

Remote Terminal Panels

Optional DIN rail mounted Remote Terminal Panels (RTPs) are available for use with pre-wired cables to reduce installation time and labor expense. Four types of RTPs are available: analog inputs, relay outputs, redundant I/O and other I/O modules. Three cable lengths are also available to match hardware to installation variations. Analog inputs RTPs include transmitter shunt resistors and transmitter power terminals with individual circuit fuses. The Relay Output RTP includes a fuse and power disconnect switch for each output. All the three types of RTP panels also switch power to allow module removal and installation under controller power. See page 36.

Terminal Blocks

20-screw Barrier style and Euro style terminal blocks are available for use with all ControlEdge HC900 I/O Modules. Red terminal blocks are used for high voltage connections for added safety while black terminal blocks are used for low voltage connections. A 36-terminal Euro style block is available with the 16 AI, the 8 and 16 AO as well as the 32 DC DI and 32 DC DO module types. See page 29.

Specifications for modules

I/O Module Attributes	
Remove & Insert under power	Standard. Modules are automatically sensed and configured on insertion. Field power shall be disconnected before removing field terminal blocks.
LED Channel State indicators	Via light pipes at front of module, one state LED for each digital I/O point – green indicates ON, logic side
LED Module Status indicator	Via light pipe, one per module, tri-color to represent module status, Green = OK, Red = Fault (# of flashes indicates fault), Amber = Override (Force)
I/O Labels	Color-coded, on module door, removable, with write-on area to label I/O
Processor	Micro-controller per module for parallel processing
Terminal Boards	20 screw: Barrier or Euro style, tin-plated or gold-plated (for DC connections) 36 screw: Euro style gold plated (Required with certain higher capacity modules)
Keying	Hardware keying matches each module to its terminal block with its field wiring.
Environmental and Vibration Specifications	
Mounting Standard 35mm wide DIN Rail	Provides connection of field wiring to controller I/O within an enclosure only.
Dimensions	4.38" (111.1 mm) x 3.70" (94.0mm) x 2.60" (66.0mm) (L x W x H)
Vibration Amplitude Acceleration Vibration	5Hz to 15.77Hz, 2.03mm (0.08") amplitude (peak to peak) 15.77 to 250Hz, 1.0-g Sweeping, at rate of .33 octave/min.
Tray material Tray and end caps Flammability	Polyvinyl Chloride (PVC) UL94-V0
Environmental Temperature Relative Humidity Harsh Environment ** ROHS**	Operating: 0 deg. C (32F) to 60 deg. C (140F) Storage: -40 deg. C (140F) to 70 deg. C (158F) Operating: 10% to 90% Non-condensing Storage: 5% to 95% Non-condensing All the modules including CPU, Scanner, RTP, Backplane, RSM/PSM, and Backplanes have conformal coating that is suitable for operation in G3 level of harsh environment. Power Supply Units (PSU) do not have conformal coating. Entire system is compliant to RoHS 2 directive, except PSU.
** Except PSU module	

Certifications CE	EN61326-1:2013, EN61326-3-1:2008, EN55011:2009/A1,2010, EN61010-1:2010
UL	Certificate: E201698 UL Listed- Process Control Equipment, Electrical UL 61010-1 2nd Edition
ATEX	Certificate: HON 08.0201 II 3 G Ex nA IIC T* Gc EN 60079-0: 2011; EN 60079-15: 2010
CSA	Certificate: 1367757 Class I, Division 2, Groups A, B, C D; T* CAN/ CSA C22.2 No. 0-M91; CAN/ CSA C22.2 No. 94-M94; CAN/ CSA C22.2 No 1010.1-92; CAN/ CSA C22.2 No 1010.1B-97; CSA C22.2 No. 213-M1987
FM	Certificate: 3011798 Class 1, Div. 2 Groups A, B, C, D; T* FM 3600: 2010; FM 3611: 2004; FM 3810: 2005 * Module Temperature: Classifications T3 to T6
Cables High voltage Low voltage	Lengths: 1.0, 2.5, 5.0 meters. Cable power is limited to 24 Amps per module at 60C (140 degrees F) and 32 Amps at 54C (129 degrees F). Lengths: 1.0, 2.5, 5.0 meters.
I/O module Compliance	
CE Conformity	This product is in conformity with the protection requirements of the following European Council Directives: 2006/ 95/ EC , the Low Voltage Directive (evaluated to EN61010-1:2010) 2004/108/EC , the EMC Directive (evaluated to EN61326-1:2013). Conformity of this product with any other European Council Directive(s) shall not be assumed.
General Purpose Safety	Compliant with EN61010-1, UL61010-1 2nd Edition, CSA C22.2 No. 1010-1
Hazardous (Classified) Location Safety	FM Class 1, Div. 2, Groups A, B, C, D Class 1, Zone 2, IIC
Module Type	
Temperature Classification	
Controller (C30, C50, C70, C75)	T4
Safety Module Controller (C30S, C50S, C70S and C75S)	T4
Power Supply (P01, P24)	T4
Power Status (PSM))	T6
Scanner (1 or 2 Port)	T4
Safety Scanner (1 or 2 Port)	T4
Redundant Switch (RSM)	T6
Analog Input (Universal 8 channel)	T6
Analog Input (High Level 16 channel)	T6
Analog Output (4 Channel)	T4
Analog Output (8 channel)	T4
Analog Output (16 channel)	T3C
Digital Input, Contact type (16 Channel)	T5
Digital Input, 24 Vdc (16 channel)	T4
Digital Input, 120/240 Vac (16 channel)	T3C@ Ta = 60 deg. C T4 @ Ta = 40 deg. C

Digital Input, 120/240 Vac (16 channel 125 Vdc)	T3C@ Ta = 60 deg. C T4 @ Ta = 40 deg. C
Digital Input Vdc (32 channel)	T3C@ Ta = 60 deg. C T4 @ Ta = 40 deg. C
Digital Output, Relay type (8 channel)	T5
Digital Output, 24 Vdc, (16 channel)	T4
Digital Output, 120/240 Vac (8 channel)	T4
Digital Output Vdc (32 channel)	T6
Pulse/Frequency/Quadrature (4 channel)	T5
Universal IO Module (16 channel)	T4

Dimensions and Weight

Item	Module Number	Dimension	Weight
4 I/O slot Rack ^{1,2}	900R04-0200	137mm H* x 266.7mm W x 151.7mm D 5.4" H* x 10.5" W x 6.0" D	2104g
8 I/O slot Rack ^{1,2}	900R08-0200	137mm H* x 419.1mm W x 151.7mm D 5.4" H* x 16.5" W x 6.0" D	3126g
8 I/O slot Rack with redundant power support ^{1,2}	900R08R-0200	137mm H* x 530.9mm W x 151.7mm D 5.4" H* x 20.9" W x 6.0" D	4422g
12 I/O slot Rack ^{1,2}	900R12-0200	137mm H* x 571.5mm W x 151.7mm D 5.4" H* x 22.5" W x 6.0" D	4072g
12 I/O slot Rack with redundant power support ^{1,2}	900R12R-0200	137mm H* x 683.3mm W x 151.7mm D 5.4" H* x 26.9" W x 6.0" D	5252g
Redundant CPM Rack ^{1,2}	900RR0-0101	137mm H* x 261.6mm W x 151.7mm D 5.4" H* x 10.3" W x 6.0" D	1751g
CPU, ControlEdge 900	900C30-0460/ 900C30S-0460	137mm H x 38.1mm W 5.4" H* x 1.5" W	350g
	900C50-0460/ 900C50S-0460	137mm H x 38.1mm W 5.4" H* x 1.5" W	360g
	900C70-0460/ 900C75-0460/ 900C70S-0460/ 900C75S-0460	137mm H x 38.1mm W 5.4" H* x 1.5" W	400g
Scanner, ControlEdge 900	900S50-0460/ 900S50S-0460	137mm H x 38.1mm W 5.4" H* x 1.5" W	360g
	900S75-0460/ 900S75S-0460	137mm H x 38.1mm W 5.4" H* x 1.5" W	400g
4 port serial communications module, 2 x RS232, 2 x RS485	900ES1-0100	137mm H x 35.6mm W 5.4" H* x 1.4" W	350g
SIL UIO	900U02-0100	134mm H x 33.1mm W 5.3" H* x 1.3" W	260g
Universal AI -RTD, TC, V, 8 Ch	900A01-0202	137mm H x 35.6mm W 5.4" H* x 1.4" W	210g
Analog Input hi level, 16 Ch	900A16-0103	137mm H x 35.6mm W 5.4" H* x 1.4" W	397g
Analog Output, 0 to 20mA, 4 Ch	900B01-0301	137mm H x 35.6mm W 5.4" H* x 1.4" W	408g
Analog Outputs 0 to 20mA, 8 Ch	900B08-0202	137mm H x 35.6mm W 5.4" H* x 1.4" W	400g