

# Universal I/O module reduces total cost of ownership

Foxboro Intelligent Marshalling



## Product at a glance

Intelligent Marshalling with the Foxboro® Universal FBM 247 involves a single I/O module that eliminates the costly and labor-intensive marshalling process traditionally required for control systems.

Intelligent Marshalling significantly reduces your total cost of system ownership — from project design and implementation to system maintenance:

- Future-proof technology
- Faster implementation and start-up
- Reduced equipment costs and footprint
- Reduced labor costs
- Reduced inventory
- Reduced engineering and documentation

## A better approach to project implementation and system design

Reduce the indirect costs associated with marshalling and significantly reduce your total cost of system ownership with our Intelligent Marshalling solution. The Foxboro Universal Fieldbus Module (FBM) 247 for the Foxboro Evo™ Process Automation System will change the way you and your project team approach system design, implementation and maintenance. The Universal FBM 247 offers significant savings realized throughout the lifecycle of your Foxboro Evo system.

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### Flexible upgrades and expansions

The universal and software-configurable nature of the solution offers flexible options for future expansions and upgrade planning. During the precommissioning phase, there is no need to determine specific I/O type or loading install now and configure when you are ready. This eliminates cost and schedule delays should a change to design be required down the road.

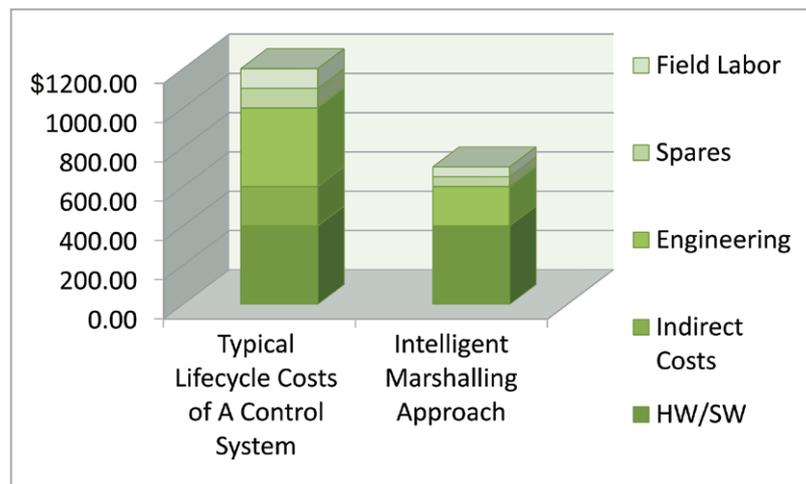
*“The Intelligent Marshalling module helped our schedule integrity on large projects since we can now decouple the I/O system from the control system design.”*

Automation manager of North American-based refinery.

### Get more from one

#### More savings, more time, more options

The Universal FBM 247 is a single I/O Module that contains 8 individual channels, each providing a wide range of analog, digital, pulse, or HART I/O capabilities for field devices throughout your plant. The Universal FBM 247 enables an intelligent approach to marshalling in that it eliminates the costly and labor-intensive wiring work that was traditionally required to sort field wiring to the appropriate I/O module. Now each field wire can be directly landed on the I/O mounting structure and connected to the Universal FBM 247. Intelligent Marshalling creates significant cost savings in the reduction of equipment and reduction in footprint from I/O room construction and saves considerable efforts through out the lifecycle of the system.



#### Huge cost savings

- Elimination of marshalling infrastructure
- Increased I/O density per cabinet
- Reduced field and maintenance labor costs
- Decreased inventory and cost of spares
- Less engineering work and less documentation to maintain

#### Faster implementation and start-up:

- Cabinets to field before final design
- Easy to implement last minute design changes
- Less chances of error after factory acceptance testing

### Say goodbye to indirect project costs

#### Slash your total cost of ownership by 35 percent

The elimination of marshalling infrastructure means fewer racks, cabinets, termination strips, and wiring to design, install and maintain. I/O termination assemblies are mounted on the I/O baseplate so not only are you freeing up marshalling cabinet space, but you are also freeing up space within the I/O cabinet itself. Now, your standard I/O cabinetry can house up to more than 750 I/O points. In installations where footprint is limited, this feature provides a huge benefit — improving I/O density by up to 100 percent.

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Intelligent Marshalling also means less engineering work and less documentation to maintain. The engineering cost to assign signals to terminals and produce schedules for manufacturing is cut in half, and there are now fewer and more simplified drawings to maintain.

With the Universal FBM 247, a single point can be an analog input or output or HART or digital input or output. This means an unused point on an I/O module can count as a wired spare for each of those types, requiring much fewer spare cards. Minimizing spare inventory is especially valuable in DCS installations that have fixed requirements. With Intelligent Marshalling, one I/O point on one module can fulfill the requirement for what might otherwise be a costly inventory of spare parts — reduction can be by up to 50 percent. You'll have fewer 'hot spares' with fewer of module types.

## Configure an I/O point from anywhere in the world

### No extra hardware required

The Universal FBM 247 is completely software configurable. All changes can be made securely from a Foxboro workstation which means you can configure an I/O point from anywhere in your plant, or even anywhere in the world. This not only saves engineering time, but also reduces the costs associated with physically sending maintenance and field service technicians



*The Universal FBM 247 for the Foxboro Evo System.*

out into the field to make a change. There is no extra module required to redirect I/O channels, all updates can be made via software utilizing the Universal FBM 247.

Each channel on the Universal FBM 247 is isolated, so when one point is changed, all of the other points on that module remain isolated and unaffected. Changing an I/O point no longer requires installing a whole new module, opening a cabinet, driving to a remote location, purchasing an airplane ticket, or incurring any of the other costly tasks usually required.

## Meet your startup schedule and then some

### Last minute changes, no problem

Intelligent Marshalling reduces time to implement your project and get your system up and running. Because the FBM 247 is completely software configurable, last minute design changes are made easy — no extra or new modules required. At factory acceptance testing, eliminating marshalling cabinets and the need to duplicate wiring efforts onsite make check-out a snap. We can now ship cabinets to site before the final design is complete — reducing overall delivery time and schedule.

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