

# ControlWave<sup>®</sup> PAC Universal Digital Input and Counter Module

The Universal Digital Input (UDI) modules provide the ControlWave PAC with the ability to monitor and control various digital input field signals. The following UDI module is available for the ControlWave PAC:

- 6 Universal Digital Input Module and Counter (UDI)

All I/O modules have surge protection that meets IEEE C37.90-1978 and IEC 801-5 specifications.

## 6 Universal Digital Input Module and Counter (UDI)

The 6-point Universal Digital Input Module and Counter (UDI) provides the ControlWave PAC with 6 inputs which you can individually configure as high speed counters or polled inputs. UDI module is available with either a terminal board assembly for local termination or a header block assembly for remote termination.

Each input has an electrical isolation of 500 Vdc to chassis and 1500 Vdc to system logic. The surge protection is from a 31 Vdc transorb (across input and to field common) that meets ANSI/IEEE standard C37.90-1978.

### Local or Remote Terminations

I/O modules available are factory configured for either local terminations that consist of one 40-point terminal block assemblies or remote terminations that consist of 4 DIN-rail mountable terminal blocks mass termination headers. Terminations are pluggable and accept a maximum wire size of 14 AWG (American Wire Gauge).

I/O modules are designed to maximize usability while minimizing installation, maintenance, and system

downtime costs. A pull down door provides front panel wiring terminal access for technicians. The bezel and the terminations can be easily removed from the I/O module to make wiring even easier.

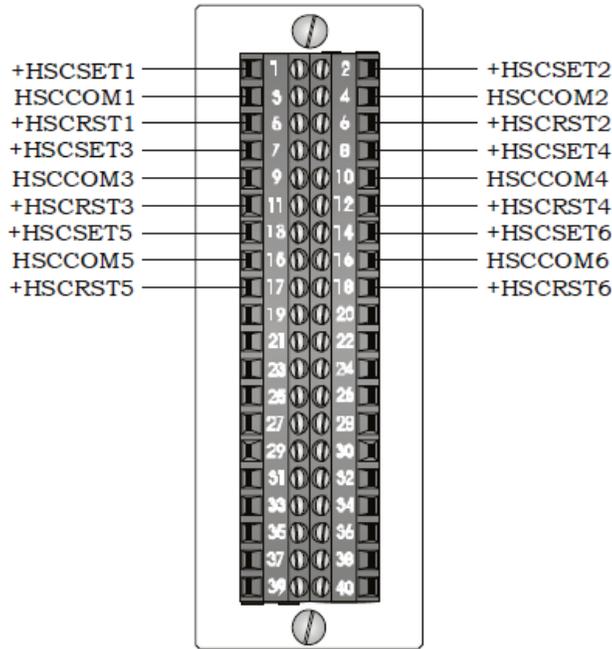
Remote terminations provide a convenient alternative to the standard direct connect termination. Remote terminations allow a concentration of electrical connections from one or more controllers to be located in a single area. For more information on remote terminations or terminal blocks, refer to *Product Data Sheet CWPAC*.



*Universal Digital Input Module*

## 6 Universal Digital Input Module and Counter (UDI)

### Field Wiring Terminals



#### Inputs

Quantity	6
Type	Polled DI and High-Speed Counter or Low-Speed Counter Internally or externally sourced 24 Vdc
Connector	Terminal block or remote termination
Bus Access	16-bits wide
Frequency Range	0 to 10 kHz
Input Voltage Range	24 Vdc
Debounce	User-selectable debounce circuitry
Input Current	5 mA ± 10%
Input Filtering	Software configurable 20 µs for high speed counter 1 ms for low speed counter 30 mss for contact closure interruptible DI
Electrical Isolation	1500 Vdc to system logic and 500 Vdc to chassis
Surge Suppression	31 Vdc transorb across input and to field common
Status Indicator	LED per point status and module OK/FAIL LED
Status Indication	Status LED per input, module PASS/FAIL LED

#### Power

Input Voltage Range	Backplane powered
---------------------	-------------------

---

**Physical**

Dimensions 177.8 mm H x 46.2 mm W x 165.1 mm D (7 in. H x 1.82 in. W x 6.5 in. D)

Weight 0.50kg (1.1 lbs.)

Wiring Up to 14 American Wire Gauge (AWG) local terminations or optional remote terminations

---

**Environmental**

Same as the ControlWave PAC in which it is installed

---

**Approvals**

Same as the ControlWave PAC in which it is installed

---

## Headquarters:

**Emerson Process Management**

Remote Automation Solutions  
6005 Rogerdale Road  
Houston, TX 77072 U.S.A.  
T +1 281 879 2699 | F +1 281 988 4445  
[www.EmersonProcess.com/Remote](http://www.EmersonProcess.com/Remote)

## Europe:

**Emerson Process Management**

Remote Automation Solutions  
Emerson House  
Kirkhill Drive Kirkhill Industrial Estate  
Aberdeen UK AB21 OEU  
T +44 1224 215700 | F +44 1224 215799  
[www.EmersonProcess.com/Remote](http://www.EmersonProcess.com/Remote)

## North American/Latin America:

**Emerson Process Management**

Remote Automation Solutions  
6005 Rogerdale Road  
Houston TX USA 77072  
T +1 281 879 2699 | F +1 281 988 4445  
[www.EmersonProcess.com/Remote](http://www.EmersonProcess.com/Remote)

## Middle East/Africa:

**Emerson Process Management**

Remote Automation Solutions  
Emerson FZE  
P.O. Box 17033  
Jebel Ali Free Zone – South 2  
Dubai U.A.E.  
T +971 4 8118100 | F +971 4 8865465  
[www.EmersonProcess.com/Remote](http://www.EmersonProcess.com/Remote)

## Asia-Pacific:

**Emerson Process Management**

Remote Automation Solutions  
1 Pandan Crescent  
Singapore 128461  
T +65 6777 8211 | F +65 6777 0947  
[www.EmersonProcess.com/Remote](http://www.EmersonProcess.com/Remote)

© 2007-2012 Remote Automation Solutions, a business unit of Emerson Process Management. All rights reserved.

Bristol, Inc., Bristol Canada, BBI SA de CV and Emerson Process Management Ltd, Remote Automation Solutions division (UK), are wholly owned subsidiaries of Emerson Electric Co. doing business as Remote Automation Solutions, a business unit of Emerson Process Management. FloBoss, ROCLINK, Bristol, Bristol Babcock, ControlWave, TeleFlow, Helicoid, OpenEnterprise, and METCO are trademarks of Remote Automation Solutions. AMS, PlantWeb and the PlantWeb logo are marks of Emerson Electric Co. The Emerson logo is a trademark and service mark of the Emerson Electric Co. All other marks are property of their respective owners.

The contents of this publication are presented for informational purposes only. While every effort has been made to ensure informational accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. Remote Automation Solutions reserves the right to modify or improve the designs or specifications of such products at any time without notice. All sales are governed by Remote Automation Solutions' terms and conditions which are available upon request. Remote Automation Solutions does not assume responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use and maintenance of any Remote Automation Solutions product remains solely with the purchaser and end-user.