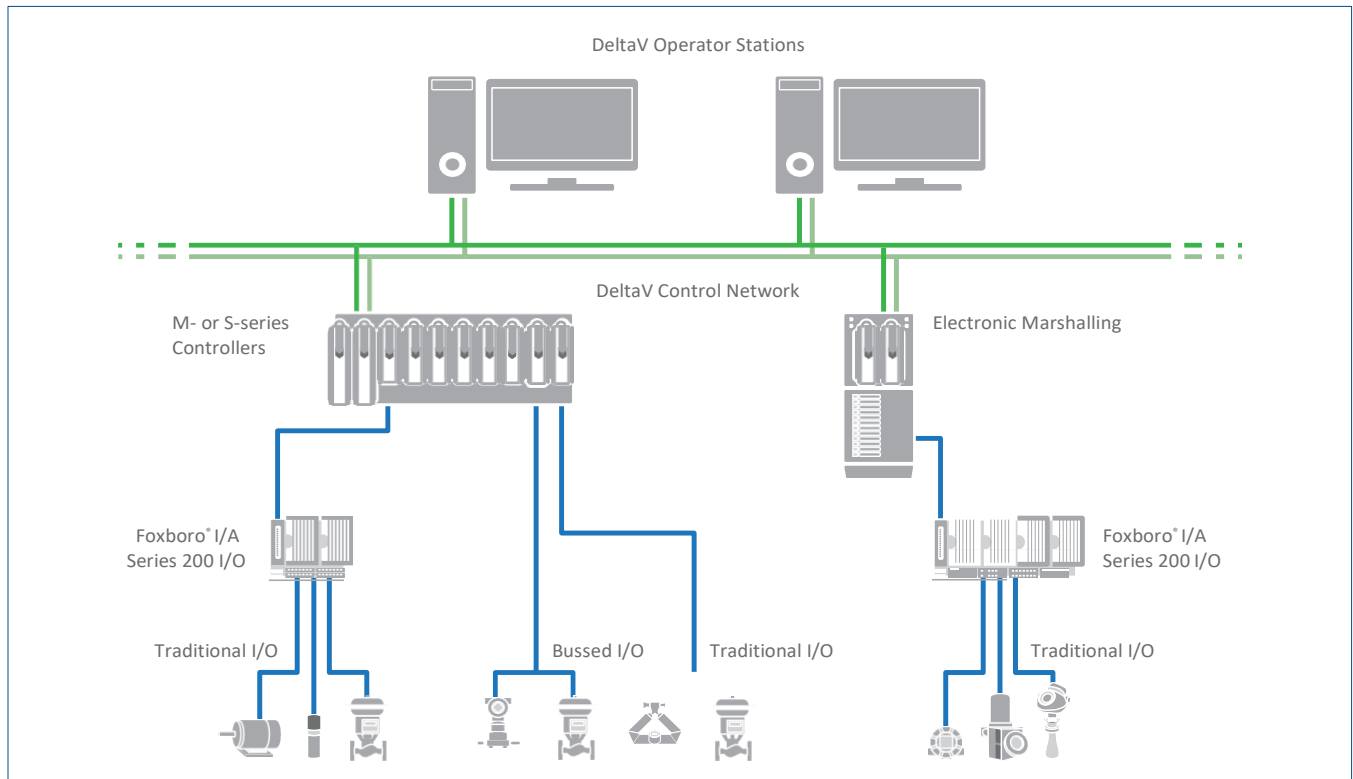


# DeltaV™ Flex.Connect Solutions for Foxboro® I/A Series 200 I/O



DeltaV™ Flex.Connect wiring solutions protect your wiring investment as you convert from Foxboro® I/A Series to the DeltaV™ System

- Reduce business risks by minimizing process downtime
- Save on installation costs
- Preserve HART® signals

## Introduction

If concerns about downtime and wiring costs are preventing you from migrating your Foxboro® I/A Series 200 system to a new DeltaV™ system, then consider DeltaV Flex.Connect wiring solutions for Foxboro I/A Series 200 I/O.

## Benefits

**Reduce business risks by minimizing process downtime.** This solution brings device signals to DeltaV I/O from existing Foxboro I/A Series 200 I/O termination assemblies. Keeping device wires intact accelerates the new system startup, enabling you to rapidly resume production.

**Save on installation costs.** Eliminating new field wiring saves money and reduces the risk of errors. Time and materials savings are significant.

**Preserve HART signals.** Use HART® pass-through for complete diagnostics at the DeltaV Operator Station.

## Product Description and Specification

DeltaV Flex.Connect wiring solutions provide direct connection from Foxboro I/A Series 200 I/O termination assemblies to DeltaV CHARM terminal blocks and M- or S-series traditional I/O cards. Foxboro I/A Series 200 I/O termination assemblies have many different I/O types. Passive FBM termination assemblies have been selected for the DeltaV Flex.Connect solutions. These are cable only solutions with no signal conditioning requirements.

### Analog Inputs

Eight Analog Inputs connect to eight DeltaV 4-20mA AI CHARMS – termination assembly model number FBM201 / P0916AA.

Eight \*Thermocouple/mV Analog Inputs connect to eight DeltaV Thermocouple/mV CHARMS – termination assembly model number FBM202 / P0916AC.

Eight RTD Pt/Ni 2 or 3-wire Analog Inputs connect to eight DeltaV RTD CHARMS – termination assembly model number FBM203 / P0916AE.

Four Analog Inputs connect to four DeltaV 4-20mA AI CHARMS – termination assembly model numbers FBM204 / P0916AG and FBM205 / P0916AJ.

Fourteen \*Thermocouple/mV Analog Inputs connect to fourteen DeltaV Thermocouple/mV CHARMS – termination assembly model number FBM212 / P0916BV.

Note: \*Emerson recommends re-wiring Thermocouple signals directly to DeltaV AI-T/C solutions.

### Analog Outputs

Four Analog Outputs connect to four DeltaV 4-20mA output CHARMS - termination assembly model numbers FBM204 / P0916AG and FBM205 / P0916AJ.

Eight Analog HART® Outputs connect to eight DeltaV 4-20mA output HART CHARMS – termination assembly model number FBM215 / P0917XV.

Eight Analog Outputs connect to eight DeltaV 4-20mA output CHARMS – termination assembly model number FBM237 / P0916CC.

### Discrete Inputs

Sixteen Contact Sense Discrete Inputs connect to sixteen DeltaV DI CHARMS – termination assembly model numbers FBM207b / P0916JS and FBM207c / P0917MF.

Thirty-two Discrete Inputs connect to thirty-two DeltaV DI CHARMS – termination assembly model number FBM217 / P0916PW.

Twenty-four Discrete Inputs connect to twenty-four DeltaV DI CHARMS – termination assembly model numbers FBM219 / P0917LE and FBM219 / P0917LH.

Eight Discrete Inputs connect to eight DeltaV DI CHARMS – termination assembly model numbers FBM241c / P0916AW, FBM241c / P0916JW, FBM241c / P0916QQ, and FBM241 / P0916AQ.

Eight Discrete / Pulse Inputs connect to eight DeltaV DI isolated CHARMS – termination assembly model number FBM206 / P0916JQ.

### Discrete Outputs

Eight Discrete Outputs connect to eight DeltaV DO CHARMS – termination assembly model numbers FBM219 / P0917LE, FBM219 / P0917LH, FBM241c / P0916AW, FBM241c / P0916JW, FBM241c / P0916QQ, and FBM241 / P0916AQ.

Sixteen Discrete Outputs connect to sixteen DeltaV DO CHARMS – termination assembly model number FBM242 / P0916JY.

## Ordering Information

For inquiries and ordering information, please contact your local Emerson sales office. Please specify the required cable lengths on your request. DeltaV Flex.Connect solutions for specific Foxboro FBM Termination Assembly (TA) models are indicated in the following table:

(Note: DeltaV Flex.Connect solutions drawings are available upon request.)

Flex.Connect Solution #	Foxboro FBM / TA 200 Type	Foxboro FBM / TA 200 Signals	DeltaV™ CHARM Types	Flex.Connect Solutions Drawing Numbers
FC-F2-CBL-1-10	FBM201 / P0916AA	8 AI	8 - AI 4-20 mA HART® SE4303T01	FC-F2-P0916AA FC-F2-P0916AA-CAB
FC-F2-CBL-1-30	FBM202 / P0916AC	8 AI (*TC/mV)	8 - TC/mV SE4303T02	FC-F2-P0916AC FC-F2-P0916AC-CAB
FC-F2-CBL-1-70	FBM204 / P0916AG FBM205 / P0916AJ	4 AI 4 AO	4 - AI 4-20 mA HART SE4303T01 4 - AO 4-20 mA HART SE4304T01	FC-F2-P0916AG FC-F2-P0916AG-CAB FC-F2-P0916AJ FC-F2-P0916AJ-CAB
FC-F2-CBL-4-30	FBM212 / P0916BV	14 AI (*TC/mV)	14 - TC/mV SE4303T02	FC-F2-P0916BV FC-F2-P0916BV-CAB
FC-F2-CBL-1-40	FBM203 / P0916AE	8 AI (RTD)	8 - RTD SE4303T03	FC-F2-P0916AE FC-F2-P0916AE-CAB
FC-F2-CBL-1-20	FBM237 / P0916CC	8 AO	8 - AO 4-20 mA HART SE4304T01	FC-F2-P0916CC FC-F2-P0916CC-CAB
FC-F2-CBL-1-21	FBM215 / P0917XV	8 AO HART	8 - AO 4-20 mA HART SE4304T01	FC-F2-P0917XV FC-F2-P0917XV-CAB
FC-F2-CBL-1-90	FBM206 / P0916JQ	8 DI/PCI	8 - DI 24 VDC Isolated SE4301T07	FC-F2-P0916JQ FC-F2-P0916JQ-CAB
FC-F2-CBL-3-50	FBM217 / P0916PW	32 DI (Contact Sense)	32 - DI 24 VDC Low-Side Sense SE4301T02	FC-F2-P0916PW FC-F2-P0916PW-CAB
FC-F2-CBL-5-80	FBM219 / P0917LE	24 DI 8 DO	24 - DI 24 VDC Isolated SE4301T07 8 - DO 24 VDC Isolated SE4302T02	FC-F2-P0917LE FC-F2-P0917LE-CAB
	FBM219 / P0917LH	24 DI (Contact Sense) 8 DO	24 - DI 24 VDC Low-Side Sense SE4301T02 8 - DO 24 VDC Isolated SE4302T02	FC-F2-P0917LH FC-F2-P0917LH-CAB

## Ordering Information (Cont'd)

Flex.Connect Solution #	Foxboro FBM / TA 200 Type	Foxboro FBM / TA 200 Signals	DeltaV™ CHARM Types	Flex.Connect Solutions Drawing Numbers
FC-F2-CBL-2-50	FBM207b / P0916JS FBM207c / P0917MF	16 DI (Contact Sense)	16 - DI 24 VDC Low-Side Sense SE4301T02	FC-F2-P0916JS FC-F2-P0916JS-CAB FC-F2-P0917MF FC-F2-P0917MF-CAB
FC-F2-CBL-2-80	FBM241 / P0916AQ	8 DI 8 DO	8 - DI 24 VDC Isolated SE4301T07 8 - DO 24 VDC Isolated SE4302T02	FC-F2-P0916AQ FC-F2-P0916AQ-CAB
	FBM241c / P0916JW  FBM241c / P0916QQ FBM241c / P0916AW	8 DI (Contact Sense) 8 DO  8 DI (Contact Sense) 8 DO-Relay	8 - DI 24 VDC Low-Side Sense SE4301T02 8 - DO 24 VDC Isolated SE4302T02	FC-F2-P0916JW FC-F2-P0916JW-CAB FC-F2-P0916QQ FC-F2-P0916QQ-CAB FC-F2-P0916AW FC-F2-P0916AW-CAB
FC-F2-CBL-2-60	FBM242 / P0916JY	16 DO	16 - DO 24 VDC Isolated SE4302T02	FC-F2-P0916JY FC-F2-P0916JY-CAB

For these Foxboro I/A Series 200 I/O types, contact your local Emerson sales office to discuss solution options.

Note: \*Emerson recommends re-wiring Thermocouple signals directly to DeltaV AI-T/C solutions.

## Prerequisites

A preliminary site visit is required to survey installed control system architecture and electrical grounding practices, to document I/O models and numbers of each, and to review schedule constraints and turnaround objectives. Qualified Emerson engineers or technicians perform site reviews.

## Services

For help in planning, justifying, or implementing your system migration, contact your local Emerson representative. Expert consultants are available to advise you on a variety of concerns, including safety system design, implementation and standards compliance, digital buses, wireless applications, control performance, and process optimization.

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