

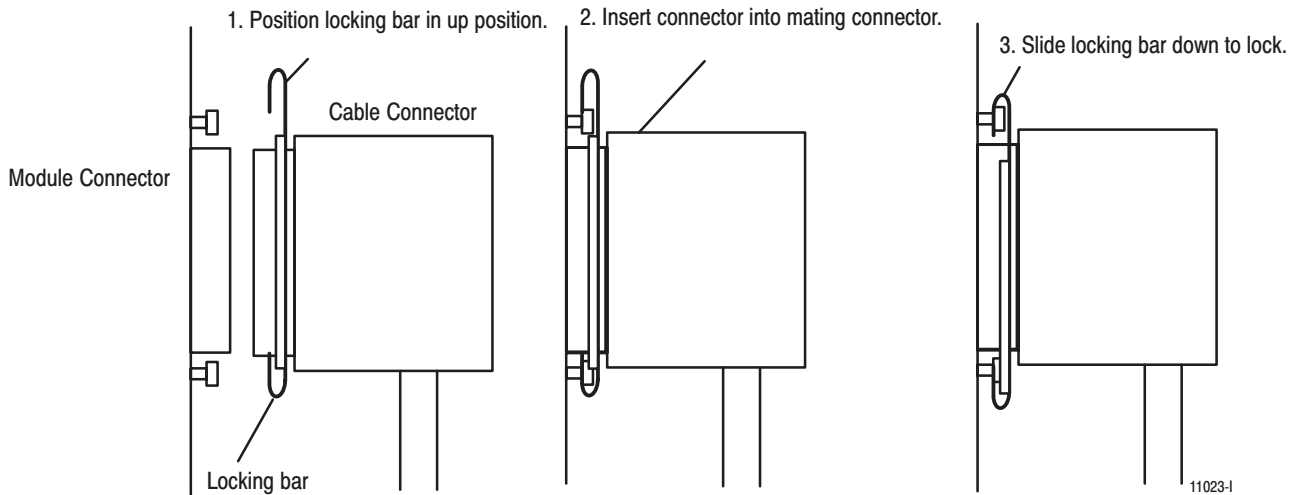
3. Connect the 1771-NC cable to the module as shown in Figure 2.1.

A. Slide the locking bar up.

B. Insert the cable connector into the mating connector on the front of the module.

C. Slide the locking bar down over the mating pins on the module to lock the connector onto the module.

Figure 2.1
Connecting the Cable to the Front of the Module



Connecting Wiring

The N-series modules are cable-connected to a remote termination panel using cat. no. 1771-NC6 (6 ft) or -NC15 (15 ft) cables.

Variations of remote termination panels are used, depending on the type of module used. These are:

Catalog Number	Description
1771-RTP1	has cold junction compensation for thermocouples
1771-RTP3	incorporates resistors and fuses; used primarily for 4-20mA inputs when using $\pm 5V$ inputs (Uses 5mm x 20mm fast acting 1/4A fuses such as Bussmann GMA-1/4, 250V/250mA.)
1771-RTP4	a general-use block with straight-thru wiring that can be used for all applications except thermocouples ¹
1771-RT41	a 4-channel block with cold junction compensation for thermocouples
1771-RT44	a general-use 4-channel block with straight-thru wiring that can be used for all applications except thermocouples ¹

¹ RTP4 and RT44 can be used with thermocouples if a method of cold junction compensation is provided at the interface of thermocouple and copper wires within the system.

The remote termination panels are designed for mounting on standard DIN 1 or DIN 3 mounting rails.

Figure 2.2
Mounting Dimensions for the Remote Termination Panels

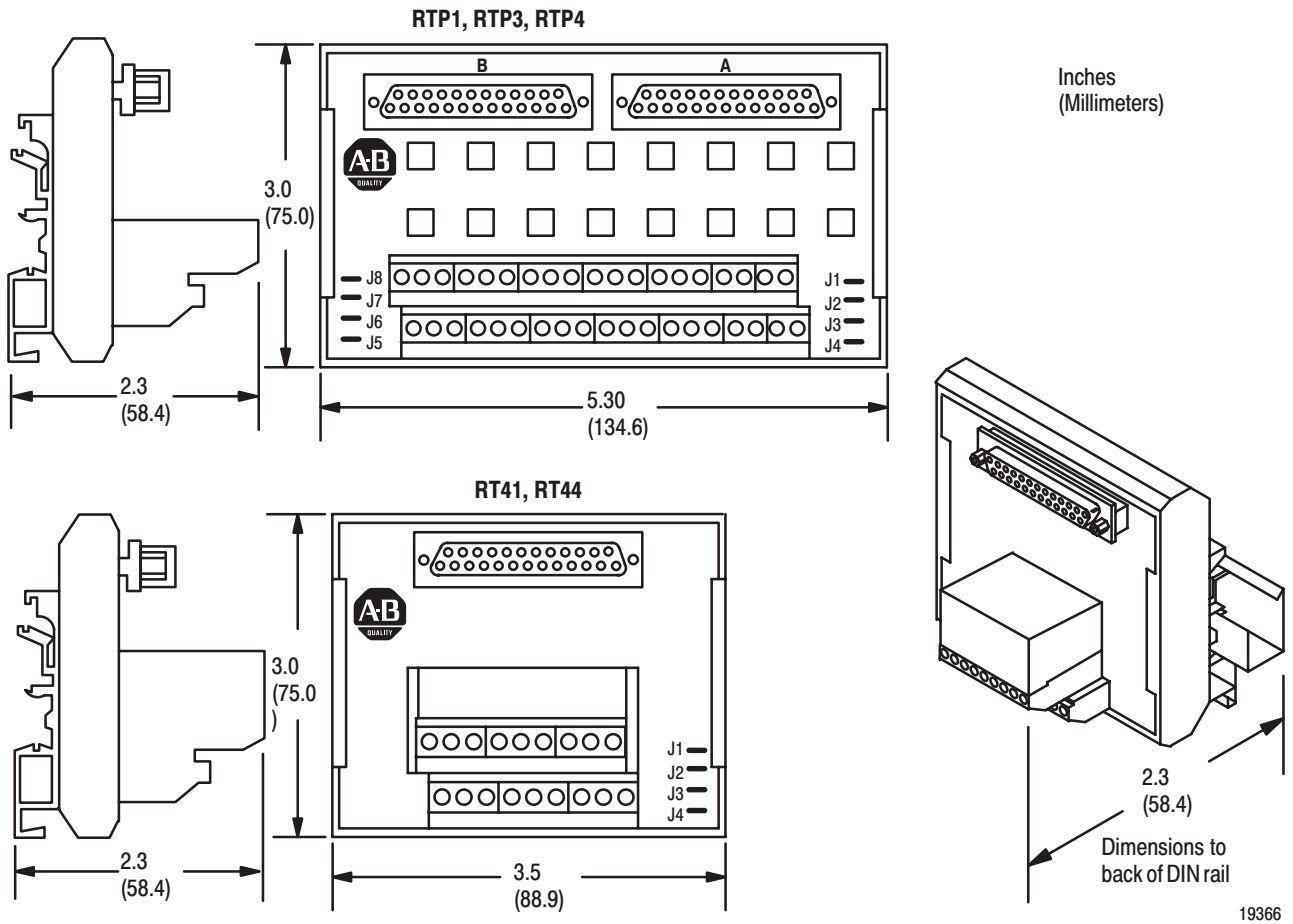


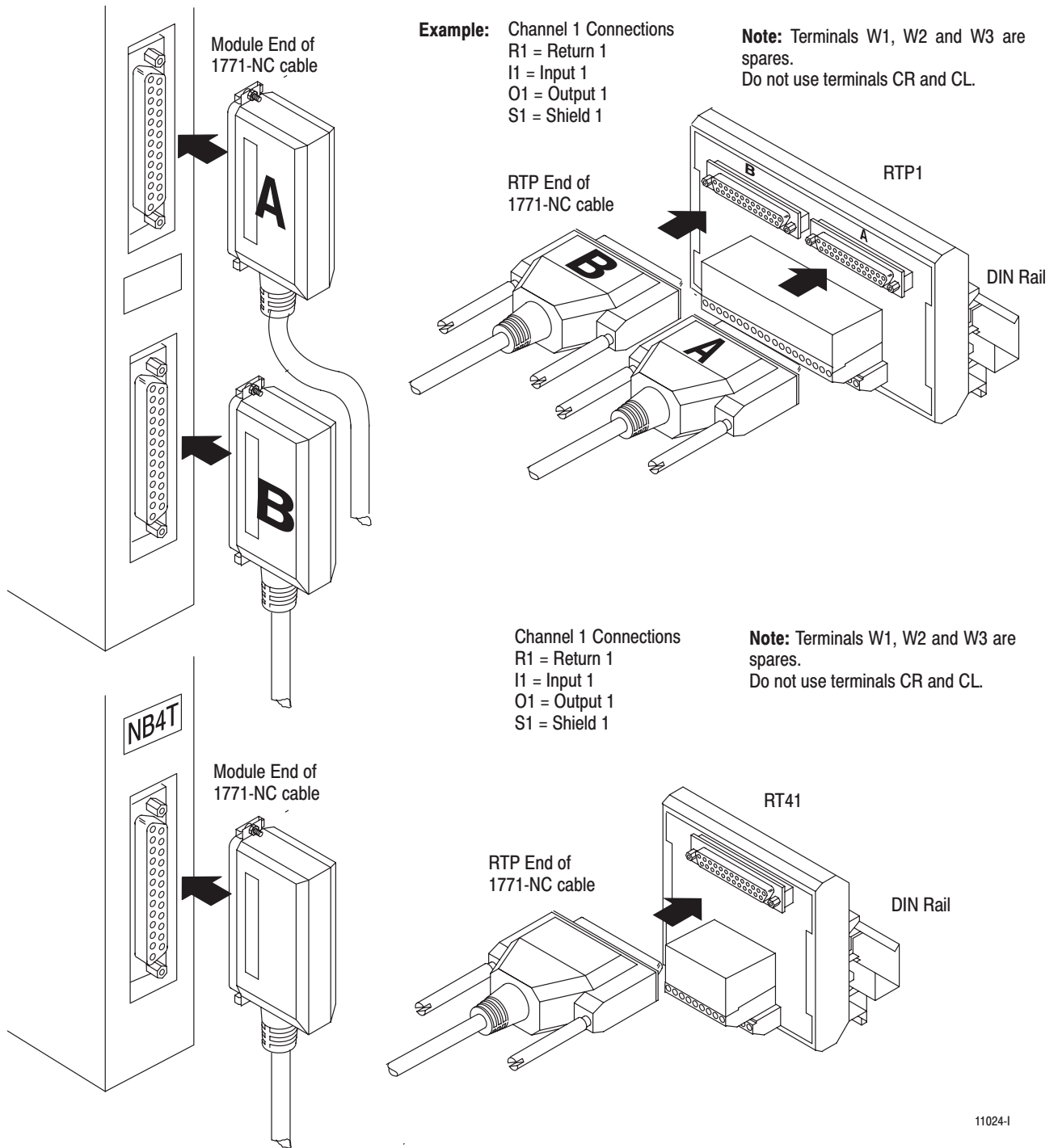
Table 2.A
Remote Termination Panel Connection Points for Field Devices (Channel 1 shown)

Input Type	Connect	To	Input Type	Connect	To	Input Type	Connect	To	Input Type	Connect	To	
Voltage	+	I1	Current (with external resistor)	+	I1	Thermocouple	+	I1	Current (Source/ Sink)	+	I1	
	-	R1		-	R1		-	R1		- ²	R1	
	Shield	S1		Shield	S1		Shield	S1		Shield	S1	
Output Type	Connect	To	Output Type	Connect	To	Input Type	Connect	To		Loop Power	O1	
Voltage	+	O1	Current	+	O1	RTD ¹	Excitation (A)	O1				
	-	R1		-	R1		Lead Compensation (B)	I1				
	Shield	S1		Shield	S1		Common (C)	R1				

¹ When using 4-wire RTD, leave the 4th wire open.

² Not used when N-Series module is supplying loop power. Refer to Figure 2.6 in this document.

Figure 2.3
Remote Termination Panel Wiring



11024-1

Field wiring to the remote termination panel is the same for all remote termination panel variations. Refer to Figure 2.4.

Each channel has 4 connections: R, I, O, and S.

- R = return
- I = input
- O = output
- S = shield

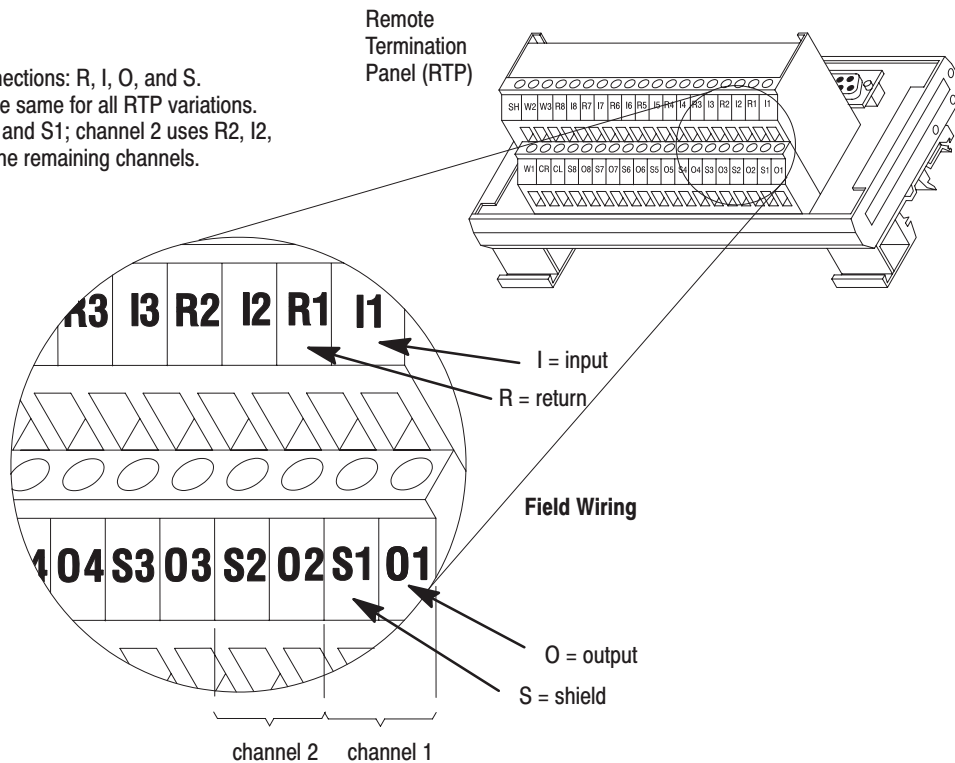
Channel 1 would use R1, I1, O1, and S1; channel 2 would use R2, I2, O2, and S2; and so on for the remaining channels.

To connect field wiring to the remote termination panel:

1. Strip 3/8 inch (9.25 mm) of insulation from the 22-12 AWG wire.
2. Insert the wire into the open connector slot.
3. Tighten the screw to 4.4–5.2 lb-in. (0.5–0.6Nm) to clamp the wire.

Figure 2.4
Connecting Wire to the Remote Termination Panel

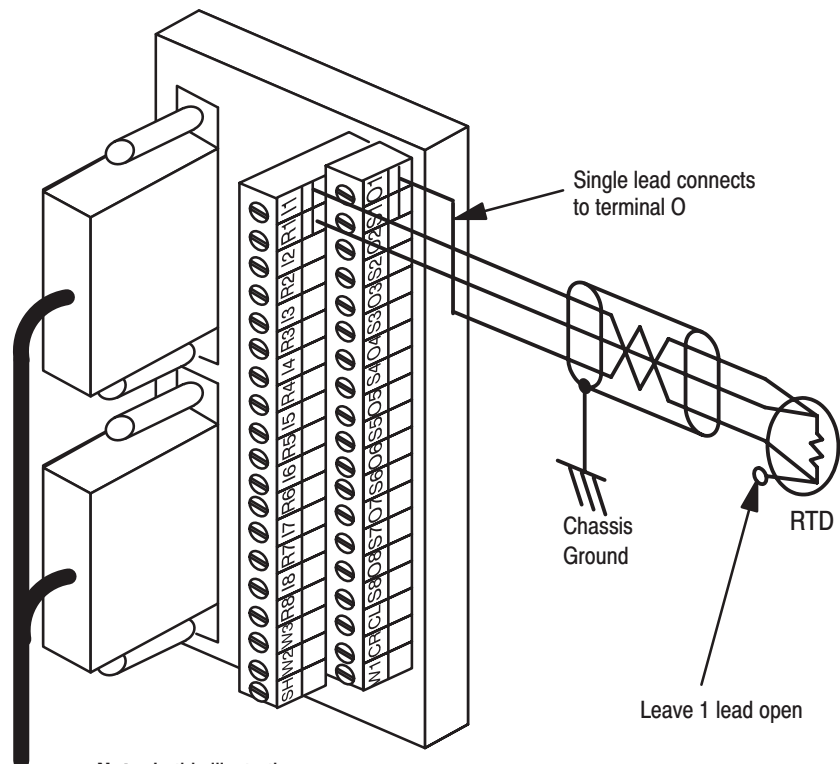
Each channel has four connections: R, I, O, and S.
Field wiring to the RTP is the same for all RTP variations.
Channel 1 uses R1, I1, O1, and S1; channel 2 uses R2, I2, O2, and S2; and so on for the remaining channels.



Connecting 4-Wire Sensors

Figure 2.5 shows how to connect 4-wire sensors to the remote termination panel. A 4-wire sensor has two pairs of leads; one pair for each resistor junction. One wire of the four is not used (it does not matter which one). This leaves three wires – one pair and one single wire. You must connect the single wire to the terminal marked “O_”. You connect the remaining pair of wires to terminals “I_” and “R_”. It doesn’t matter which wire of the pair connects to terminal “I_” and which wire connects to terminal “R_” so long as all three wires are the same AWG gauge.

Figure 2.5
Connecting a 4-Wire Sensor to the Remote Termination Panel



Note: In this illustration:

Terminal O is the 1mA excitation (A) sourcing current

Terminal I is the lead compensation (B) sense input

Terminal R is common (C)

12935-I