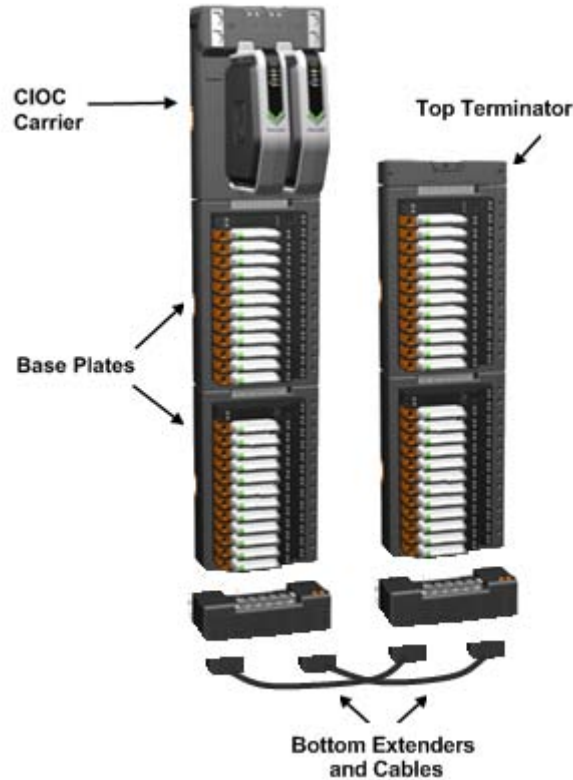


# Field Enclosure Kit



*Field Enclosure Kit (I/O card and CHARMS sold separately)*

- Delivers “Electronic Marshalling” enabled by CHARMS technology.
- Reduce system footprint
- Eliminate I/O home run cables
- Maximum design flexibility

## Introduction

The DeltaV Field Enclosure Kit provides all the CHARM hardware you need to design and build an E-Marshalling Junction Box. You provide the enclosure, power and grounding and design. Allocate space for the CHARM hardware and install the CIOC and CHARMS as needed.

You have complete freedom to install DeltaV CHARM I/O in your unique situation. Or you can save time and money by installation a Factory Tested Field Enclosure.



## Benefits

**Delivers “Electronic Marshalling” enabled by CHARMS technology.** The Field Enclosure Kits offer the full benefits of Electronic Marshalling with the flexibility to install them in your own enclosures. The individual channels can be defined for any combination of field signal type, as required by the process equipment. This allows for 100 % utilization of channels, regardless of the I/O signal mix. Late changes are easily accommodated with minimal re-engineering and no rewiring.

**Reduce System Footprint.** Equipment room footprint is greatly reduced by replacing traditional marshalling cabinets with field mounted I/O cards.

**Eliminate I/O home run cables.** Field instrumentation wiring is reduced to the signal pair that connects the field device to the Field Enclosure. Save on home run multi-core cables, cable trays, associated engineering and documentations.

**Maximum design flexibility.** The Field Enclosure Kits include all the CHARM hardware you need for 48 I/O channels and can be installed anywhere you need. You design the power, grounding and cable management to suit your particular requirements. Use existing enclosures or by custom boxes, or simply mount on the wall.

## Product Description

The DeltaV Field Enclosure kits provide a complete set of CHARM hardware for 48 I/O channels of any type. The kit comes with

- 1 CIOC Carrier,
- 4 CHARM Baseplates, each with 12 Terminal blocks and Address Plugs (1-4).
- Pair of Bottom End connectors
- Pair of Extender cables.
- Bus Terminator.
- DIN rail stops

The hardware mounts on standard DIN rail and snaps together with interlocking bus connectors for secure, trouble free operation.

The CIOC accepts redundant 24 VDC power, and provides hardware alerts on over and under voltage conditions, eliminating the need for separate power supply fault contacts. An internal temperature sensor also provides an alert when the unit is operated in extreme high temperature, which can eliminate the need for a separate Temperature sensor.

Each I/O channel is individually characterized for the required field signal using a CHARM. Signal types available are:

- AI 4-20 mA HART
- AO 4-20 mA HART
- DI NAMUR
- DI 24 VDC Low Side
- DO 24 VDC High Side
- Thermocouple/mV
- RTD
- Voltage 0-10 VDC

In addition, the following CHARMS will be available as isolated channels supporting higher current and voltage ratings.

- DI 24 VDC Isolated
- DO 24 VDC Isolated
- DI 120 VAC Isolated
- DI 230 VAC Isolated
- DO 120/230 VAC Isolated

## System planning

Electronic Marshalling changes the game with respect to control system I/O planning. The field I/O wiring can be designed independently from the control strategy design. E&I engineers can determine the number and type of I/O based on the process design and install long before control strategies are assigned to controllers.

Count the I/O requirements and determine the number of CHARM I/O Cards you need. Plan the power distribution and install the hardware. Wire the field devices and commission them.

When control strategies and associated controller hardware is finalized, simply assign the I/O signals to the controllers as needed, *no wiring changes*. You can change controller I/O assignments with the click of a mouse, without touching a wired connection.

## System Compatibility

Field Enclosure Kits are compatible with DeltaV version 11.3 or later

Require S-series controllers

## Certifications

Refer to S-series Electronic Marshalling Product Data Sheet for product certification information.

**Ordering Information**

Description in Price book?	Model #
CHARM Assembly for Field Junction Box; 48 I/O. Includes <ul style="list-style-type: none"> <li>- CIOC Carrier with Fiber Optic IO Ports</li> <li>- 4 CHARM baseplates with terminal blocks,</li> <li>- Address plugs (1-4),</li> <li>- Bottom Extender Pair,</li> <li>- Extender Cables,</li> <li>- Top Terminator.</li> <li>- Pair of DIN rail Stops</li> </ul>	SE4651

**Related Products**

- CHARM I/O Cards and associated CHARMS are ordered separately.
- Junction box, power supplies, wire ways, DIN rails, assorted hardware ordered separately

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**[www.EasyDeltaV.com/reach](http://www.EasyDeltaV.com/reach)**  
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 Asia Pacific: 65.777.8211  
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 North America, Latin America: +1 800.833.8314 or  
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