

# PROCESS AUTOMATION













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### ISOLATED BARRIERS

- · For protection of electrical signals located in hazardous areas.
- These combine the energy limiting features of a zener barrier with galvanic isolation.
- Types: K-system H-system

E-system CR-system

WE-system

### **ZENER BARRIERS**

- Provides cost saving Ex-protection for various applications in process automation systems.
- Offers a wide product portfolio of housing and connection styles, which include DIN rail, termination board mounted, and accessories for each application.
- Available: Z System; SB System

### SIGNAL CONDITIONERS

- Take signals from assortment of field instruments such as thermocouples and RTDs, and convert them into any of several standard instrument signals (1...5V, 4...20 mA, etc.).
- · For accurate transfer of these signals, isolation and the elimination of ground loops.
- K System: Guarantees a reliable and economical signal transmission between your field devices and the control system.
- Power Rail System: Allows a simple snap-in of the interface modules on the DIN-Rail, reduced wiring, fewer connections.

#### FIELDBUS INFRA STRUCTURE

- FOUNDATION fieldbus H1 and PROFIBUS PA link field instrumentation to any process plant.
- Fieldbus provides seamless data communication between the plant and control system while supplying power to all field devices.
- DART Fieldbus: Intrinsically safe High-Power Trunk Concept, for hazardous area Zone 1.

## REMOTE I/O SYSTEMS

- Characterized by high functionality and simple handling.
- FB: Mounted in Zone 1 or Zone 21 hazardous areas
- LB: Mounted in Zone 2/22 hazardous areas or in the safe area.
- · RPI: Mounted in Zone 2/22 hazardous areas or in the safe area.

# HART INTERFACE SOLUTIONS

- Consists of two HART Multiplexer Systems for multiple signal loops and a HART Loop Converter for single loop applications.
- HART Multiplexer: A gateway device and a message coordinator between the maintenance workstation PC and the HART devices.
- HART Loop Converter allows access to all process variables provided by a field device and transfers them to conventional 4...20 mA loop.
- Available: K-System HIS; H System HIS

### LEVEL MEASUREMENT

- For management and process control in the chemical, petrochemical, environmental and other related industries.
- · To detect the precise level of any medium, under a wide range of conditions.
- Limit detection: Signals whether the medium has reached, risen above, or fallen below, a set level based on its installation height.
- Continuous Measurement: allows usage evaluation, loss control, and above all, precise process control



# **PROCESS AUTOMATION**





- Performs critical purging, pressurization and monitoring of the protected enclosure.
- Vents are required for most purge enclosures.
- Reduces the classification within the protected enclosures for various zones.
- Types: Type X Bebco EPS from Div.1 to non-hazardous

Type Y - Rated for Class I/ II, Division 1 to Division 2 area

Type Z - From Division 2 to non-hazardous

Ex px - From Zone 1/ Zone 21 to non-hazardous

Ex pz - From Zone 2and 22 to non-hazardous

Enviro-Line - For non hazardous areas



### INDUSTRIAL MONITORS+HMI SOLUTIONS

- For operator workstations like Panel PCs, Remote Monitors or industrial monitors to compact, high-performance operator panels.
- The HMI solutions are rugged, industrial products designed for hazardous areas and heavy-duty use as well as for clean-room and GMP-related applications.
- Industrial operator workstations & monitors, operator panels for zone 1/zone 2/div 1/div2, peripherals to complement the workstations and panels.



### CORROSION MONITORING

- Evaluates general corrosion and localized (pitting) corrosion, as well as conductivity, in real-time.
- Ability to monitor corrosion rates within the existing software and control system like any other process variable (i.e., pressure, flow, level, temperature, pH).



### PARATOR ALARM SYSTEMS

- An alarm system is used in the separator to detect the volume of the light liquid and/or the maximum level of a liquid.
- The signaling of alarms can be acoustic, visual, transmitted remotely via potential-free relay contacts or via SMS.
- The sensors of the alarm systems are approved for use in explosive areas of zone 0.



### HAZARDOUS AREA ENCLOSURES+EQUIPMENT

- Huge variety of installation equipment for hazardous areas.
- High quality enclosures, increased safety, intrinsic safety and flameproof protection
- Materials available: Stainless and mild steel and glass reinforced polyester (GRP).
- Product range includes a wide range of lighting, signaling and emergency shutdown alarm equipment.



### POWER SUPPLIES

- For reliable power in hazardous areas.
- Well suited for emergency shut down and mission critical applications to fieldbus and analog networks including HART communication.
- For industrial environments (PS Industrial PS3500), for use with power feed modules (K-System Power Supplies), for fieldbus devices.





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