Engineering for Hazardous Areas

Flameproof Solutions ⬣ Bespoke Solutions ⬣ Explosion-proof Solutions ⬣ Purge Solutions

EXTRONICS

Engineering for Hazardous Areas

With a growing reputation for highly professional engineering excellence, Extronics is at the forefront of the hazardous area market. Our talent is in combining first-class design and engineering skills to create bespoke solutions to meet our customer's requirements. These can range from simple enclosures to complex, control systems being deployed in hazardous environments throughout the world.

Expertise - Extronics designers & technicians are highly trained, both in core electrical engineering skills and the requirements of hazardous area certification. Whether the requirement is an explosion-proof or purged enclosure or a complex package of equipment, every Extronics solution comes with comprehensive documentation. This will include regulatory documentation for ATEX,IECEx, FM etc., EC declarations of conformity, safety manuals, as well as all of the mechanical drawings and documents produced during the project.

Certification - Irrespective of whether you are pumping oil, making bread, refining chemicals or producing tablets, we know the codes and standards that apply in your hazardous areas. Extronics products and solutions are built to meet standards applicable to locations around the world, to help ensure the safety of your employees and equipment. With ATEX, IECEx and FM knowledge throughout the company, Extronics can also design to other standards e.g. GOST-R in Russia, TIIS in Japan etc,.

Facilities - Recent growth has meant an expansion to new HQ and production premises near Manchester in the North of England. The new facilities provide an ideal production environment and include a broad range of CNC, milling, drilling and associated machinery. These enable Extronics to provide a comprehensive, flexible and responsive service for both standard and bespoke engineering requirements.

Quality - Extronics has an enviable reputation developed around the quality of our products and solutions, with a commitment to constant improvements in service. Our quality system is approved to ISO9001:2008 and allows engineered solutions to be produced to ATEX Directive 94/9/EC and IECEx standard Ex/OD005/Version 2. Within each department, we comply with rigorous procedures to ensure that design and implementation meets the highest standards of quality in our industry.

ABOVE: Explosion-Proof exhaust control system

LEFT: Purged control cabinets for offshore drilling application

PROJECT Water Purification System

ATG Technology had a requirement for their ultra violet water purification system to be deployed on two offshore production platforms in Malaysia. As these were to be deployed in Zone 2 areas, Extronics worked closely with ATG to design and build the systems to meet with the requirements of the ATEX directive.

Technology from ATG was housed in aluminium EExd enclosures. Display windows were integrated into the design to provide visibility of crucial control information. Additional innovative features included automatic start and shut down, multiple UV lamp monitoring and process interlocks.

Extronics provided surface mounted push buttons and cabling was radically simplified by the integration of close coupled Exe junction boxes with Exd cable transits between the enclosures. To maintain the operational tolerance of the UV lamps, a galvanic isolator provided an intrinsically safe power supply to the UV intensity probe.

Product Development

Extronics recent success has been built on innovative product development. A substantial proportion of turnover is re-invested into a comprehensive R & D programme to provide effective solutions to the production problems posed by hazardous areas. In the engineering area, the products below have all been developed in response to clearly identified customer requirements.

iUPS101 Uninterruptible Power Supply

A Zone 1 modular uninterruptible power supply system which can provide up to 6kVA for 70mins at normal operating temperatures. The system is ideal for use on oil platforms and for critical process units which require total backup integrity.

iSTART100 Motor Starter

A Zone 1 starter designed for applications requiring Direct on Line starting of motors from 0.09 to 15kW. Designed for use on a wide range of industrial equipment. With thermal overload current settings from 0.15A up to 32Amps and circuit protection.

iPURGE Range

Provides a safe and reliable method of controlling and monitoring the purge and operation cycle of Ex p enclosures destined for Zone 1 or Zone 2. Designed to be part of a system conforming to EN60079-2 f.

iBATT100 Battery Box

A rugged battery enclosure constructed from 316L stainless steel for use in Zone 1 hazardous areas and housing two 12V valve regulated lead acid batteries. These advanced technology batteries provide superior performance and cycle life when compared to conventional electrolyte batteries.

iUPS200 Uninterruptible Power Supply

A Zone 2 UPS which provides back up power for up to 120 minutes, at 70W full load. Critical equipment such as wireless network nodes or equipment used in people tracking and automatic mustering systems are protected in the event of a blackout or brownout.

iVID101 Exd Monitor

Comprises a 12.1 TFT LCD display mounted inside an Ex d enclosure with a glass viewing window. The unit can be connected to various types of video input signals including the iCAM100 video camera & also other types of CCTV cameras.

Extronics – Making Hazardous Areas Safer

Founded in 1992, Extronics is a leading global designer and manufacturer of intrinsically safe and explosion proof equipment. From our UK headquarters, we serve customers that work in potentially explosive environments, especially those in the chemical, pharmaceutical, petrochemical, oil and gas industries.

Wireless Networks

Over the last few years, Extronics has led the way in helping companies to unlock their data from hazardous areas via standards-based wireless technology. Through innovative product development, technical design capability & technical partnerships with companies such as Cisco® and Aruba®, Extronics has become recognised as a leader in this particular field.

Vision Technologies

As a result of a substantial investment programme in both R&D, equipment and technical skills, Extronics has become a world leader in vision technologies for hazardous areas. This expertise includes the design and production of the world's first intrinsically-safe digital camera, the iCAM501 Ultra, as well as innovative Smart Phones and Tablets.

Engineering for Hazardous Areas

The Extronics engineering team possesses the expertise and experience necessary to create bespoke engineering solutions based upon the various concepts of protection in hazardous environments. This engineering expertise has enabled Extronics to create a range of innovative Ex d solutions which are available as standard items – dramatically reducing both lead time and production costs.

Personnel & Asset Tracking

Personnel and asset tracking solutions are of particular importance to companies with designated hazardous areas. Extronics wireless expertise provides the framework for the delivery of a range of Active & Passive RFID based tracking solutions. Solutions designed to dramatically improve worker safety, production efficiency and asset management.

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