, AMP, AXICOM, B&H, DORMAN SMITH, DULMISON, GURO, HELLSTERN, LA PRAIRIE, MORLYNN, RAYCHEM, SIMEL and UTILUX are trademarks. CROMPTON is a trademark of Crompton Parkinson Ltd. and is used by Tyco Electronics under licence.

**Energy Division – economical solutions for the electrical power industry: cable accessories, connectors & fittings, electrical equipment, instruments, lighting controls, insulators & insulation enhancement and surge arresters.**

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