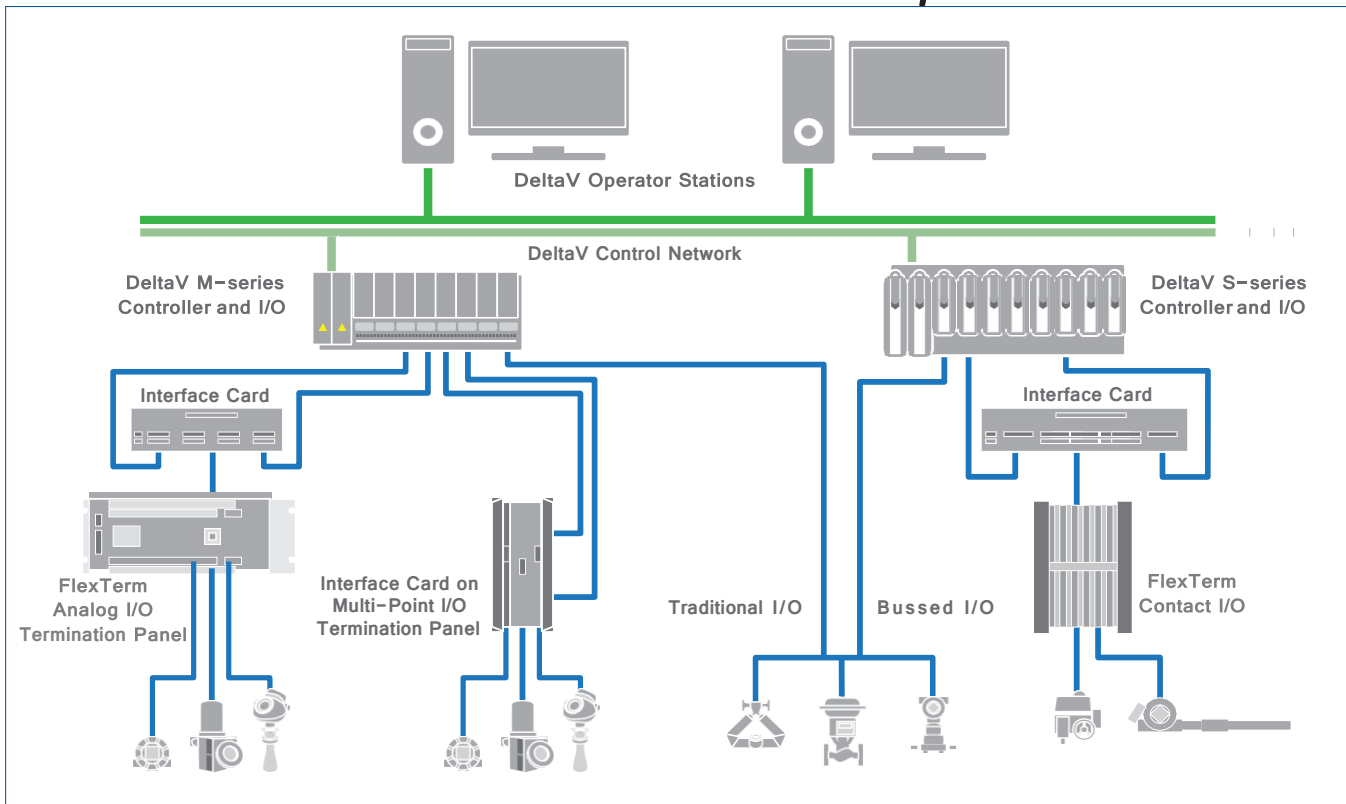


FlexConnect™ Solutions for RS3™ I/O



FlexConnect™ Solutions for RS3™ I/O.

- 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, then 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 the new system startup, enabling you to rapidly resume production.

Save 75% of 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

FlexConnect Solutions provide direct connection from RS3 I/O termination assemblies to M-series or S-series DeltaV I/O card terminal 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 sixteen 2-wire analog inputs connect to DeltaV HART AI and AO 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.

RS3 Multi-Point Analog I/O (MAIO)

■ Analog Inputs

Sixteen RS3 2-wire analog inputs connect to two 8-channel DeltaV HART AI cards.

■ Analog Outputs

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

RS3 Multi-Point 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 panel A allows mixing I/O and panel B is for inputs only. A ribbon cable jumper connects A & B panels to a single FIM for up to 32 points discrete I/O.

■ Direct Discrete I/O

Thirty-two dry contact RS3 digital inputs or 16 DI and 16 DO connect to 32-channel DeltaV DI or 8-channel DO cards. No solid-state relays or OPTO modules are between the field wiring and the FIM.

■ Isolated Discrete I/O

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

Ordering Information

For inquiries and ordering information, please contact your local Emerson sales office. Please specify required cable lengths on your request. For reference, FlexConnect Solutions for specific RS3 termination / marshalling panel models are indicated in the following table: (Note: FlexConnect Solutions drawings are available upon request.)

| FlexConnect™ Solution # | FlexTerm RS3 I/O Type | RS3 Signals | DeltaV I/O Card Types | FlexConnect Solutions Drawings |
|-------------------------|--|-------------|--|--|
| FC-RS-SOL-1-01 | Analog FIC I/O ⁽⁴⁾ | 24 AIO | 16 AI ⁽¹⁾ or 8 AI (two) / 8 AO HART | FC-RS-105-AIO FC-UC-5320 |
| FC-RS-SOL-1-02 | Contact FIC I/O -Termination Panel | 24 DIO | 32 DI / 32 DO | FC-RS-126-DIO FC-UC-5305 |
| FC-RS-SOL-1-03 | Contact FIC I/O - Local Termination w/ marshalling connectors ⁽²⁾ | 24 DIO | 32 DI / 32 DO | FC-RS-126-1-DIO FC-UC-5305 |
| FlexConnect Solution # | Multi-Point RS3 I/O Type | RS3 Signals | DeltaV I/O Card Types | FlexConnect Solutions Drawings |
| FC-RS-SOL-2-04 | AI ^(3,4) | 16 AI | 8 HART AI (two) | FC-RS-102-AI FC-UC-5302 |
| FC-RS-SOL-2-05 | AO | 16 AO | 8 HART AO (two) | FC-RS-102-AO FC-UC-5302 |
| FC-RS-SOL-2-08 | Direct Discrete DIO | 32 DIO | 32 DI / 8 DO (two) | FC-RS-120-DIO FC-RS-CAB-120 FC-UC-5305 |
| FC-RS-SOL-2-11 | Isolated DI | 32 DI | 32 DI | FC-RS-127-OPTO-DI FC-UC-5305 |
| FC-RS-SOL-2-12 | Isolated DIO | 32 DIO | 32 DI / 32 DO | FC-RS-128-OPTO-DIO FC-UC-5305 |

Notes:

⁽¹⁾The 16-channel AI card can be used for 2-wire installations only

⁽²⁾Contact I/O, Local Termination with J425 & J426 marshalling connectors

⁽³⁾Multi-Point **Analog Input Only**, 16-Channel Analog Input Field Interface Module (FIM)

⁽⁴⁾Analog Input 4-wire installations

For the following RS3 I/O types, contact your local Emerson sales office to discuss modernization solution options.

- Multi-Loop 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
- 32-channel High Density DIO termination panels P/N 01984-4167-000x

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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