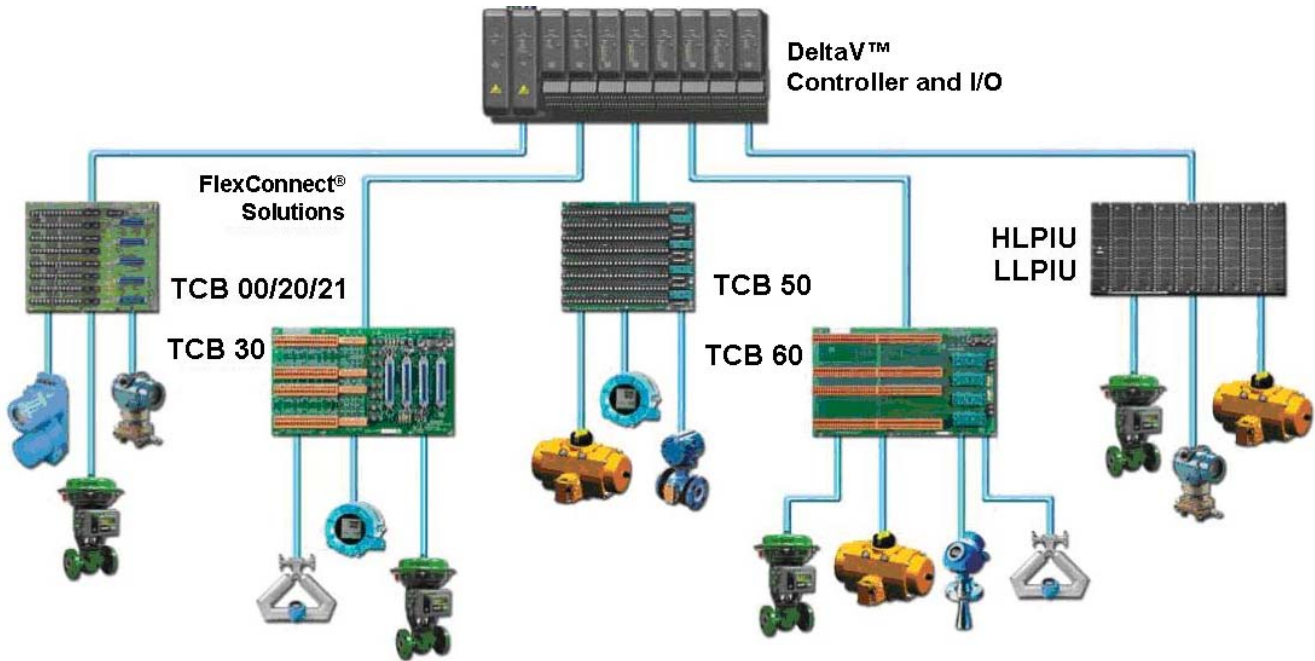




# FlexConnect® Solutions for Honeywell® TDC 2000™ Systems



FlexConnect® solutions protect your wiring investment as you convert from Honeywell® TDC 2000™ 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 TDC 2000™ system to a new DeltaV™ system, consider FlexConnect® Solutions for Honeywell® TDC 2000 Systems.

## Benefits

**Reduce business risks by minimizing process downtime.** This solution brings device signals to DeltaV I/O from existing TDC 2000 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.** Utilize HART® Pass-through for complete diagnostics at the DeltaV Operator Station.



## Product Description and Specification

FlexConnect solutions provide direct connection from TDC 2000 termination panels to DeltaV I/O card terminal blocks. To simplify installation, Emerson pre-wires FlexConnect solutions to DeltaV termination blocks.

FlexConnect solutions are available for TDC 2000 point types described here:

### TDC 2000 Basic and Extended Controller I/O

Honeywell TDC 2000 TCB00, TCB20, TCB21 and TCB30 termination panels have eight screw terminal strips. FlexConnect cables connect J2, J3 and J4 to standard DeltaV analog I/O modules.

#### ■ Analog Remote Variable (RV) Input

J2 and J3 terminations connect RV 1-4 and RV 5-8, respectively to an 8 channel DeltaV AI card.

#### ■ Analog Process Variable (PV) Output

J4 terminations connect up to 8 Analog Inputs (PV 1-4 and PV 5-8) and 8 Analog Outputs to 8 channel DeltaV AI and AO cards.

#### ■ Analog Remote Variable (RV), Process Variable (PV), Output

TCB30 J4 terminations connect up to 16 Analog Inputs (PV 1-8 and RV 1-8) and 8 Analog Outputs to 8 channel DeltaV AI and AO cards.

### TDC 2000 Multi-Function Controller I/O

The Honeywell TDC 2000 TCB50/60 termination panel contains eight screw-terminal strips configurable as Analog or Digital Inputs or Outputs. FlexConnect cables connect J1- J4 to standard DeltaV analog and digital I/O modules.

#### ■ Analog Inputs

Sixteen Analog Inputs connect to two 8 channel DeltaV 4-20mA AI card.

#### ■ Analog Outputs

Eight Analog Outputs connect to an 8 channel DeltaV 4-20mA AO card.

#### ■ Discrete Inputs

Thirty-two Discrete Inputs connect a 32 channel DeltaV DI cards.

#### ■ Discrete Outputs

Thirty Two Relay Discrete Outputs connect to a 32 channel DeltaV DO card.

#### ■ Discrete OPTO22 Outputs

Sixteen Discrete Inputs connect to a 16 channel DeltaV DI card.

### TDC 2000 HLPIU and LLPIU I/O

FlexConnect interface boards replace original cards in the TDC 2000 Point Card File Assembly. Cables connect the interface boards to DeltaV I/O. The following point types are supported:

#### ■ Analog Inputs

Eight Analog Inputs connect to an 8 channel DeltaV 4-20mA AI card.

#### ■ Analog Outputs

Four Analog Outputs connect to an 8 channel DeltaV 4-20mA AO card.

#### ■ Pulse Inputs

Four Pulse Inputs connect to a Multifunction DeltaV I/O card.

#### ■ Discrete Inputs

Sixteen Discrete Inputs connect a 32 channel DeltaV DI cards.

#### ■ Discrete Outputs

Eight Discrete Outputs connect to an 8 channel DeltaV DO card.

#### ■ Discrete Relay Outputs

Eight Relay Outputs connect to an 8 channel DeltaV DO card.

### TDC 2000 Yamatake Honeywell Advanced Multifunction Controller (AMC) I/O

FlexConnect solutions are available for the TDC 2000 AMC I/O termination panels J-RTP00, J-RTP10, J-RTP20/30 and J-RTP-80. These include Analog Inputs and Outputs, and Discrete Inputs and Outputs.



## Ordering Information

For inquiries and ordering information, please contact your local Emerson sales office. For reference, FlexConnect solutions for specific TDC 2000 Termination Panel Models are indicated in the following table:

TCB00, 20, 21	TDC 2000 Signals	DeltaV I/O card type	FlexConnect Drawing Numbers
AI, RV (J2, J3)	4 AI (two)	8 AI	FC_H2_J23_RV, FC_H2_J2_RV, FC_H2_J3_RV
AIO, PV (J4)	8 AI 8 AO	8 AI 8 AO	FC_H2_J4AIO, FC_H2_J4AI, FC_H2_J4AO
TCB30	TDC 2000 Signals	DeltaV I/O card type	FlexConnect Drawing Numbers
AI, RV, AO	16 AI 8 AO	8 AI (two) 8 AO	FC_H2_J4AIO TCB30_
TCB50/60 I/O Type	TDC 2000 Signals	DeltaV I/O card type	FlexConnect Drawing Numbers
AI	16 AI	8 AI (two)	NA_FC_H2_AI16, NA_FC_UC_502
AO	8 AO	8 AO	NA_FC_H2_AO8, NA_FC_UC_502
DI	32 DI	32 DI	NA_FC_H2_DI32, NA_FC_UC_503
DO	16 DO	32 DO	NA_FC_H2_R16_DO, NA_FC_UC_503

FlexConnect solution drawings are available upon request.

For these TDC 2000 IO types, contact your local Emerson sales office to discuss solution options:

- HLPUIU or LLPIU TDC 2000 Point Card File Assembly
- Advanced Multifunction Controller (AMC) J-RTP terminations

## 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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