Safe, reliable solutions for optimising productivity

F·T·N

Powering Business Worldwide

A leader in reliability, efficiency and safety

MTL is recognised as a world leader in the development and supply of solutions for harsh, hazardous and industrial environments. Distinguished by its network of offices and manufacturing sites around the world, MTL engineers and professionals are accessible wherever you are, providing experience and expertise to help solve your challenges. As part of Eaton's Crouse-Hinds business, MTL can provide all the solutions necessary for the safety and success of your business.

Unmatched breadth and depth of products

MTL solutions for the pharmaceutical and biotechnology industries include a comprehensive range of reliable products, services and training. Designed to **optimise on productivity, reduce plant costs and increase safety,** our rugged, durable product ranges are also suitable for those hazardous and industrial areas typically found in your industry. Our knowledge and expertise offers comfort to you, with many of the worlds safety critical processes monitored, controlled, visualised or protected by MTL products.

Comprehensive product solutions for global pharmaceutical and biotechnology applications

We deliver:

- **Visualisation solutions** that will offer flexible, remote visualisation and control to enhance efficiency and productivity within your process.

- **Intrinsic Safety & HART® Interface solutions** that ensures a safe, reliable process whilst maximising plant productivity and performance within hazardous areas.

- **Fieldbus Network solutions** that minimise risk and maximise plant performance by offering high reliability and safe operation of your fieldbus networks.

- **Industrial Networking solutions** that delivers safe, reliable and secure operation across your Ethernet communication networks in harsh and hazardous environments.

- **Surge Protection solutions** that enhance reliability and increase availability of your plant by protecting your assets from the damaging effects of lightning and other transient surges.

- **Process Alarm Management solutions** that increase plant availability and safety of employees through reliable, visible and scalable alarm systems.

Controlling, operating and protecting assets in harsh and hazardous areas

A new generation, built on experience

Introducing a new and unique modular design concept - the GECMA RT - a new generation of remote operating terminal.

The GECMA RT has been designed packed full of features and state of the art technology.

With the Pharmaceutical industry in mind, the new GECMA RT is suitable for the strictest of hygienic conditions and aggressive production environments, its slim, flexible modular construction also includes individually certified modules to allow safe maintenance even in hazardous areas.

Unique and innovative platform concept, modular design saving time and cost during installation, commissioning and operation.

Lightweight, slimline design for optimization of space and application.
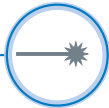
Fibre optic or copper data transmission for cost effective, reliable and increased volume of data transfer.

Unique Intrinsically Safe and Alarm visualisation ensuring safe, continuous operation in the hazardous area.

Single line data transmission for simple, cost effective installation and reliable transmission.

DVI & USB interfaces /transparent USB for quick and flexible connectivity.

Reducing your plant costs
Optimising your productivity
Increasing your plant safety

For further information about the new GECMA RT, please contact your local sales office or visit **www.gecma.com**

Explorer (PC)

Designed as a Panel PC, the Explorer is a client specific modular system and is ideal for local display or operation of software for client server applications such as web terminals or for control of PLC's.

Explorer operates in ambient temperatures ranging from -20°C up to +40/50° depending on ambient parameters e.g. airflow, type of enclosure etc. A wide range of special enclosures and housing options are available.

Explorer Panel PC's are also available as non Ex products for industrial applications up to a screen size of 18".

Intrinsic Safety Interfaces

For over thirty years MTL has been the world leader in intrinsic safety (IS) interfaces for hazardous areas, producing barriers, isolators and integrated IS to help prevent explosions in process industries. The products range from industry renowned (IS) barriers and isolators through to sophisticated process control products, all designed for the harsh environments often encountered in the process industry.

IS Indicators

MTL's range of IS displays delivers localised visualisation for critical process information. The MTL646/7 text displays are located in the hazardous area where they display alphanumeric data and graphics from a safe area host controller. The MTL660 loop-powered series offers clear visibility with its large LCD display and with the low voltage drop across their input terminals can be installed in almost any 2-wire, 4-20mA loop.
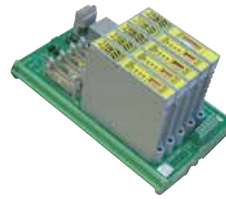
HART® Multiplexers

When it comes to HART® Multiplexers, MTL offers the most cost effective, reliable and flexible solutions for every application and industry. The MTL4840 HART® connection system is the system of choice for unrivalled flexibility, while the MTL4850 SIL3 multiplexer offers a simple interface between smart devices in the field and instrument management software. MTL also offers a range of customized HART® interface solutions to suit specific applications and systems.

Industrial Ethernet

Our full range of ruggedised Ethernet products are designed to operate in the harsh and hazardous environments delivering reliable, secure communications across the most demanding process applications. The full 9200 Series range is ATEX certified for Zone 2 and UL approved for Class 1/Div 2 hazardous areas. For applications requiring access into Zone 1, Zone 0 and Division 1 hazardous areas, including wireless solutions, then look no further than MTL's range of Intrinsically Safe Ethernet devices.

Process Alarm Equipment

MTL supplies RTK alarm systems and associated instrumentation from a single sounder to a complete plant-wide alarm and monitoring system. Products such as the 725B Combined Annunciator and Event Recorder are the most innovative in the market today - anywhere in the world, while the LN1000 Intrinsically Safe Alarm Annunciator is a totally unique product, helping to keep operators and the environment safe and process plants running smoothly.

Hazardous Area Notification Products

Operators working within a hazardous area need to be quickly and clearly informed of any potential hazard. Our range of notification products serves this purpose perfectly. The range includes Sounders, Beacons, LED Clusters and Alarm Displays, all certified for use in potentially hazardous areas.

Industrial Security

The Tofino™ Industrial Security System is a unique solution that addresses the important issue of protecting Industrial Networks from modern cyber security attacks. By deploying Tofino™ security appliances directly in front of your control device/s you eliminate the impact that these malicious and non-malicious attacks have on your critical infrastructure and manufacturing processes.

Industrial Wireless

In today's process industries there are increasing demands for greater efficiency, higher reliability and lower cost of ownership of field equipment and supporting networks. MTL offers full end to end or part solutions to meet the requirements of your project. From plant-wide 802.11 network infrastructure in hazardous areas to simple sensor signal cable replacement, MTL brings the experience and the products to realise robust and secure wireless systems.

Power Surge Protection

The MA15 Series of surge protection devices protects electronic equipment and computer networks against the effects of 'noise pollution' induced in mains power supplies. MA15 units 'clean up' the effects of industrial noise and surges caused by lightning, switching devices, thyristor controls, transmission system overloads and power-factor correction circuits.

Data and Signal Surge Protection

The SD Series is a proven range of surge protection devices combining unparalleled packing densities and application versatility for process equipment and communication networks. The SD Modular (SDM) version adds a replaceable element which permits change or upgrade of the module without disconnecting the loop.

Field Instrument Surge Protection

The TP Series of surge protection devices uniquely provide a level of protection for 2, 3 and 4 wire field-mounted transmitters that is far in excess of the optional transient protection facilities available from the transmitter manufacturers - without involving any additional wiring, conduit modifications or other expensive extras.

Communication Surge Protection

ZoneBarrier series is a modular, telecom protection device that provides a uniquely customer configurable port-by-port protection approach. The building block concept allows ease of expansion and offers a range of mounting options. The ZoneBarrier modules are available for a variety of network and communication applications.

Process Junction Boxes

MTL Process Junction Boxes are suitable for safe and hazardous area installations for mounting fieldbus wiring components. They offer plenty of space for termination and wiring, making it easy to install and maintain the fieldbus system. A complete range of stainless steel and GRP enclosures are available, all of which are pre-drilled for glanding and supplied with glands, earthing studs and breather plugs as required. Detailed specifications can be met to help minimise your engineering and project management burden.

Redundant Fieldbus Power Supplies

MTL fieldbus power supplies are designed to provide redundant power for up to eight FOUNDATION™ fieldbus H1 segments, optimizing on cabinet layout and achieving maximum number of fieldbus segments. The 918x system is for use in general purpose and hazardous area High Energy Trunk architectures and features a unique N+1 redundancy delivering you flexibility, cost savings and high availability.

FISCO Power Supplies

MTL FISCO power supplies repeat the fieldbus signal from a host control system to intrinsically safe fieldbus devices in a Zone 1 or Division 1 hazardous area. Complying with the IEC 60079-27 FISCO Technical Specification, they are capable of providing high levels of current in the hazardous area, while maintaining the benefits of a true intrinsically safe circuit throughout the field network. With a redundant option this solution provides a unique combination of high system availability and operator safety.

Single-Segment Fieldbus Power Supplies

The F101, F102 and F104 fieldbus power supplies each provide power for a single FOUNDATION™ fieldbus H1 segment. Galvanic isolation, power conditioning and segment termination are incorporated. With a range of output voltages and currents supported, the modules can be used in a variety of fieldbus environments where energy efficiency and live-workability is important. The F10x Series modules are ideal for installations requiring single segment, non-redundant power in small to medium scale applications such as batch processing.

A partner poised
to meet your
pharmaceutical and
biotechnology needs

EATON Crouse-Hinds series
The safety you rely on.
See the complete MTL pharmaceutical & biotechnology product portfolio at **www.mtl-inst.com**

U.S. (Global Headquarters):
Eaton's Crouse-Hinds Business
1201 Wolf Street
Syracuse, NY 13208

(866) 764-5454
FAX: (315) 477-5179
FAX Orders Only:
(866) 653-0640

CrouseCustomerCTR@Eaton.com

For more information:
If further assistance is
required, please contact
an authorised MTL
Distributor, Sales Office,
or Customer Service
Department

AUSTRALIA
MTL Instruments Pty Ltd,
10 Kent Road, Mascot, New South Wales, 2020, Australia
Tel: +61 1300 308 374 Fax: +61 1300 308 463
E-mail: mtlsalesanz@eaton.com

BeNeLux
MTL Instruments BV
Ambacht 6, 5301 KW Zaltbommel
The Netherlands
Tel: +31 (0)418 570290 Fax: +31 (0)418 541044
E-mail: mtl.benelux@eaton.com

CHINA
Cooper Electric (Shanghai) Co. Ltd
955 Shengli Road, Heqing Industrial Park
Pudong New Area, Shanghai 201201
Tel: +86 21 2899 3817 Fax: +86 21 2899 3992
E-mail: mtl-cn@eaton.com

FRANCE
MTL Instruments sarl,
7 rue des Rosiéristes, 69410 Champagne au Mont d'Or
France
Tel: +33 (0)4 37 46 16 53 Fax: +33 (0)4 37 46 17 20
E-mail: mtlfrance@eaton.com

GERMANY
MTL Instruments GmbH,
Heinrich-Hertz-Str. 12, 50170 Kerpen, Germany
Tel: +49 (0)22 73 98 12 - 0 Fax: +49 (0)22 73 98 12 - 2 00
E-mail: csckerpen@eaton.com

INDIA
MTL India,
No.36, Nehru Street, Off Old Mahabalipuram Road
Sholinganallur, Chennai - 600 119, India
Tel: +91 (0) 44 24501660 /24501857 Fax: +91 (0) 44 24501463
E-mail: mtlindiasales@eaton.com

ITALY
MTL Italia srl,
Via San Bovio, 3, 20090 Segrate, Milano, Italy
Tel: +39 02 959501 Fax: +39 02 95950759
E-mail: chmninfo@eaton.com

JAPAN
Cooper Crouse-Hinds Japan KK,
MT Building 3F, 2-7-5 Shiba Daimon, Minato-ku,
Tokyo, Japan 105-0012
Tel: +81 (0)3 6430 3128 Fax: +81 (0)3 6430 3129
E-mail: mtl-jp@eaton.com

NORWAY
Norex AS
Fekjan 7c, Postboks 147,
N-1378 Nesbru, Norway
Tel: +47 66 77 43 80 Fax: +47 66 84 55 33
E-mail: info@norex.no

RUSSIA
Cooper Industries Russia LLC
Elektrozavodskaya Str 33
Building 4
Moscow 107076, Russia
Tel: +7 (495) 981 3770 Fax: +7 (495) 981 3771
E-mail: mtlrussia@eaton.com

SINGAPORE
Cooper Crouse-Hinds Pte Ltd
No 2 Serangoon North Avenue 5, #06-01 Fu Yu Building
Singapore 554911
Tel: +65 6 645 9888 Fax: +65 6 487 7997
E-mail: sales.mtlsing@eaton.com

SOUTH KOREA
Cooper Crouse-Hinds Korea
7F. Parkland Building 237-11 Nonhyun-dong Gangnam-gu,
Seoul 135-546, South Korea.
Tel: +82 6380 4805 Fax: +82 6380 4839
E-mail: mtl-korea@eaton.com

UNITED ARAB EMIRATES
Cooper Industries/Eaton Corporation
Office 205/206, 2nd Floor SJ Towers, off. Old Airport Road,
Abu Dhabi, United Arab Emirates
Tel: +971 2 44 66 840 Fax: +971 2 44 66 841
E-mail: mtlgulf@eaton.com

UNITED KINGDOM
Eaton Electric Ltd,
Great Marlings, Butterfield, Luton
Beds LU2 8DL
Tel: +44 (0)1582 723633 Fax: +44 (0)1582 422283
E-mail: mtlenquiry@eaton.com

AMERICAS
Cooper Crouse-Hinds MTL Inc.
3413 N. Sam Houston Parkway W.
Suite 200, Houston TX 77086, USA
Tel: +1 281-571-8065 Fax: +1 281-571-8069
E-mail: mtl-us-info@eaton.com

Eaton Electric Ltd,
Great Marlings, Butterfield, Luton
Beds LU2 8DL, UK.
Tel: + 44 (0)1582 723633 Fax: + 44 (0)1582 422283
E-mail: mtlenquiry@eaton.com

www.mtl-inst.com

FAT•N
Powering Business Worldwide

Eaton Electric Limited,
Great Marlings, Butterfield, Luton
Beds, LU2 8DL, UK.
Tel: + 44 (0)1582 723633 Fax: + 44 (0)1582 422283
E-mail: mtlenquiry@eaton.com
www.mtl-inst.com

Eaton is a registered trademark.

All other trademarks are property
of their respective owners.