ControlEdge Remote Termination Panel (RTP)
For Analog Inputs: 900RTA-L001

Document Number: 51-52-33-134

Effective: November 2019

Supersedes: January 2018

Summary

Remote Termination Panels (RTP) provide an easy way to connect I/O modules to field wiring. RTPs integrate typical externally connected components, reducing wiring and setup time.

It also minimizes the need for multiple wires under a single screw connection by expanding the shared terminals of the I/O module. RTPs comply with the RoHS 2 directive and have conformal coating to sustain in G3 environments.
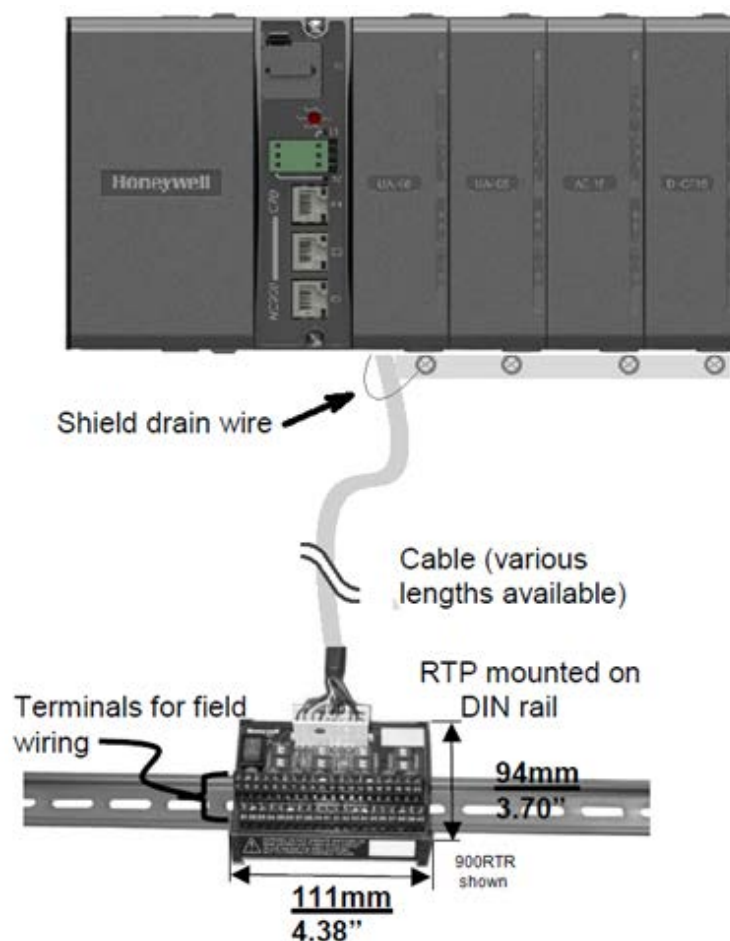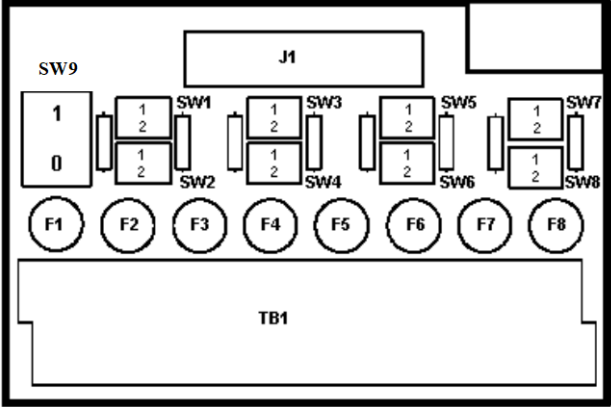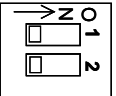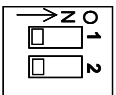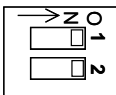
RTPs are not usable for thermocouples.

Figure 1 Example Installation

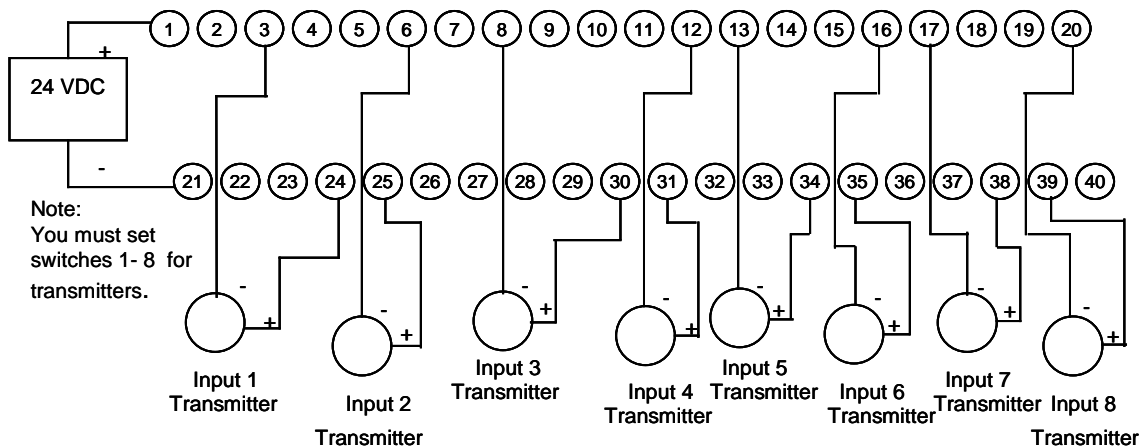| 8 Point Analog Input	
Step	**Action**
1	**ATTENTION: RTP is not for use with thermocouples.** **ATTENTION: RTP and cables are intended for permanent installation within their own enclosure.** **Mount RTP cable assembly to 900 platform Controller (Figure 1).** • Remove appropriate key tabs from terminal block to allow mating with the module. For more details refer to the Installation and User manual (51-52-25-154). • Connect desired cable to AI module at controller. Choose from: 900RTC-L210 Remote Terminal Low Voltage Cable Assembly, 1.0 meters long 900RTC-L225 Remote Terminal Low Voltage Cable Assembly, 2.5 meters long. 900RTC-L250 Remote Terminal Low Voltage Cable Assembly, 5.0 meters long • Install AI module label onto the module connector cover. • Connect shield drain wire to the grounding bars at the base of the IO rack. All field-wiring shields must be grounded. For more details on shields grounding, refer to the section "Shield Grounding" in the Installation and User manual (51-52-25-154).
2	**Mount RTP to DIN rail.** • Latch to rail. See page 8. • Connect cable to RTP.
3	**Set DIP switch positions SW1 through SW8.** Set each input's DIP switch positions according to the input type. For Input n use Switch n. For example, for Input 1 use Switch 1, for Input 2 use Switch 2, etc. If an input is not used, set its DIP switch positions to OFF. Fuses: 80mA Time lag Wickmann part #3740080041 UL/CSA approved **Volt, millivolt:** **Ohms:** **Transmitter:** **Loop powered** **Milliamp:** **RTD:** **Externally powered** SW9 is the red power switch for 24 volt supply. Module RIUP is not affected by using the RTP. See page 7 for RTP internal schematic.

4	**Connect field wiring.**
	Refer to Figure 2 through Figure 8 for field wiring. Any input type can be wired to any of the 8 inputs. After wiring, double-check DIP switches settings for each input type (Step 3).

Terminals (top row): ① 24V+ / IN1+ ② IN1+ ③ IN1+ ④ IRTD1 ⑤ IRTD2 ⑥ IN2+ ⑦ IN2+ ⑧ IN3+ ⑨ IN3+ ⑩ IRTD3 ⑪ IRTD4 ⑫ IN4+ ⑬ IN5+ ⑭ IRTD5 ⑮ IRTD6 ⑯ IN6+ ⑰ IN7+ ⑱ IRTD7 ⑲ IRTD8 ⑳ IN8+

Terminals (bottom row): 21 24V- / IN1- 22 IN1- 23 IN1- 24 XMT1 25 XMT2 26 IN2- 27 IN2- 28 IN3- 29 IN3- 30 XMT3 31 XMT4 32 IN4- 33 IN5- 34 XMT5 35 XMT6 36 IN6- 37 IN7- 38 XMT7 39 XMT8 40 IN8-

Use SW9 power switch (Red 1/0)

Input 1 — Input 2 — Input 3 — Input 4 — Input 5 — Input 6 — Input 7 — Input 8

Figure 2 Analog input terminals

24 VDC

Note:
You must set switches 1- 8 for transmitters.

Input 1 Transmitter
Input 2 Transmitter
Input 3 Transmitter
Input 4 Transmitter
Input 5 Transmitter
Input 6 Transmitter
Input 7 Transmitter
Input 8 Transmitter
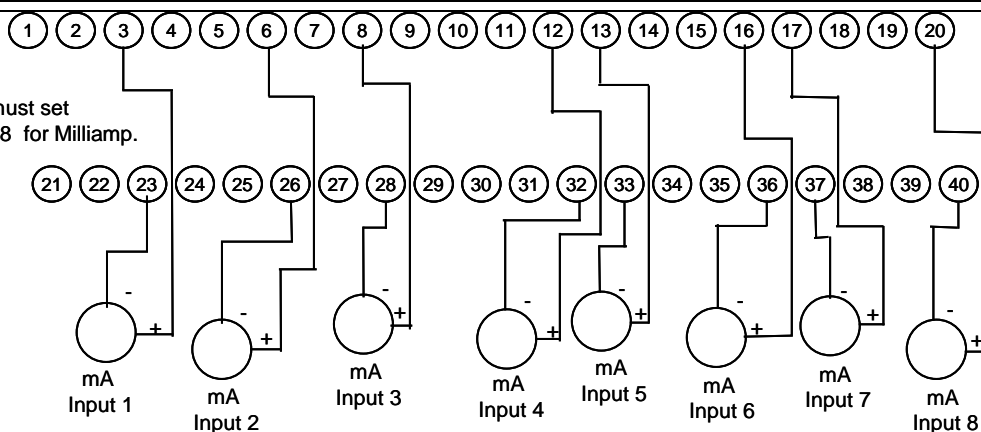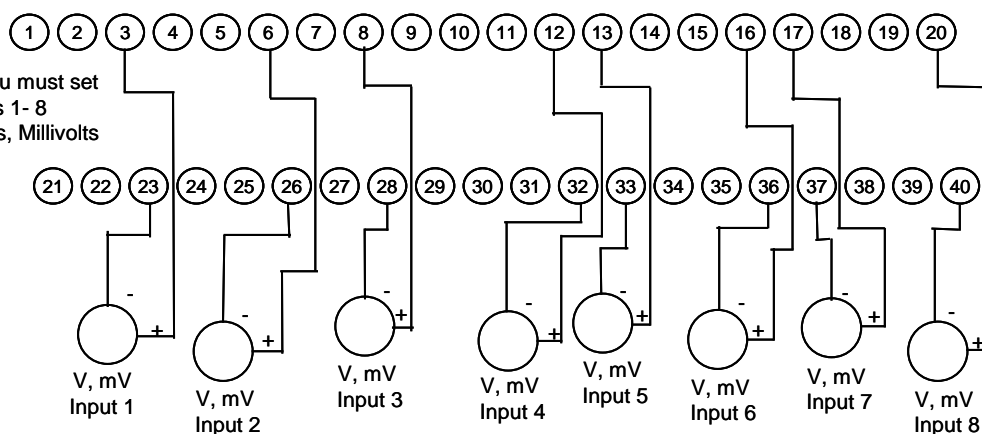
Figure 3 Two–wire transmitter connections with common 24 VDC supply

Note: You must set switches 1- 8 for Milliamp.

mA Input 1
mA Input 2
mA Input 3
mA Input 4
mA Input 5
mA Input 6
mA Input 7
mA Input 8

Figure 4 Milliamp input connections with 250 ohm shunt resistance

Note:You must set switches 1- 8 for Volts, Millivolts

V, mV Input 1
V, mV Input 2
V, mV Input 3
V, mV Input 4
V, mV Input 5
V, mV Input 6
V, mV Input 7
V, mV Input 8

Figure 5 Volt, millivolt input connections

Note: You must set switches 1- 8 for RTD.

Input 5
3 wire RTD

Input 7
3 wire RTD

3 wire RTD
Input 1

3 wire RTD
Input 2

3 wire RTD
Input 3

3 wire RTD
Input 4

3 wire RTD
Input 6

3 wire RTD
Input 8

Figure 6 Three-wire RTD input connections

8 Point Analog Input

Step	Action

Note:
You must set switches 1- 8
for Ohms.

Note:
Install jumper
wires:
3-23
6-26
8-28
12-32
13-33
16-36
17-37
20-40

Figure 7 Two-wire RTD or ohm input connections

Note:
You must set switches 1- 8
for Ohms.

Figure 8 Slidewire feedback connections for actuators

RTP Cable wire positions and colors

Twisted Pair Number	ControlEdge HC900 Module TB Position	RTP J1 Plug Connector	Color
1	1	6	Black
	2	7	Red
2	4	9	Black
	5	10	White
3	6	20	Black
	7	19	Green
4	9	17	Black
	10	16	Blue
5	11	15	Black
	12	14	Yellow
6	14	12	Black
	15	11	Brown
7	16	1	Black
	17	2	Orange
8	19	4	Red
	20	5	White
9	3	8	Red
	8	18	Green
10	13	13	Red
	18	3	Blue

Accuracy specification

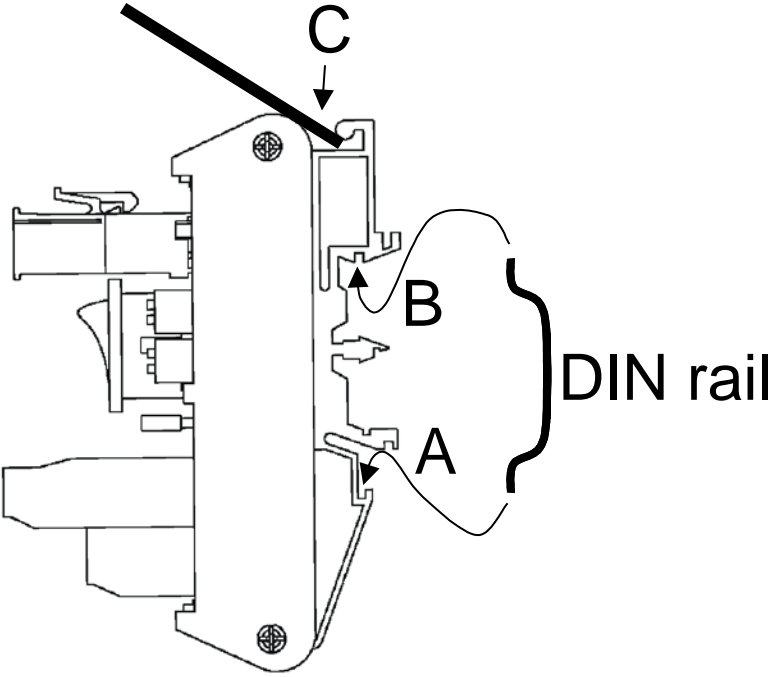| Range	AI Module Accuracy	RTP + Cable Accuracy	AI Module + RTP Accuracy
100Ω Plat. RTD	±0.1% of Range	±0.04% Range (0.357°C)	±0.14% of Range
JIS RTD	±0.1% of Range	±0.12% Range (0.824°C)	±0.22% of Range
10Ω Cu. RTD	±0.1% of Range	±0.57% Range (1.540°C)	±0.67% of Range
200Ω OHMS	±0.1% of Range	±0.07% Range (0.140Ω)	±0.17% of Range
0-10mV LINEAR	±0.1% of Range	±0.04% Range (0.004mV)	±0.14% of Range

RTP Internal schematic

Latch/Unlatch RTP to rail

Step	Action
1	**Mounting screws must be installed at each end of the mounting rail, with additional screws approx. every 8" (203mm) to prevent twisting of the rail.**
2	**Insert one side of DIN rail at A.** C B DIN rail A
3	**Insert other side of DIN rail at B, and push B over the rail to snap into place.**
4	**To remove, using slot screwdriver to lift C up gently (plastic is fragile) to disengage at B. Lift up and over rail, then disengage at A.**

Warranty/Remedy

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is **in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose**. Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Sales and Service

For application assistance, current specifications, pricing, or name of the nearest Authorized Distributor, contact one of the offices below.

ASIA PACIFIC
Honeywell Process Solutions,
(TAC) **hfs-tac-support@honeywell.com**

Australia
Honeywell Limited
Phone: +(61) 7-3846 1255
FAX: +(61) 7-3840 6481
Toll Free 1300-36-39-36
Toll Free Fax:
1300-36-04-70

China – PRC - Shanghai
Honeywell China Inc.
Phone: (86-21) 5257-4568
Fax: (86-21) 6237-2826

Singapore
Honeywell Pte Ltd.
Phone: +(65) 6580 3278
Fax: +(65) 6445-3033

South Korea
Honeywell Korea Co Ltd
Phone: +(822) 799 6114
Fax: +(822) 792 9015

EMEA
Honeywell Process Solutions,
Phone: + 80012026455 or
+44 (0)1344 656000

Email: (Sales)
FP-Sales-Apps@Honeywell.com
or
(TAC)
hfs-tac-support@honeywell.com

AMERICA'S
Honeywell Process Solutions,
Phone: (TAC) 1-800-423-9883 or
215/641-3610
(Sales) 1-800-343-0228

Email: (Sales)
FP-Sales-Apps@Honeywell.com
or
(TAC)
hfs-tac-support@honeywell.com

For more information
To learn more about ControlEdge or
ControlEdge HC900 Controllers,
visit **www.honeywellprocess.com**
Or contact your Honeywell Account Manager

Process Solutions
Honeywell
1250 W Sam Houston Pkwy S
Houston, TX 77042

Honeywell Control Systems Ltd
Honeywell House, Skimped Hill Lane
Bracknell, England, RG12 1EB

Shanghai City Centre, 100 Jungi Road
Shanghai, China 20061

Honeywell

www.honeywellprocess.com