Analog I/O Conversion Module
(Cat 1492-CM1771-LA005)

I. Description

This Analog I/O Conversion Module provides for the conversion of (1) 1771, 8 Channel Thermocouple Input module to be converted to (1) 1756, 6 or 8 Channel Thermocouple Input module and consists of the following:

(1) 1771 Thermocouple Module (8ch) to (1) 1756 Thermocouple Module (8ch)
(1) 1492-CM1771-LA005 (Series B)
(1) Cable: 1492-CONACAB005G8
(1) Conversion Mounting Assembly: 1492-MUA… (Table 1)

(1) 1771 Thermocouple Module (8ch) to (1) 1756 Thermocouple Module (6ch)
(2) Conversion Module: 1492-CM1771-LA005
(1) Cable: 1492-CONACAB005G
(1) Conversion Mounting Assembly: 1492-MUA… (Table 1)

This conversion is accomplished without the removal of any field wires from the existing 1771 Swing Arm. The existing 1771 Swing Arm fits directly onto the edge connector of the 1492 Conversion Module. On one end of the 1492 Cable is (1) connector for the Conversion Module. On the other end is the Removable Terminal Block (RTB) for the 1756 I/O module, as shown in the photo below. The I/O signals are routed through the 1492 Conversion Module and the 1492 Cable to the appropriate terminals on the 1756 I/O module per the Wiring Diagrams in Section V. As standard, both portions of the 1492 Cables are 0.5M long, but we also offer a 1.0M cable length. Refer to the footnotes in Table 2 for further details.

1492-CM1771-LA005 Conversion Module

WARNING

De-energize and lockout any and all power to all I/O field devices connected to the A-B 1771 I/O chassis, and the power to the 1771 I/O chassis itself. Ensure all power is de-energized and locked out to any device in the control cabinet where the conversion is to be performed. Ensure work is performed by qualified personnel.

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II. Installation

The 1492 Conversion Modules must be installed in a 1492 Conversion Mounting Assembly (see Table 1 below). A complete System Installation Manual ships with the 1492 Conversion Mounting Assembly.

1) Determine the quantity of each type of 1771 I/O modules used in the 1771 I/O Chassis to be converted.
2) Select the applicable 1492 Conversion Modules from Table 2, Section III.
3) Review the Max Slots for I/O and Chassis Width data from the Table 1 below.
4) Select a 1756 I/O Chassis which has enough I/O Slots.
NOTE: (2) I/O slots are required in the 1756 Chassis for conversions where (1) 1771 I/O module converts to (2) 1756 I/O modules.
5) Select the 1492 Conversion Mounting Assembly which has enough Conversion Module slots.
NOTE: (2) Conversion Module slots are required in the 1492 Conversion Mounting Assembly for conversions where (2) 1771 I/O module convert to (1) 1756 I/O modules.
NOTE: The 1492 Conversion Mounting Assembly has the same Height & Width foot-print as the 1771 Chassis and is designed to use the same mounting hardware. The combined Depth of the 1492 Conversion Mounting Assembly with the 1756 Chassis mounted on top is 10.25 inches (Controller w/key) or 10.0 inches (Controller w/o key). Dimension drawings are included in the System Installation Manual that ships with the 1492 Conversion Mounting Assembly.

Table 1: Bulletin 1771 to 1756 Chassis Conversion

1771 Chassis				1756 Chassis			Conversion Mounting Assembly		
Cat. No.	Max Slots for I/O	Chassis Width②		Cat. No.	Max Slots for I/O	Chassis Width	Cat. No.	Max Slots for Conversion Modules	Chassis Width
		without Power Supply	with Power Supply						
1771-A1B	4	9.01	12.61	1756-A4	3	10.35	1492-MUA1B-A4-A7	4	9.01
				1756-A7	6	14.49			
1771-A2B	8	14.01	17.61	1756-A7	6	14.49	1492-MUA2B-A7-A10	8	14.01
				1756-A10	9	19.02			
1771-A3B1①	12	19.01		1756-A10	9	19.02	1492-MUA3-A10-A13	12	19.01
				1756-A13	12	23.15			
1771-A4B	16	24.01		1756-A13	12	23.15	1492-MUA4-A13-A17	16	24.01
				1756-A17	16	29.06			

Foot Notes:

① 1771-A3B is not listed as it is used for 19 inch wide instrumentation panels.

② Notice that the 1756 Chassis Width sometimes exceeds the 1771 Chassis Width, with or without the Power Supply. The Cover-Plate of the 1492 Conversion Mounting Assembly allows the 1756 Chassis to be Left justified, Right justified or Centered. A complete System Installation Manual ships with the 1492 Conversion Mounting Assembly.

III. Compatibility

1771 Analog I/O Module①	1756 Analog I/O Module①	1492 I/O Conversion Module	1492 Cable②
1771-IXE	1756-IT6I2 (6 channels)	1492-CM1771-LA005	1492-CONACAB005G
1771-IXHR	1756-IT6I2 (6 channels)	1492-CM1771-LA005	1492-CONACAB005G
1771-IXHR	1756-IRT81I (8 channels)	1492-CM1771-LA005 (B)	1492-CONACAB005G8
1771-IXHR	1756-IRT81I (8 channels)	1492-CM1771-LA005 (B)	1492-CONACAB005G8

Foot Notes:

①To understand any issues concerning I/O module compatibility, refer to the Installation Manuals for the specific 1771 and 1756 I/O modules involved.

②The 3 numbers indicate the length of the 1492 Cable. Recommended cable lengths of 0.5M are shown. Additional cable lengths are as follows:
1.0M = 1492-CONACAB010G

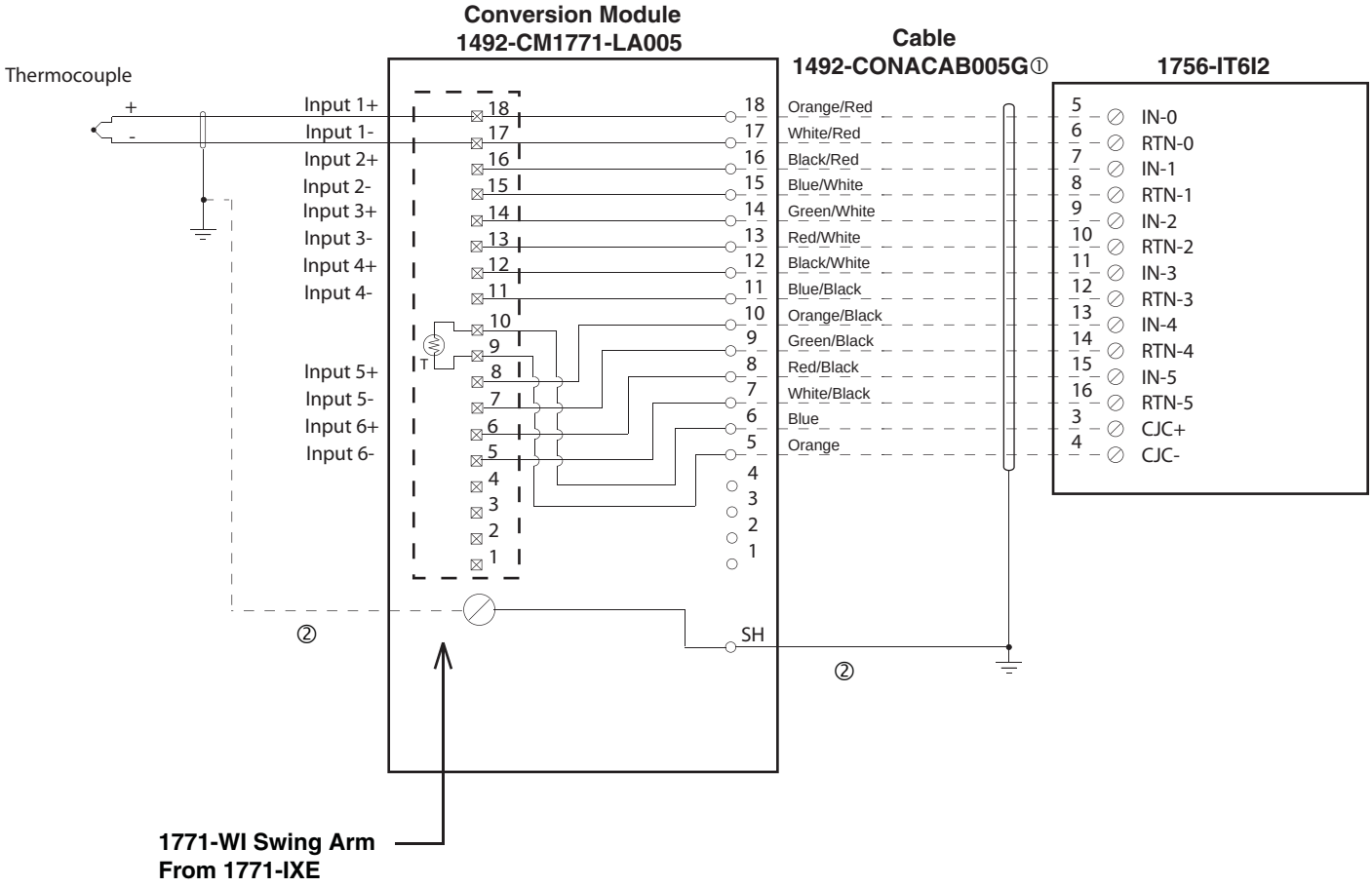
IV. Conversion Module Specifications

(Operating specifications are when installed in the Conversion System base / cover-plate assembly)

Specification	Value
Dimensions	11.81 in. (height) x 4.38 in. (depth) x 1.5 in. (width) 300 mm. (height) x 111.25 mm (depth) x 38.1 mm (width)
Approximate Shipping Weight	X g (Y lbs) (includes carton)
Storage Temperature	-40 to +85 C (-40 to 185° F)
Operating Temperature	0 to 60 C (32 to 40° F)
Operating Humidity	5 to 95% at 60° C (non-condensing)
Shock Non-operating Operating	 50g 30g
Operating Vibration	2g at 10 to 500Hz (Agrees with 1756 I/O module specification)
Maximum Operating Voltage	30 Vdc
Max. Module Operating Current Per Point: Per Module:	 2 Amps 12 Amps ***NOTICE*** Refer to the Wiring Diagram(s) for current limits for a specific configura-
Agency Certifications	UL Classified: Under UL File Number E113724 CSA CE: compliant for all applicable directives
Pollution Degree	2
Environmental Rating	IP20

Conversion: 1771-IXE to 1756-IT6I2

WARNING There are several key application considerations and system specifications (bottom of drawing) when using these components (conversion module, cable and input module). Read and understand these considerations before installation.



Conversion Module Installation and Application Considerations

① This Bul. 1492 cable consists of a cable wired to one 1756-IT6I2 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M).

② SHIELD GROUNDING: In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA005 module. The pre-wired cable used between the 1492-CM1771-LA005 module and the 1756-IT6I2 [1492-CONACAB005G] provides a shield ground lug to ground the shield at the 1756 ControlLogix chassis, this must be connected. Do NOT connect this ground lug to the conversion module grounding stud.

③ The 1771-IXE has 8 input channels. The 1756-IT6I2 only has 6 input channels. This module combination can only be used to convert the signals if 6 or less channels were used on the 1771-IXE.

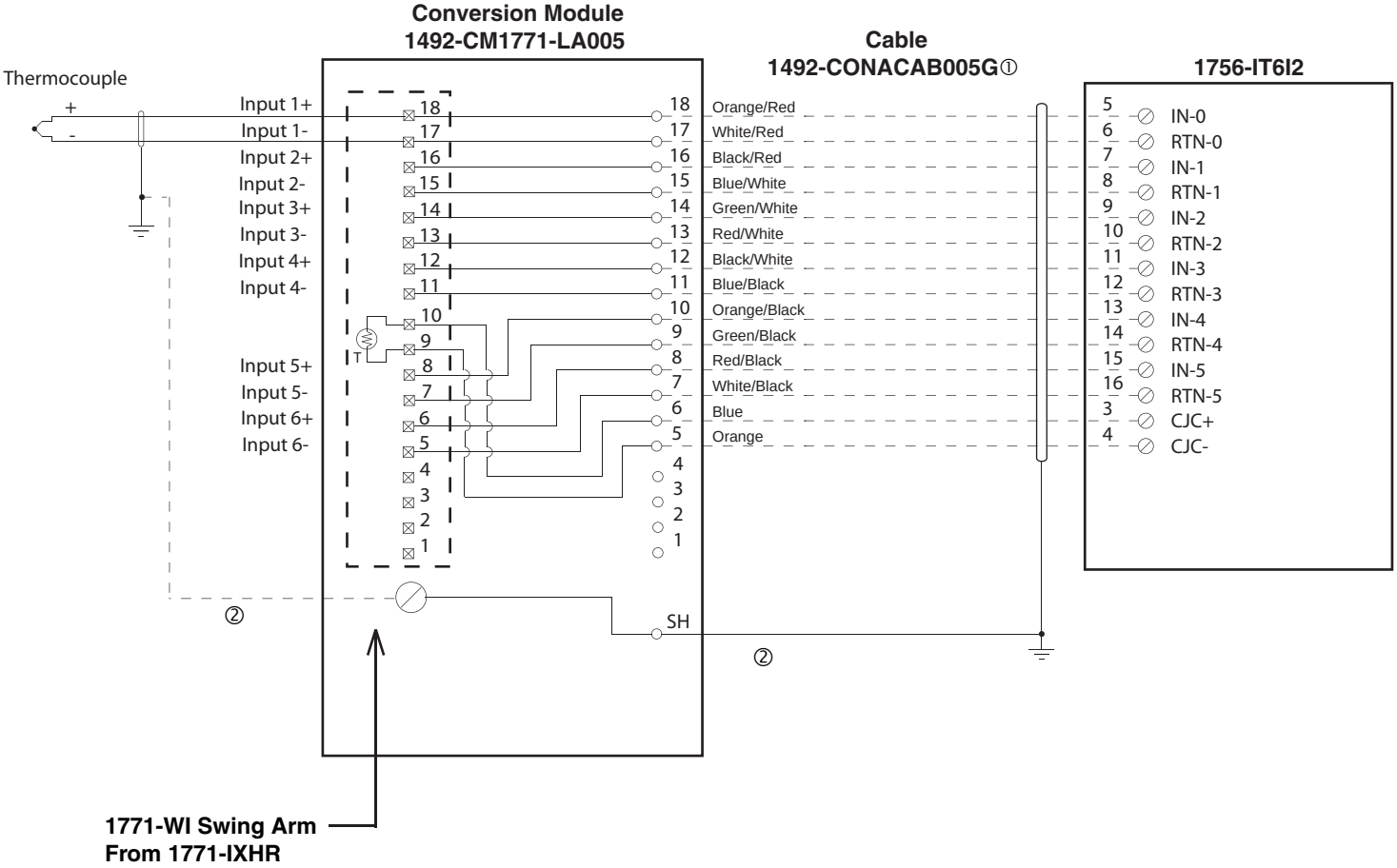
④ The 1771-IXE has built CJC (cold junction compensation) into the swing-arm. The conversion module [1492-CM1771-LA005] passes this CJC signal to the 1756-IT6I2. Ensure that the 1756-IT6I2 is configured for external CJC.

⑤ The 1771-IXE input configuration was software configured, as is the 1756-IT6I2. Please ensure the correct configuration in the 1756-IT6I2.

⑥ Refer to your 1771-IXE and 1756-IT6I2 Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details. [Reference Doc: 41170-951 (Version 02)]

Conversion: 1771-IXHR to 1756-IT6I2

WARNING There are several key application considerations and system specifications (bottom of drawing) when using these components (conversion module, cable and input module). Read and understand these considerations before installation.



Conversion Module Installation and Application Considerations

① This Bul. 1492 cable consists of a cable wired to one 1756-IT6I2 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M).

② SHIELD GROUNDING: In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA005 module. The pre-wired cable used between the 1492-CM1771-LA005 module and the 1756-IT6I2 [1492-CONACAB005G] provides a shield ground lug to ground the shield at the 1756 ControlLogix chassis, this must be connected. Do NOT connect this ground lug to the conversion module grounding stud.

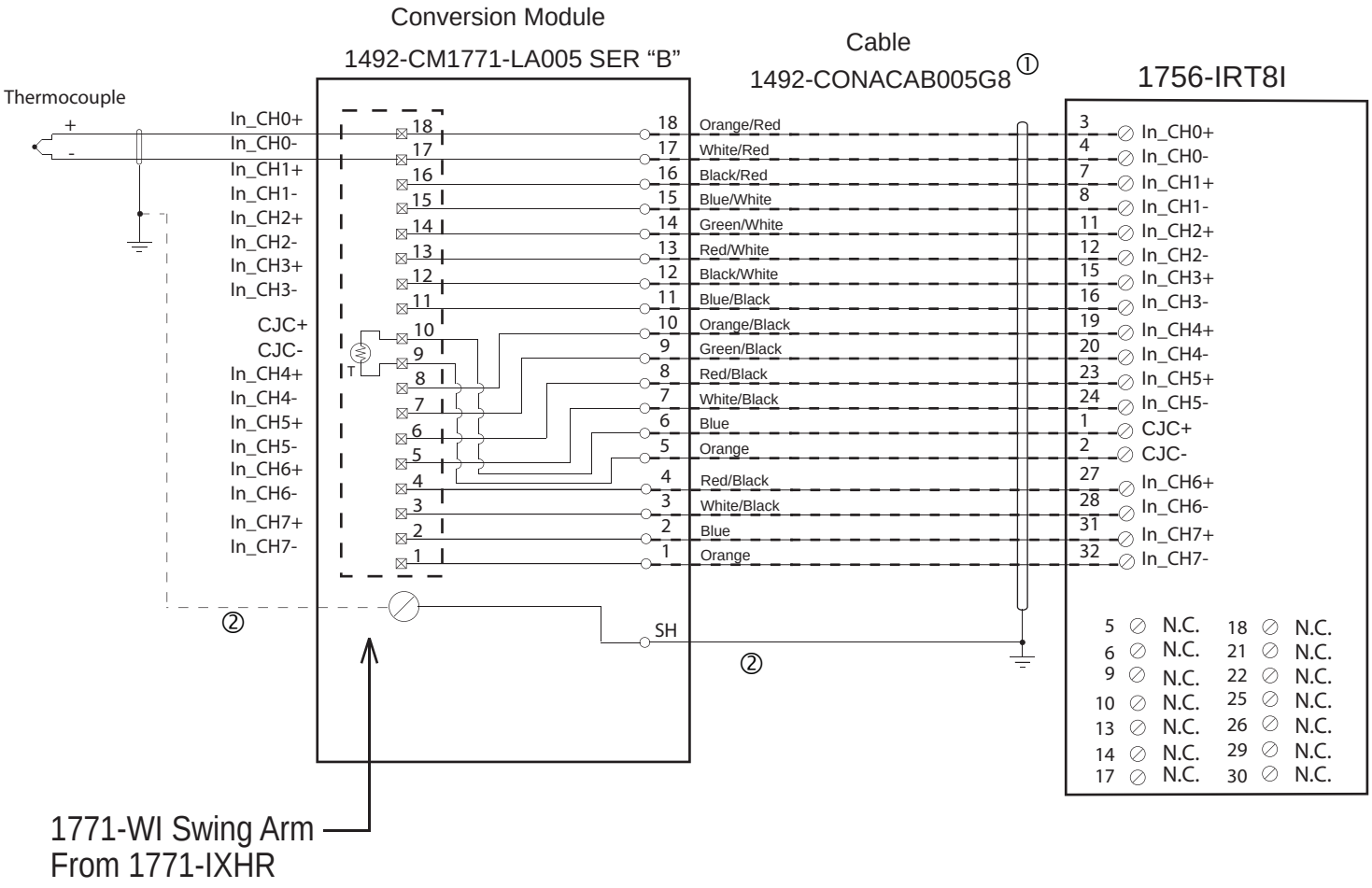
③ The 1771-IXHR has 8 input channels. The 1756-IT6I2 only has 6 input channels. This module combination can only be used to convert the signals if 6 or less channels were used on the 1771-IXHR.

④ The 1771-IXHR has built CJC (cold junction compensation) into the swing-arm. The conversion module [1492-CM1771-LA005] passes this CJC signal to the 1756-IT6I2. Ensure that the 1756-IT6I2 is configured for external CJC.

⑤ The 1771-IXHR input configuration was software configured, as is the 1756-IT6I2. Please ensure the correct configuration in the 1756-IT6I2.

⑥ Refer to your 1771-IXHR and 1756-IT6I2 Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details. [Reference Doc: 41171-035 (Version 00)]

WARNING There are several key application considerations and system specifications (bottom of drawing) when using these components (conversion module, cable and input module). Read and understand these considerations before installation.



CONVERSION MODULE INSTALLATION AND APPLICATION CONSIDERATIONS

① This Bul. 1492 cable consists of a cable wired to one 1756-IRT8I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M).

② SHIELD GROUNDING: In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA005 SER"B" module. The pre-wired cable used between the 1492-CM1771-LA005 SER"B" module and the 1756-IRT8I [1492-CONACAB005G8] provides a shield ground lug to ground the shield at the 1756 ControlLogix chassis, this must be connected. Do NOT connect this ground lug to the conversion module grounding stud.

③ The 1771-IXHR has built CJC (cold junction compensation) into the swing-arm. The conversion module [1492-CM1771-LA005 SER"B"] passes this CJC signal to the 1756-IRT8I. Ensure that the 1756-IRT8I is configured for external CJC.

④ The 1771-IXHR input configuration was software configured, as is the 1756-IRT8I. Please ensure the correct configuration in the 1756-IRT8I.

⑤ Refer to your 1771-IXHR and 1756-IRT8I Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

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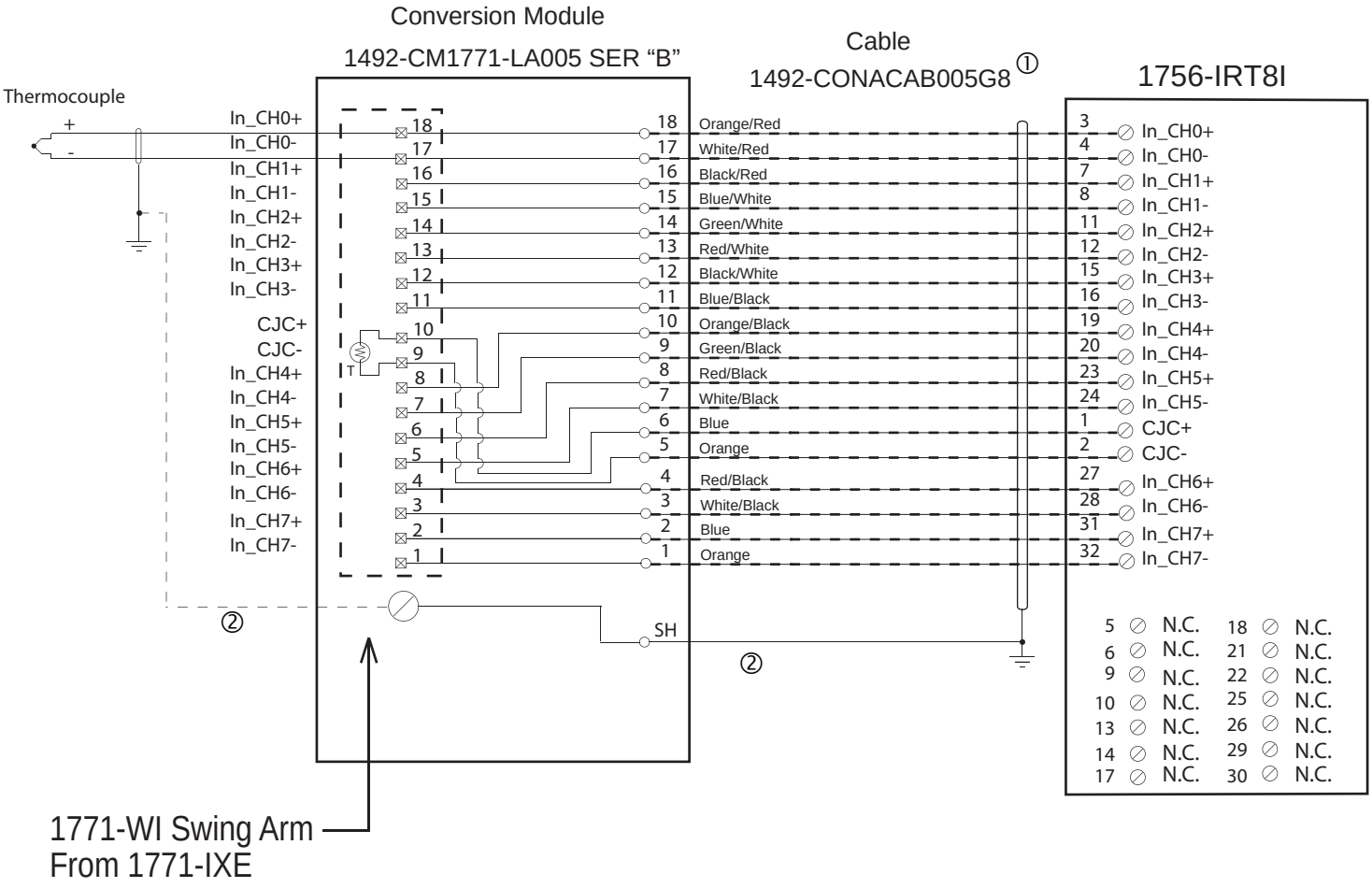
Conversion: 1771-IXE (1) to 1756-IRT8I (1)

WARNING There are several key application considerations and system specifications (bottom of drawing) when using these components (conversion module, cable and input module). Read and understand these considerations before installation.



CONVERSION MODULE INSTALLATION AND APPLICATION CONSIDERATIONS

① This Bul. 1492 cable consists of a cable wired to one 1756-IRT8I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M).

② SHIELD GROUNDING: In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA005 SER"B" module. The pre-wired cable used between the 1492-CM1771-LA005 SER"B" module and the 1756-IRT8I [1492-CONACAB005G8] provides a shield ground lug to ground the shield at the 1756 ControlLogix chassis, this must be connected. Do NOT connect this ground lug to the conversion module grounding stud.

③ The 1771-IXE has built CJC (cold junction compensation) into the swing-arm. The conversion module [1492-CM1771-LA005 SER"B"] passes this CJC signal to the 1756-IRT8I. Ensure that the 1756-IRT8I is configured for external CJC.

④ The 1771-IXE input configuration was software configured, as is the 1756-IRT8I. Please ensure the correct configuration in the 1756-IRT8I.

⑤ Refer to your 1771-IXE and 1756-IRT8I Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

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