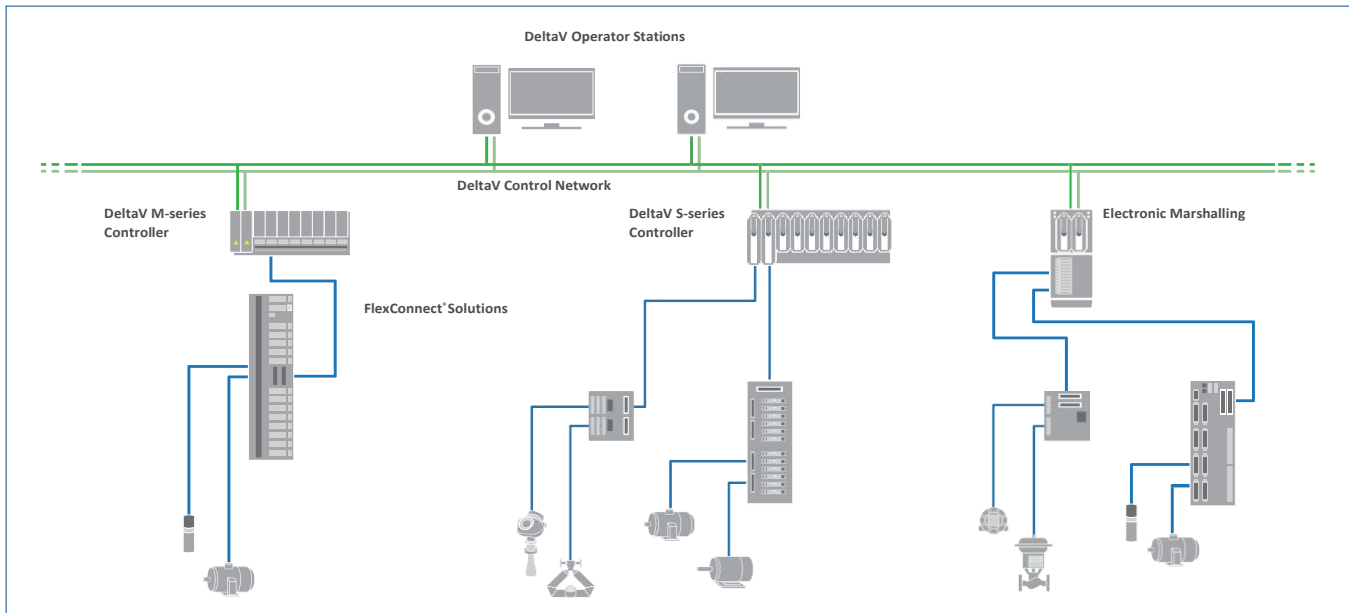


# FlexConnect™ Solutions for Honeywell® TDC 3000™ I/O



*FlexConnect™ Solutions protect your wiring investment as you convert from Honeywell® TDC 3000™ I/O 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 Honeywell TDC 3000 I/O to a new DeltaV™ system, consider FlexConnect™ Solutions for Honeywell® TDC 3000™ I/O.

## Benefits

**Reduce business risks by minimizing process downtime.** This solution brings device signals to DeltaV I/O from replacement Field Termination Assemblies (FTA's). Keeping device wires intact accelerates the new system startup, enabling you to rapidly resume production.

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

**Preserve HART signals.** Use HART® Pass-through for complete diagnostics at the DeltaV workstations.

## Product Description and Specification

FlexConnect Solutions provide direct connection from Honeywell TDC 3000 I/O to DeltaV Electronic Marshalling (CHARMs) via replacement field termination assemblies (FTA). Optionally, M and S-series traditional I/O can be utilized in these solutions.

The following Honeywell TDC 3000 point types have FlexConnect Solutions as described below:

### Analog Inputs

Up to 16 TDC 3000 two- and four-wire Analog Inputs (AI) connect to single-channel 4-20 mA HART DeltaV AI CHARMs.

### Analog Outputs

Up to 16 TDC 3000 Analog Outputs (AO) connect to single-channel 4-20 mA HART DeltaV AO CHARMs.

### Discrete Inputs

Up to 32 TDC 3000 24 VDC Discrete Inputs (DI) connect to single-channel 24 VDC DeltaV DI Dry Contact CHARMs. OPTO isolator modules are included and installed on the replacement FTA.

Up to 32 TDC 3000 24 VDC Discrete Inputs (DI) connect to single-channel 24 VDC DeltaV DI Dry Contact CHARMs.

### Discrete Outputs

Up to 16 TDC 3000 Discrete Outputs-Relay (DO-R) connect to single-channel 24 VDC HSS DeltaV DO CHARMs. Relay modules are included and installed on the replacement FTA.

Up to 16 TDC 3000 24 VDC Discrete Outputs (DO) connect to single-channel 24 VDC HSS DeltaV DO CHARMs. OPTO isolator modules are included and installed on the replacement FTA.

Up to 32 TDC 3000 24 VDC Discrete Outputs (DO) connect to single-channel 24 VDC HSS DeltaV DO CHARMs.

## Examples of Replacement FTAs



## Ordering Information

For inquiries and ordering information, please contact your local Emerson sales office. Please specify required cable lengths on your request. Maximum cable length is 30 meters. Replacement

FTAs come with mounting hardware and are conformally coated at solder points. FlexConnect Solutions for specific Honeywell TDC 3000 FTA models are indicated in the following table:

(Note: FlexConnect Solutions installation drawings are available upon request.)

FlexConnect Solution #	OEM FTA #	Replacement FTA #	Honeywell TDC 3000 Series Signals	DeltaV I/O Types	FlexConnect Solutions Drawing Numbers
FC-H3-SOL-2-10	TAIH12, H13	2908885	16-Channel 4-20 mA Analog / SMART Input	AI, 4-20 mA HART	FC-H3-2908885-16CH-AI
FC-H3-SOL-2-11	TAIH01, H02, H03	1050543	16-Channel 4-20 mA Analog / SMART Input	AI, 4-20 mA HART	FC-H3-1050543-16CH-AI
FC-H3-SOL-1-20	TAOX02, X12	2908886	8-Channel 4-20 mA Analog Output	AO, 4-20 mA HART	FC-H3-2908886-8CH-AO
FC-H3-SOL-2-21	TAOY22, Y23, THAO11	2908887	16-Channel 4-20 mA Analog Output	AO, 4-20 mA HART	FC-H3-2908887-16CH-AO
FC-H3-SOL-3-50	TDID12	2908888	32-Channel 24 VDC Digital Input	DI, 24 VDC Dry	FC-H3-2908888-32CH-DI
FC-H3-SOL-3-51	TDIY22	2908889	32-Channel 24 VDC Digital Input	DI, 24 VDC Dry	FC-H3-2908889-32CH-DI
FC-H3-SOL-2-60	TDOD11, D12, D13	2908890	16-Channel 24 VDC Digital Output	DO, 24 VDC HSS	FC-H3-2908890-16CH-DO
FC-H3-SOL-2-61	TDOR12 & TDOY23 <sup>(1)</sup>	2908891	16-Channel Digital Output-Relay	DO, 24 VDC HSS	FC-H3-2908891-16CH-DOR
FC-H3-SOL-3-62	TDOY22	2908892	32-Channel 24 VDC Digital Output	DO, 24 VDC HSS	FC-H3-2908892-32CH-DO

Note: <sup>(1)</sup> The replacement FTA for TDOY23 FTA is only compatible if used with 120 VAC and when the contact bounce suppression functionality isn't required.

Manufactured cables are available in the following lengths; 1, 3, 5, 10, 15, and 30 meters. For analog I/O we recommend the twisted-pair versions. For discrete I/O we recommend non-twisted pair. These cables are all 25-Pin (Analog I/O) and 37-Pin (Discrete I/O) female D-SUB on one end, straight through connector, open-end / flying lead on the other end,

all open wires marked with the corresponding D-SUB pin number and have ferrules on each wire, 22 AWG, shielded, and 16 inches of flying-lead to connect to the DeltaV I/O terminal blocks. Contact your local Emerson representative for pricing and availability.

## 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.

### Emerson

#### North America, Latin America:

☎ +1 800 833 8314 or

☎ +1 512 832 3774

#### Asia Pacific:

☎ +65 6777 8211

#### Europe, Middle East:

☎ +41 41 768 6111

🌐 [www.emerson.com/deltav](http://www.emerson.com/deltav)

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