Field Wire Conversion Module for Modicon B805-016 or B853-016 to 1756-IA16

(Cat 1492-CM800-LD003)

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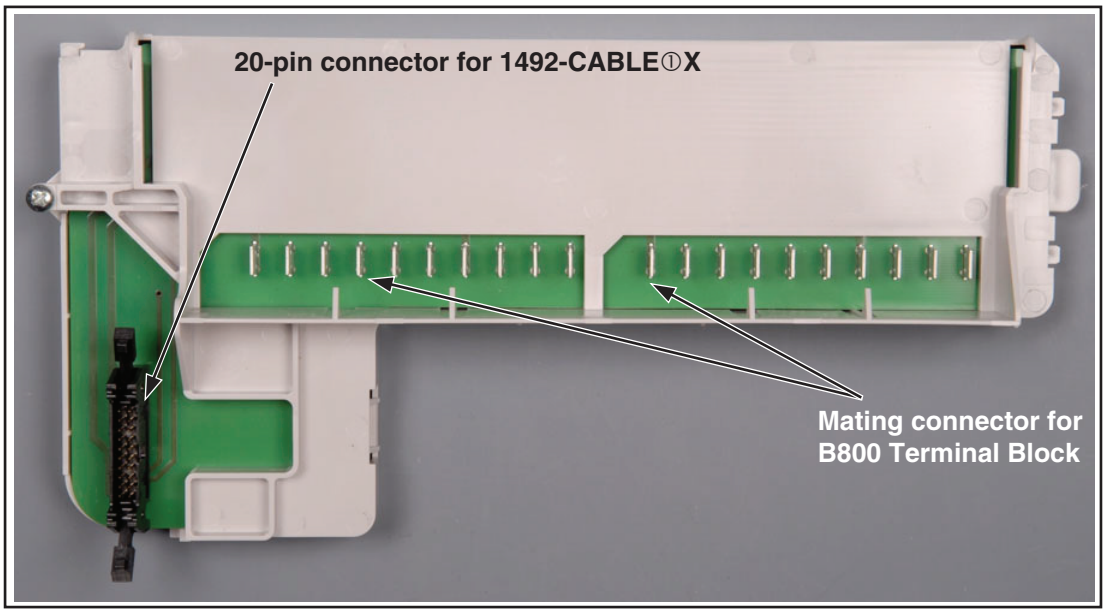
I. Module Description

The 1492-CM800-LD003 conversion module provides field wire signal conversion from a Modicon® B805-016 or B853-016, 80 to 130Vac ①, 16-pt input module to a ControLogix 1756-IA16, 74 to 132Vac ①, 16-pt input module. The conversion module provides the mating connections to the B805-016 or B853-016 swing-arm (terminal block) with the attached field wires. It routes those signals via its 20-pin connector and a 1492-CABLE①X pre-wired cable to compatible terminals of the 1756-IA16 (refer to the Wiring Diagram on pages 2 and 3).



1492-CM800-LD003 Conversion Module

WARNING

De-energize and lockout any and all power to all I/O field devices connected to the Modicon 800 I/O housing, and the power to the 800 I/O housing 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.

① Refer to conversion module Specifications Section: Maximum Operating Voltage

II. Module Installation

The 1492-CM800-LD003 conversion module must be installed in a 1492 conversion base-plate and cover-plate assembly. The installation of the module into the assembly is explained in the Installation Manual that ships with the conversion assembly. For a list of compatible assemblies refer to Appendix A.

III. Conversion Module Compatibility Matrix

Conversion Module	Compatible 800 Input Module	Compatible 1756 Input Module	Required 1492 Cable
1492-CM800-LD003	B805-016	1756-IA16	1492-CABLE②X
1492-CM800-LD003	B853-016	1756-IA16	1492-CABLE②X

② This is the cable length in meters and tenths of meters (e.g. 015 = 1.5 meters). Recommended cable length is 003 (00.3 meters).

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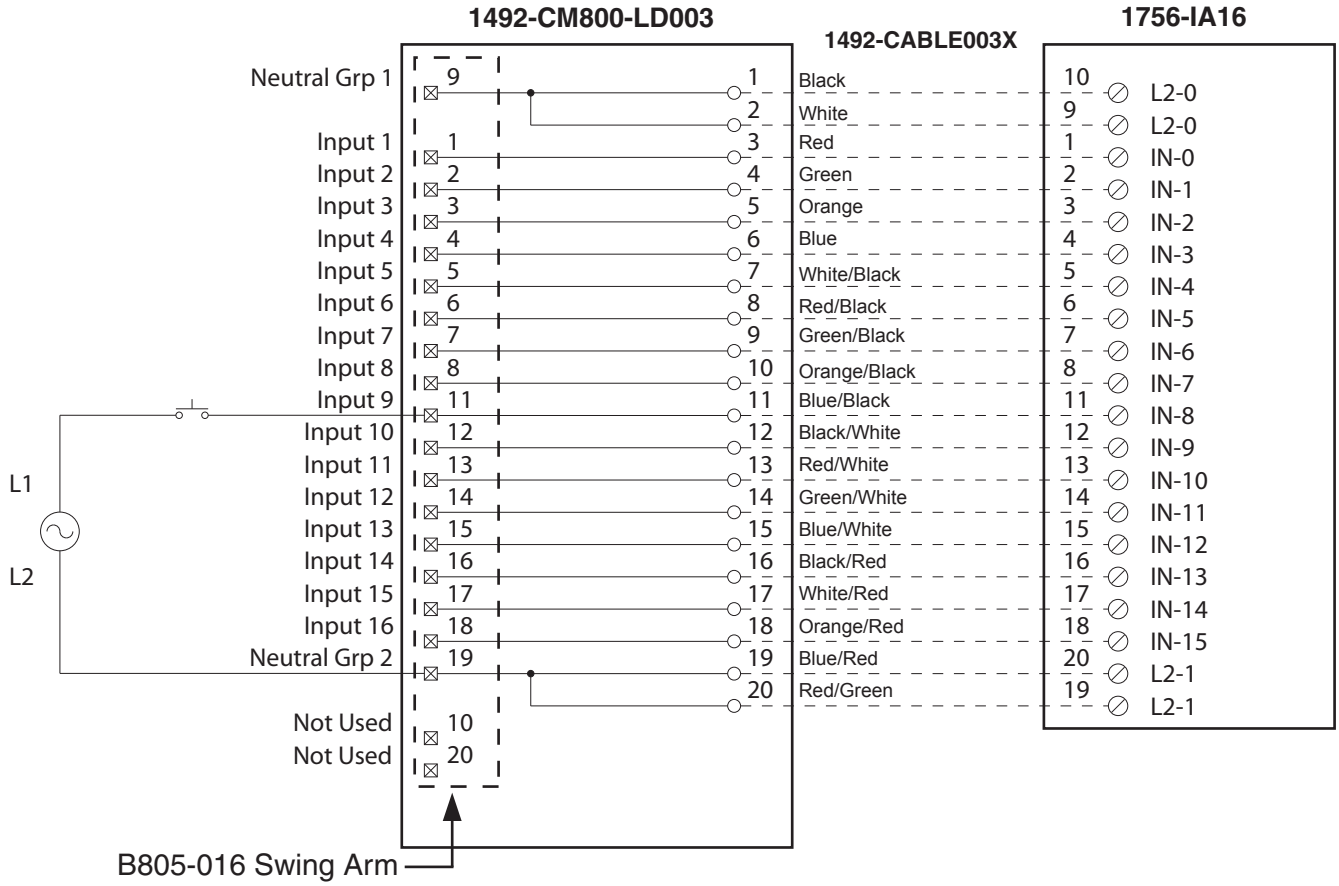
IV. Conversion Module Wiring Diagram

The following diagrams show the connections from the existing B805-016 and B853-016 swing-arm, through the conversion module, 1492 cable and to the 1756-IA16 input module. The diagrams can be used as an aid in possible system troubleshooting.

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

Conversion: B805-016 to 1756-IA16 with 1492-CM800-LD003



Conversion Module Installation and Application Considerations

① The input delay times for the B805-016 module versus 1756-IA16 module are as follows:

	B805-016	***1756-IA16***
a) Off-to-On Delay	6ms	10ms (plus selectable filter)
b) On-to-Off Delay	18ms	8ms (plus selectable filter)

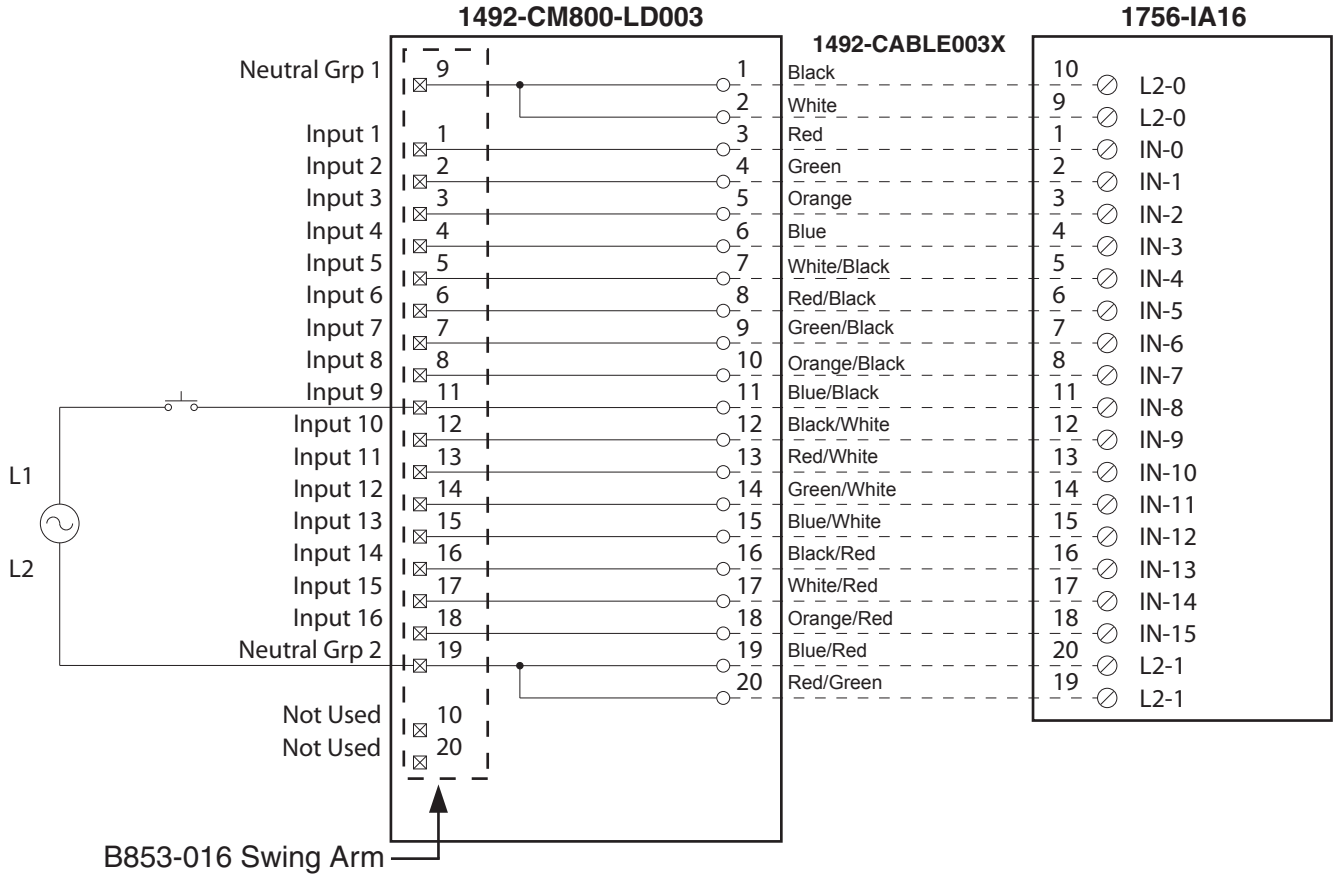
② Refer to your B805-016 and 1756-IA16 Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-752 (Version 03)]

IV. Conversion Module Wiring Diagram (Continued)

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

Conversion: B853-016 to 1756-IA16 with 1492-CM800-LD003



Conversion Module Installation and Application Considerations

① The input delay times for the B853-016 module versus 1756-IA16 module are as follows:

	B853-016	***1756-IA16***
a) Off-to-On Delay	6ms	10ms (plus selectable filter)
b) On-to-Off Delay	18ms	8ms (plus selectable filter)

② Refer to your B853-016 and 1756-IA16 Installation Manual wiring schematics and diagrams for more details.

③ The B853-016 module is rated 115V AC or 125V DC. The 1756-IA16 is AC rated only.

[Reference Doc: 41170-765 (Version 03)]

V. 1492-CM800-LD003 Conversion Module Specifications

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

Specification	Value
Dimensions	288.9 mm (height) x 139.7 mm (depth) x 44.5 mm (width) 11.37 in. (height) x 5.5 in. (depth) x 1.75 in. (width)
Approximate Shipping Weight	300g (0.66 lbs) (includes carton)
Storage Temperature	-40 to +85°C (-40 to +185°F)
Operating Temperature	0 to 55°C (32 to 131°F)
Operating Humidity	5 to 95% at 55°C (non-condensing)
Shock Non-operating Operating	 50g 30g
Operating Vibration	2g @ 10-500Hz
Maximum Operating Voltage	125 Vac at 47 to 63 Hz
Max. Module Operating Current Per Point: Per Module:	 2 Amps (1492-CABLE connection pins are limited to 2A per pin) 12 Amps **NOTICE** Refer to the Wiring Diagram(s) for current limits for a specific configuration.
Agency Certifications	 UL Classified: Under UL File Number E113724 CSA CE: compliant for all applicable directives
Pollution Degree	2
Environmental Rating	IP20

VI. Appendix A - 800 Housing to 1756 Chassis Conversion System Selection Process

1) Determine the number of 800 I/O modules actually used in the 800 I/O Housing to be converted to 1756.
2) Review the data in Column 5 from the below table, and select a 1756 I/O Chassis which meets your conversion needs from Step 1. Ensure the information from the I/O Conversion module table is reviewed first since in some cases, two 1756 modules are needed to replace one 800 I/O module.
3) Once the 1756 Chassis is selected, refer to Column 7 and select the Conversion Assembly.

1	2	3	4	5	6	7
Modicon 800 I/O Housing Cat Number	**Max. Number of 800 Housing Slots for I/O**	**800 Housing Width Dimension**	**1756 I/O Chassis Catalog Number**	**Max. Number of 1756 Chassis Slots for I/O ①**	**1756 Chassis Width ③④ Dimension**	**Conversion Assembly Catalog Number ②**
AS-H810-xxx	3	10.25”	1756-A4	3	10.25”	1492-MUA4-MB3
AS-H819-103	4	17.5”	1756-A7 or 1756-A10	A7 = 6, A10=9	A7 = 14.49” ④ A10 = 19.02”	1492-MUA7-A10-MB4679 ⑤
AS-H819-209	6	17.5”		A7 = 6, A10=9	A7 = 14.49” ④ A10 = 19.02”	
AS-H819-100	7	17.5”		A7 = 6, A10=9	A7 = 14.49” ④ A10 = 19.02”	
AS-H827-103	8	27.1”	1756-A10 or 1756-A13	A10 = 9, A13=12	A10 = 19.02” A13 = 23.15”	1492-MUA10-A13-MB81011 ⑤
AS-H827-209	10	27.1”		A10 = 9, A13=12	A10 = 19.02” A13 = 23.15”	
AS-B827-100	11	27.1”		A10 = 9, A13=12	A10 = 19.02” A13 = 23.15”	

① One chassis slot required for the ControlLogix processor or a remote I/O adapter type module.
② The footprint and mounting dimensions of the 1492 Conversion Assembly (base plate and cover plate) match those of the Modicon I/O Housing.
③ Width dimension includes the 1756 Chassis power supply.
④ Surplus Chassis width as compared to the 800 I/O Housing is divided equally when mounting it on the Conversion Assembly.
⑤ Mounting holes for the 1756 I/O Chassis are pre-drilled and pre-tapped into the Conversion Assembly cover plate.

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