

# Integrated marshalling solution that is fast, simple, and flexible

## EcoStruxure™ Foxboro® DCS Intelligent Enclosures



### Unique Features

The EcoStruxure Foxboro DCS Intelligent Enclosures provides an integrated solution that is designed to be flexible and distributed. Designed for use outdoors or indoors (including hazardous areas), universal I/O field enclosures provide the flexibility to distribute I/O where and when required.

- Standard, off-the-shelf enclosures are factory tested and can be shipped and installed early
- Universal I/O – each channel can be configured as required
- Flexible Lean Engineering (FLEX) for project implementation
- Intelligent Commissioning Wizard to significantly reduce device commissioning

### Benefits

#### Reduce Equipment Costs

- Fewer central cabinets, marshalling racks, remote instrument enclosures

#### Reduce Field Labor Cost

- Reduce marshalling work

#### Reduce Documentation

- Fewer and simpler drawings

#### Reduced Spare Parts

- No need to stock as many types of spares

#### Reduced Field Maintenance Costs

- Central configuration reduces the need for field technician efforts

# What is an Intelligent Enclosure?

It is a standard, off-the-shelf, pre-engineered enclosure ideal for applications requiring modular, cost effective distributed I/O. It comes in two designs, one for installation in the equipment room, and the other for field locations including outdoors, providing the flexibility to distribute I/O where and when required. It can be ordered using a simplified part number and delivered pre-tested direct to site.

The use of standard, pre-tested enclosures can:

- Reduce system design, engineering and documentation efforts
- Be shipped, installed and wired early for faster project execution and start-up
- Be installed in support of plant construction schedule and then be configured when design information becomes available
- Be located closer to field instruments, reducing field cabling lengths and installation costs

Lastly, the Intelligent Enclosure has a similar offering for safety applications. The design processes and the scheduling advantages for the Foxboro DCS also applies to the Tricon CX.

## Experience the Benefits of Intelligent Enclosures

### Faster implementation and start-up

- More options mean more flexible timelines and plant construction critical path time can be reduced
- Installation work can be started sooner since the I/O mix can be defined and changed much later in the construction schedule

### Cabinets to field before final design

- Faster shipments mean parts can get to site sooner and work can begin right away
- Fewer spares are necessary to complete the projects. This reduces costs of spares and on-site inventory requirements

### Easy to implement last minute design changes

- Universal I/O permit plant system changes to be readily accommodated
- Field changes after Factory Acceptance Test can be made and validated

### Huge cost savings with elimination of marshalling cabinets

- Elimination of the need for marshalling cabinets eliminates all associated design and craft labor efforts
- Reduced field and maintenance labor costs
- Decreased inventory and cost of spares
- Less engineering work and less documentation to maintain



## Schneider Electric Universal I/O Technology

### Reduce Complexity and Cost

- Control system design and implementation prior to the purchaser's process design completion
- Leverage configuration standards
- Break schedule dependencies between mechanical system design/ procurement and control system work

### Improve Flexibility

- Most types of field devices can be brought directly into Universal I/O card without cross wiring the signals
- Utilize standardized technologies
- Accommodate changes as they emerge

### Achieve Schedule Integrity

- Intelligent Marshalling solution permits last minute design changes without affecting construction critical path schedule
- Decouple I/O system installation from mechanical system and control system design

## Certifications

- The Field Intelligent Enclosure provides protection against harsh environments and hazardous locations:
- NEMA® 4X/IP66 rated
- Class G3 (harsh) environment
- ATEX certification

## Applications – All DCS industries, including

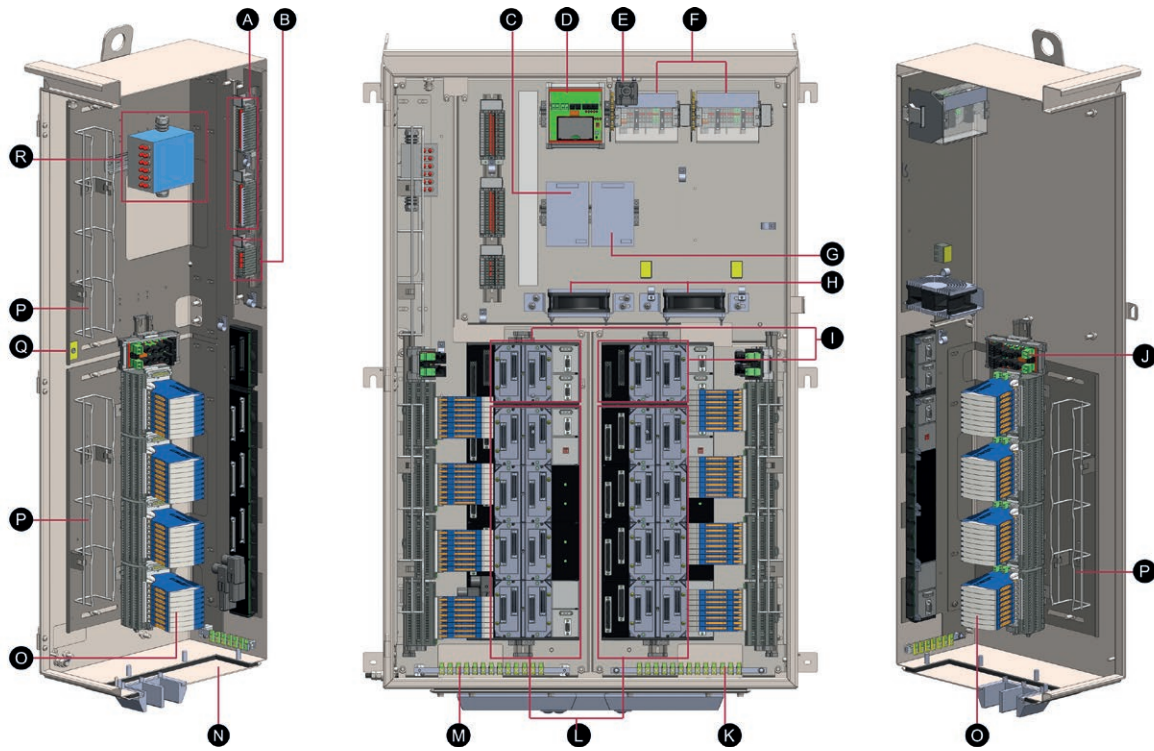
- Oil & Gas Plants
- Chemical Plants
- Mining & Mineral Plants



FBM247 Module



## Foxboro DCS Equipment Room Intelligent Enclosure Layout



Front Interior View of Left and Right-Side Panel of the Enclosure

- |  |  |   |
|--|--|---|
| <b>A</b> 24 VDC Power Distribution Assembly    | <b>H</b> Fans for internal air circulation | <b>O</b> Termination Assemblies                                       |
| <b>B</b> Alarm Distribution Assembly Terminals | <b>I</b> Baseplate 2-Position FCM          | <b>P</b> Wire Tray, 50 mm x 50 mm x 403 mm<br>(2 in x 2 in x 15.9 in) |
| <b>C</b> Primary Power Supply                  | <b>J</b> Fuse Monitoring Unit              | <b>Q</b> Electro Static Discharge<br>Bonding Point                    |
| <b>D</b> Enclosure Monitoring Unit             | <b>K</b> Instrument Ground Bar             | <b>R</b> Fiber Optic Patch Panel                                      |
| <b>E</b> Door Open Switch                      | <b>L</b> Baseplate 8-Position FBM          |   |
| <b>F</b> Power Entry Terminal Blocks           | <b>M</b> Instrument Ground Bar             |   |
| <b>G</b> Secondary Power Supply                | <b>N</b> Cable Entry (Blank Gland Plate)   |   |

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