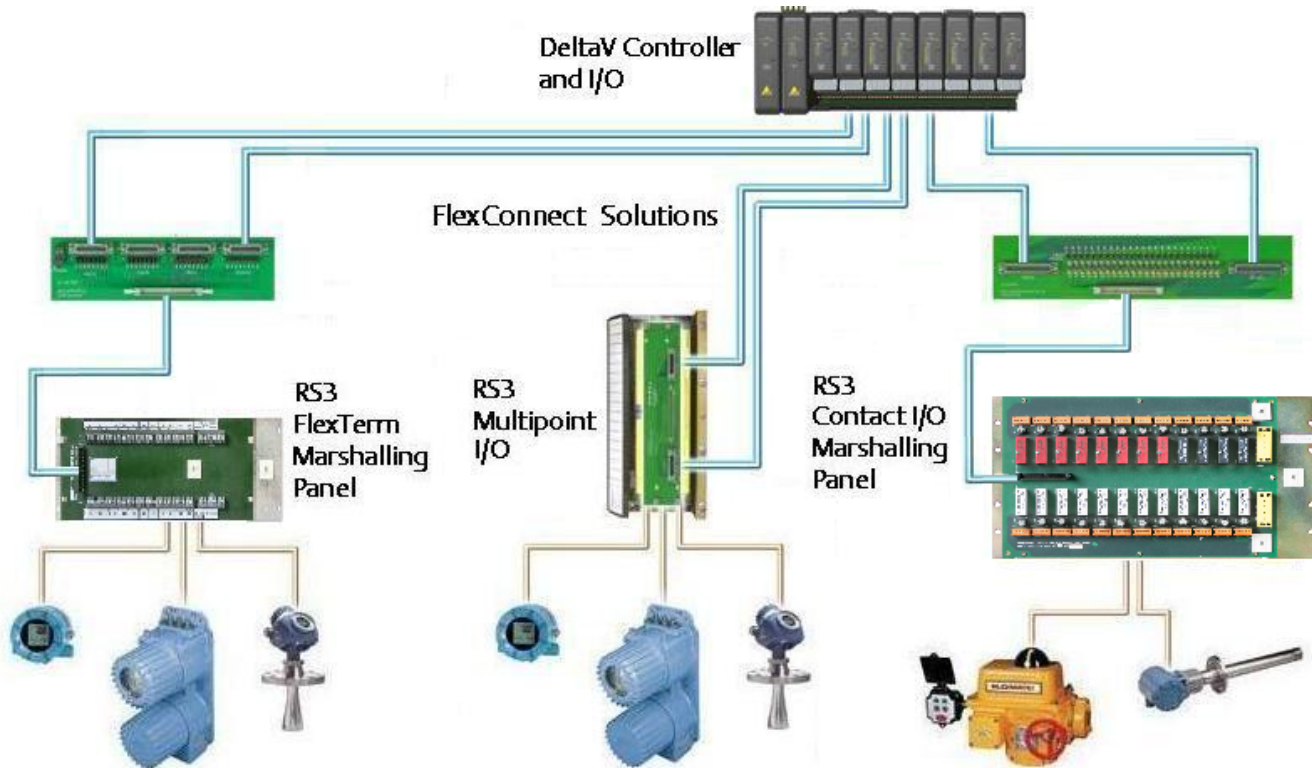




FlexConnect® Solutions for RS3® I/O



FlexConnect® solutions protect your wiring investment as you convert from RS3® to the DeltaV™ system.

- Reduce business risks by minimizing process downtime
- Save 75% of installation costs
- Preserve HART® signals

Introduction

If concerns about downtime and wiring costs are preventing you from migrating your RS3® system to a new DeltaV™ system, consider FlexConnect® solutions for RS3 I/O.

Benefits

Reduce business risks by minimizing process downtime. This solution brings device signals to DeltaV I/O from existing RS3 I/O terminations. Keeping device wires intact accelerates new system startup, enabling you to rapidly resume production.

Save 75% of installation costs. Eliminating new device wiring saves money and reduces 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

FlexConnect solutions provide direct connection from RS3 termination panels to DeltaV IO card terminal blocks. To simplify installation, Emerson pre-wires FlexConnect solutions to DeltaV termination blocks.

The following RS3 point types have FlexConnect solutions as described here:

RS3 Field Interface Card (FIC) Input / Output (I/O)

■ FlexTerm Analog I/O

Also called 2/1 FIC. Twenty-four RS3 analog inputs or a combination of up to eight analog outputs and 16 analog inputs connect to DeltaV AI and AO HART cards.

■ FlexTerm Contact I/O

Six points per contact I/O card. Twenty-four RS3 digital inputs or outputs connect to 32-channel DeltaV DI or DO cards.

■ FlexTerm Local Contact I/O

Six points per contact I/O card. Twenty-four local RS3 digital inputs or outputs connect to 32-channel DeltaV DI or DO cards through four pass-through cards and cables.

RS3 MultiPoint Analog I/O (MAIO)

■ Analog Inputs and MTL Analog Inputs

Sixteen RS3 analog inputs connect to 8-channel DeltaV HART AI cards.

■ Analog Outputs and MTL Analog Outputs

Sixteen RS3 analog outputs connect to 8-channel DeltaV HART AO cards.

RS3 MultiPoint Discrete I/O (MDIO)

The Field Interface Module (FIM) discrete family of I/O termination panels includes *Direct*, *Isolated* (A only or A & B) and *High Density* (A only). FIM termination panels, A allows mixing I/O and B is for *Inputs Only*. Jumper (ribbon cable) connects A & B to a single FIM for up to 32 point discrete I/O.

■ Direct Discrete I/O

Thirty-two RS3 digital inputs or 16 DI and 16 DO connect to 32 channel DeltaV DI or DO cards. No solid-state relays or OPTO modules are between field wiring and the FIM.

■ Isolated and MTL Intrinsically Safe Isolated Discrete I/O

Isolated. Thirty-two digital I/O connect to a 32-channel DeltaV DI or DO card. Requires five volt power supply. Uses solid-state relays or OPTO modules between field wiring and the FIM.

MTL Isolated. Thirty-two digital inputs connect to a 32-channel DeltaV DI card OR digital inputs and outputs connect to 8-channel DeltaV input and output cards. Field wiring goes into the isolators. Panel A and Panel B each accommodate 16 DI or 8 DO and 8 DI. For redundancy, or for more than eight outputs, Panel B is required. Output channel assignments are odd-numbered on Panel A and even-numbered on Panel B.

■ High Density and MTL High Density Discrete I/O

Thirty-two digital I/O connect to a 32-channel DeltaV DI or DO card. This FIM uses a special AB termination panel and high-density OPTO modules. Remote termination panel wiring connects high-density panel to marshalling panel.



Ordering Information

For inquiries and ordering information, please contact your local Emerson sales office. For reference, FlexConnect solutions for specific RS3 Termination Panel Models are indicated in the following table:

FlexTerm RS3 I/O Type	RS3 Signals	DeltaV I/O card type	FlexConnect Drawing Numbers
Analog I/O	24 AIO	16 AI / 16 AO HART	FC-RS-105-AIO, FC-RS-105, FC-UC-320, FC-UC-502
Contact -Termination Panel	24 DIO	32 DI / 32 DO	FC-RS-126-DIO, FC-RS-126, FC-UC-305, FC-UC-503
Contact -Local Termination	24 DIO	32 DI / 32 DO	FC-RS-216-DIO, FC-RS-216, FC-RS-211, FC-CAB-DB9, FC-UC-305, FC-UC-503
Multipoint RS3 I/O Type	RS3 Signals	DeltaV I/O card type	FlexConnect Drawing Numbers
AI	16 AI	8 HART AI	FC_RS_102_AI, FC-RS-102, FC-UC-302, FC-UC-502
AO	16 AO	8 HART AO	FC_RS_102_AO, FC-RS-102, FC-UC-302, FC-UC-502
MTL AI	16 AI	8 HART AI	FC_RS_108_MTL_AI, FC-RS-108, FC-UC-302, FC-UC-502
MTL AO	16 AO	8 HART AO	FC_RS_108_MTL_AO, FC-RS-108, FC-UC-302, FC-UC-502
Direct Discrete DIO	32 DIO	32 DI / 32 DO	FC_RS_120_DIO, FC-RS-120, FC-UC-302, FC-UC-502
Isolated MTL DIO	32 DIO	8 DI / 8 DO	FC_RS_122_MTL_DIO, FC-RS-122, FC-UC-302, FC-UC-502
Isolated MTL DI	32 DI	32 DI	FC_RS_123_MTL_DI, FC-RS-123, FC-UC-305, FC-UC-503
High Density DI	32 DI	32 DI	FC_RS_127, FC-UC-305, FC-UC-503
High Density DIO	32 DIO	32 DI / 32 DO	FC_RS_128, FC-RS-128, FC-UC-305, FC-UC-503
High Density DO	32 DO	32 DO	FC_RS_129, FC-RS-129, FC-UC-305, FC-UC-503
High Density MTL DIO	32 DO	32 DI / 32 DO	FC_RS_130_DIO, FC-RS-130, FC-UC-305, FC-UC-503

FlexConnect solution drawings are available upon request.

For these RS3 IO types, contact your local Emerson sales office to discuss solution options:

- MultiLoop Controller/Single Strategy Cards: **(MLC/SSC)** Non-Isolated and Isolated Single point Analog I/O
- DORIC Front End Module/Multiplexer **(FEM/MUX)** Twenty Analog Inputs per card
- Multipoint **Analog Input Only** - Thirty-two Analog Inputs Field Interface Module (FIM)

Prerequisites

Preliminary review of site specifics, including and not limited to, installed control system architecture electrical grounding practices, I/O models and number of each, 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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