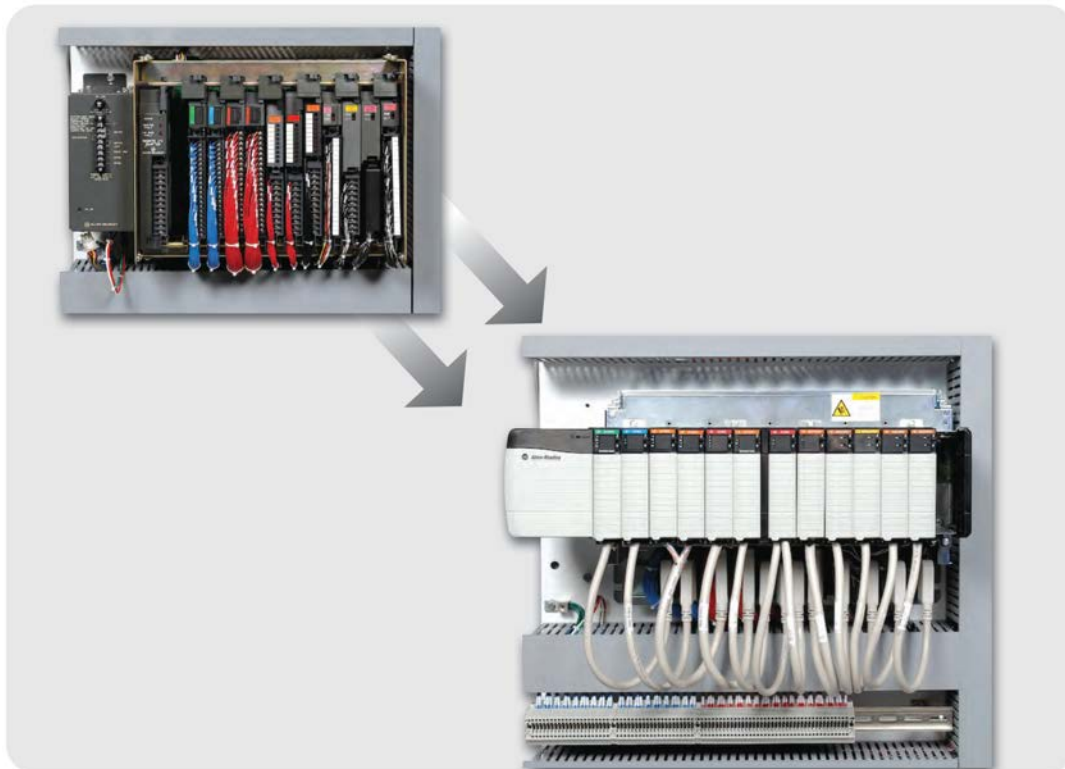


## I/O Wiring Conversion Systems

PLC-5 1771 to ControlLogix 1756



LISTEN.  
THINK.  
SOLVE.

## What's Inside

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## Summary of Changes

This publication contains new and updated information as indicated in the following table.

| Topic                                                                                                            | Page |
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## 1771 I/O to 1756 I/O Conversion Modules



I/O Conversion Modules provide a fast and efficient method for converting 1771 PLC-5 I/O to 1756 ControlLogix I/O. The I/O conversion is accomplished without removing any field wires from the existing swing arm, virtually removing the risk of wiring errors. The existing swing arms fit directly onto the edge connector of the conversion modules.

The cables are pre-wired and have a connector for the conversion module on one end and a removable terminal block (RTB) on the other end. The I/O signals are routed through the conversion module and the cable to the appropriate terminals on the I/O module.

The I/O Conversion System includes:

- Conversion Modules (Ex: Cat No: 1492-CM1771-LD001)
- Cables (Ex: Cat No: 1492-CONACAB005X)
- Conversion Mounting Assembly (Ex: Cat No: 1492-MUA4-A13-A17)

## Conversion Modules, Cables, and Mounting Assemblies



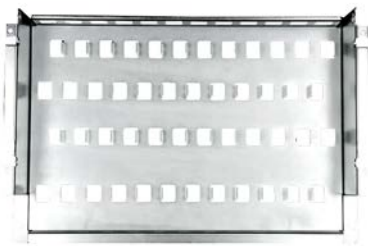
Conversion Modules



Pre-wired Cables, 25-pin



Pre-wired Cables, 37-pin



Base Plate

The Conversion Modules are housed in a Conversion Mounting Assembly Base Plate. This base plate has the same footprint and mounting holes as the 1771 chassis. There is no need to drill and tap new mounting holes in the control cabinet.



Cover Plate

The Conversion Mounting Assembly Cover Plate covers and helps protect the Conversion Modules while providing a place to mount the new 1756 chassis. The Cover Plate has pre-drilled and tapped mounting holes allowing the new 1756 chassis to be mounted in several locations – centered, right-justified or left-justified. There is no need to drill and tap new mounting holes in the control cabinet.

## Conversion Mounting Assembly Selection

Conversion Modules must be installed in a 1492 Conversion Mounting Assembly (see table below, a complete System Installation Manual is included with each assembly. Use the following steps to select the proper conversion mounting assembly:

1. Determine the quantity of each type of 1771 I/O modules used in the I/O chassis to be converted.
2. From the table below:
  - a. Select the applicable 1492 conversion modules
  - b. Review the Max Slots for I/O and Chassis Width data from the table below
  - c. Select a 1756 I/O chassis which has enough I/O slots. Two I/O slots are required in the 1756 chassis for conversions where one 1771 I/O module converts to two 1756 I/O modules.
  - d. Select the conversion mounting assembly which has enough conversion module slots.  
(2) conversion module slots are required in the conversion mounting assembly for conversions where (2) 1771 I/O modules convert to (1) 1756 I/O modules.

The combined depth of the 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 Assembly.

### Chassis Dimensions and Max Slot Information

| 1771 Chassis            |                   |                                      |                   | 1756 Chassis |                   |                       | Conversion Mounting Assembly |                                  |                       |
|-------------------------|-------------------|--------------------------------------|-------------------|--------------|-------------------|-----------------------|------------------------------|----------------------------------|-----------------------|
| Cat. No.                | Max Slots for I/O | Chassis Width <sup>(2)</sup> in (mm) |                   | Cat. No.     | Max Slots for I/O | Chassis Width in (mm) | Cat. No.                     | Max Slots for Conversion Modules | Chassis Width in (mm) |
|                         |                   | Without Power Supply                 | With Power Supply |              |                   |                       |                              |                                  |                       |
| 1771-A1B                | 4                 | 9.01 (229)                           | 12.61 (320)       | 1756-A4      | 3                 | 10.35 (263)           | 1492-MUA1B-A4-A7             | 4                                | 9.01 (229)            |
|                         |                   |                                      |                   | 1756-A7      | 6                 | 14.49 (368)           |                              |                                  |                       |
| 1771-A2B                | 8                 | 14.01 (356)                          | 17.61 (447)       | 1756-A7      | 6                 | 14.49 (368)           | 1492-MUA2B-A7-A10            | 8                                | 14.01 (356)           |
|                         |                   |                                      |                   | 1756-A10     | 9                 | 19.02 (483)           |                              |                                  |                       |
| 1771-A3B <sup>(1)</sup> | 12                | 19.01 (483)                          |                   | 1756-A10     | 9                 | 19.02 (483)           | 1492-MUA3B-A10-A13           | 12                               | 19.01 (483)           |
|                         |                   |                                      |                   | 1756-A13     | 12                | 23.15 (588)           |                              |                                  |                       |
| 1771-A4B                | 16                | 24.01 (610)                          |                   | 1756-A13     | 12                | 23.15 (588)           | 1492-MUA4-A13-A17            | 16                               | 24.01 (610)           |
|                         |                   |                                      |                   | 1756-A17     | 16                | 29.06 (738)           |                              |                                  |                       |

(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.

## Digital Inputs

1. Column 1: find the Catalog Number of the **1771 Module** you are converting from.
2. Column 2: find the Catalog Number of the compatible **1756 Module** you are converting to. In some cases more than one module exists. Review the matrix carefully and review the I/O module Installation Manuals to determine full compatibility.
3. Column 3: find the **Conversion Module** catalog number and order quantity.
4. Column 4: find the **Conversion Cable** catalog number and order quantity.

| 1                                             |      | 2                            |      | 3                                |       | 4                               |       | 5                  |
|-----------------------------------------------|------|------------------------------|------|----------------------------------|-------|---------------------------------|-------|--------------------|
| Converting From<br>1771 Module <sup>(1)</sup> | Qty. | Converting to<br>1756 Module | Qty. | Conversion Module                |       | Conversion Cable <sup>(3)</sup> |       | Wiring Diagram     |
|                                               |      |                              |      | Cat. No.                         | Order | Cat. No.                        | Order | Page               |
| 1771-IA                                       | 2    | 1756-IA16                    | 1    | 1492-CM1771-LD007                | 2     | 1492-C005005XE                  | 1     | <a href="#">19</a> |
| 1771-IA2                                      | 2    | 1756-IA16                    | 1    | 1492-CM1771-LD007                | 2     | 1492-C005005XE                  | 1     | <a href="#">19</a> |
| 1771-IAD                                      | 1    | 1756-IA16                    | 1    | 1492-CM1771-LD001                | 1     | 1492-CONCAB005X                 | 1     | <a href="#">20</a> |
| 1771-IAD                                      | 1    | 1756-IH16I                   | 1    | 1492-CM1771-LD002                | 1     | 1492-CONCAB005Y                 | 1     | <a href="#">21</a> |
| 1771-IAN                                      | 1    | 1756-IA32                    | 1    | 1492-CM1771-LD003                | 1     | 1492-CONCAB005Z                 | 1     | <a href="#">22</a> |
| 1771-IB                                       | 2    | 1756-IB16                    | 1    | 1492-CM1771-LD007                | 2     | 1492-C005005XE                  | 1     | <a href="#">23</a> |
| 1771-IBD                                      | 1    | 1756-IB16                    | 1    | 1492-CM1771-LD001                | 1     | 1492-CONCAB005X                 | 1     | <a href="#">24</a> |
| 1771-IBN                                      | 1    | 1756-IB32                    | 1    | 1492-CM1771-LD003                | 1     | 1492-CONCAB005Z                 | 1     | <a href="#">25</a> |
| 1771-IC                                       | 2    | 1756-IC16                    | 1    | 1492-CM1771-LD007                | 2     | 1492-C005005XE                  | 1     | <a href="#">26</a> |
| 1771-ICD                                      | 1    | 1756-IC16                    | 1    | 1492-CM1771-LD001                | 1     | 1492-CONCAB005X                 | 1     | <a href="#">27</a> |
| 1771-ID                                       | 2    | 1756-IA16I                   | 1    | 1492-CM1771-LD012                | 2     | 1492-C005005XL                  | 1     | <a href="#">28</a> |
| 1771-ID01                                     | 2    | 1756-IM16I                   | 1    | 1492-CM1771-LD012                | 2     | 1492-C005005XL                  | 1     | <a href="#">29</a> |
| 1771-ID16                                     | 1    | 1756-IA16I                   | 1    | 1492-CM1771-LD004                | 1     | 1492-CONCAB005Y                 | 1     | <a href="#">30</a> |
| 1771-ID16                                     | 1    | 1756-IH16I                   | 1    | 1492-CM1771-LD004                | 1     | 1492-CONCAB005Y                 | 1     | <a href="#">31</a> |
| 1771-IG                                       | 2    | 1756-IG16                    | 1    | 1492-CM1771-LA003 <sup>(2)</sup> | 2     | 1492-C005005XS                  | 1     | <a href="#">32</a> |
| 1771-IGD                                      | 1    | 1756-IG16                    | 1    | 1492-CM1771-LD006                | 1     | 1492-CONCAB005X                 | 1     | <a href="#">33</a> |
| 1771-IH                                       | 2    | 1756-IC16                    | 1    | 1492-CM1771-LD007                | 2     | 1492-C005005XE                  | 1     | <a href="#">34</a> |
| 1771-IM                                       | 2    | 1756-IM16I                   | 1    | 1492-CM1771-LD007                | 2     | 1492-C005005XH                  | 1     | <a href="#">35</a> |
| 1771-IMD                                      | 1    | 1756-IM16I                   | 1    | 1492-CM1771-LD002                | 1     | 1492-CONCAB005Y                 | 1     | <a href="#">36</a> |
| 1771-IN                                       | 2    | 1756-IN16                    | 1    | 1492-CM1771-LD007                | 2     | 1492-C005005XE                  | 1     | <a href="#">37</a> |
| 1771-IND                                      | 1    | 1756-IN16                    | 1    | 1492-CM1771-LD001                | 1     | 1492-CONCAB005X                 | 1     | <a href="#">38</a> |
| 1771-IND1                                     | 1    | 1756-IN16                    | 1    | 1492-CM1771-LD001                | 1     | 1492-CONCAB005X                 | 1     | <a href="#">39</a> |
| 1771-IQ                                       | 2    | 1756-IB16I                   | 1    | 1492-CM1771-LD007                | 2     | 1492-C005005XK                  | 1     | <a href="#">40</a> |
| 1771-IQ                                       | 2    | 1756-IB16I                   | 1    | 1492-CM1771-LD014                | 2     | 1492-C005005XJ                  | 1     | <a href="#">41</a> |
| 1771-IQ16                                     | 1    | 1756-IB16I                   | 1    | 1492-CM1771-LD004                | 1     | 1492-CONCAB005Y                 | 1     | <a href="#">42</a> |
| 1771-IT                                       | 2    | 1756-IB16                    | 1    | 1492-CM1771-LD007                | 2     | 1492-C005005XE                  | 1     | <a href="#">43</a> |
| 1771-IV                                       | 2    | 1756-IV16                    | 1    | 1492-CM1771-LD014                | 2     | 1492-C005005XG                  | 1     | <a href="#">44</a> |
| 1771-IVN                                      | 1    | 1756-IV32                    | 1    | 1492-CM1771-LD005                | 1     | 1492-CONCAB005Z                 | 1     | <a href="#">45</a> |

(1) To understand any issues concerning I/O module compatibility refer to the conversion module wiring diagrams and the Installation Manuals for the specific I/O modules involved (with particular attention to the specification and wiring instructions).

(2) These 1771 Digital I/O Modules use a Swing Arm that only mounts to these Analog I/O Conversion Modules, which will therefore be used to provide for these 1771 Digital I/O conversions.

(3) The 005 in the Cat. No. indicates cable length of the 1492 cable. The recommended length of 0.5 M is listed, additional lengths are listed below.

1.0M Cable = 1492-CONCAB010\_, 1.0M/1.0M Cable = 1492-C010010X\_, 0.5M/1.0M Cable = 1492-C005010X\_, 1.0M/0.5M Cable = 1492-C010005X\_

## Digital Outputs

- Column 1: find the catalog number of the **1771 Module** you are converting from.
- Column 2: find the catalog number of the compatible **1756 Module** you are converting to.  
*In some cases more than one module exists. Review the matrix carefully and review the I/O module Installation Manuals to determine full compatibility.*
- Column 3: find the catalog number of the **Conversion Module**.
- Column 4: find the catalog number of the **Conversion Cable**.

| 1                                          |      | 2                         |                     | 3                       |            | 4                               |            | 5                  |
|--------------------------------------------|------|---------------------------|---------------------|-------------------------|------------|---------------------------------|------------|--------------------|
| Converting from 1771 Module <sup>(1)</sup> |      | Converting to 1756 Module |                     | Conversion Module       |            | Conversion Cable <sup>(4)</sup> |            | Wiring Diagram     |
| Cat. No.                                   | Qty. | Cat. No.                  | Qty. <sup>(2)</sup> | Cat. No. <sup>(3)</sup> | Order Qty. | Cat. No.                        | Order Qty. | Page               |
| 1771-OA                                    | 1    | 1756-OA8E                 | 1                   | 1492-CM1771-LD014       | 1          | 1492-CONCAB005U                 | 1          | <a href="#">47</a> |
| 1771-OAD                                   | 1    | 1756-OA16                 | 1                   | 1492-CM1771-LD006       | 1          | 1492-CONCAB005X                 | 1          | <a href="#">48</a> |
| 1771-OAN                                   | 1    | 1756-OA16                 | 2                   | 1492-CM1771-LD013       | 1          | 1492-CONCAB005S3                | 1          | <a href="#">49</a> |
| 1771-OB                                    | 2    | 1756-OB16D                | 1                   | 1492-CM1771-LD014       | 2          | 1492-C005005XF                  | 1          | <a href="#">50</a> |
| 1771-OB0                                   | 1    | 1756-OB16E                | 1                   | 1492-CM1771-LD006       | 1          | 1492-CONCAB005X                 | 1          | <a href="#">51</a> |
| 1771-OB0                                   | 1    | 1756-OC8                  | 2                   | 1492-CM1771-LD008F      | 1          | 1492-CONCAB005S1                | 1          | <a href="#">52</a> |
| 1771-OBDS                                  | 1    | 1756-OB16E                | 1                   | 1492-CM1771-LD006       | 1          | 1492-CONCAB005X                 | 1          | <a href="#">53</a> |
| 1771-OB0                                   | 1    | 1756-OB32                 | 1                   | 1492-CM1771-LD009F      | 1          | 1492-CONCAB005Z                 | 1          | <a href="#">54</a> |
| 1771-OC                                    | 1    | 1756-OC8                  | 1                   | 1492-CM1771-LD014       | 1          | 1492-CONCAB005V                 | 1          | <a href="#">55</a> |
| 1771-OD                                    | 2    | 1756-OA16I                | 1                   | 1492-CM1771-LD012       | 2          | 1492-C005005XM                  | 1          | <a href="#">56</a> |
| 1771-OD16                                  | 1    | 1756-OA16I                | 1                   | 1492-CM1771-LD010F      | 1          | 1492-CONCAB005Y                 | 1          | <a href="#">57</a> |
| 1771-OD0                                   | 1    | 1756-OA16I                | 1                   | 1492-CM1771-LD010F      | 1          | 1492-CONCAB005Y                 | 1          | <a href="#">58</a> |
| 1771-ODZ                                   | 2    | 1756-OA16I                | 1                   | 1492-CM1771-LD012       | 2          | 1492-C005005XP                  | 1          | <a href="#">59</a> |
| 1771-OG                                    | 2    | 1756-OG16                 | 2                   | 1492-CM1771-LA003       | 2          | 1492-C005005XS                  | 1          | <a href="#">60</a> |
| 1771-OGD                                   | 1    | 1756-OG16                 | 2                   | 1492-CM1771-LD006       | 1          | 1492-CONCAB005X                 | 1          | <a href="#">61</a> |
| 1771-OM                                    | 2    | 1756-OA16                 | 1                   | 1492-CM1771-LD014       | 2          | 1492-C005005XG                  | 1          | <a href="#">62</a> |
| 1771-OMD                                   | 1    | 1756-OA16                 | 1                   | 1492-CM1771-LD006       | 1          | 1492-CONCAB005X                 | 1          | <a href="#">63</a> |
| 1771-ON                                    | 1    | 1756-ON8                  | 1                   | 1492-CM1771-LD014       | 1          | 1492-CONCAB005W                 | 1          | <a href="#">64</a> |
| 1771-OND                                   | 1    | 1756-ON8                  | 2                   | 1492-CM1771-LD006       | 1          | 1492-CONCAB005S2                | 1          | <a href="#">65</a> |
| 1771-OQ                                    | 2    | 1756-OB16I                | 1                   | 1492-CM1771-LA004       | 2          | 1492-C005005XT                  | 1          | <a href="#">66</a> |
| 1771-OQ16                                  | 1    | 1756-OB16I                | 1                   | 1492-CM1771-LD010F      | 1          | 1492-CONCAB005Y                 | 1          | <a href="#">67</a> |
| 1771-OR                                    | 2    | 1756-OA16I                | 1                   | 1492-CM1771-LD012       | 2          | 1492-C005005XR                  | 1          | <a href="#">68</a> |
| 1771-OVN                                   | 1    | 1756-OV16E                | 2                   | 1492-CM1771-LD013       | 1          | 1492-CONCAB005S3                | 1          | <a href="#">69</a> |
| 1771-OW                                    | 1    | 1756-OX8I                 | 1                   | 1492-CM1771-LD012       | 1          | 1492-CONCAB005Y                 | 1          | <a href="#">70</a> |
| 1771-OW16                                  | 1    | 1756-OW16I                | 1                   | 1492-CM1771-LD011       | 1          | 1492-CONCAB005Y                 | 1          | <a href="#">71</a> |
| 1771-OWNA                                  | 1    | 1756-OW16I                | 2                   | 1492-CM1771-LD013       | 1          | 1492-CONCAB005S4                | 1          | <a href="#">72</a> |
| 1771-OY                                    | 1    | 1756-OX8I                 | 1                   | 1492-CM1771-LD012       | 1          | 1492-CONCAB005Y                 | 1          | <a href="#">73</a> |
| 1771-OYL                                   | 1    | 1756-OX8I                 | 1                   | 1492-CM1771-LD012       | 1          | 1492-CONCAB005Y                 | 1          | <a href="#">74</a> |
| 1771-OZ                                    | 1    | 1756-OX8I                 | 1                   | 1492-CM1771-LD012       | 1          | 1492-CONCAB005Y                 | 1          | <a href="#">75</a> |
| 1771-OZL                                   | 1    | 1756-OX8I                 | 1                   | 1492-CM1771-LD012       | 1          | 1492-CONCAB005Y                 | 1          | <a href="#">76</a> |

(1) To understand any issues concerning I/O module compatibility refer to the conversion module wiring diagrams and the Installation Manuals for the specific I/O modules involved (with particular attention to the specification and wiring instructions).

(2) Where two is indicated, these modules need to be located directly next to each other in the 1756 chassis.

(3) An "F" at the end of the 1756 catalog number indicates that it is fused to match the functionality of the 1771 module being replaced.

(4) The 005 in the Cat. No. indicates cable length of the 1492 cable. The recommended length of 0.5 M is listed, additional lengths are listed below.

1.0M Cable = 1492-CONCAB010\_, 1.0M/1.0M Cable = 1492-C010010X\_0.5M/1.0M Cable = 1492-C005010X\_, 1.0M/0.5M Cable = 1492-C010005X\_

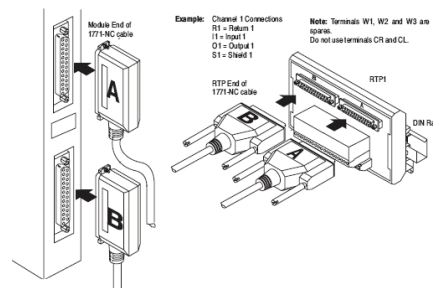
## Analog Inputs and Outputs

- Column 1: find the catalog number of the **1771 Module** you are converting from.
- Column 2: find the catalog number of the compatible **1756 Module** you are converting to.  
*In some cases more than one module exists. Review the matrix carefully and review the I/O module Installation Manuals to determine full compatibility.*
- Column 3: find the catalog number of the **Conversion Module**.
- Column 4: find the catalog number of the **Conversion Cable**.

| 1                           |      | 2                         |                      |      | 3                 |            | 4                  |            | 5                   |
|-----------------------------|------|---------------------------|----------------------|------|-------------------|------------|--------------------|------------|---------------------|
| Converting from 1771 Module |      | Converting to 1756 Module |                      |      | Conversion Module |            | Conversion Cable   |            | Wiring Diagram      |
| Cat. No.                    | Qty. | Cat. No.                  | Description          | Qty. | Cat. No.          | Order Qty. | Cat. No.           | Order Qty. | Page                |
| 1771-IFE                    | 1    | 1756-IF16                 | Differential Current | 1    | 1492-CM1771-LA002 | 1          | 1492-CONACAB005D   | 1          | <a href="#">77</a>  |
|                             |      |                           | Differential Voltage | 1    | 1492-CM1771-LA002 | 1          | 1492-CONACAB005C   | 1          | <a href="#">78</a>  |
|                             |      |                           | Single End Current   | 1    | 1492-CM1771-LA001 | 1          | 1492-CONACAB005B   | 1          | <a href="#">79</a>  |
|                             |      |                           | Single End Voltage   | 1    | 1492-CM1771-LA001 | 1          | 1492-CONACAB005A   | 1          | <a href="#">80</a>  |
| 1771-IFF                    | 1    | 1756-IF16                 | Differential Current | 1    | 1492-CM1771-LA002 | 1          | 1492-CONACAB005D   | 1          | <a href="#">81</a>  |
|                             |      |                           | Differential Voltage | 1    | 1492-CM1771-LA002 | 1          | 1492-CONACAB005C   | 1          | <a href="#">82</a>  |
|                             |      |                           | Single End Current   | 1    | 1492-CM1771-LA001 | 1          | 1492-CONACAB005B   | 1          | <a href="#">83</a>  |
|                             |      |                           | Single End Voltage   | 1    | 1492-CM1771-LA001 | 1          | 1492-CONACAB005A   | 1          | <a href="#">84</a>  |
| 1771-IL                     | 1    | 1756-IF8I                 | Current              | 1    | 1492-CM1771-LA004 | 1          | 1492-CONACAB005K8  | 1          | <a href="#">85</a>  |
|                             |      |                           | Voltage              | 1    | 1492-CM1771-LA004 | 1          | 1492-CONACAB005L8  | 1          | <a href="#">86</a>  |
|                             |      | 1756-IF6I<br>(6-ch)       | Current              | 1    | 1492-CM1771-LA004 | 1          | 1492-CONACAB005K   | 1          | <a href="#">87</a>  |
|                             |      |                           | Voltage              | 1    | 1492-CM1771-LA004 | 1          | 1492-CONACAB005L   | 1          | <a href="#">88</a>  |
|                             |      | 1756-IF6I<br>(2x 4-ch)    | Current              | 2    | 1492-CM1771-LA004 | 1          | 1492-CONACAB005T1  | 1          | <a href="#">89</a>  |
|                             |      |                           | Voltage              | 2    | 1492-CM1771-LA004 | 1          | 1492-CONACAB005T2  | 1          | <a href="#">90</a>  |
| 1771-IR                     | 1    | 1756-IRT8I                | RTD                  | 1    | 1492-CM1771-LA004 | 1          | 1492-CONACAB005F8  | 1          | <a href="#">91</a>  |
|                             |      | 1756-IR6I                 | RTD                  | 1    | 1492-CM1771-LA004 | 1          | 1492-CONACAB005F   | 1          | <a href="#">92</a>  |
| 1771-IXE                    | 1    | 1756-IT6I2                | Thermocouple         | 1    | 1492-CM1771-LA005 | 1          | 1492-CONACAB005G   | 1          | <a href="#">93</a>  |
|                             |      | 1756-IRT8I                | Thermocouple         | 1    | 1492-CM1771-LA005 | 1          | 1492-CONACAB005G8  | 1          | <a href="#">94</a>  |
| 1771-IXHR                   | 1    | 1756-IT6I2                | Thermocouple         | 1    | 1492-CM1771-LA005 | 1          | 1492-CONACAB005G   | 1          | <a href="#">95</a>  |
|                             |      | 1756-IRT8I                | Thermocouple         | 1    | 1492-CM1771-LA005 | 1          | 1492-CONACAB005G8  | 1          | <a href="#">96</a>  |
| 1771-OFE1                   | 1    | 1756-OF6VI                | Voltage              | 1    | 1492-CM1771-LA003 | 1          | 1492-CONACAB005E   | 1          | <a href="#">97</a>  |
|                             | 1    | 1756-OF8I                 | Voltage              | 1    | 1492-CM1771-LA003 | 1          | 1492-CONACAB005E8V | 1          | <a href="#">98</a>  |
|                             | 2    | 1756-OF8I                 | Voltage              | 1    | 1492-CM1771-LA003 | 2          | 1492-C005005E8V    | 1          | <a href="#">99</a>  |
| 1771-OFE2                   | 1    | 1756-OF6CI                | Current              | 1    | 1492-CM1771-LA003 | 1          | 1492-CONACAB005E   | 1          | <a href="#">100</a> |
|                             | 1    | 1756-OF8I                 | Current              | 1    | 1492-CM1771-LA003 | 1          | 1492-CONACAB005E8C | 1          | <a href="#">101</a> |
|                             | 2    | 1756-OF8I                 | Current              | 1    | 1492-CM1771-LA003 | 2          | 1492-C005005E8C    | 1          | <a href="#">102</a> |

## 1771-N High Resolution Isolated Analog I/O Modules

The 1771-N High Resolution Analog I/O modules are designed for use with 1771-RTPs (Remote Termination Panels) and connected by a 6 or 15 foot cable (Cat. No. 1771-NC6 or 1771-NC15). The conversion of the 1771-N Series I/O to a 1756 ControlLogix I/O can be accomplished without the removal of any field wires from the existing 1771-RTPs.



Simply replace the (2) existing 1771 cables with (2) of the following cables in the table below. Each of these cables has a connector on one end that attaches directly to the existing 1771-RTP and a 1756 RTB (Removable Terminal Block) on the other end for connection to the ControlLogix I/O module.

Use the following steps to select the proper conversion cables:

1. Column 2: find the catalog number of the 1771 Digital I/O module.
2. In column 3, find the catalog number of the compatible 1756 Digital I/O module. In some cases more than one module is required. Review the matrix and the I/O module installation manuals to determine full compatibility
3. In column 4, find the catalog numbers and descriptions of the appropriate cables.

| 1                                   | 2             |      | 3           |      | 4                                       |                                 |                   | 5                   |
|-------------------------------------|---------------|------|-------------|------|-----------------------------------------|---------------------------------|-------------------|---------------------|
| I/O Description                     | Convert From: |      | Convert To: |      | Cable Description                       | Conversion Cable Catalog Number |                   | Wiring Diagram Page |
|                                     | 1771 Module   | Qty. | 1756 Module | Qty. |                                         | Cable "A"                       | Cable "B"         |                     |
| Standard 1771-N High Resolution I/O | 1771-NOC      | 1    | 1756-OF8I   | 1    | Current (8 Ch)                          | 1492-CONACAB020N88              |                   | <a href="#">103</a> |
|                                     |               | 1    | 1756-OF8    | 1    | Current (8 CH)                          | 1492-CONACAB020N8               |                   | <a href="#">104</a> |
|                                     |               | 1    | 1756-OF6CI  | 2    | Current (4/4 CH)                        | 1492-CONACAB020N1               | 1492-CONACAB020N1 | <a href="#">105</a> |
|                                     | 1771-NIS      | 1    | 1756-IF8I   | 1    | Current (8 CH)                          | 1492-CONACAB020N38              |                   | <a href="#">106</a> |
|                                     |               | 1    | 1756-IF6CIS | 2    | Current (4/4 CH)                        | 1492-CONACAB020N2               | 1492-CONACAB020N2 | <a href="#">107</a> |
|                                     | 1771-NIV      | 1    | 1756-IF8I   | 1    | Current (8 CH)                          | 1492-CONACAB020N38              |                   | <a href="#">108</a> |
|                                     |               | 1    | 1756-IF6I   | 2    | Current (4/4 CH)                        | 1492-CONACAB020N3               | 1492-CONACAB020N3 | <a href="#">109</a> |
|                                     |               | 1    | 1756-IF8I   | 1    | Voltage (8 CH)                          | 1492-CONACAB020N78              |                   | <a href="#">110</a> |
|                                     |               | 1    | 1756-IF6I   | 2    | Voltage (4/4 CH)                        | 1492-CONACAB020N7               | 1492-CONACAB020N7 | <a href="#">111</a> |
|                                     |               | 1    | 1756-IF6I   | 2    | Current (A - 4 CH) / Voltage (B - 4 CH) | 1492-CONACAB020N3               | 1492-CONACAB020N7 | <a href="#">112</a> |
|                                     |               | 1    | 1756-IF6I   | 2    | Voltage (A - 4 CH) / Current (B - 4 CH) | 1492-CONACAB020N7               | 1492-CONACAB020N3 | <a href="#">113</a> |
|                                     | 1771-NR       | 1    | 1756-IRT8I  | 1    | RTD (8 CH)                              | 1492-CONACAB020N48              |                   | <a href="#">114</a> |
|                                     |               | 1    | 1756-IR6I   | 2    | RTD (4/4 CH)                            | 1492-CONACAB020N4               | 1492-CONACAB020N4 | <a href="#">115</a> |
|                                     | 1771-NT1      | 1    | 1756-IRT8I  | 1    | Thermocouple (8 CH)                     | 1492-CONACAB020N68              |                   | <a href="#">116</a> |
|                                     |               | 1    | 1756-IT6I   | 2    | Thermocouple (4/4 CH)                   | 1492-CONACAB020N5               | 1492-CONACAB020N5 | <a href="#">117</a> |
|                                     | 1771-NOV      | 1    | 1756-OF8I   | 1    | Voltage (8 CH)                          | 1492-CONACAB020N18              |                   | <a href="#">118</a> |
|                                     |               | 1    | 1756-OF6VI  | 2    | Voltage (4/4 CH)                        | 1492-CONACAB020N5               | 1492-CONACAB020N1 | <a href="#">119</a> |
|                                     | 1771-NIV1     | 1    | 1756-IF8I   | 1    | Voltage (8 CH)                          | 1492-CONACAB020N78              |                   | <a href="#">120</a> |
|                                     |               | 1    | 1756-IF6I   | 2    | Voltage (4/4 CH)                        | 1492-CONACAB020N7               | 1492-CONACAB020N7 | <a href="#">121</a> |
|                                     | 1771-NT2      | 1    | 1756-IRT8I  | 1    | Thermocouple (8 CH)                     | 1492-CONACAB020N68              |                   | <a href="#">122</a> |
|                                     |               | 1    | 1756-IT6I2  | 2    | Thermocouple (4/4 CH)                   | 1492-CONACAB020N6               | 1492-CONACAB020N6 | <a href="#">123</a> |

| 1                                      | 2             |      | 3           |      | 4                   |                                 |                    | 5                   |
|----------------------------------------|---------------|------|-------------|------|---------------------|---------------------------------|--------------------|---------------------|
| I/O Description                        | Convert From: |      | Convert To: |      | Cable Description   | Conversion Cable Catalog Number |                    | Wiring Diagram Page |
|                                        | 1771 Module   | Qty. | 1756 Module | Qty. |                     | Cable "A"                       | Cable "B"          |                     |
| Combination 1771-N High Resolution I/O | 1771-NIVR     | 1    | 1756-IRT8I  | 1    | RTD (4 CH)          | -                               | 1492-CONACAB020N44 | <a href="#">124</a> |
|                                        |               |      | 1756-IF8I   |      | Voltage (4 CH)      | 1492-CONACAB020N74              | -                  |                     |
|                                        |               |      | 1756-IR6I   |      | RTD (4 CH)          | -                               | 1492-CONACAB020N4  | <a href="#">125</a> |
|                                        |               |      | 1756-IF6I   |      | Voltage (4 CH)      | 1492-CONACAB020N7               | -                  |                     |
|                                        |               |      | 1756-IRT8I  |      | RTD (4 CH)          | -                               | 1492-CONACAB020N44 | <a href="#">126</a> |
|                                        |               |      | 1756-IF8I   |      | Current (4 CH)      | 1492-CONACAB020N34              | -                  |                     |
|                                        |               |      | 1756-IR6I   |      | RTD (4 CH)          | -                               | 1492-CONACAB020N4  | <a href="#">127</a> |
|                                        |               |      | 1756-IF6I   |      | Current (4 CH)      | 1492-CONACAB020N3               | -                  |                     |
|                                        | 1771-NIVT     | 1    | 1756-IRT8I  | 1    | Thermocouple (4 CH) | -                               | 1492-CONACAB020N54 | <a href="#">128</a> |
|                                        |               |      | 1756-IF8I   |      | Voltage (4 CH)      | 1492-CONACAB020N74              | -                  |                     |
|                                        |               |      | 1756-IT6I   |      | Thermocouple (4 CH) | -                               | 1492-CONACAB020N5  | <a href="#">129</a> |
|                                        |               |      | 1756-IF6I   |      | Voltage (4 CH)      | 1492-CONACAB020N7               | -                  |                     |
|                                        |               |      | 1756-IRT8I  |      | Thermocouple (4 CH) | -                               | 1492-CONACAB020N54 | <a href="#">130</a> |
|                                        |               |      | 1756-IF8I   |      | Current (4 CH)      | 1492-CONACAB020N34              | -                  |                     |
|                                        |               |      | 1756-IT6I   |      | Thermocouple (4 CH) | -                               | 1492-CONACAB020N5  | <a href="#">131</a> |
|                                        |               |      | 1756-IF6I   |      | Current (4 CH)      | 1492-CONACAB020N3               | -                  |                     |

## Specifications

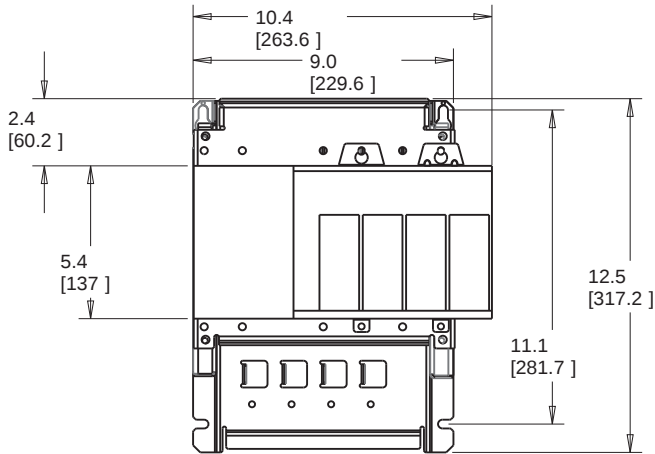
| Attribute                   |              | Value                                            |
|-----------------------------|--------------|--------------------------------------------------|
| Dimensions (H x D x W)      |              | 300 x 111.25 x 38.1 mm (11.81 x 4.38 x 1.5 in.)  |
| Approximate Shipping Weight |              | 260g (0.57 lb)                                   |
| Storage Temperature         |              | Storage Temperature -40...+85 °C (-40...+185 °F) |
| Operating Temperature       |              | Operating Temperature 0...+60 °C (+32...+140 °F) |
| Operating Humidity          |              | Operating Humidity 5...95% at +55 °C (+131 °F)   |
| Shock                       | Nonoperating | 50 g                                             |
|                             | Operating    | 30 g                                             |
| Operational Vibration       |              | 2 g at 10...500 Hz                               |
| Agency Certifications       |              | UL Classified (UL File No. E113724)              |
| CE Certifications           |              | Compliant for all applicable directives          |
| Pollution Degree            |              | 2                                                |
| Environmental Rating        |              | IP20                                             |

Notes:

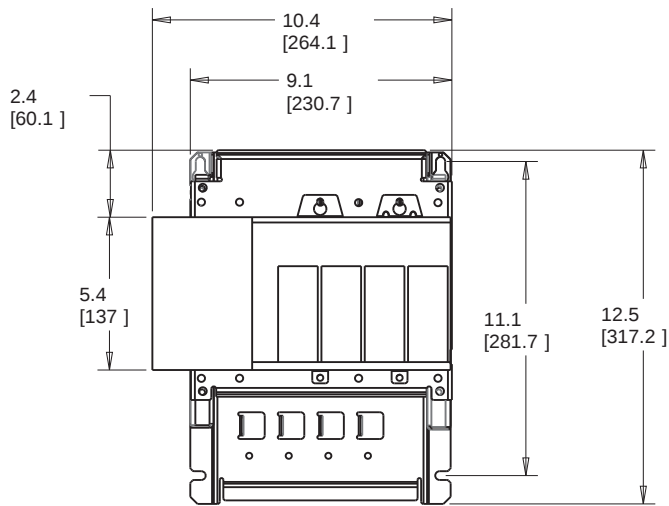
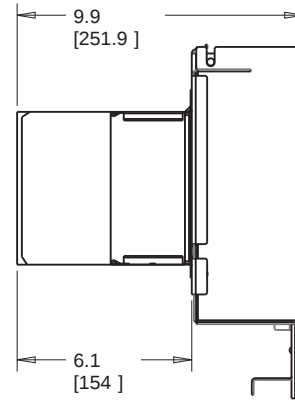
# Approximate Dimensions

Dimensions are in. (mm).

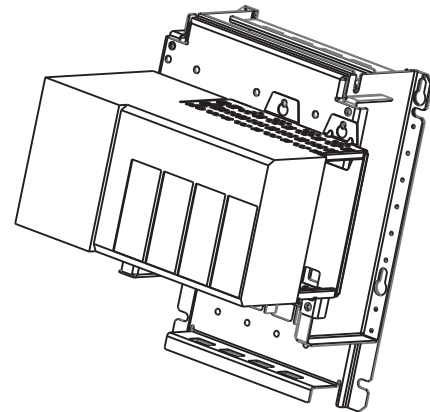
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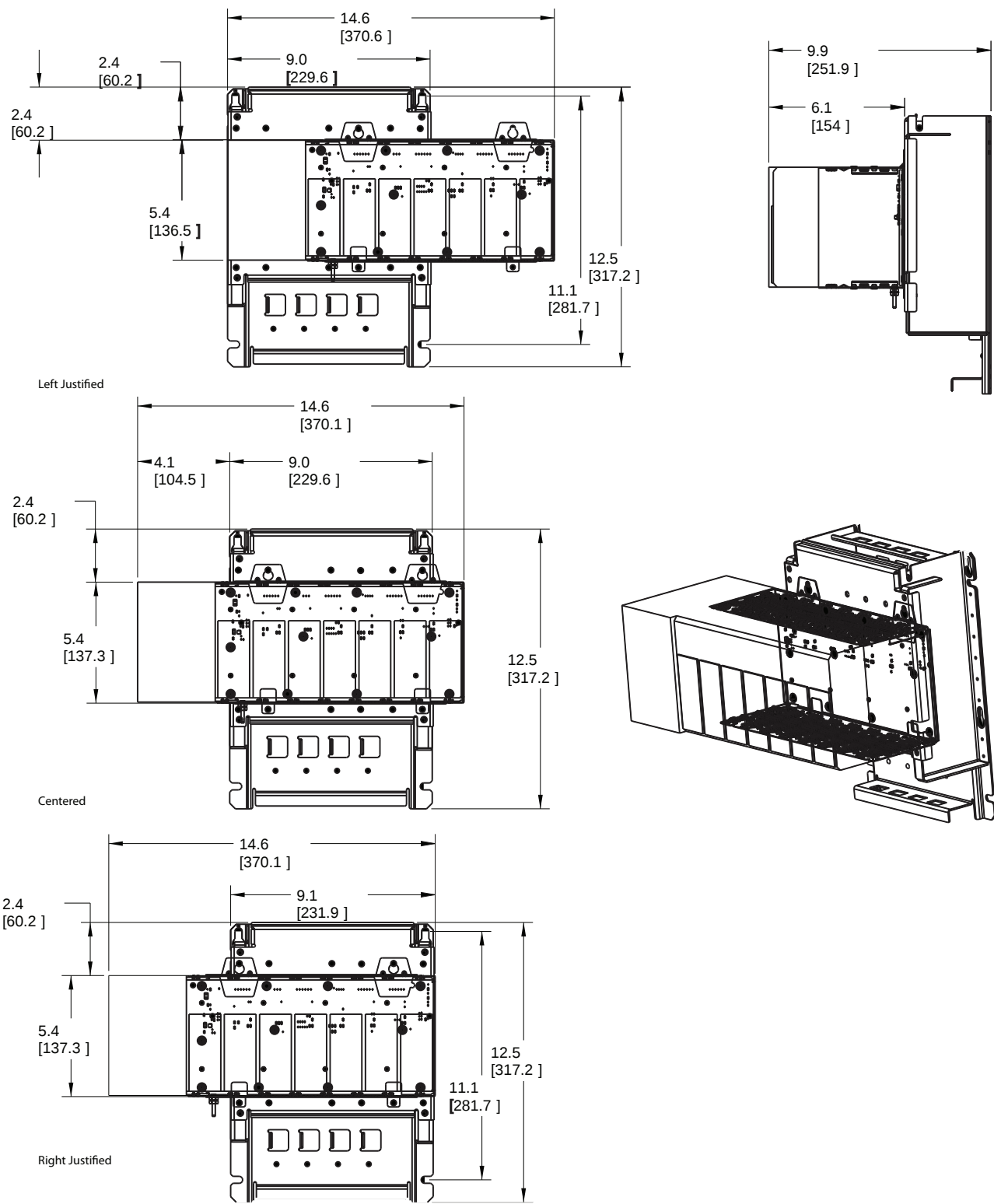
Left Justified



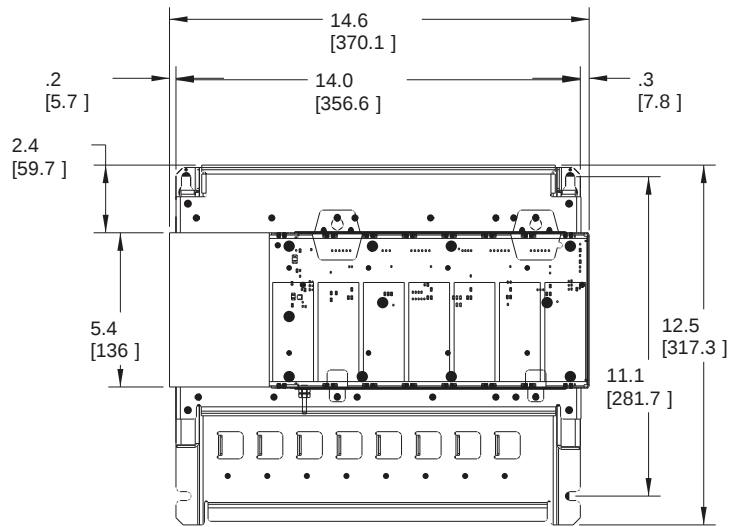
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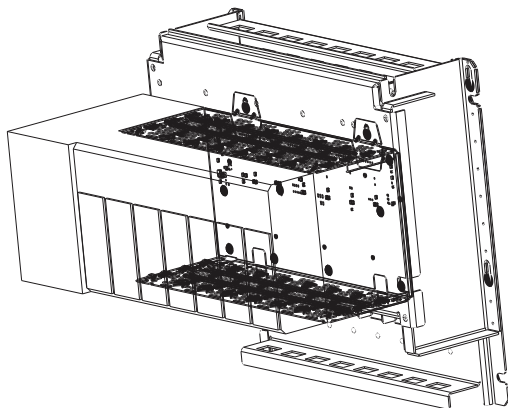
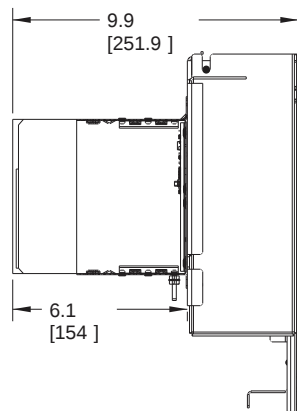
Cat No. MUA1B-A4-A7 used with Cat No. 1756-A7



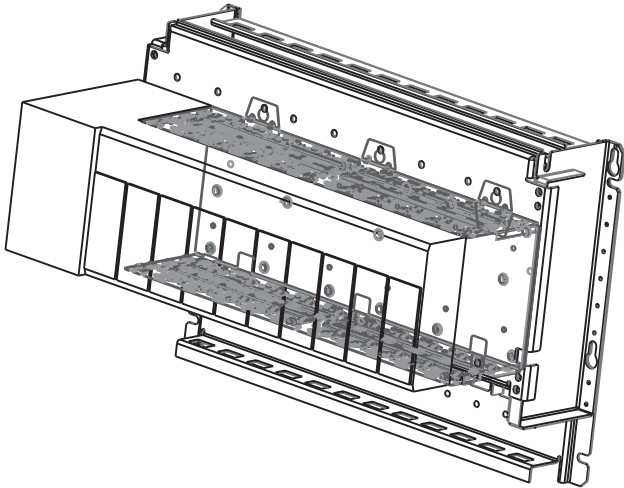
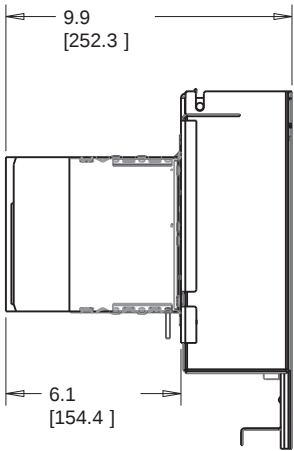
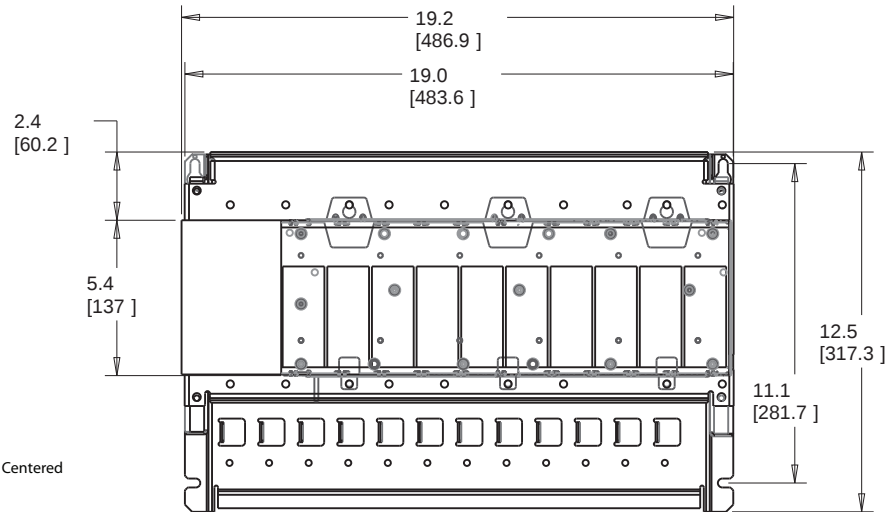
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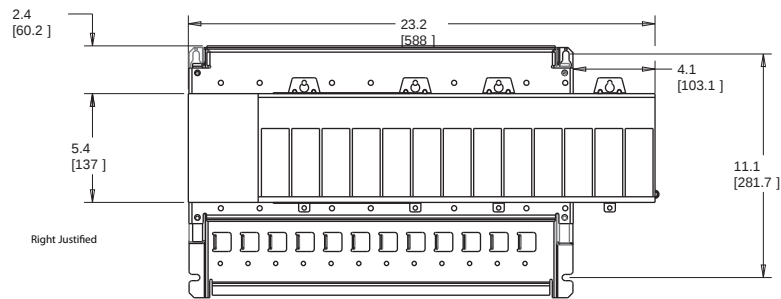
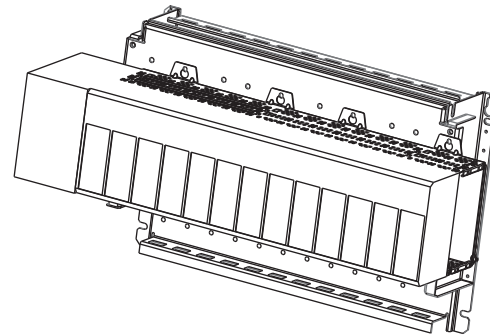
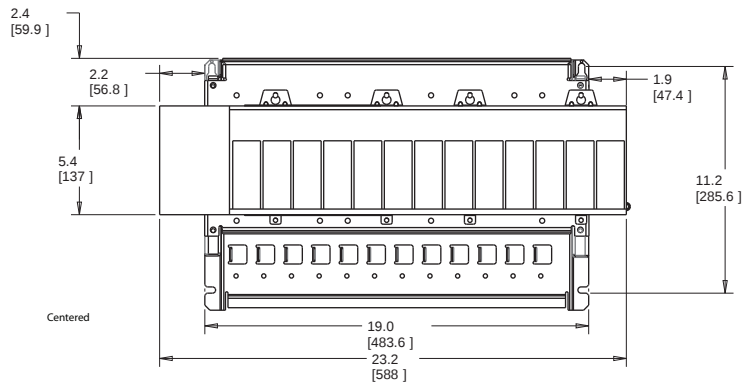
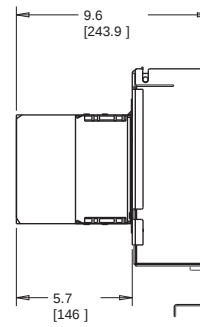
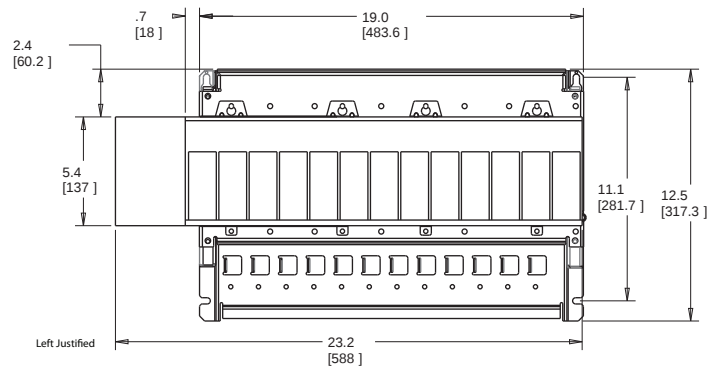
Centered



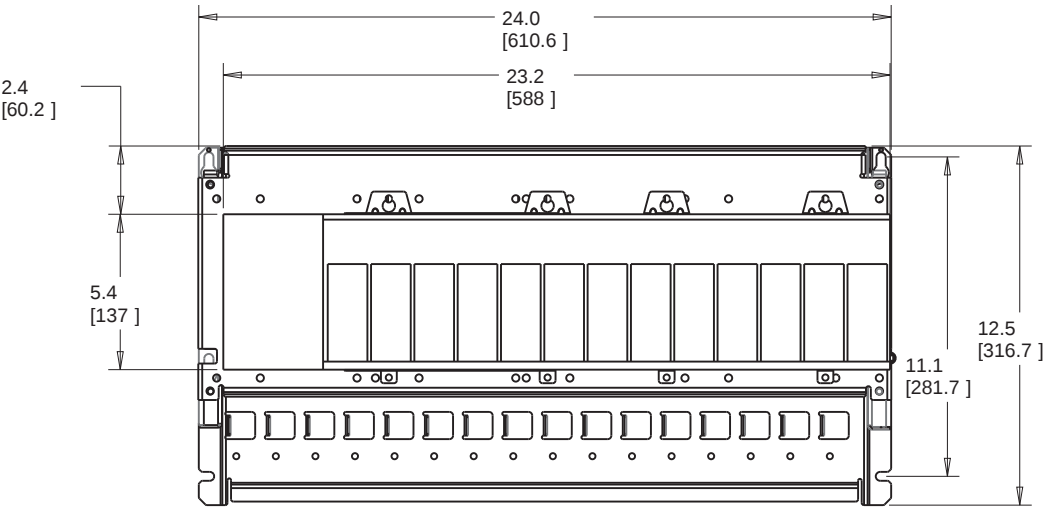
Cat No. MUA3-A10-A13 used with Cat No. 1756-A10



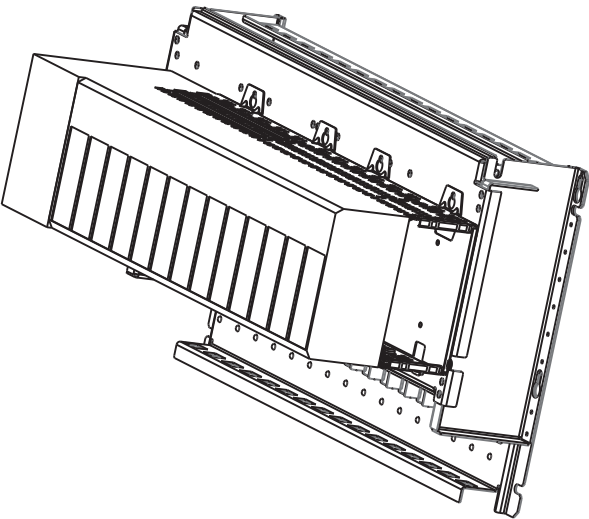
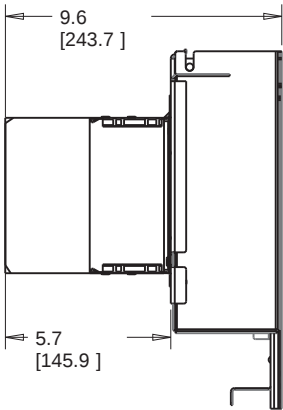
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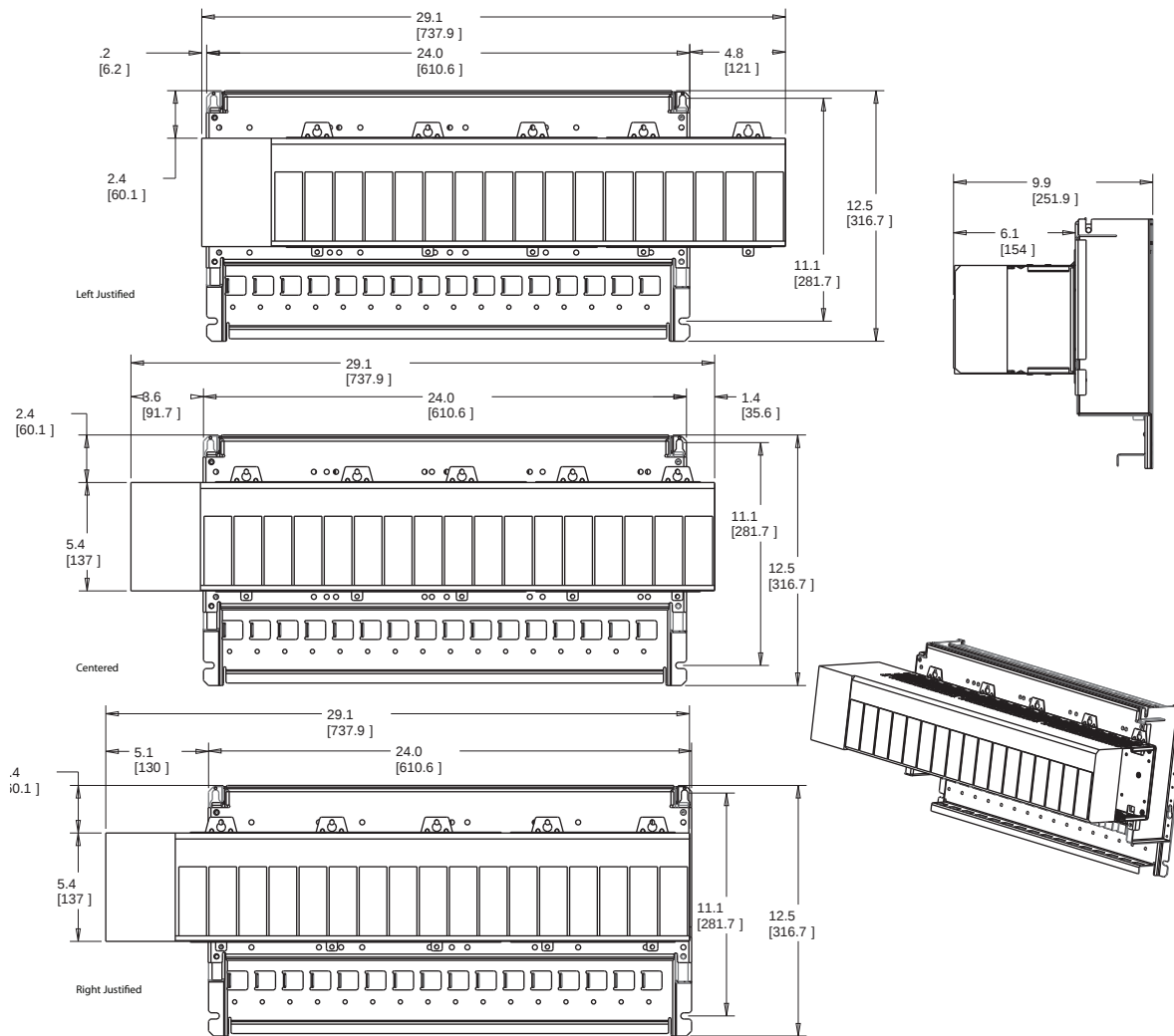
Cat No. MUA4-A13-A17 used with Cat No. 1756-A13



Centered



## Cat No. MUA4-A13-A17 used with Cat No. 1756-A17



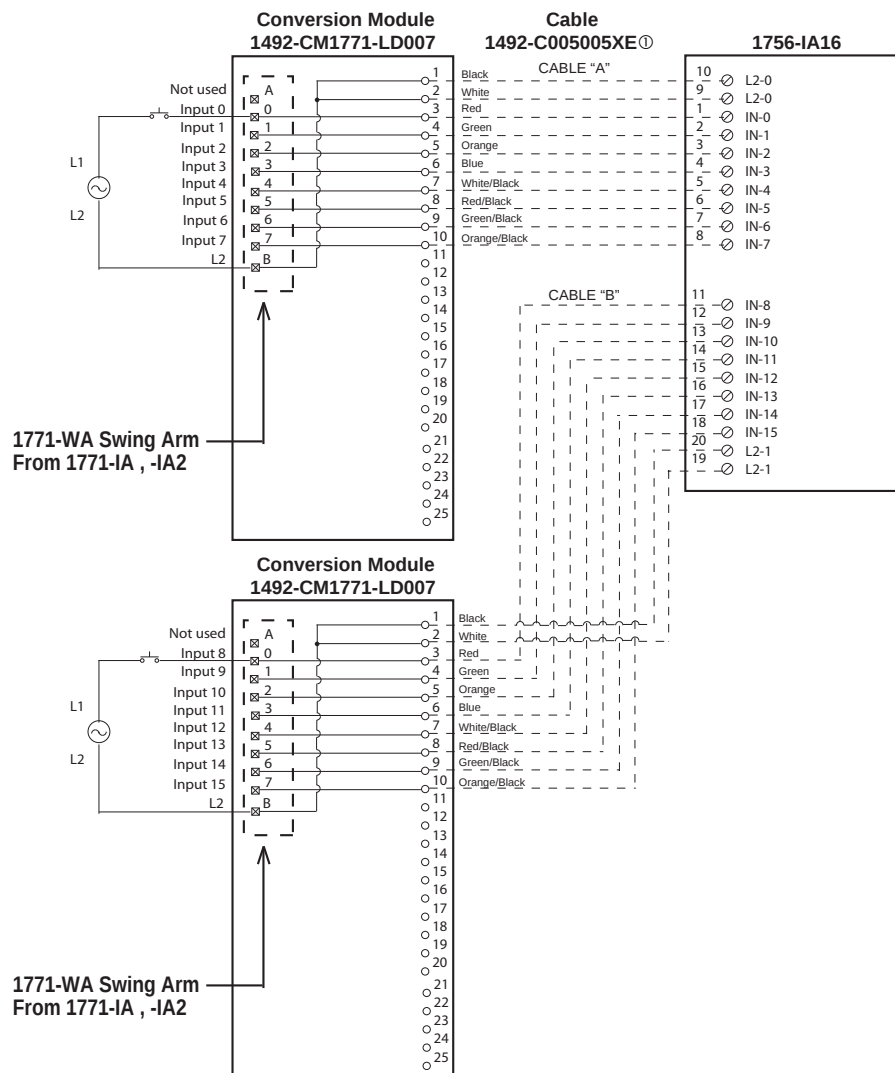
Notes:

# Wiring Diagrams - Digital Inputs

## 1771-IA, IA2 to 1756-IA16

### IMPORTANT

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 2 separate cables (cable "A" and cable "B") wired to one 1756-IA16 RTB. Recommended cable lengths of 0.5 M / 0.5 M are shown. See table 2 for other lengths.
- ② The input delay times for the 1771-IA, -IA2 module versus the 1756-IA16 module are as follows:

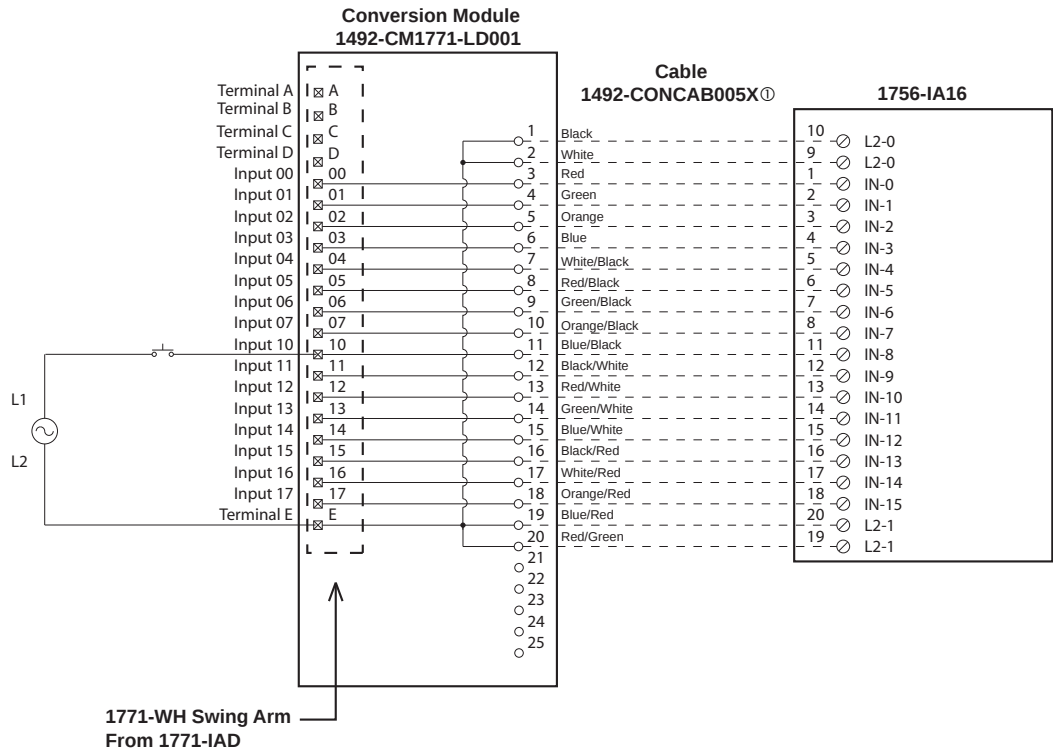
|                    | 1771-IA, -IA2  | 1756-IA16 w/ 1492-C005005XE       |
|--------------------|----------------|-----------------------------------|
| a) Off-to-On Delay | 24ms (+/-10ms) | 10ms max (plus selectable filter) |
| b) On-to-Off Delay | 24ms (+/-10ms) | 8ms max (plus selectable filter)  |
- ③ The 1771-IA, -IA2 module is rated 87V to 138V AC and 97V to 138V DC. The 1756-IA16 module is rated 79V to 132V AC only.
- ④ Refer to your 1771-IA, -IA2 and 1756-IA16 Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-952 (Version 02)]

1771-IAD to 1756-IA16

IMPORTANT

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**

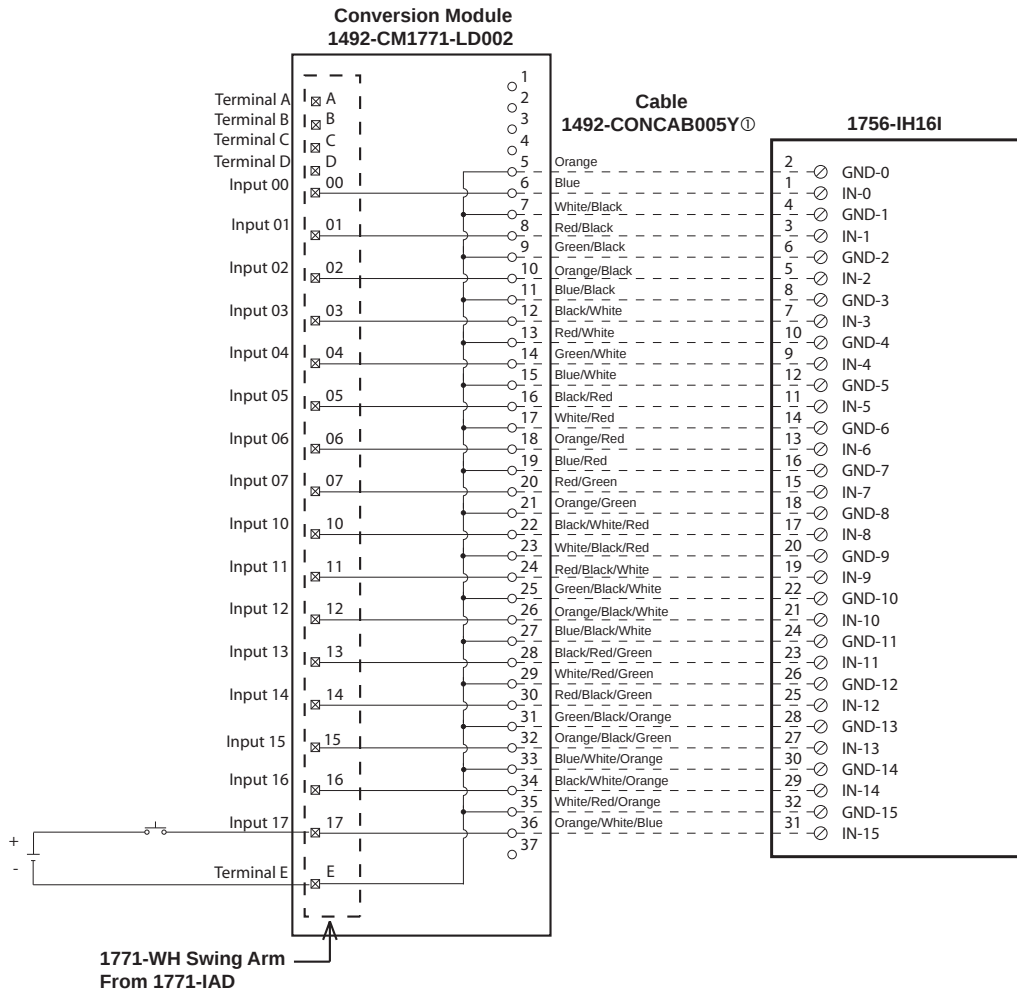
- ① This Bul. 1492 cable consists of a cable wired to one 1756-IA16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② The input delay times for the 1771-IAD module versus the 1756-IA16 module are as follows:
 

|                    | 1771-IAD             | 1756-IA16 w/ 1492-CONCAB005X      |
|--------------------|----------------------|-----------------------------------|
| a) Off-to-On Delay | 5ms (+/-3ms) @120VAC | 10ms max (plus selectable filter) |
| b) On-to-Off Delay | 25ms (+/-5ms)        | 8ms max (plus selectable filter)  |
- ③ The 1771-IAD module is rated 79V to 138V AC or DC. The 1756-IA16 module is rated 74V to 132V AC. If the input source voltage is DC use a 1756-IH16I and 1492-CM1771-LD002 conversion module.
- ④ Refer to your 1771-IAD and 1756-IA16 Installation Manual wiring schematics and diagrams for more details.  
[Reference Doc: 41170-925 (Version 02)]

## 1771-IAD to 1756-IH16I

**IMPORTANT**

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 The input delay times for the 1771-IAD module versus 1756-IH16I module are as follows:

|                    | <b>1771-IAD</b> | <b>1756-IH16I</b>            |
|--------------------|-----------------|------------------------------|
| a) Off-to-On Delay | 3ms @120V DC    | 2ms (plus selectable filter) |
| b) On-to-Off Delay | 25ms (+/-5ms)   | 6ms (plus selectable filter) |

② The 1771-IAD module is rated 79V to 138V AC or DC. The 1756-IH16I module is rated 90V to 146V DC. If the input source voltage is AC use a 1756-IA16 and 1492-CM1771-LD002 conversion module.

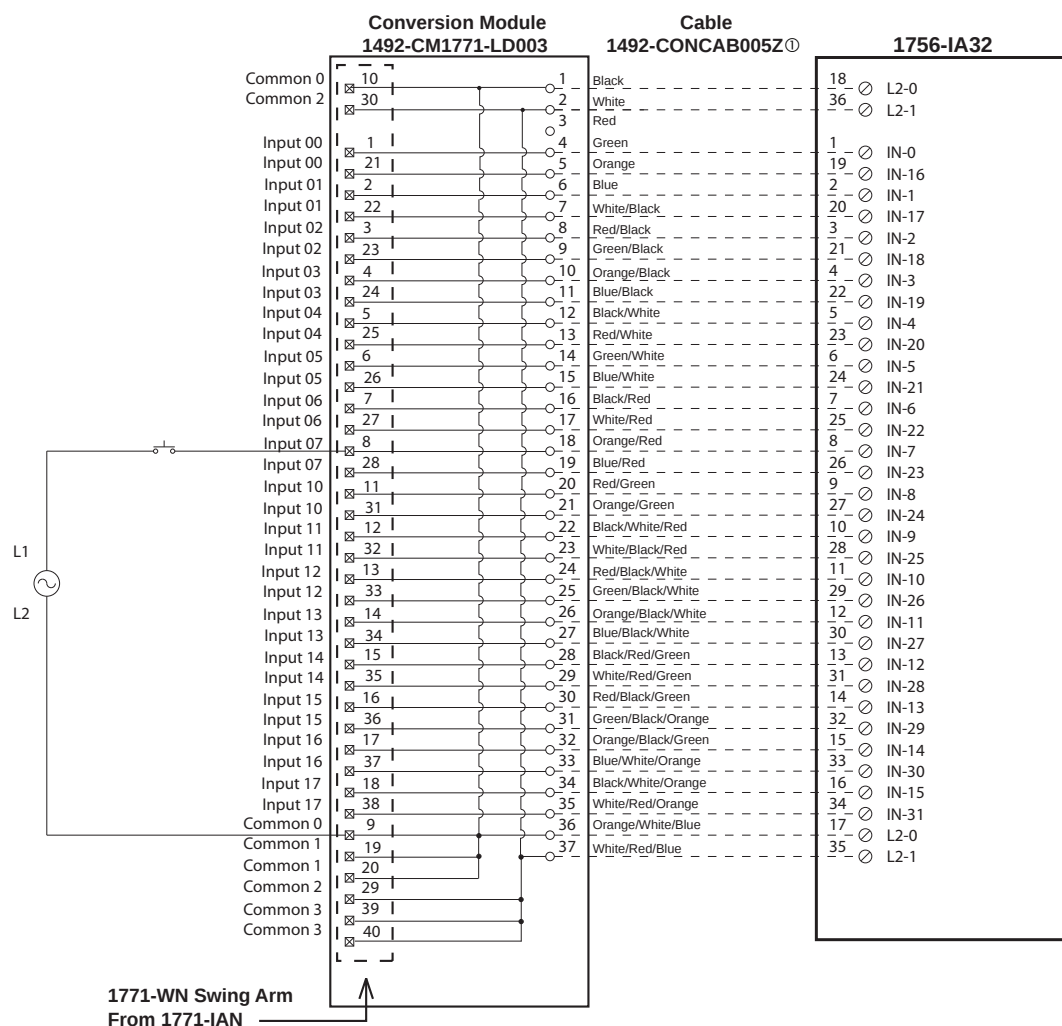
③ Refer to your 1771-IAD and 1756-IH16I Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-927 (Version 02)]

## 1771-IAN to 1756-IA32

**IMPORTANT**

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 The input delay times for the 1771-IAN module versus 1756-IA32 module are as follows:

|                    | 1771-IAN       | 1756-IA32                         |
|--------------------|----------------|-----------------------------------|
| a) Off-to-On Delay | 10ms (+/-7ms)  | 10ms max (plus selectable filter) |
| b) On-to-Off Delay | 20ms (+/-15ms) | 8ms max (plus selectable filter)  |

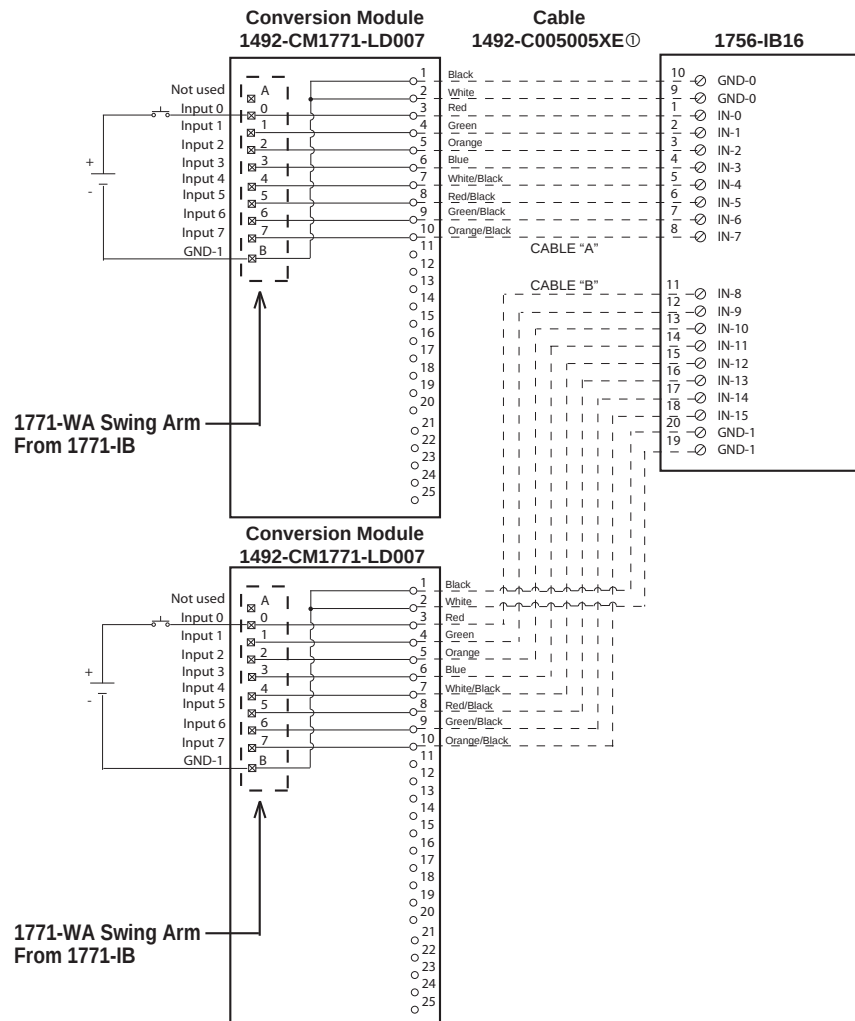
② The 1771-IAN has 4 groups (allowing 4 separate power supplies) and the 1756-IA32 has 2 groups. This module/cable combination ties Groups 0 & 1 from the 1771-IAN to Group 0 on the 1756-IA32 and it ties Groups 2 & 3 from the 1771-IAN to Group 1 on the 1756-IA32. Field wiring modification must be made to accommodate this if multiple supplies were used. If 4 supplies were used, 2 must be removed.

③ Refer to your 1771-IAN and 1756-IA32 Installation Manual wiring schematics and diagrams for more details.

## 1771-IB to 1756-IB16

**IMPORTANT**

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 2 separate cables (cable "A" and cable "B") wired to one 1756-IB16 RTB. Recommended cable lengths of 0.5 M / 0.5 M are shown. See table 2 for other lengths.

② The input delay times for the 1771-IB module versus the 1756-IB16 module are as follows:

|                    | 1771-IB        | 1756-IB16 w/ 1492-C005005XE      |
|--------------------|----------------|----------------------------------|
| a) Off-to-On Delay | 24ms (+/-10ms) | 1ms max (plus selectable filter) |
| b) On-to-Off Delay | 24ms (+/-10ms) | 2ms max (plus selectable filter) |

③ The 1771-IB module is rated 24V DC. The 1756-IB16 module is rated 10 - 31V DC only.

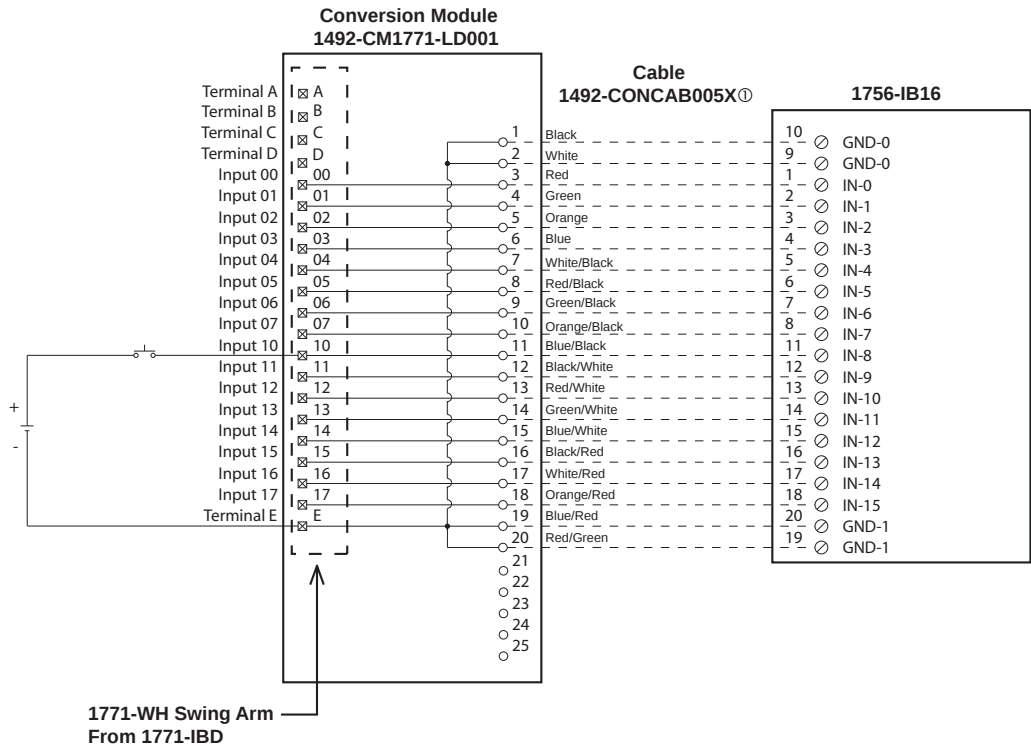
④ Refer to your 1771-IB and 1756-IB16 Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-995 (Version 00)]

1771-IBD to 1756-IB16

IMPORTANT

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.



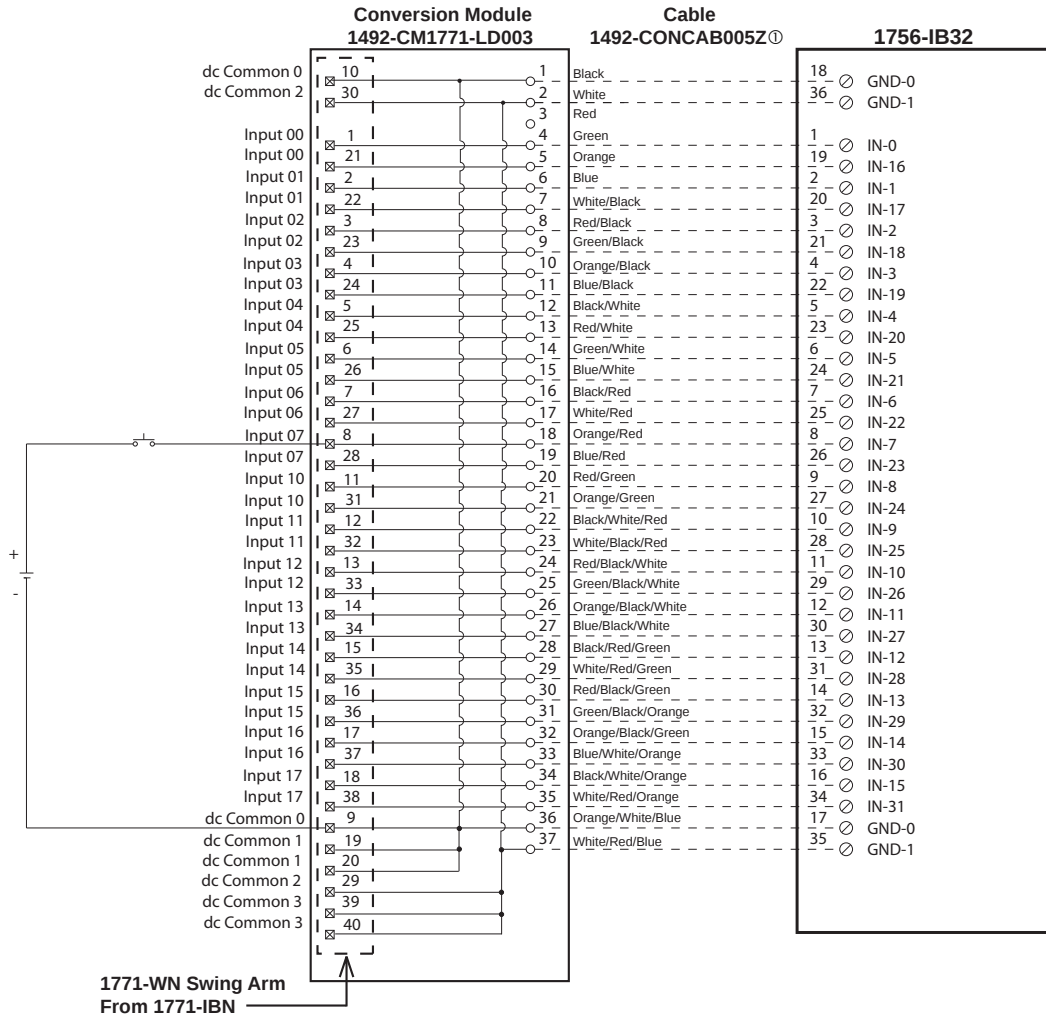
**Conversion Module Installation and Application Considerations**

- ① This Bul. 1492 cable consists of a cable wired to one 1756-IB16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② The input delay times for the 1771-IBD module versus the 1756-IB16 module are as follows:
- |                    | <b>1771-IBD</b> | <b>1756-IB16 w/ 1492-CONCAB005X</b> |
|--------------------|-----------------|-------------------------------------|
| a) Off-to-On Delay | 1ms             | 1ms (plus selectable filter)        |
| b) On-to-Off Delay | 1ms             | 2ms (plus selectable filter)        |
- ③ Refer to your 1771-IBD and 1756-IB16 Installation Manual wiring Schematics and diagrams for more details.  
[Reference Doc: 41170-926 (Version 02)]

## 1771-IBN to 1756-IB32

**IMPORTANT**

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 The input delay times for the 1771-IBN module versus 1756-IB32 module are as follows:

|                    | 1771-IBN     | 1756-IB32                    |
|--------------------|--------------|------------------------------|
| a) Off-to-On Delay | 6ms (+/-2ms) | 1ms (plus selectable filter) |
| b) On-to-Off Delay | 6ms (+/-2ms) | 1ms (plus selectable filter) |

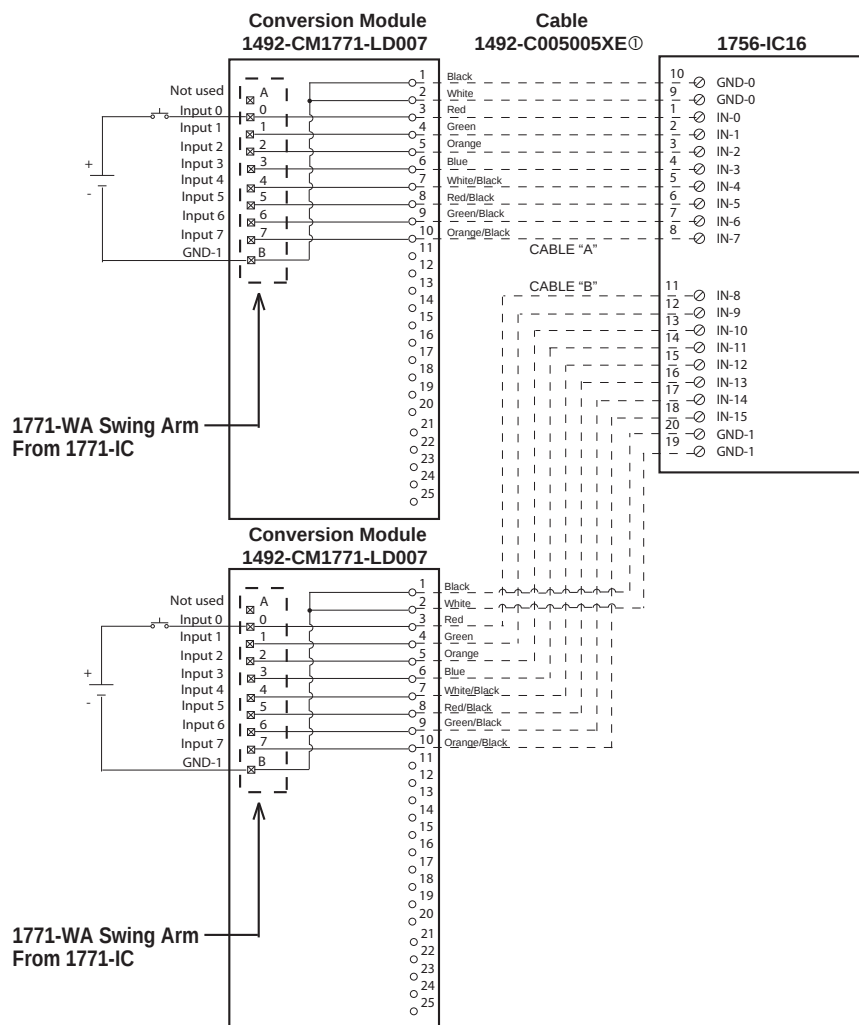
② The 1771-IBN has 4 groups (allowing 4 separate power supplies) and the 1756-IB32 has 2 groups. This module/cable combination ties Groups 0 & 1 from the 1771-IBN to Group 0 on the 1756-IB32 and it ties Groups 2 & 3 from the 1771-IBN to Group 1 on the 1756-IB32. Field wiring modification must be made to accommodate this if multiple supplies were used. If 4 supplies were used, 2 must be removed.

③ Refer to your 1771-IBN and 1756-IB32 Installation Manual wiring schematics and diagrams for more details.

## 1771-IC to 1756-IC16

**IMPORTANT**

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 2 separate cables (cable "A" and cable "B") wired to one 1756-IC16 RTB. Recommended cable lengths of 0.5 M / 0.5 M are shown. See table 2 for other lengths.

② The input delay times for the 1771-IC module versus the 1756-IC16 module are as follows:

|                    | <b>1771-IC</b> | <b>1756-IC16 w/ 1492-C005005XE</b> |
|--------------------|----------------|------------------------------------|
| a) Off-to-On Delay | 12ms (+/-7ms)  | 1ms max (plus selectable filter)   |
| b) On-to-Off Delay | 20ms (+/-7ms)  | 4ms max (plus selectable filter)   |

③ The 1771-IC module is rated 42 to 56V DC. The 1756-IC16 module is rated 42 to 56V DC only.

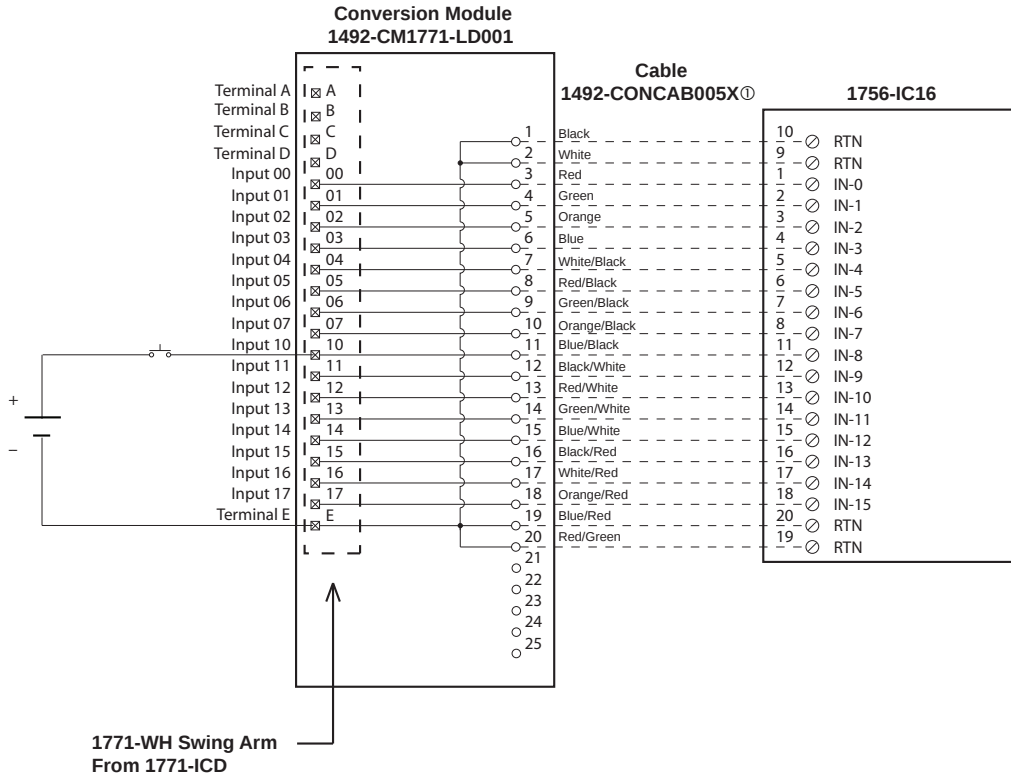
④ Refer to your 1771-IC and 1756-IC16 Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-996 (Version 00)]

## 1771-ICD to 1756-IC16

**IMPORTANT**

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-IC16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

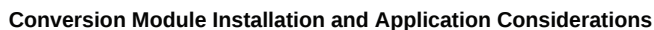
② The input delay times for the 1771-ICD module versus the 1756-IC16 module are as follows:

|                    | 1771-ICD      | 1756-IC16 w/ 1492-CONCAB005X     |
|--------------------|---------------|----------------------------------|
| a) Off-to-On Delay | 6ms (+/-2ms)  | 1ms max (plus selectable filter) |
| b) On-to-Off Delay | 20ms (+/-1ms) | 4ms max (plus selectable filter) |

③ The 1771-ICD module is rated 20V to 60V AC or DC. The 1756-IC16 module is rated 30V to 60V DC.

④ Refer to your 1771-ICD and 1756-IC16 Installation Manual wiring schematics and diagrams for more details.

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.

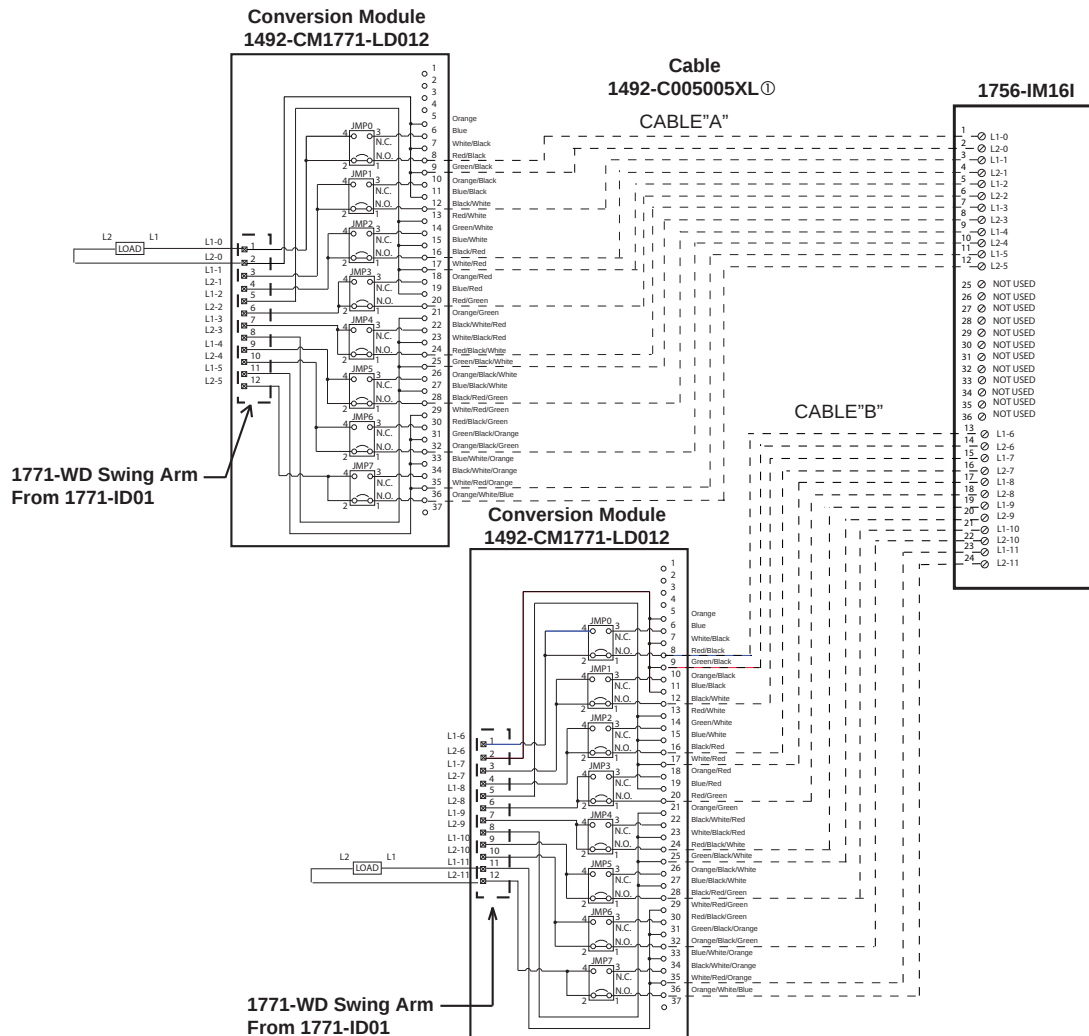


- ① This Bul. 1492 cable consists of a cable wired to one 1756-IA16I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② The input delay times for the 1771-ID module versus the 1756-IA16I module are as follows:
- |                    | <b>1771-ID</b> | <b>1756-IA16I w/ 1492-C005005XL</b> |
|--------------------|----------------|-------------------------------------|
| a) Off-to-On Delay | 24ms (+/-10ms) | 10ms max (plus selectable filter)   |
| b) On-to-Off Delay | 24ms (+/-10ms) | 8ms max (plus selectable filter)    |
- ③ The 1771-ID module had a jumper selection of N.O. and N.C. outputs. The 1756-IA16I has both N.O. and N.C. outputs, but selection is by wiring termination on the 1756 swing arm. The 1492-CM1771-LD012 conversion module replaces the functionality of the 1771-ID jumpers with eight jumpers (JMP0 through JMP7). In the default position, the output will be N.O. If a N.C. output is required, change the jumper from pins 1-2 to pins 3-4.
- ④ Refer to your 1771-ID and 1756-IA16I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.
- [Reference Doc: 41170-993 (Version 00)]

## 1771-ID01 to 1756-IM16I

**IMPORTANT**

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 2 separate cables (cable "A" and cable "B") wired to one 1756-IM16I RTB. Each cable can be either 0.5M or 1.0M (005=0.5M, 010=1.0M). Ensure that cable A and cable B are connected to the correct module in the conversion

② The input delay times for the 1771-ID01 module versus the 1756-IM16I module are as follows:

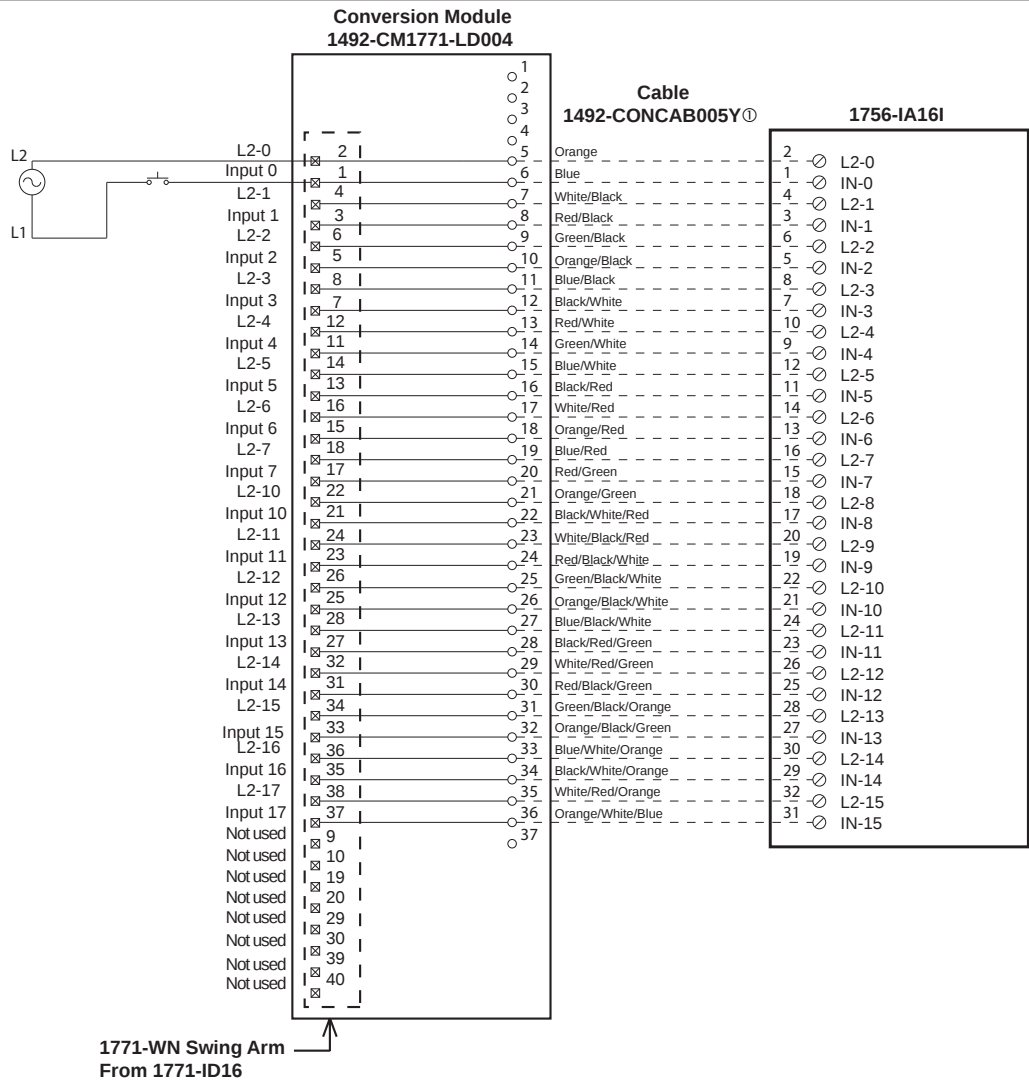
|                    | <b>1771-ID01</b> | <b>1756-IM16I w/ 1492-C005005XL</b> |
|--------------------|------------------|-------------------------------------|
| a) Off-to-On Delay | 20ms (+/-10ms)   | 10ms max (plus selectable filter)   |
| b) On-to-Off Delay | 20ms (+/-10ms)   | 8ms max (plus selectable filter)    |

③ The 1771-ID01 module had a jumper selection of N.O. and N.C. outputs. The 1756-IM16I has both N.O. and N.C. outputs, but selection is by wiring termination on the 1756 swing arm. The 1492-CM1771-LD012 conversion module replaces the functionality of the 1771-ID01 jumpers with eight jumpers (JMP0 through JMP7). In the default position, the output will be N.O. If a N.C. output is required, change the jumper from pins 1-2 to pins 3-4.

④ Refer to your 1771-ID01 and 1756-IM16I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41171-015 (Version 00)]

1771-ID16 to 1756-IA16I

**IMPORTANT** 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.



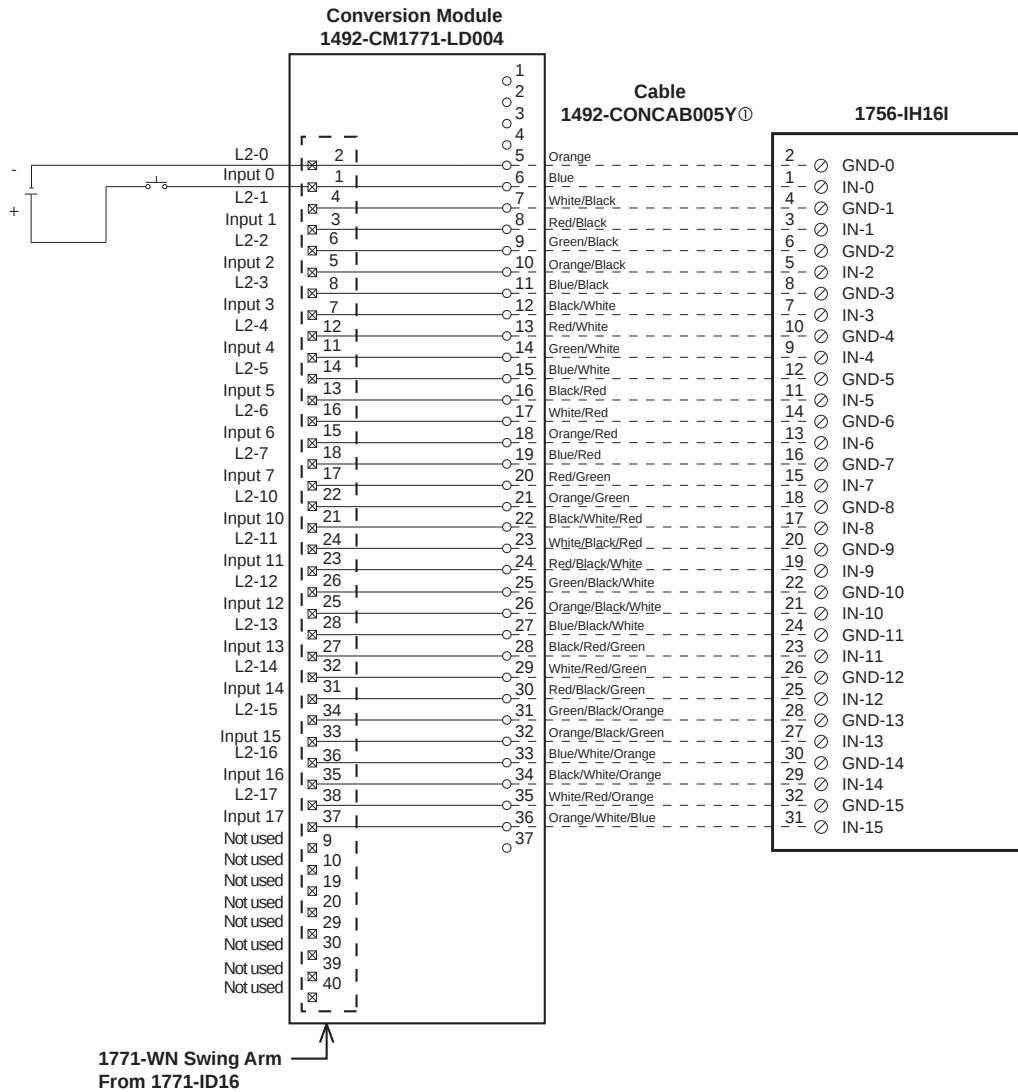
**Conversion Module Installation and Application Considerations**

- ① The input delay times for the 1771-ID16 module versus 1756-IA16I module are as follows:
- |                    | <b>1771-ID16</b>         | <b>1756-IA16I</b>                 |
|--------------------|--------------------------|-----------------------------------|
| a) Off-to-On Delay | 0.57ms                   | 10ms max (plus selectable filter) |
| b) On-to-Off Delay | 9ms or 18ms (selectable) | 8ms max (plus selectable filter)  |
- ② The 1771-ID16 module is rated 74V to 138V AC and 105V to 138V DC. The 1756-IA16I is rated 79V to 132V AC. If the input source voltage is DC use a 1756-IH16I with this conversion module.
- ③ Refer to your 1771-ID16 and 1756-IA16I Installation Manual wiring schematics and diagrams for more details.  
[Reference Doc: 41170-931 (Version 02)]

## 1771-ID16 to 1756-IH16I

**IMPORTANT**

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 The input delay times for the 1771-ID16 module versus 1756-IH16I module are as follows:

|                    | <b>1771-ID16</b>         | <b>1756-IH16I</b>                |
|--------------------|--------------------------|----------------------------------|
| a) Off-to-On Delay | 0.57ms                   | 2ms max (plus selectable filter) |
| b) On-to-Off Delay | 9ms or 18ms (selectable) | 6ms max (plus selectable filter) |

② The 1771-ID16 module is rated 74V to 138V AC and 105V to 138V DC. The 1756-IH16I is rated 90V to 146V DC. If the input source voltage is AC use a 1756-IA16I with this conversion module.

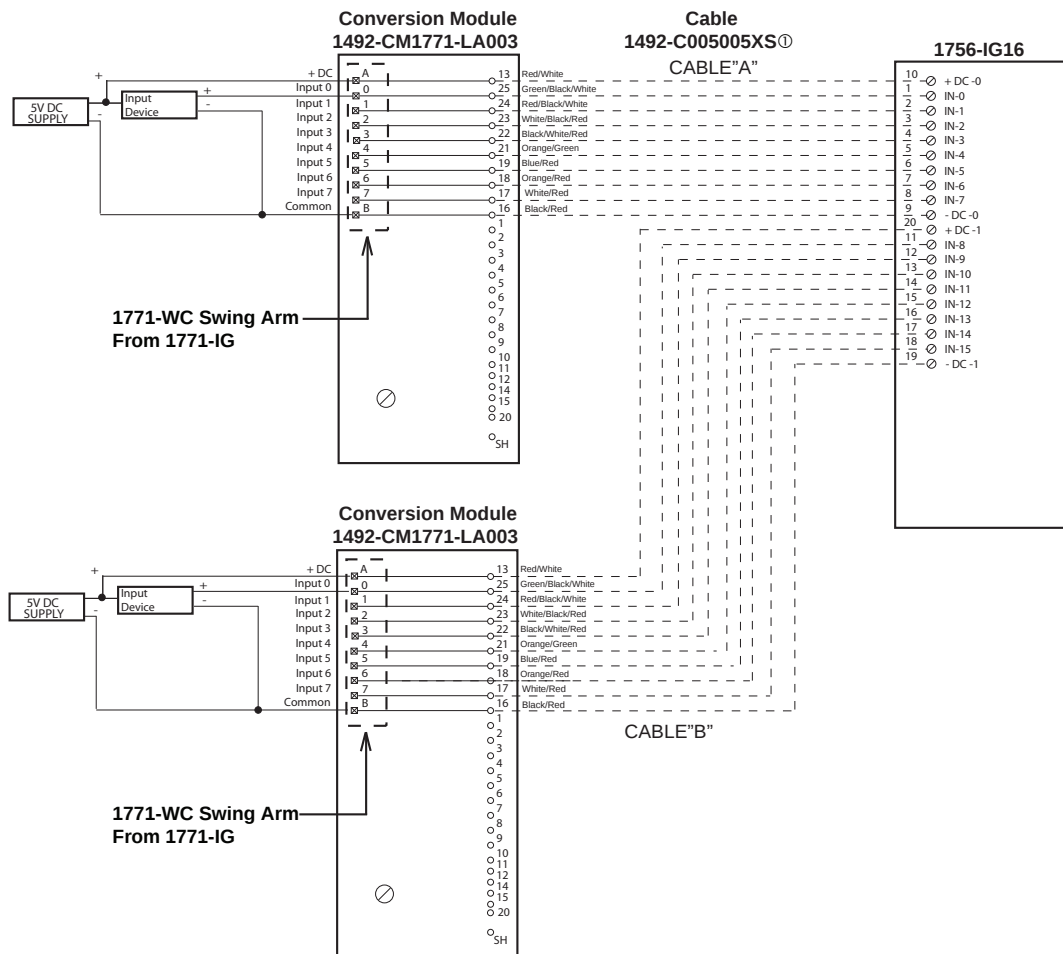
③ Refer to your 1771-ID16 and 1756-IH16I Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-932 (Version 02)]

## 1771-IG to 1756-IG16

**IMPORTANT**

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 2 separate cables (cable "A" and cable "B") wired to one 1756-IG16 RTB. Each cable can be either 0.5M or 1.0M (005=0.5M, 010=1.0M). Ensure that cable A and cable B are connected to the correct module in the conversion.
- ② The input delay times for the 1771-IG module versus the 1756-IG16 module are as follows:

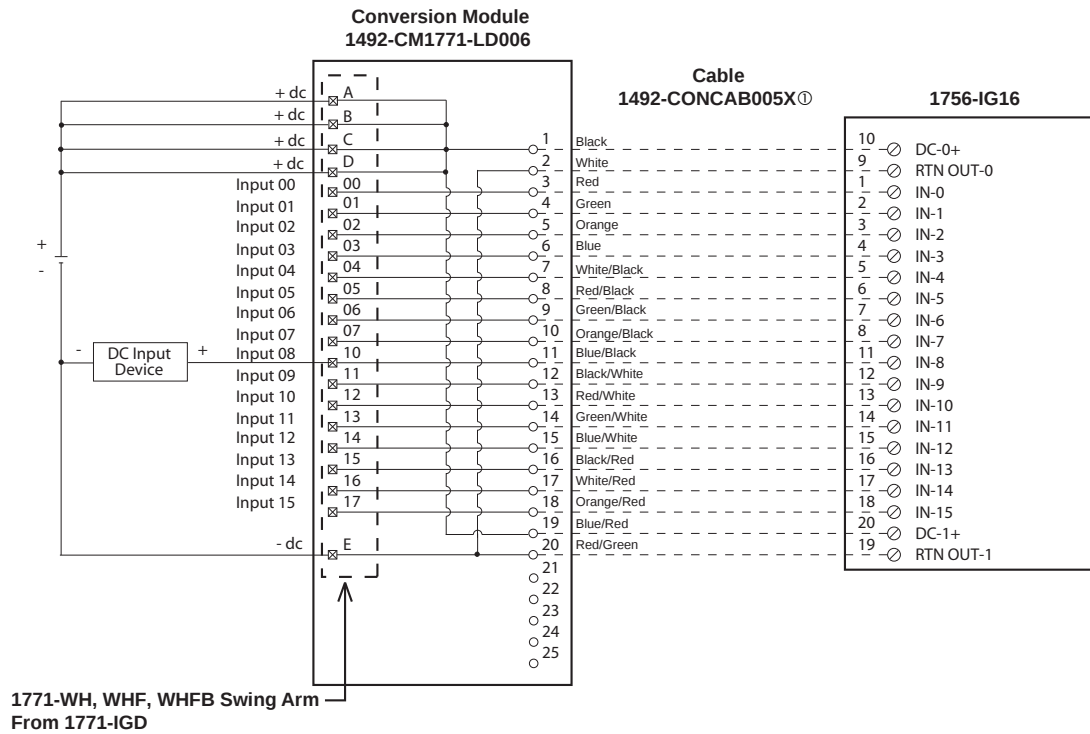
|                    | <b>1771-IG</b> | <b>1756-IG16 w/ 1492-C005005XS</b> |
|--------------------|----------------|------------------------------------|
| a) Off-to-On Delay | 1ms (+/-10ms)  | 270ms max (plus selectable filter) |
| b) On-to-Off Delay | 1ms (+/-10ms)  | 390ms max (plus selectable filter) |
- ③ The 1771-IG module is rated 5V DC TTL INPUT MODULE. The 1756-IG16 module is rated 5V DC TTL INPUT MODULE only.
- ④ Refer to your 1771-IG and 1756-IG16 Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

[Reference Doc: 41171-027 (Version 00)]

## 1771-IGD to 1756-IG16

**IMPORTANT**

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**

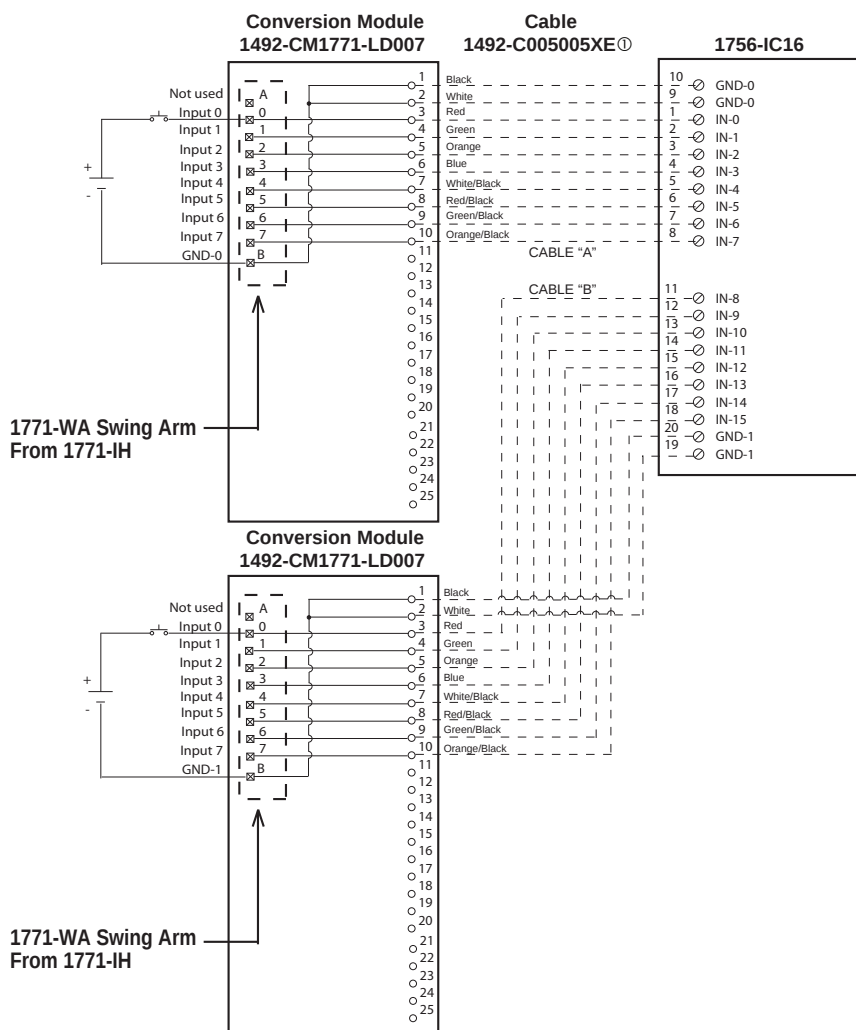
- ① This Bul. 1492 cable consists of a cable wired to one 1756-IG16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② The 1771-IGD module output current limits versus 1756-IG16 limits are as follows:
 

|                   | <b>1771-IGD</b> | <b>1756-IG16 w/ 1492-CONCAB005X</b> |
|-------------------|-----------------|-------------------------------------|
| a) Current/Point  | 122mA           | 110mA                               |
| b) Current/Module | 500mA           | 110mA                               |
- ③ The 1771-IGD is rated 5V DC. The 1756-IG16 is rated 4.5V to 5.5V DC.
- ④ Refer to your 1771-IGD and 1756-IG16 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41171-004 (Version 00)]

## 1771-IH to 1756-IC16

**IMPORTANT**

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 2 separate cables (cable "A" and cable "B") wired to one 1756-IC16 module. Recommended cable lengths of 0.5 M / 0.5 M are shown. See table 2 for other lengths.

② The input delay times for the 1771-IH module versus the 1756-IC16 module are as follows:

|                    | <b>1771-IH</b> | <b>1756-IC16 w/ 1492-C005005XE</b> |
|--------------------|----------------|------------------------------------|
| a) Off-to-On Delay | 15ms (+/-7ms)  | 1ms max (plus selectable filter)   |
| b) On-to-Off Delay | 15ms (+/-7ms)  | 4ms max (plus selectable filter)   |

③ The 1771-IH module is rated 24V - 48V DC. The 1756-IC16 module is rated 30V - 60V DC.

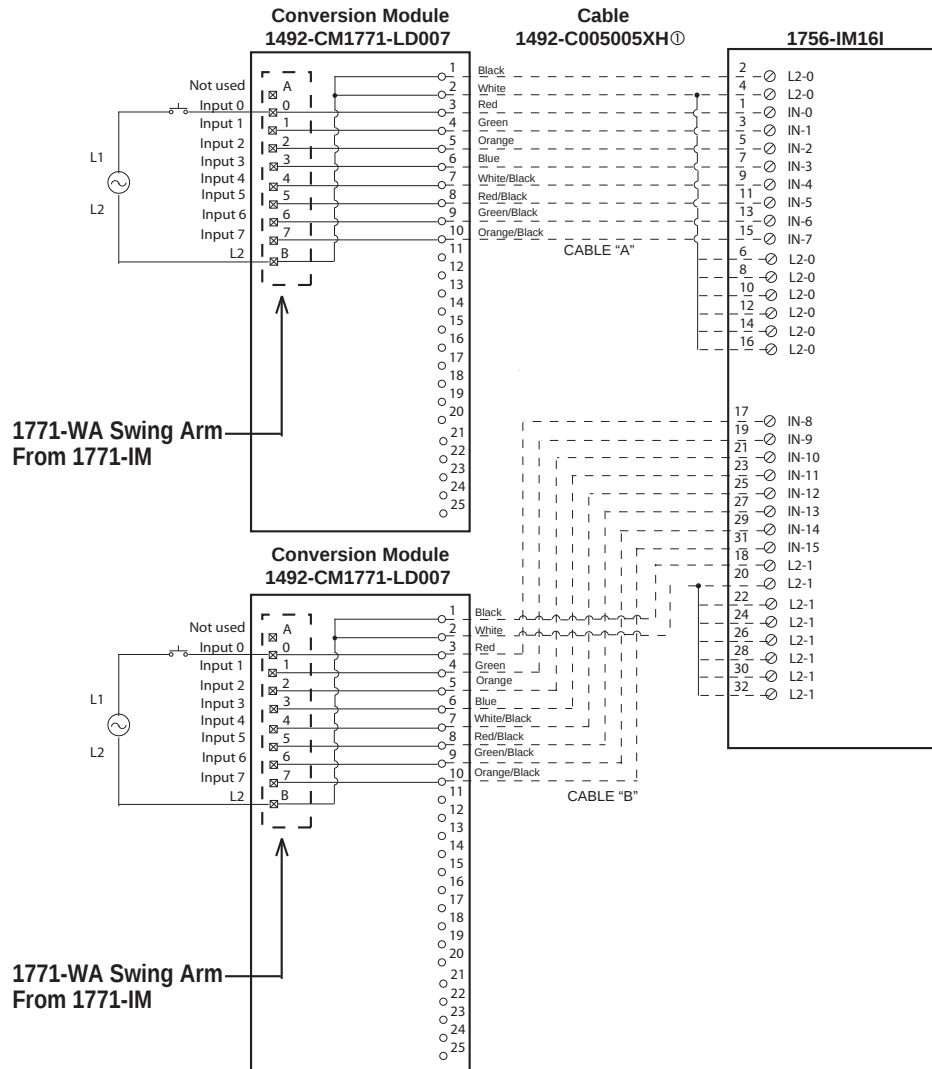
④ Refer to your 1771-IH and 1756-IC16 Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-997 (Version 00)]

## 1771-IM to 1756-IM16I

**IMPORTANT**

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 2 separate cables (cable "A" and cable "B") wired to one 1756-IM16I RTB. Recommended cable lengths of 0.5 M / 0.5 M are shown. See table 2 for other lengths.

② The input delay times for the 1771-IM module versus the 1756-IM16I module are as follows:

|                    | <b>1771-IM</b> | <b>1756-IM16I w/ 1492-C005005XH</b> |
|--------------------|----------------|-------------------------------------|
| a) Off-to-On Delay | 20ms (+/-6ms)  | 10ms max (plus selectable filter)   |
| b) On-to-Off Delay | 20ms (+/-6ms)  | 8ms max (plus selectable filter)    |

③ The 1771-IM module is rated 220V to 240V AC. The 1756-IM16I module is rated 159 - 265V AC only.

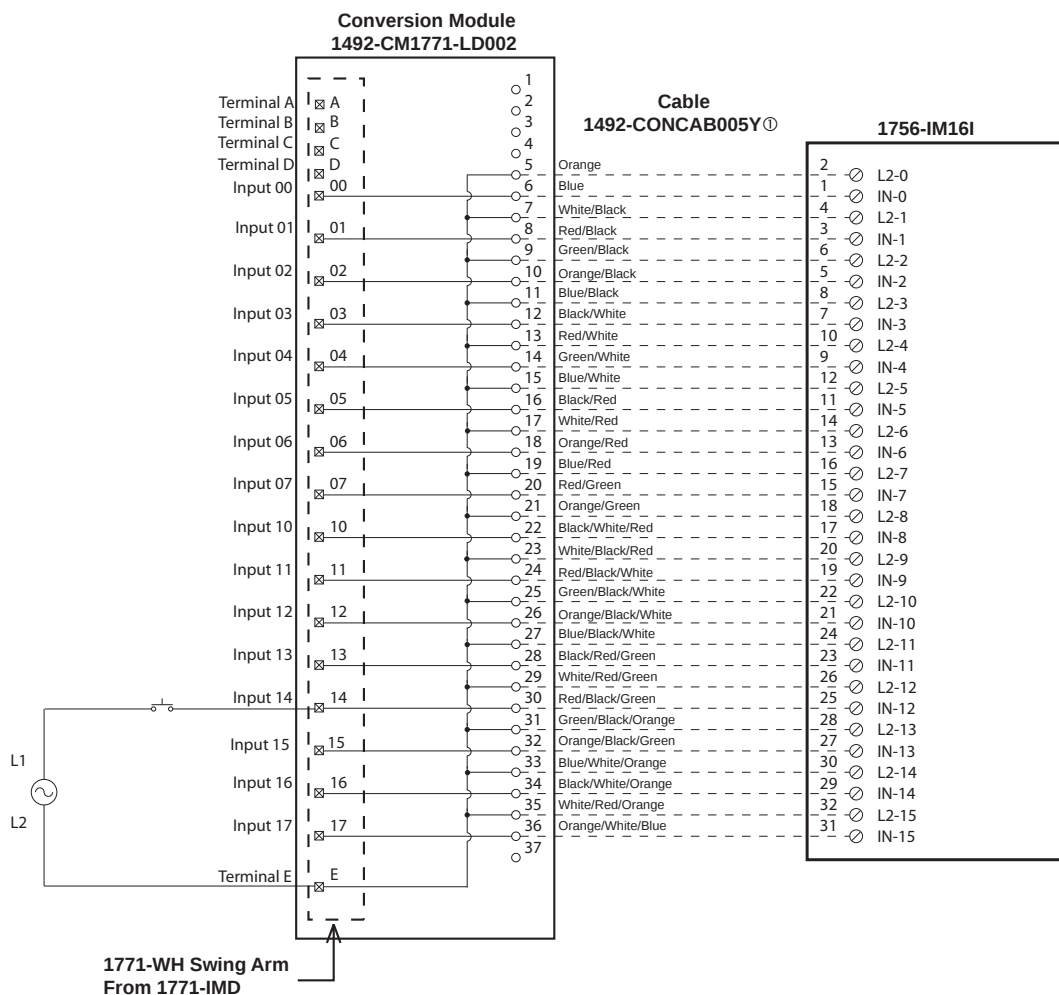
④ Refer to your 1771-IM and 1756-IM16I Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-990 (Version 00)]

## 1771-IMD to 1756-IM16I

**IMPORTANT**

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 The input delay times for the 1771-IMD module versus 1756-IM16I module are as follows:

|                    | <b>1771-IMD</b> | <b>1756-IM16I</b>             |
|--------------------|-----------------|-------------------------------|
| a) Off-to-On Delay | 15ms (+/-8ms)   | 10ms (plus selectable filter) |
| b) On-to-Off Delay | 172ms (+/-56ms) | 8ms (plus selectable filter)  |

② The 1771-IMD module is rated 184V AC to 250V AC and 166V-230V DC. The 1756-IM16I module is rated 159V to 265V AC. A 1756 input module with an equivalent DC voltage range to convert the 1771-IMD is not available.

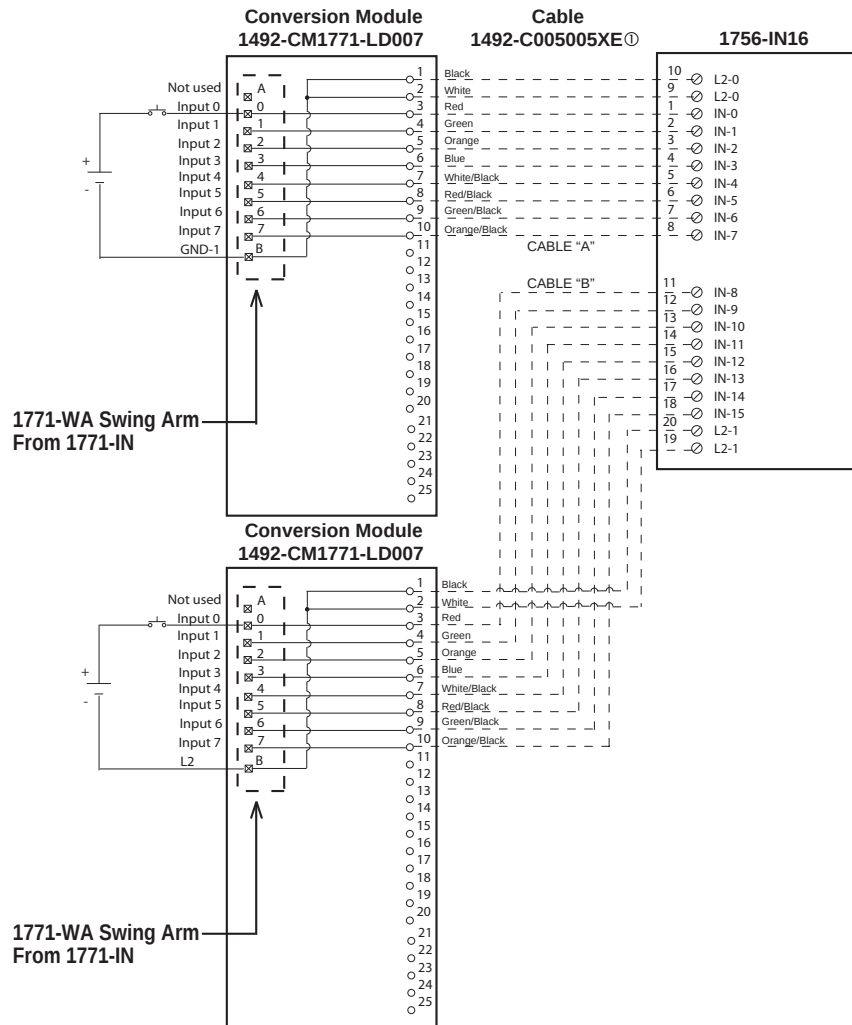
③ Refer to your 1771-IMD and 1756-IM16I Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-928 (Version 02)]

## 1771-IN to 1756-IN16

**IMPORTANT**

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 2 separate cables (cable "A" and cable "B") wired to one 1756-IN16 RTB. Recommended cable lengths of 0.5 M / 0.5 M are shown. See table 2 for other lengths.

② The input delay times for the 1771-IN module versus the 1756-IN16 module are as follows:

|                    | <b>1771-IN</b> | <b>1756-IN16 w/ 1492-C005005XE</b> |
|--------------------|----------------|------------------------------------|
| a) Off-to-On Delay | 18ms (+/-10ms) | 10ms max (plus selectable filter)  |
| b) On-to-Off Delay | 18ms (+/-10ms) | 10ms max (plus selectable filter)  |

③ The 1771-IN module is rated 24V AC. The 1756-IN16 module is rated 24V AC only.

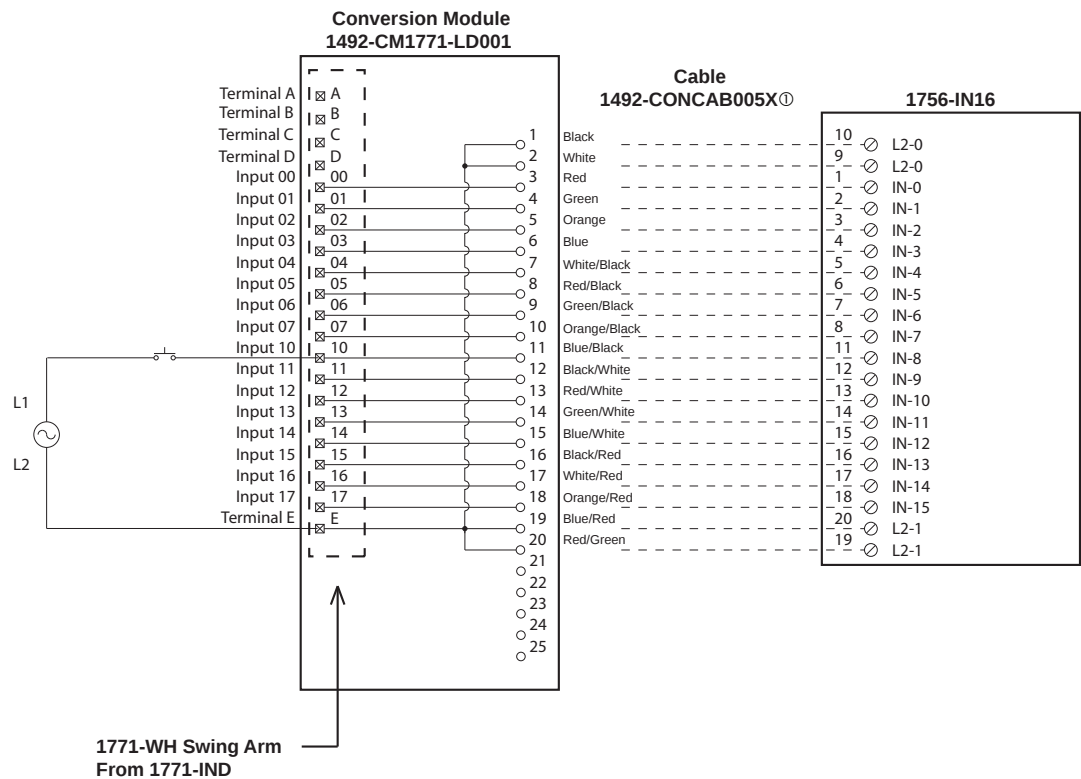
④ Refer to your 1771-IN and 1756-IN16 Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-998 (Version 00)]

1771-IND to 1756-IN16

IMPORTANT

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.



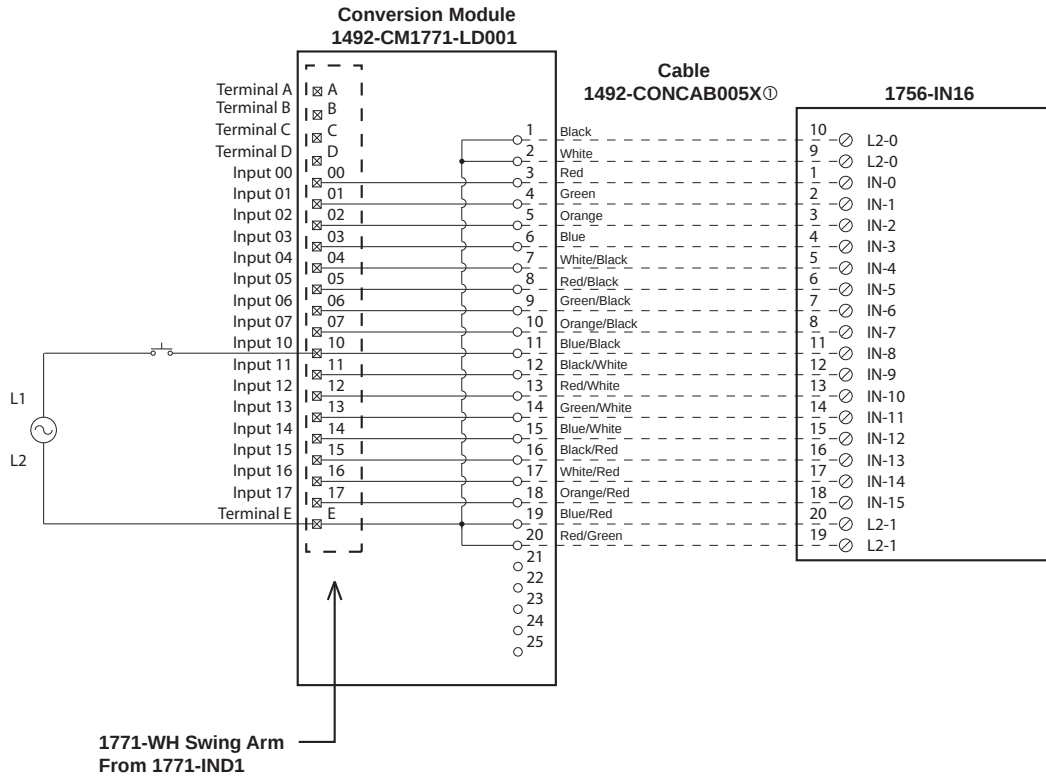
Conversion Module Installation and Application Considerations

- ① This Bul. 1492 cable consists of a cable wired to one 1756-IN16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② The input delay times for the 1771-IND module versus the 1756-IN16 module are as follows:
- |                    | <b>1771-IND</b>        | <b>1756-IN16 w/ 1492-CONCAB005X</b> |
|--------------------|------------------------|-------------------------------------|
| a) Off-to-On Delay | 35ms (+/-10ms) @24V AC | 10ms max (plus selectable filter)   |
| b) On-to-Off Delay | 45ms (+/-15ms)         | 10ms max (plus selectable filter)   |
- ③ The 1771-IND module is rated 24V AC or DC. The 1756-IN16 module is rated 10V to 30V AC.
- ④ Refer to your 1771-IND and 1756-IN16 Installation Manual wiring schematics and diagrams for more details.
- [Reference Doc: 41170-002 (Version 00)]

## 1771-IND1 to 1756-IN16

**IMPORTANT**

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-IN16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The input delay times for the 1771-IND1 module versus the 1756-IN16 module are as follows:

|                    | <b>1771-IND1</b>      | <b>1756-IN16 w/ 1492-CONCAB005X</b> |
|--------------------|-----------------------|-------------------------------------|
| a) Off-to-On Delay | 25ms (+/-5ms) @48V AC | 10ms max (plus selectable filter)   |
| b) On-to-Off Delay | 35ms (+/-10ms)        | 10ms max (plus selectable filter)   |

③ The 1771-IND1 module is rated 48V AC. The 1756-IN16 module is rated 10V to 30V AC.

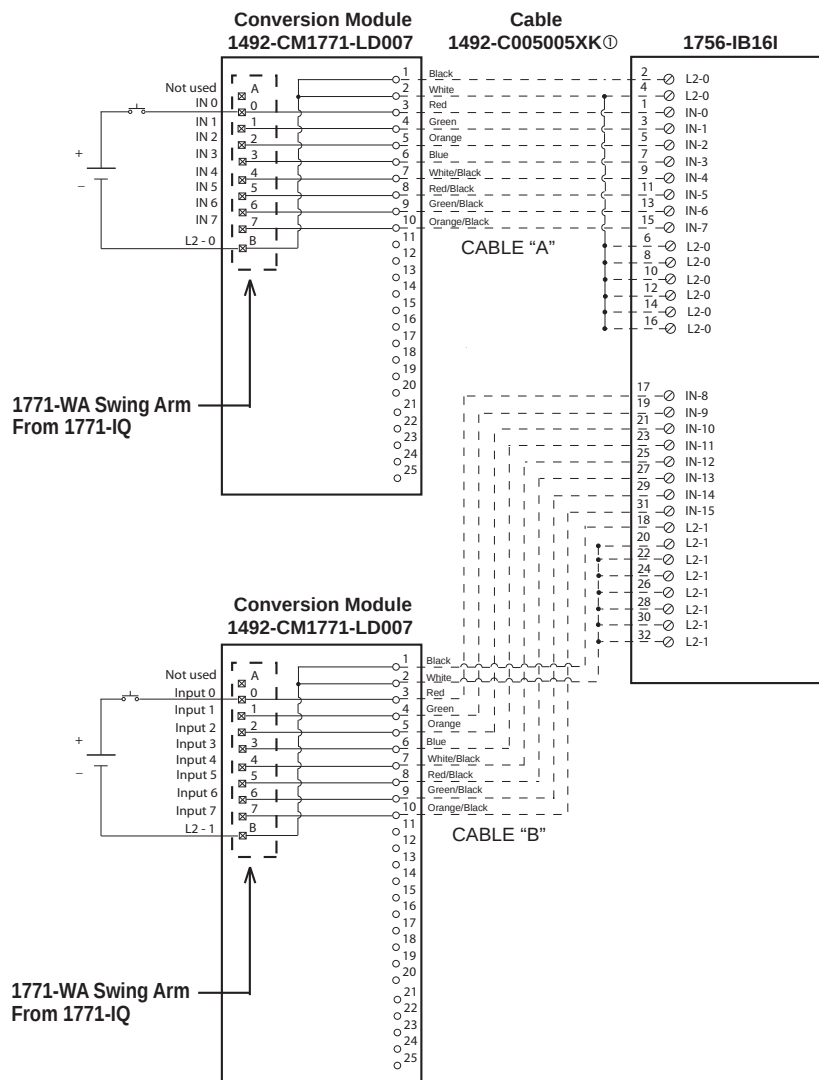
④ Refer to your 1771-IND1 and 1756-IN16 Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-003 (Version 00)]

## 1771-IQ to 1756-IB16I— Sinking

**IMPORTANT**

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 2 separate cables (cable "A" and cable "B") wired to one 1756-IB16I RTB. Recommended cable lengths of 0.5 M / 0.5 M are shown. See table 2 for other lengths.

② The input delay times for the 1771-IQ module versus the 1756-IB16I module are as follows:

|                    | <b>1771-IQ</b> | <b>1756-IB16I w/ 1492-C005005XK</b> |
|--------------------|----------------|-------------------------------------|
| a) Off-to-On Delay | 12ms (+/-14ms) | 1ms max (plus selectable filter)    |
| b) On-to-Off Delay | 12ms (+/-7ms)  | 4ms max (plus selectable filter)    |

③ The 1771-IQ module is rated 5V to 30V DC. The 1756-IB16I module is rated 10V to 30V DC only.

④ Refer to your 1771-IQ and 1756-IB16I Installation Manual wiring schematics and diagrams for more details.

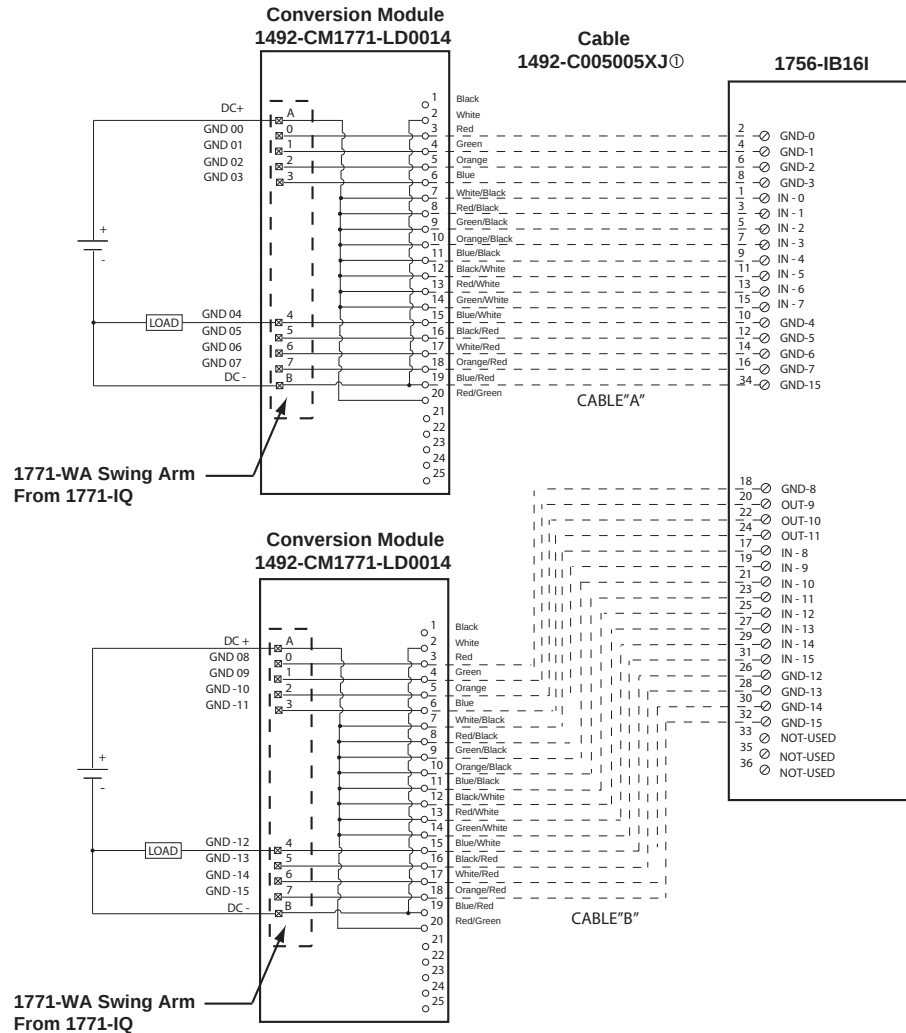
⑤ For Sourcing applications use 1492-CM1771-LD014.

[Reference Doc: 41170-992 (Version 00)]

## 1771-IQ to 1756-IB16I— Sourcing

**IMPORTANT**

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 2 separate cables (cable "A" and cable "B") wired to one 1756-IB16I RTB. Each cable can be either 0.5M or 1.0M (005=0.5M, 010=1.0M). Ensure that cable A and cable B are connected to the correct module in the conversion.
- ② The input delay times for the 1771-IQ module versus the 1756-IB16I module are as follows:
 

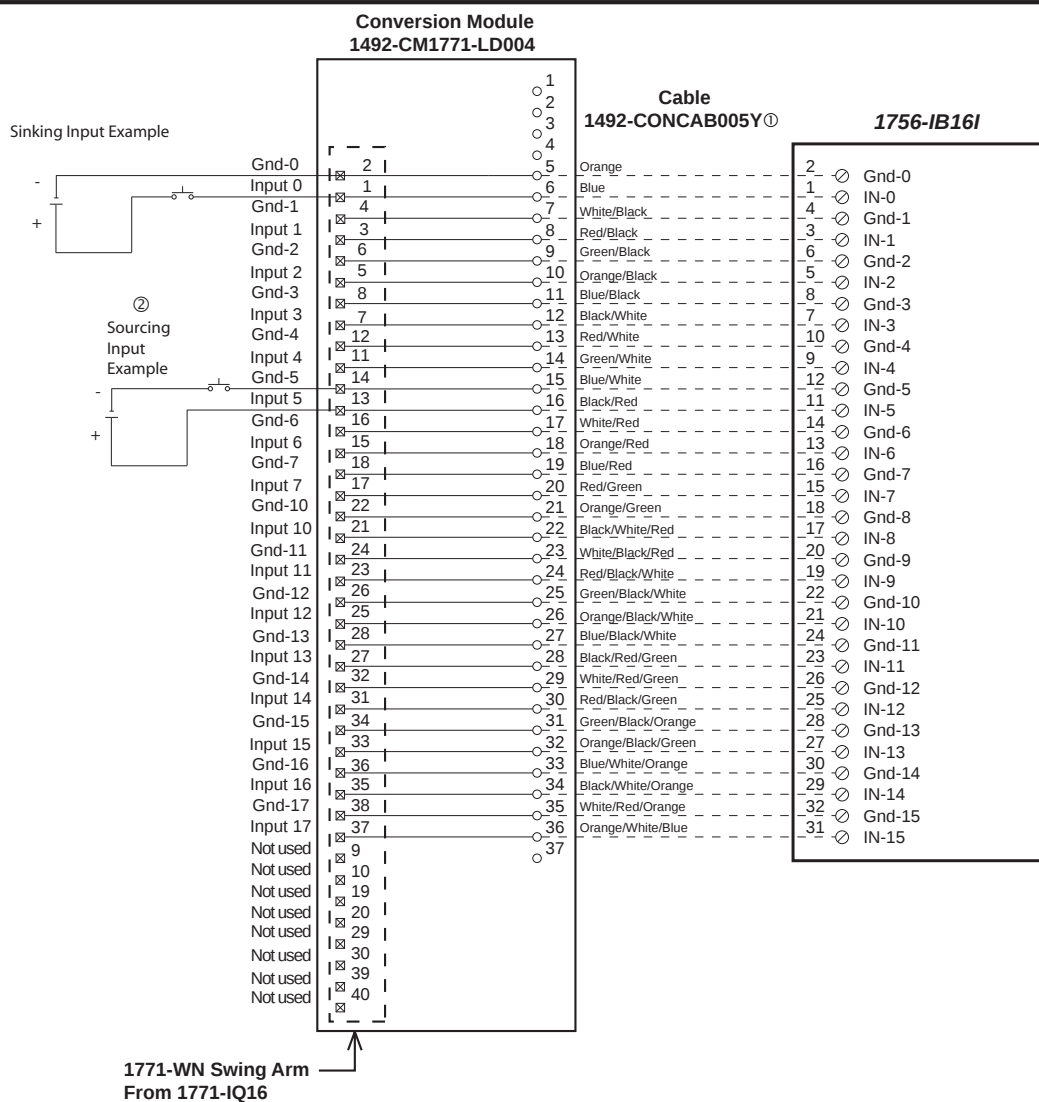
|                    | 1771-IQ        | 1756-IB16I w/1492-C005005XJ      |
|--------------------|----------------|----------------------------------|
| a) Off-to-On Delay | 12ms (+/-14ms) | 1ms max (plus selectable filter) |
| b) On-to-Off Delay | 12ms (+/-14ms) | 4ms max (plus selectable filter) |
- ③ The 1771-IQ module is rated 5V to 30V DC. The 1756-IB16I module is rated 10V to 30V SOURCING DC only.
- ④ Refer to your 1771-IQ and 1756-IB16I Installation Manual wiring schematics and diagrams for more details.
- ⑤ For Sinking applications use 1492-CM1771-LD007.

[Reference Doc: 41170-991 (Version 00)]

## 1771-IQ16 to 1756-IB16I

**IMPORTANT**

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 The input delay times for the 1771-IQ16 module versus 1756-IB16I module are as follows:

|                    | <b>1771-IQ16</b> | <b>1756-IB16I</b>                |
|--------------------|------------------|----------------------------------|
| a) Off-to-On Delay | 0.57ms           | 1ms max (plus selectable filter) |
| b) On-to-Off Delay | 0.57ms           | 4ms max (plus selectable filter) |

② Both the 1771-IQ16 and 1756-IB16I allow operation with sourcing inputs. Refer to installation Instructions for details.

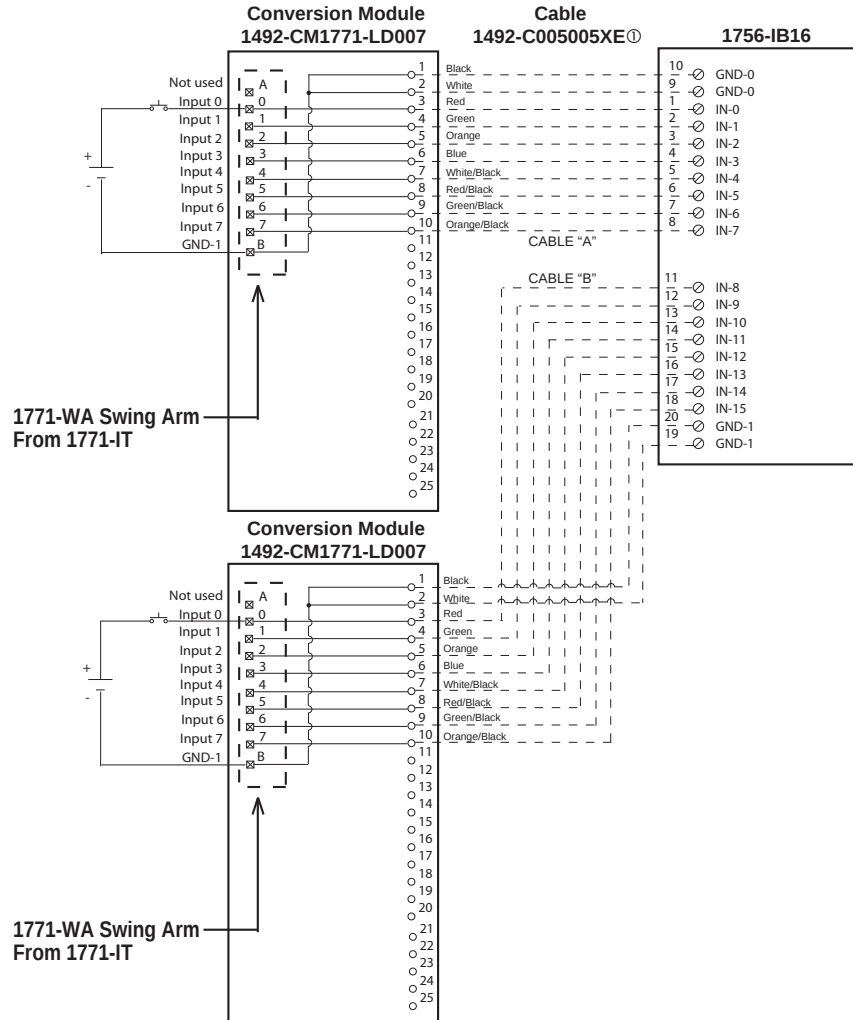
③ Refer to your 1771-IQ16 and 1756-IB16I Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-933 (Version 02)]

## 1771-IT to 1756-IB16

**IMPORTANT**

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 2 separate cables (cable "A" and cable "B") wired to one 1756-IB16 RTB. Recommended cable lengths of 0.5 M / 0.5 M are shown. See table 2 for other lengths.

② The input delay times for the 1771-IT module versus the 1756-IB16 module are as follows:

|                    | <b>1771-IT</b>   | <b>1756-IB16 w/ 1492-C005005XE</b> |
|--------------------|------------------|------------------------------------|
| a) Off-to-On Delay | 0.6ms (+/-0.2ms) | 1ms max (plus selectable filter)   |
| b) On-to-Off Delay | 0.6ms (+/-0.2ms) | 2ms max (plus selectable filter)   |

③ The 1771-IT module is rated 24V DC. The 1756-IB16 module is rated 24V DC only.

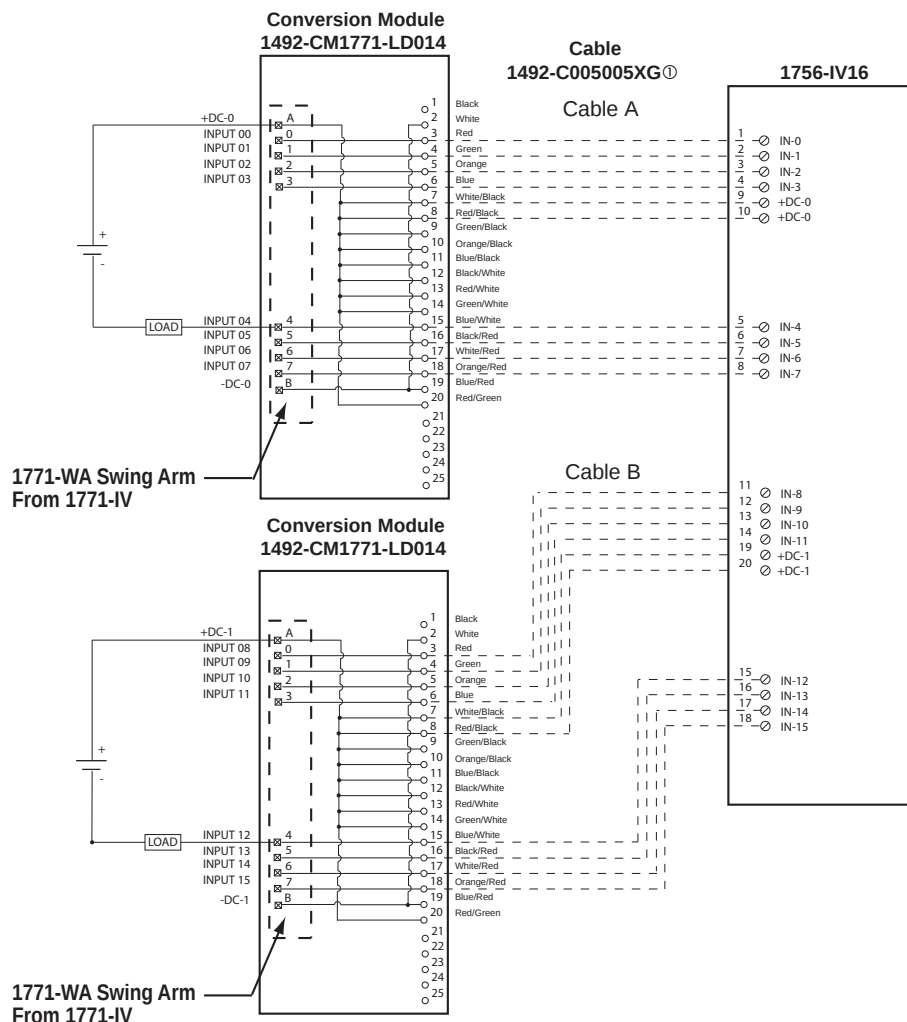
④ Refer to your 1771-IT and 1756-IB16 Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-999 (Version 00)]

## 1771-IV to 1756-IV16

**IMPORTANT**

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 2 separate cables (cable "A" and cable "B") wired to one 1756-IV16 RTB. Each cable can be either 0.5M or 1.0M (005=0.5M, 010=1.0M). Ensure that cable A and cable B are connected to the correct module in the conversion.

② The input delay times for the 1771-IV module versus the 1756-IV16 module are as follows:

|                    | <b>1771-IV</b> | <b>1756-IV16 w/1492-C005005XG</b> |
|--------------------|----------------|-----------------------------------|
| a) Off-to-On Delay | 15ms (+/-7ms)  | 1ms max (plus selectable filter)  |
| b) On-to-Off Delay | 15ms (+/-7ms)  | 2ms max (plus selectable filter)  |

③ The 1771-IV module is rated 12 To 24V DC. The 1756-IV16 module is rated 10V To 30V DC only.

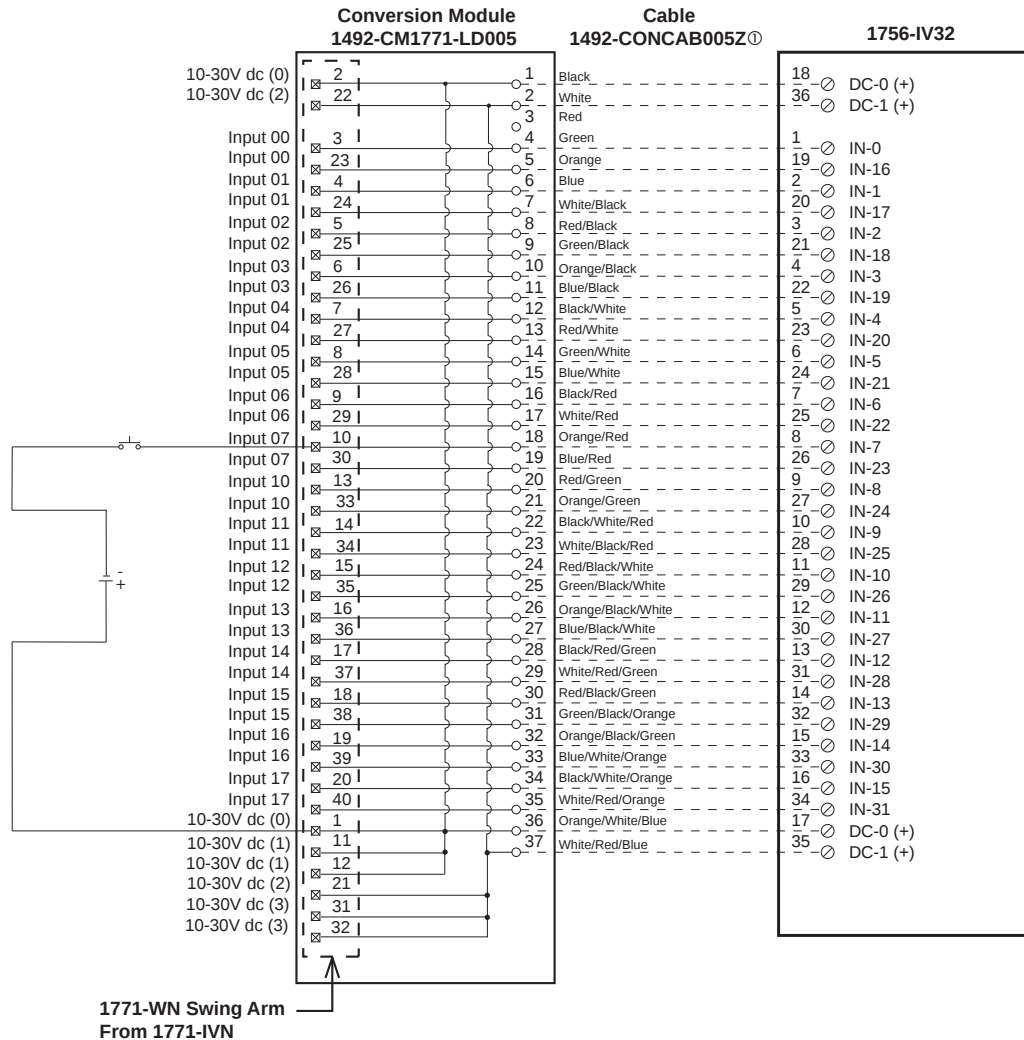
④ Refer to your 1771-IV and 1756-IV16 Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-989 (Version 00)]

## 1771-IVN to 1756-IV32

**IMPORTANT**

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 The input delay times for the 1771-IVN module versus 1756-IV32 module are as follows:

|                    | <b>1771-IVN</b> | <b>1756-IV32</b>             |
|--------------------|-----------------|------------------------------|
| a) Off-to-On Delay | 6ms (+/-2ms)    | 1ms (plus selectable filter) |
| b) On-to-Off Delay | 6ms (+/-2ms)    | 2ms (plus selectable filter) |

② The 1771-IVN has 4 groups (allowing 4 separate power supplies) and the 1756-IV32 has 2 groups.

This module/cable combination ties Groups 0 & 1 from the 1771-IVN to Group 0 on the 1756-IV32 and it ties Groups 2 & 3 from the 1771-IVN to Group 1 on the 1756-IV32. Field wiring modification must be made to accommodate this if multiple supplies were used. If 4 supplies were used, 2 must be removed.

③ Refer to your 1771-IVN and 1756-IV32 Installation Manual wiring schematics and diagrams for more details.

[Reference Doc: 41170-934 (Version 02)]

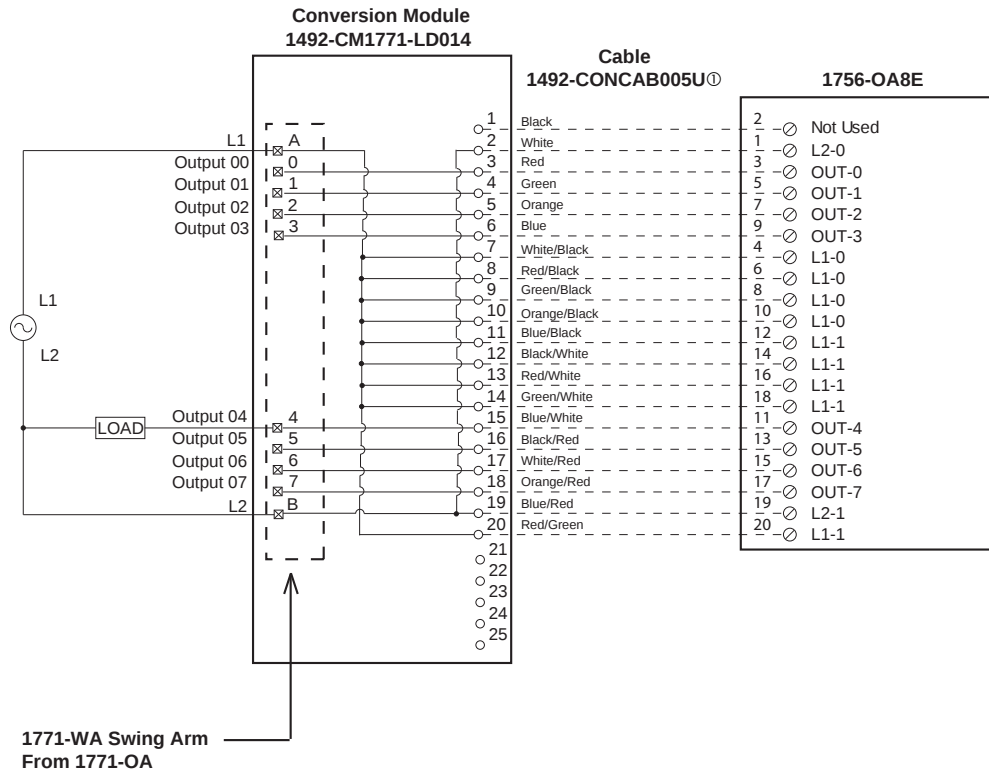
Notes:

# Wiring Diagrams - Digital Outputs

## 1771-OA to 1756-OA8E

### IMPORTANT

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-OA8E RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OA module output current limits versus 1756-OA8E limits are as follows:

|                     | 1771-OA      | 1756-OA8E w/ 1492-CONCAB005U |
|---------------------|--------------|------------------------------|
| a) Current/Point    | 1.5A         | 2A                           |
| b) Current/Module   | 6A           | 4A @ 60°C                    |
| c) Surge Current/Pt | 4A for 8.3ms | 20A for 43 ms                |

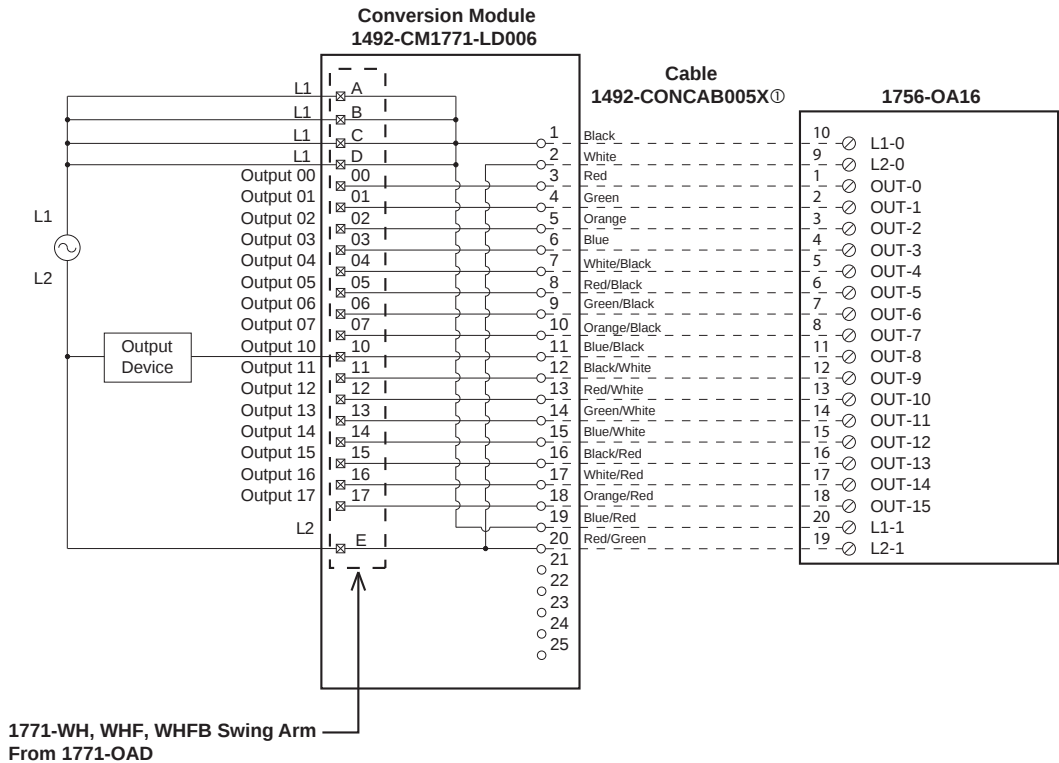
③ The 1771-OA has eight (8) 2A, 250V fuses - 1 per output. The 1756-OA8E is electronically fused per point. Refer to the 1756-OA8E Installation Manual for details on electronic fusing.

④ Refer to your 1771-OA and 1756-OA8E Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.  
[Reference Doc: 41170-943 (Version 01)]

1771-OAD to 1756-OA16

IMPORTANT

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.



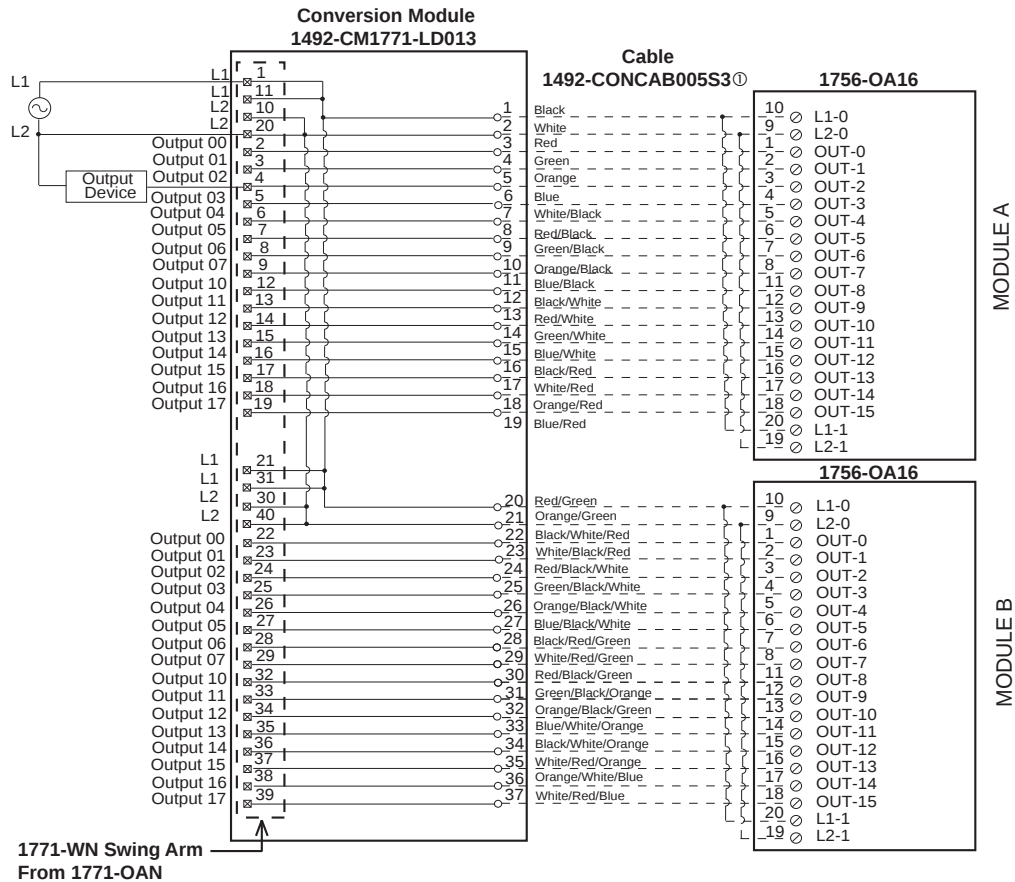
Conversion Module Installation and Application Considerations

- ① This Bul. 1492 cable consists of a cable wired to one 1756-OA16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② The 1771-OAD module output current limits versus 1756-OA16 limits are as follows:
- |                        | 1771-OAD      | 1756-OA16 w/ 1492-CONCAB005X |
|------------------------|---------------|------------------------------|
| a) Current/Point       | 2A            | 0.5A                         |
| b) Current/Module      | 8A            | 4A                           |
| c) Surge Current/point | 25A for 100ms | 5A for 43ms                  |
- ③ The L2 terminal (Terminal E) on the 1771-OAD module was an optional connection, but it is required for the 1756-OA16. This connection must be added if it was not connected.
- ④ The 1771-OAD is rated 10V to 138V AC. The 1756-OA16 is rated 74V to 256V AC.
- ⑤ Refer to your 1771-OAD and 1756-OA16 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.
- [Reference Doc: 41170-935 (Version 01)]

## 1771-OAN to 1756-OA16

**IMPORTANT**

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 two 1756-OA16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OAN module output current limits versus 1756-OA16 limits are as follows:

|                        | <b>1771-OAN</b> | <b>1756-OA16 w/ 1492-CONCAB005S3</b> |
|------------------------|-----------------|--------------------------------------|
| a) Current/Point       | 1A              | 0.5A                                 |
| b) Current/Module      | 8A (32 pts)     | 2A (16 pts)                          |
| c) Surge Current/Point | 10A for 25ms    | 5A for 43ms                          |

③ The 1771-OAN has 4 groups (allowing 4 separate power supplies). This module/cable combination ties all 4 groups from the 1771-OAN together. Field wiring modification must be made to accommodate this if multiple supplies were used. If more than 1 supply was used, all but 1 of the power supplies must be removed.

④ The 1771-OAN did not allow connections for L2, however the 1756-OA16 requires an L2 connection for proper operation. The 1771-OAN did not use terminals 10, 20, 30, 40. These terminals have been reassigned for an L2 connection in this application. The installer must rewire L2 to one of these terminals.

⑤ Refer to your 1771-OAN and 1756-OA16 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.

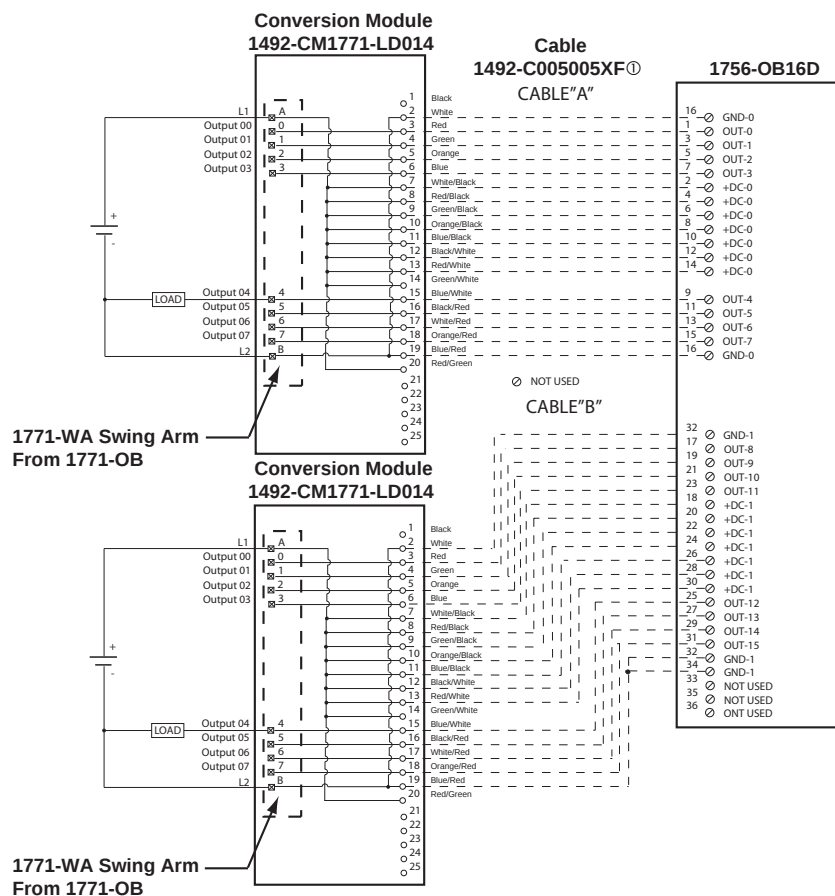
⑥ This configuration uses two (2) 1756-OA16 output modules to replace a single 1771-OAN output module. This may require the use of a larger 1756 I/O chassis and conversion mounting assembly. Ensure there is sufficient panel space to allow for this possibility.

[Reference Doc: 41170-942 (Version 02)]

## 1771-OB to 1756-OB16D

**IMPORTANT**

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 2 separate cables (cable "A" and cable "B") wired to one 1756-OB16D RTB. Each cable can be either 0.5M or 1.0M (005=0.5M, 010=1.0M). Ensure that cable A and cable B are connected to the correct module in the conversion.

② The 1771-OB module output current limits versus 1756-OB16D limits are as follows:

|                        | <b>1771-OB</b> | <b>1756-OB16D w/ 1492-C005005XF</b> |
|------------------------|----------------|-------------------------------------|
| a) Current/Point       | 1.5A           | 2A                                  |
| b) Current/Module      | 6A             | 4A @ 60°C                           |
| c) Surge Current/Point | 4A for 8.3ms   | 4A for 10ms                         |

③ The 1771-OB has eight (8) 2A, 250V fuses - 1 per output. The 1756-OB16D is a DIAGNOSTIC MODULE. Refer to the 1756-OB16D Installation Manual for details on diagnostics.

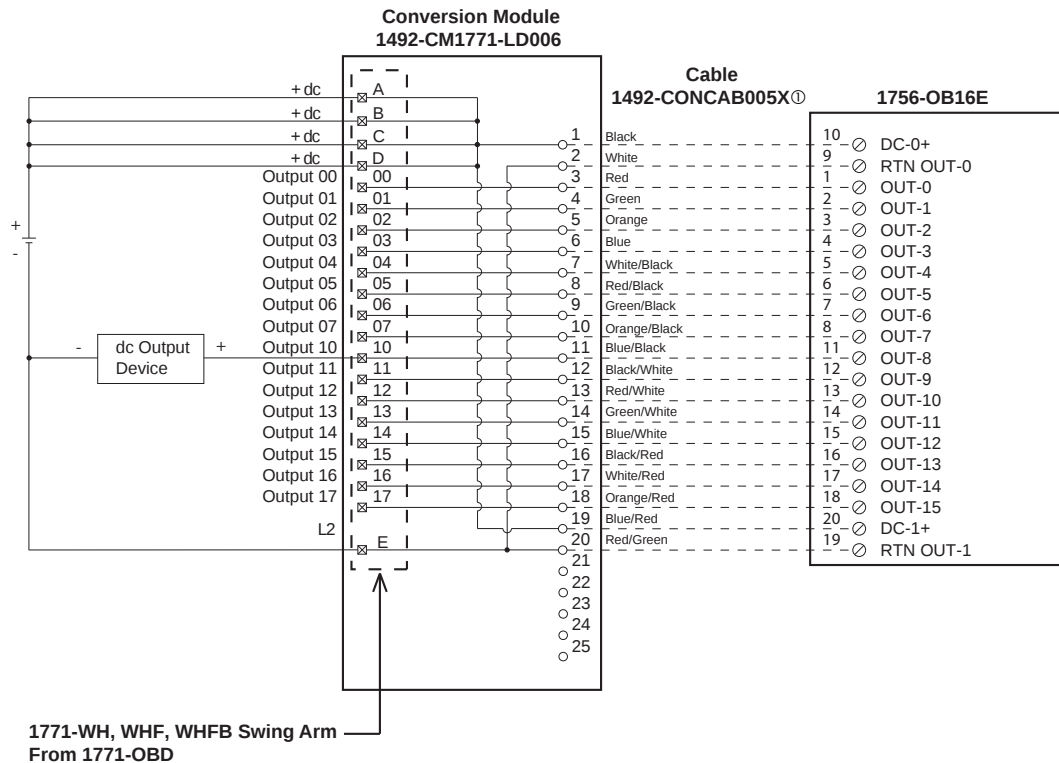
④ Refer to your 1771-OB and 1756-OB16D Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.

[Reference Doc: 41170-988 (Version 00)]

## 1771-OBD to 1756-OB16E

**IMPORTANT**

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-OA16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OBD module output current limits versus 1756-OB16E limits are as follows:

|                        | 1771-OBD    | 1756-OB16E w/ 1492-CONCAB005X |
|------------------------|-------------|-------------------------------|
| a) Current/Point       | 2A          | 1A                            |
| b) Current/Module      | 8A          | 4A                            |
| c) Surge Current/point | 4A for 10ms | 2A for 10ms                   |

③ The 1771-OBD has a single 10A, 250V rectifier fuse (1/4 x 1 1/4 inch). The 1756-OB16E is electronically fused per group. Refer to the 1756-OB16E Installation Manual for details on electronic fusing.

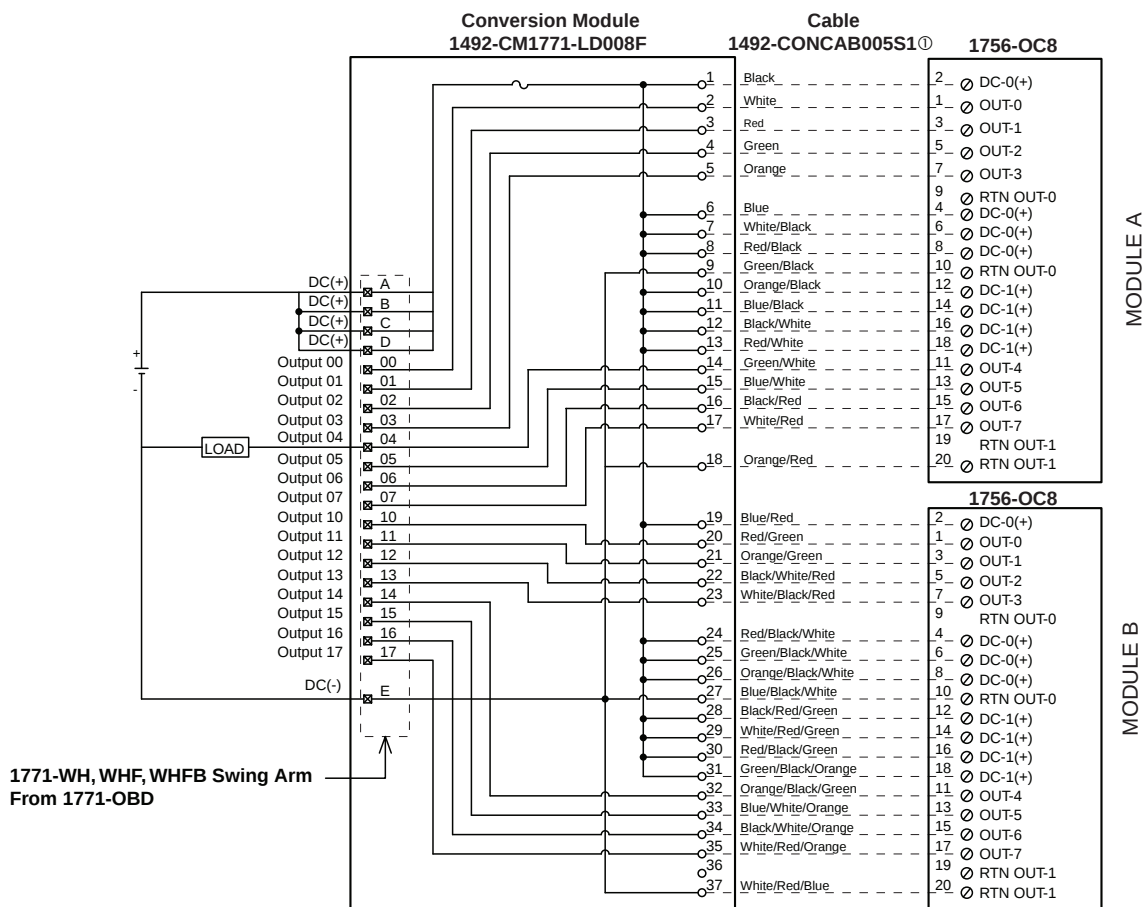
④ The 1771-OBD is rated 10V to 60V DC. The 1756-OB16E is rated 10V to 31.2V DC. If the load source voltage is greater than 30V DC, then use the 1756-OC8 with the 1492-CM1771-LD008F conversion module.

⑤ Refer to your 1771-OBD and 1756-OB16E Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.  
[Reference Doc: 41170-936 (Version 01)]

## 1771-OBD to 1756-OC8

**IMPORTANT**

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 two 1756-OC8 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OBD module output current limits versus 1756-OC8 limits are as follows:

|                         | 1771-OBD    | 1756-OC8 w/ 1492-CONCAB005S1 |
|-------------------------|-------------|------------------------------|
| a) Current/Point        | 2A          | 2A                           |
| b) Current /Module      | 8A          | 8A                           |
| c) Surge Current /Point | 4A for 10ms | 4A for 10ms                  |

③ The 1771-OBD has a single 10A, 250V rectifier fuse (1/4 x 1 1/4 inch). The 1756-OC8 is NOT fused, as such a 2AG fuse clip and 10A fuse is provided on the 1492-CM1771-LD008F conversion module.

④ The 1771-OBD is rated 10V to 60V DC. The 1756-OC8 is rated 30V to 60V DC. If the load source voltages is less than 30V DC, then use 1756-OB16E with the 1492-CM1771-LD006 conversion module.

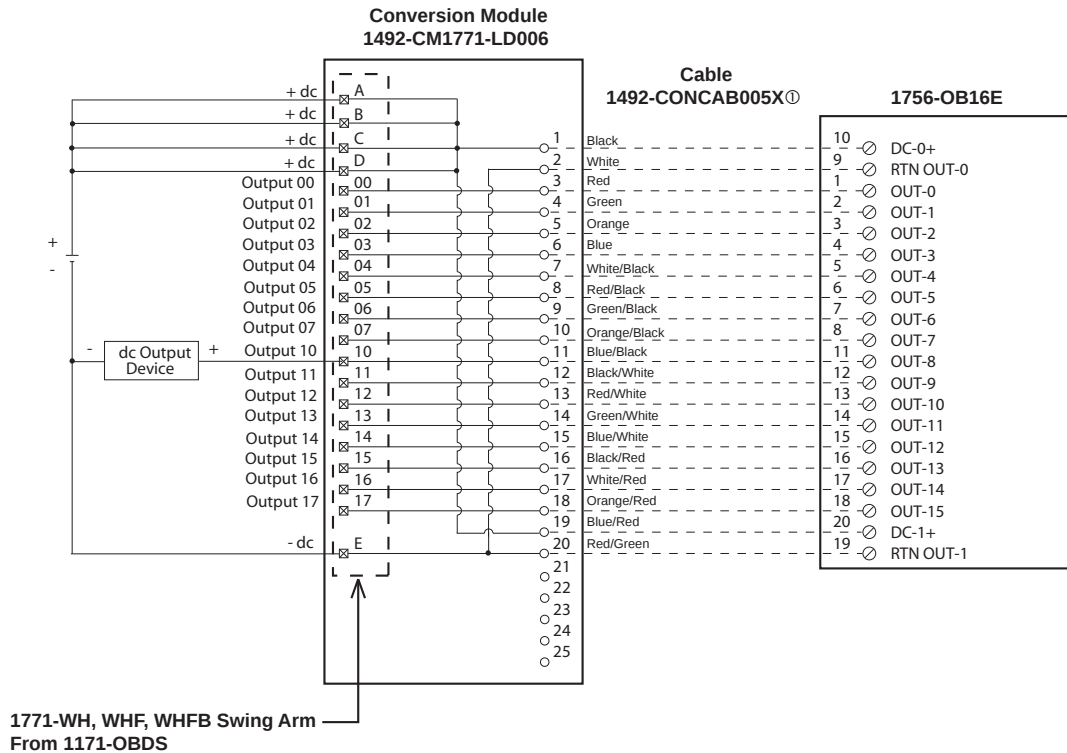
⑤ This configuration uses two(2) 1756-OC8 output modules to replace a single 1771-OBD output module. This may require the use of a larger 1756 I/O chassis and conversion mounting assembly. Ensure there is sufficient panel space to allow for this possibility.

⑥ Refer to your 1771-OBD and 1756-OC8 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41170-937 (Version 01)]

## 1771-OBDS to 1756-OB16E

**IMPORTANT**

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-OB16E RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OBDS module output current limits versus 1756-OB16E limits are as follows:

|                        | 1771-OBDS   | 1756-OB16E w/ 1492-CONCAB005X |
|------------------------|-------------|-------------------------------|
| a) Current/Point       | 1A          | 1A                            |
| b) Current/Module      | 8A          | 8A                            |
| c) Surge Current/Point | 4A for 10ms | 2A for 10ms                   |

③ The 1771-OBDS has a single 12A, 250V rectifier fuse (1/4 x 1-1/4 inch). The 1756-OB16E is electronically fused per group. Refer to the 1756-OB16E Installation Manual for details on electronic fusing.

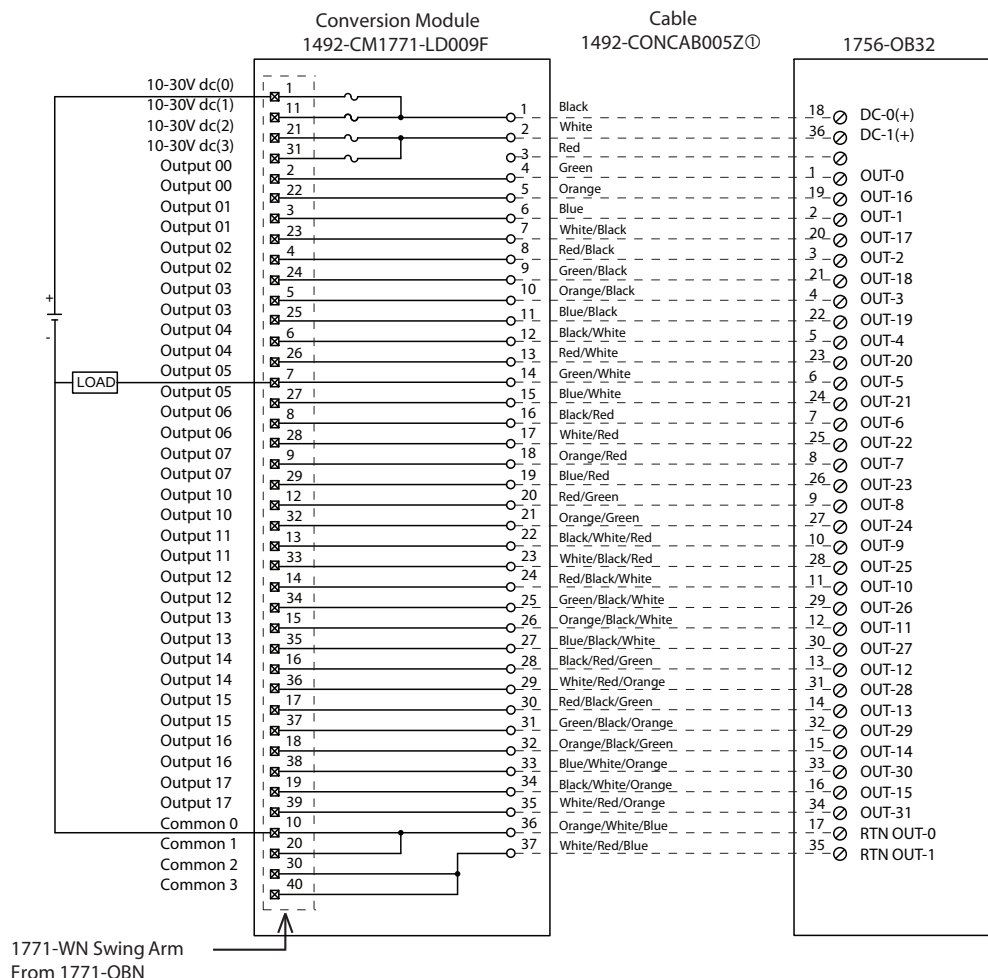
④ The 1771-OBDS is rated 10V to 40V DC. The 1756-OB16E is rated 10V to 31.2V DC. If the load source voltage is greater than 30V DC, then use the 1756-OC8 with the 1492-CM1771-LD008F conversion module.

⑤ Refer to your 1771-OBDS and 1756-OB16E Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.  
[Reference Doc: 41171-005 (Version 00)]

## 1771-OBN to 1756-OB32

**IMPORTANT**

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 The 1771-OBN module output current limits versus 1756-OB32 limits are as follows:

|                        | 1771-OBN    | 1756-OB32w/1492-CONCAB005Z |
|------------------------|-------------|----------------------------|
| a) Current/Point       | 0.5A        | 0.35A @ 60°C               |
| b) Current/Module      | 8A          | 6A @ 60°C                  |
| c) Surge Current/Point | 2A for 10ms | 1A for 10ms                |

② The 1771-OBN has four (4) 4A, 250V rectifier fuses. The 1756-OB32 is NOT fused, as such four (4) 2AG fuse clips and 4A fuses are provided on the 1492-CM1771-LD009F conversion module.

③ The 1492-CONCAB005Z is limited to 3A per pin.

④ The 1771-OBN has 4 groups (allowing 4 separate power supplies) and the 1756-OB32 has 2 groups. This module/cable combination ties Groups 0 & 1 from the 1771-OBN to Group 0 on the 1756-OB32 and Groups 2 & 3 from the 1771-OBN to Group 1 on the 1756-OB32. Field wiring modification must be made to accommodate this if multiple supplies were used. If 4 supplies were used, 2 must be removed.

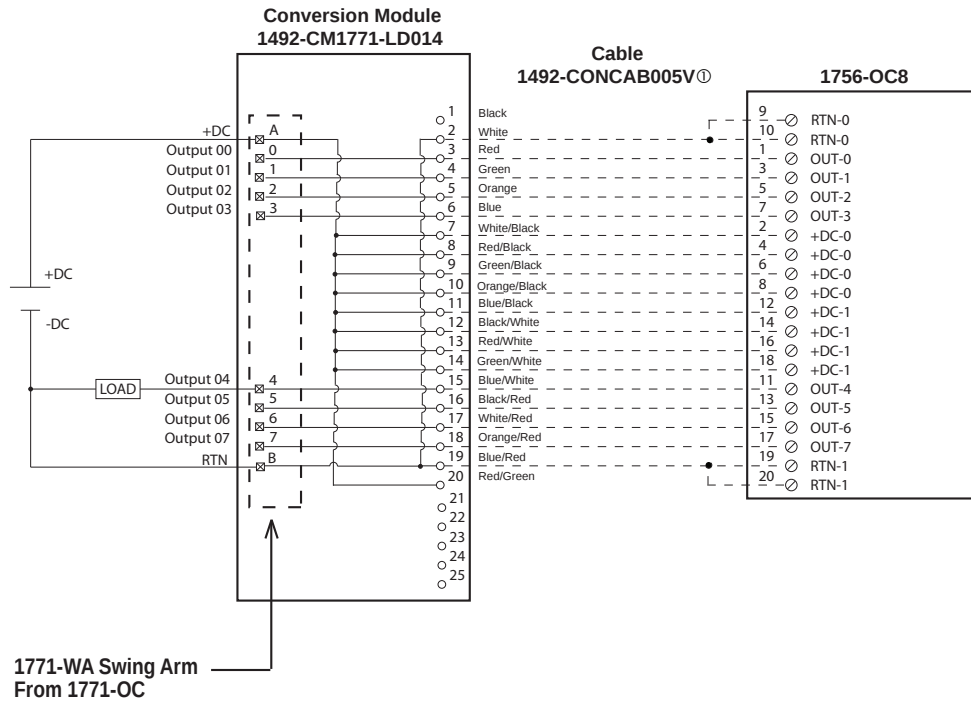
⑤ Refer to your 1771-OBN and 1756-OB32 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.

41170-938 (01)

## 1771-OC to 1756-OC8

**IMPORTANT**

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-OC8 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OC module output current limits versus 1756-OC8 limits are as follows:

|                        | 1771-OC      | 1756-OC8 w/ 1492-CONCAB005V |
|------------------------|--------------|-----------------------------|
| a) Current/Point       | 1.5A         | 2A                          |
| b) Current/Module      | 8A           | 8A @ 60°C                   |
| c) Surge Current/Point | 4A for 1.0ms | 4A for 10ms                 |

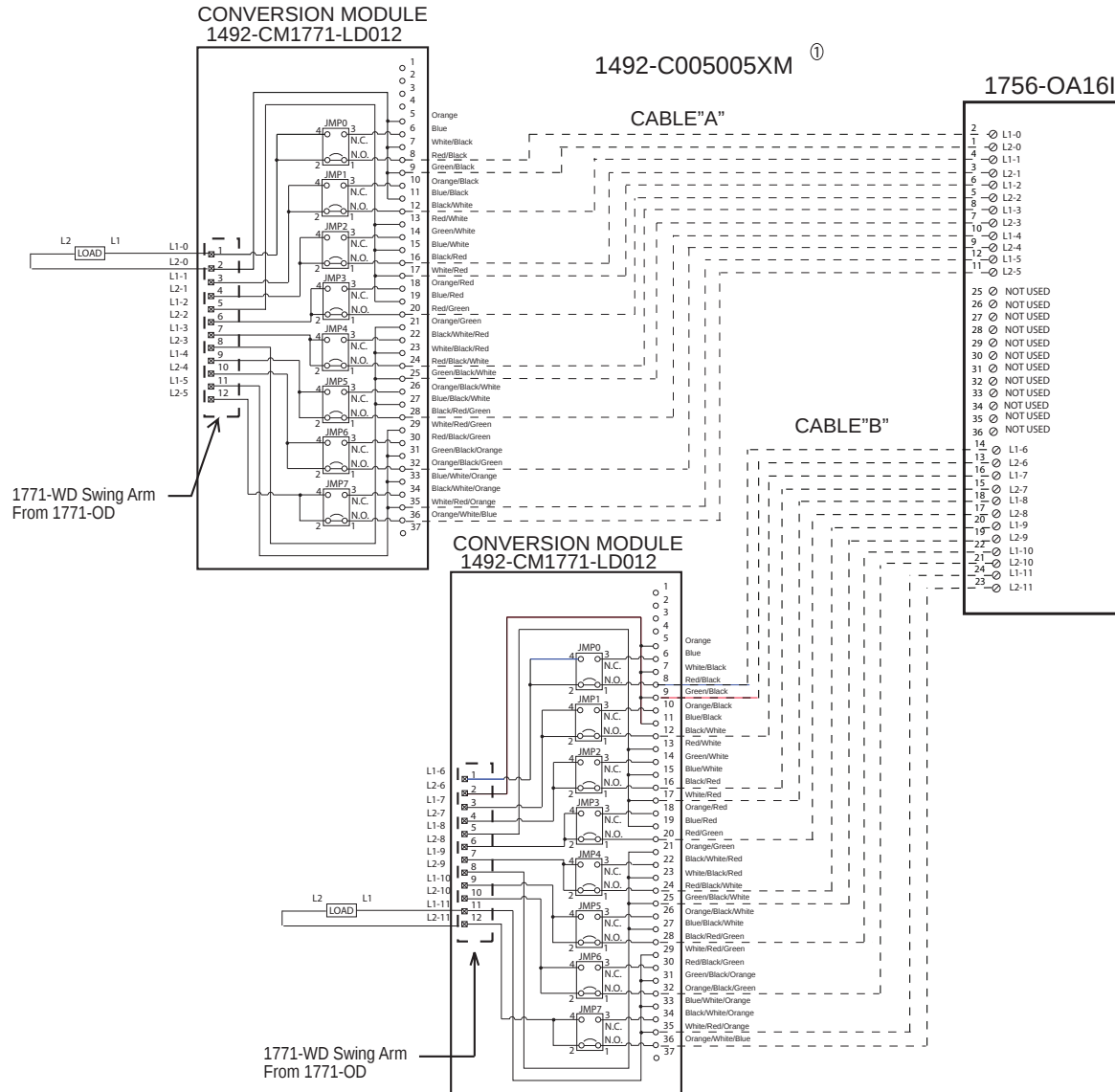
③ The 1771-OC has eight (8) 2A, 250V fuses - 1 per output. Refer to the 1756-OC8 Installation Manual for details.

④ Refer to your 1771-OC and 1756-OC8 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41171-020 (Version 00)]

## 1771-OD to 1756-OA16I

## IMPORTANT

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. In addition, refer to the current draw requirements of the existing loads for this configuration to ensure they are within the current ratings of the 1756 output module.



## CONVERSION MODULE INSTALLATION AND APPLICATION CONSIDERATIONS

- This Bul. 1492 cable consists of 2 separate cables (cable "A" and "B") wired to one 1756-IM16I RTB. Each cable can be either 0.5M or 1.0M (005=0.5M, 010=1.0M). Ensure that cable A and cable B are connected to the correct module in the conversion.
- The 1771-OD module output resistive current limits versus 1756-OA16I limits are as follows:  
(NOTE: for switching and inductive current ratings, refer to the modules Installation Instructions)

|                  | 1771-OD         | 1756-OA16I w/ 1492-CONCAB005XM |
|------------------|-----------------|--------------------------------|
| a) Current/Point | 0.2A @ 138V AC  | 2A @ 240V AC                   |
|                  | 1A @ 30V DC     | 2A @ 30V DC                    |
|                  | 0.25A @ 125V DC | 0.25A @ 125V DC                |

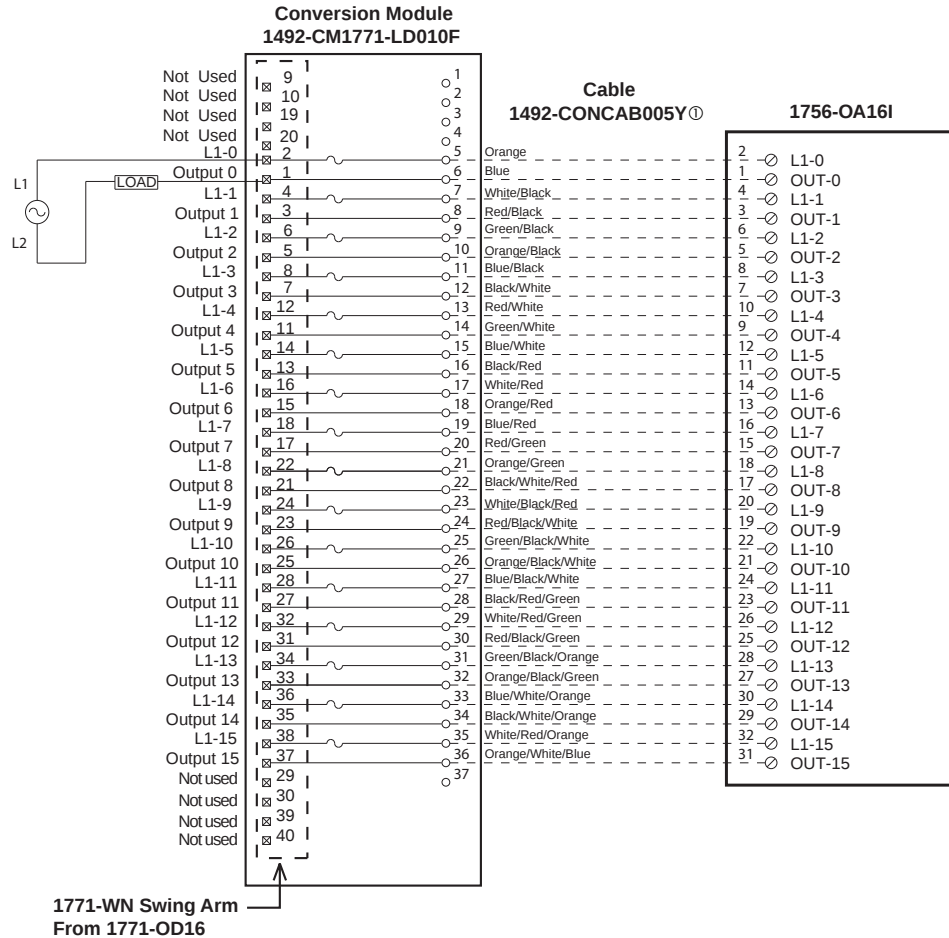
- The 1492-C005005XM is limited to 3A per pin.
- The 1771-OD module had a jumper selection of N.O. and N.C. outputs. The 1756-OA16I has both N.O. and N.C. outputs, but selection is by wiring termination on the 1756 swing arm. The 1492-CM1771-LD012 conversion module replaces the functionality of the 1771-OD jumpers with eight jumpers (JMP0 through JMP7). In the default position, the output will be N.O.. If a N.C. output is required, change the jumper from pins 1-2 to pins 3-4.
- Refer to your 1771-OD and 1756-OA16I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.

41170-994 (01)

## 1771-OD16 to 1756-OA16I

**IMPORTANT**

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-OA16I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OD16 module output current limits versus 1756-OA16I limits are as follows:

|                        | <b>1771-OD16</b> | <b>1756-OA16I w/ 1492-CONCAB005Y</b> |
|------------------------|------------------|--------------------------------------|
| a) Current/Point       | 2A               | 1A                                   |
| b) Current/Module      | 8A               | 4A                                   |
| b) Surge Current/Point | 20A for 100ms    | 20A for 43ms                         |

③ The 1771-OD16 has sixteen (16) 3A, 250V rectifier fuses. The 1756-OA16I is NOT fused, as such sixteen (16) 2AG fuse clips are provided on the 1492-CM1771-LD010F conversion module. Max fuse rating is 1.5A based on 1756-OA16I.

④ The 1771-OD16 is rated 74V to 138V AC and 105V to 138V DC. The 1756-OA16I is rated 74V to 265V AC. A 1756 isolated output module with an equivalent DC voltage range to convert the 1771-OD16 is not available.

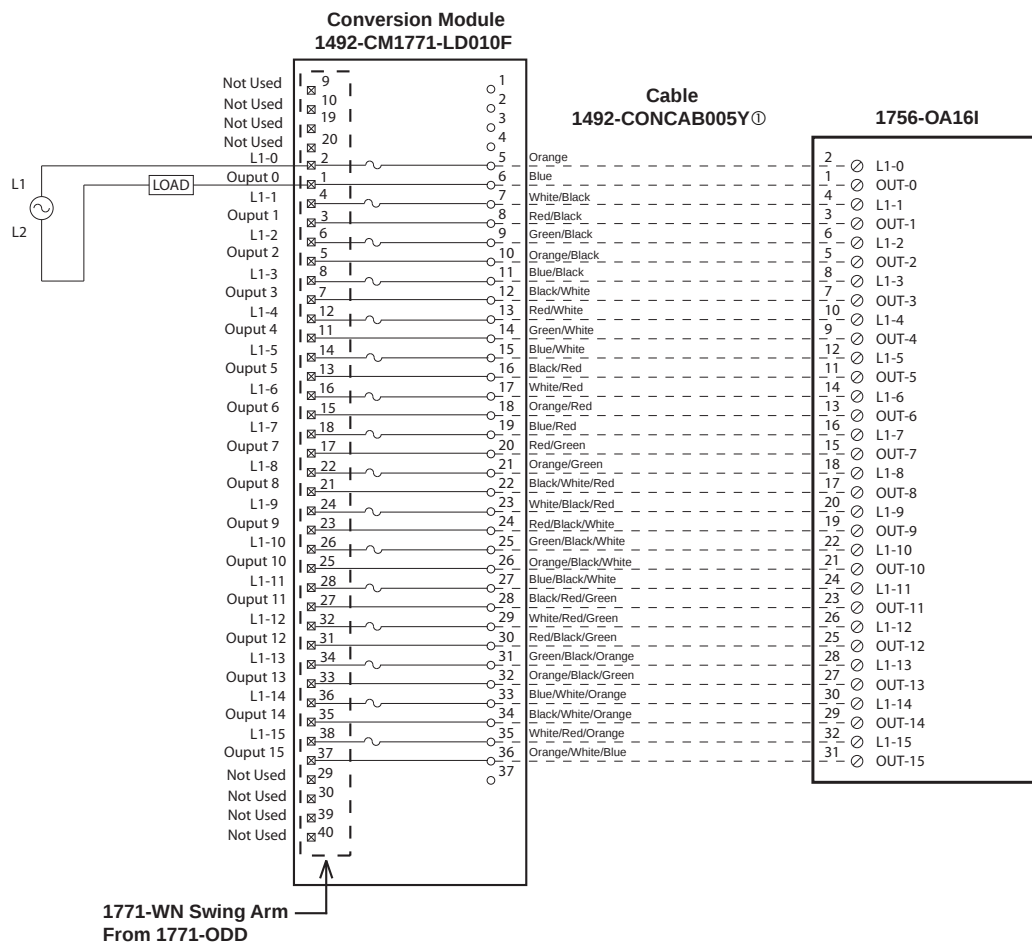
⑤ Refer to your 1771-OD16 and 1756-OA16I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module rating are not exceeded.

[Reference Doc: 41170-939 (Version 01)]

## 1771-ODD to 1756-OA16I

**IMPORTANT**

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-OA16I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-ODD module output current limits versus 1756-OA16I limits are as follows:

|                        | <b>1771-ODD</b> | <b>1756-OA16I w/ 1492-CONCAB005Y</b> |
|------------------------|-----------------|--------------------------------------|
| a) Current/Point       | 2A              | 2A                                   |
| b) Current/Module      | 8A              | 5A                                   |
| c) Surge Current/Point | 20A for 100ms   | 20A for 43ms                         |

③ The 1771-ODD has sixteen (16) 3A, 250V rectifier fuses. The 1756-OA16I is NOT fused, as such sixteen(16) 2AG fuses and clips are provided on the 1492-CM1771-LD010F conversion module. Max fuse rating is 1.5A based on 1756-OA16I.

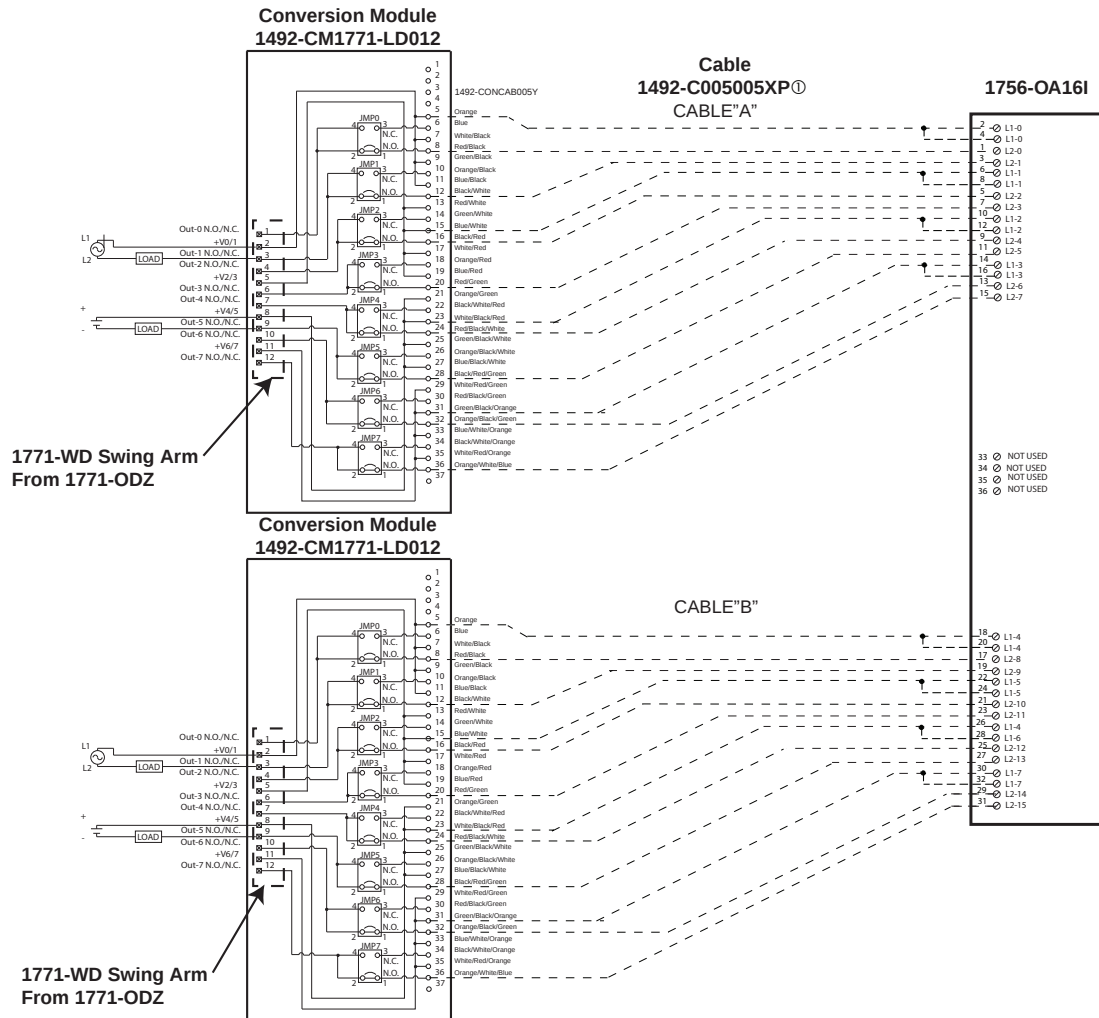
④ The 1771-ODD is rated 74V to 138V AC. The 1756-OA16I is rated 74V to 265V AC.

⑤ Refer to your 1771-ODD and 1756-OA16I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41171-009 (Version 00)]

## 1771-ODZ to 1756-OA16I

## IMPORTANT

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

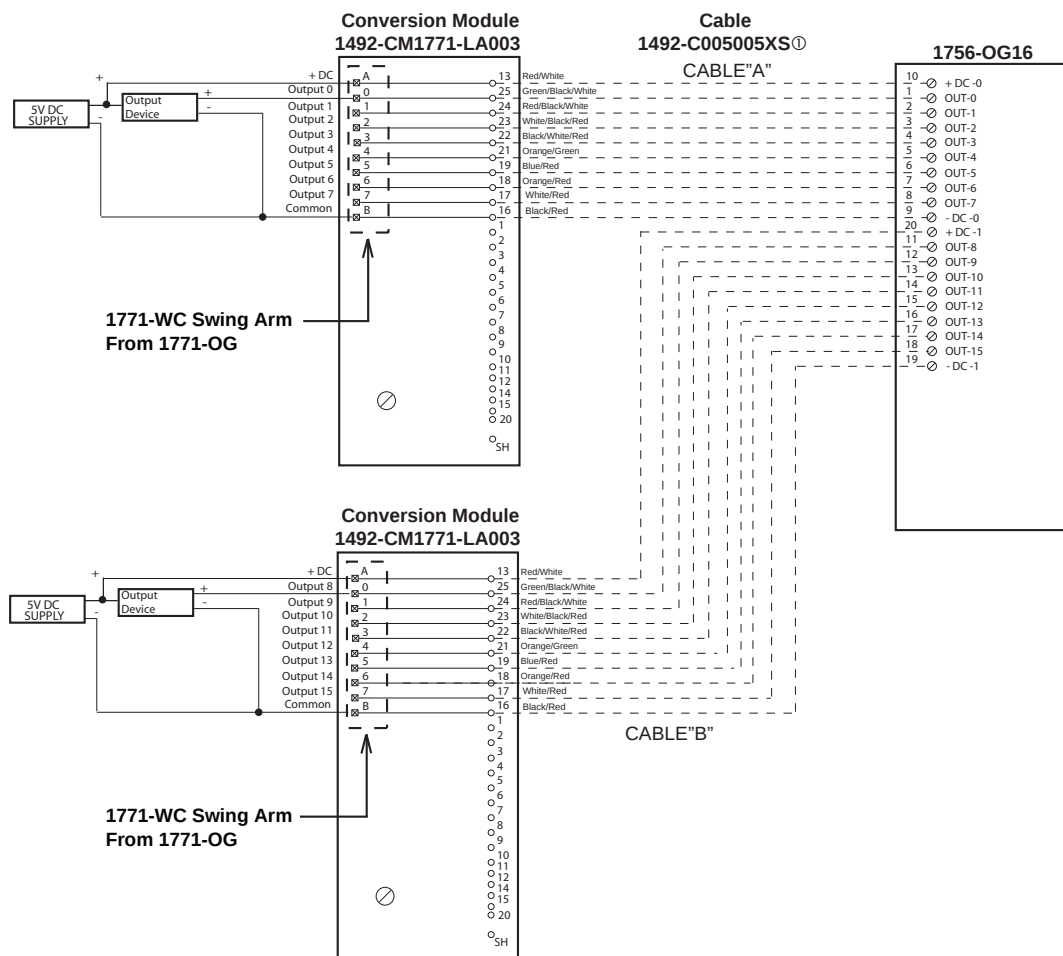
- This Bul. 1492 cable consists of 2 separate cables (cable "A" and cable "B") wired to one 1756-OA16I RTB. Each cable can be either 0.5M or 1.0M (005=0.5M, 010=1.0M). Ensure that cable A and cable B are connected to the correct module in the conversion
- The 1771-ODZ module output resistive current limits versus 1756-OA16I limits are as follows:
 

|                        | 1771-ODZ      | 1756-OA16I w/ 1492-C005005XP |
|------------------------|---------------|------------------------------|
| a) Current/Point       | 2A            | 2A                           |
| b) Current/Module      | 6A            | 5A @ 60°C                    |
| c) Surge Current/Point | 20A for 100ms | 20A for 43ms                 |
- The 1771-ODZ module had a jumper selection of N.O. and N.C. outputs. The 1756-OA16I has both N.O. and N.C. outputs, but selection is by wiring termination on the 1756 swing arm. The 1492-CM1771-LD012 conversion module replaces the functionality of the 1771-ODZ jumpers with eight jumpers (JMP0 through JMP7). In the default position, the output will be N.O. If a N.C. output is required, change the jumper from pins 1-2 to pins 3-4.
- Refer to your 1771-ODZ and 1756-OA16I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.  
[Reference Doc: 41171-016 (Version 00)]

## 1771-OG to 1756-OG16

**IMPORTANT**

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**

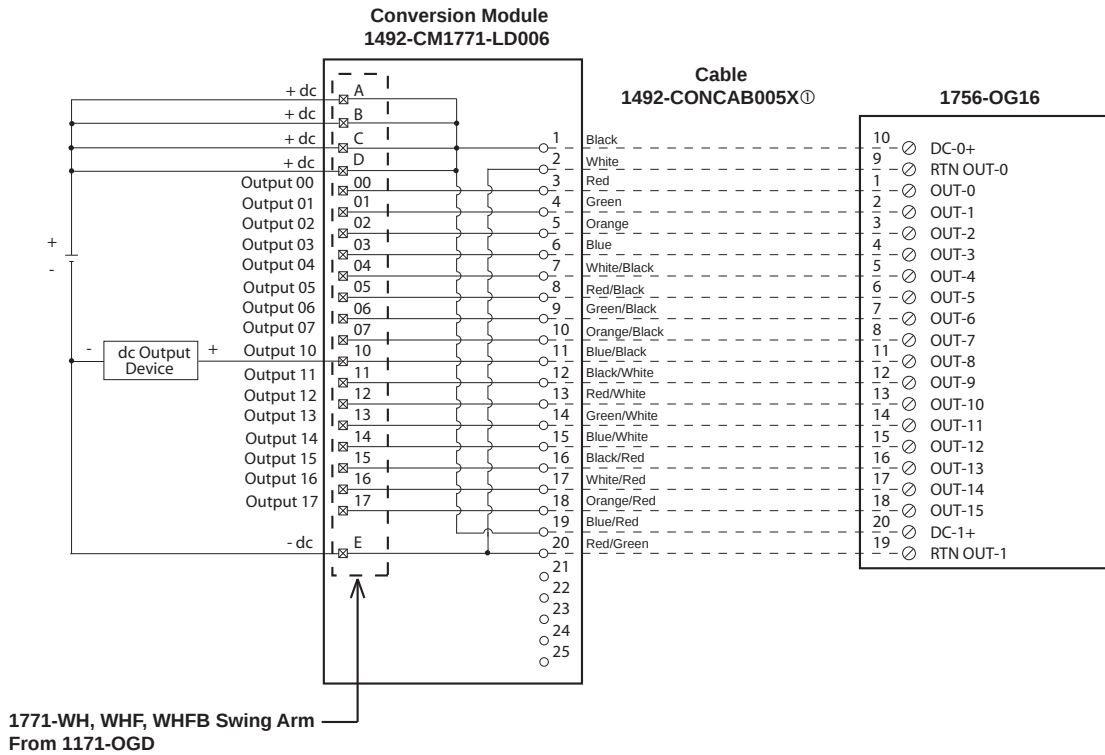
- ① This Bul. 1492 cable consists of 2 separate cables (cable "A" and cable "B") wired to one 1756-OG16 RTB. Each cable can be either 0.5M or 1.0M (005=0.5M, 010=1.0M). Ensure that cable A and cable B are connected to the correct module in the conversion.
- ② The input delay times for the 1771-OG module versus the 1756-OG16 module are as follows:
 

|                    | <b>1771-OG</b> | <b>1756-OG16 w/ 1492-C005005XS</b> |
|--------------------|----------------|------------------------------------|
| a) Off-to-On Delay | 1ms (+/-10ms)  | 45ms max (plus selectable filter)  |
| b) On-to-Off Delay | 1ms (+/-10ms)  | 145ms max (plus selectable filter) |
- ③ The 1771-OG module is rated 5V DC TTL INPUT MODULE. The 1756-OG16 module is rated 5V DC TTL INPUT MODULE only.
- ④ Refer to your 1771-OG and 1756-OG16 Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.  
[Reference Doc: 41171-028 (Version 00)]

## 1771-OGD to 1756-OG16

**IMPORTANT**

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-OG16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OGD module output current limits versus 1756-OG16 limits are as follows:

|                   | <b>1771-OGD</b> | <b>1756-OG16 w/ 1492-CONCAB005X</b> |
|-------------------|-----------------|-------------------------------------|
| a) Current/Point  | 1mA             | 24mA                                |
| b) Current/Module | 310mA           | 384mA                               |

③ The 1771-OGD has a single 10A, 250V rectifier fuse (1/4 x 1-1/4 inch). The 1756-OG16 is electronically fused per group. Refer to the 1756-OG16 Installation Manual for details on electronic fusing.

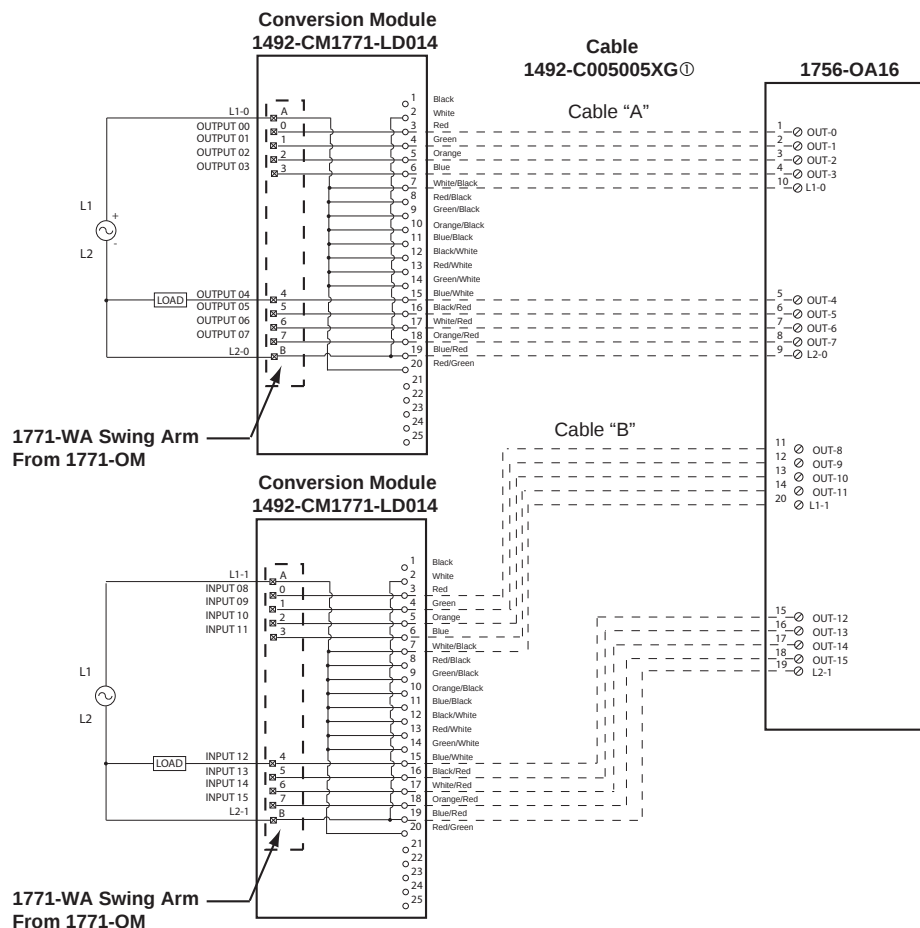
④ The 1771-OGD is rated 10V to 60V DC. The 1756-OG16 is rated 10V to 31.2V DC.

⑤ Refer to your 1771-OGD and 1756-OG16 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.  
[Reference Doc: 41171-006 (Version 00)]

## 1771-OM to 1756-OA16

**IMPORTANT**

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**

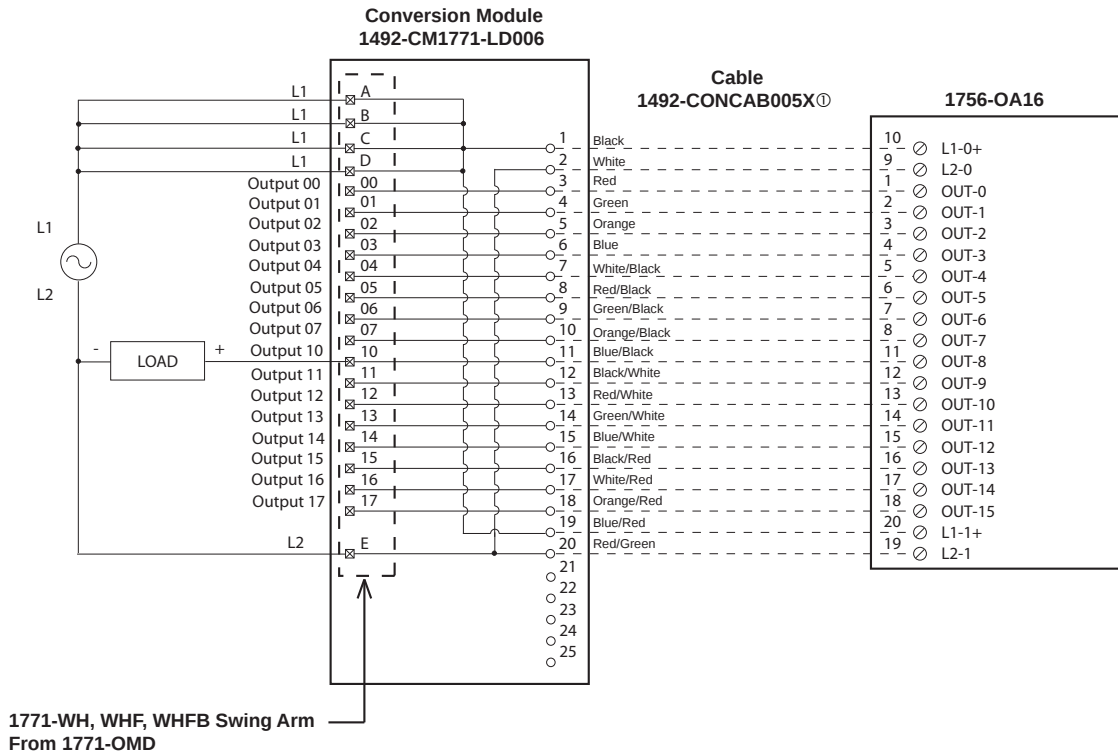
- ① This Bul. 1492 cable consists of 2 separate cables (cable "A" and cable "B") wired to one 1756-OA16 RTB. Each cable can be either 0.5M or 1.0M (005=0.5M, 010=1.0M). Ensure that cable A and cable B are connected to the correct module in the conversion.
- ② The 1771-OM module output current limits versus 1756-OA16 limits are as follows:

|                        | <b>1771-OM</b> | <b>1756-OA16 w/ 1492-CONCAB005XG</b> |
|------------------------|----------------|--------------------------------------|
| a) Current/Point       | 2A             | 0.5 @ 60°C                           |
| b) Current/Module      | 6A             | 4A @ 60°C                            |
| c) Surge Current/Point | 20A for 100ms  | 5A for 43ms                          |
- ③ The 1771-OM module is rated 220V to 240V AC. The 1756-OA16 module is rated 74V to 265V AC only.
- ④ Refer to your 1771-OM and 1756-OA16 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.  
[Reference Doc: 41171-022 (Version 00)]

## 1771-OMD to 1756-OA16

**IMPORTANT**

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-OA16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OMD module output current limits versus 1756-OA16 limits are as follows:

|                        | <b>1771-OMD</b> | <b>1756-OA16 w/ 1492-CONCAB005X</b> |
|------------------------|-----------------|-------------------------------------|
| a) Current/Point       | 2A              | 0.5A                                |
| b) Current/Module      | 8A              | 4A                                  |
| c) Surge Current/Point | 25A for 100ms   | 5A for 43ms                         |

③ The 1771-OMD has a single 10A, 250V rectifier fuse (1/4 x 1 1/4 inch). The 1756-OA16 has a mechanical 3.15A @250V AC slow blow fuse. Refer to the 1756-OA16 Installation Manual for details on electronic fusing.

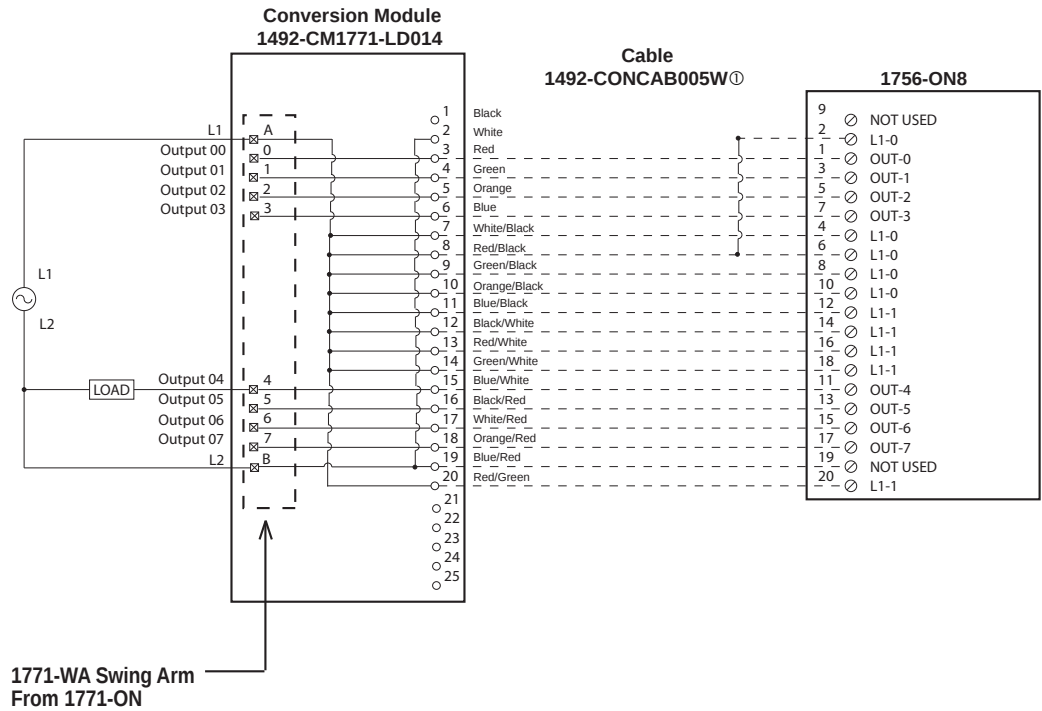
④ The 1771-OMD is rated 184V to 250V AC. The 1756-OA16 is rated 74V to 265V AC. If the load source voltage is greater than 30V DC, then use the 1756-OC8 with the 1492-CM1771-LD008F conversion module.

⑤ Refer to your 1771-OMD and 1756-OA16 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.  
[Reference Doc: 41171-007 (Version 00)]

1771-ON to 1756-ON8

IMPORTANT

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.



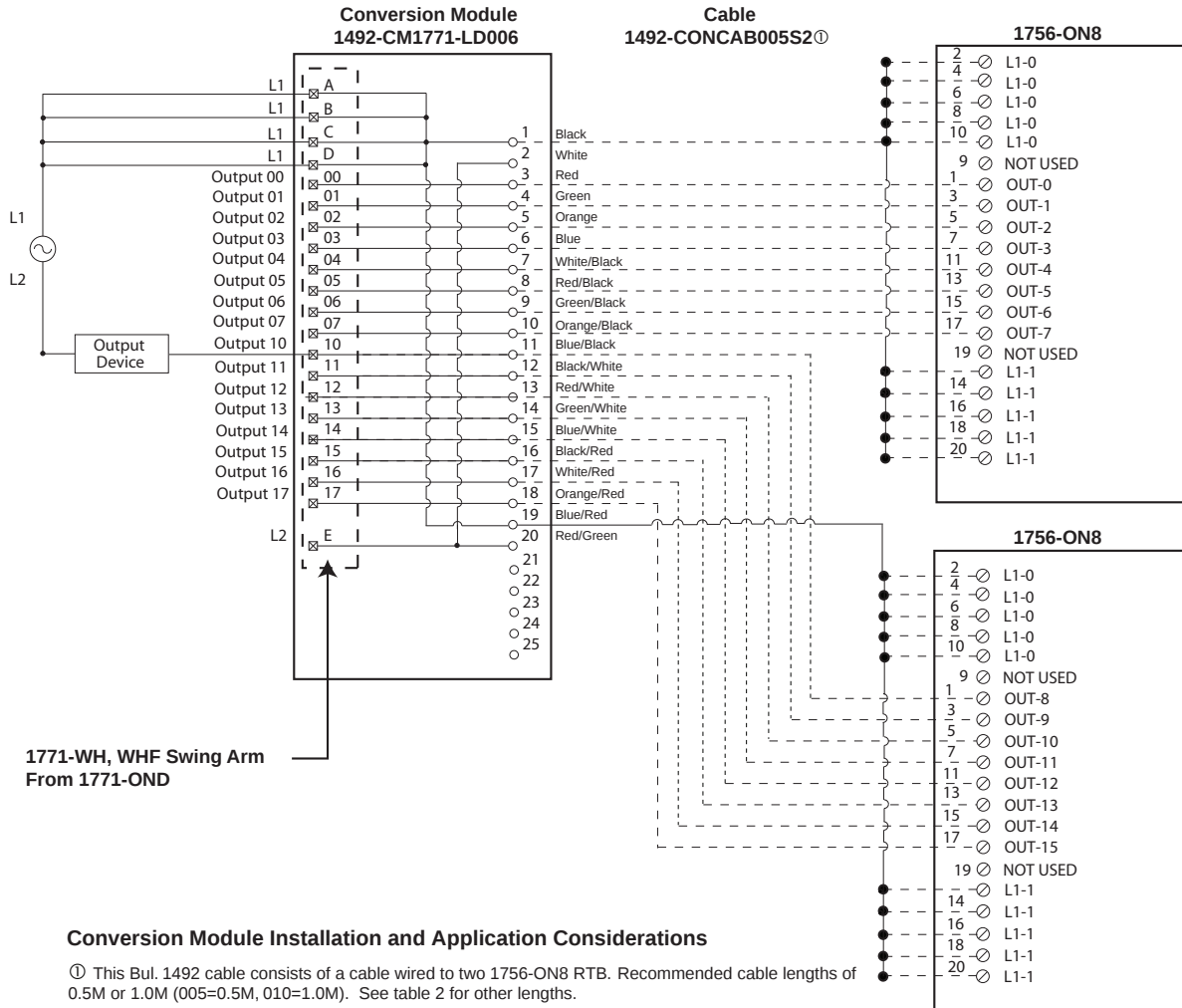
Conversion Module Installation and Application Considerations

- ① This Bul. 1492 cable consists of a cable wired to one 1756-ON8 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② The 1771-ON module output current limits versus 1756-ON8 limits are as follows:
- |                        | <b>1771-ON</b> | <b>1756-ON8 w/ 1492-CONCAB005W</b> |
|------------------------|----------------|------------------------------------|
| a) Current/Point       | 1.5A           | 2A                                 |
| b) Current/Module      | 6A             | 5A @ 60°C                          |
| c) Surge Current/Point | 4A for 10ms    | 20A for 43ms                       |
- ③ The 1771-ON has eight (8) 2A, 250V fuses - 1 per output. The 1756-ON8 is electronically fused per point. Refer to the 1756-ON8 Installation Manual for details on electronic fusing.
- ④ Refer to your 1771-ON and 1756-ON8 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41171-021 (Version 00)]

## 1771-OND to 1756-ON8

**IMPORTANT**

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.



① This Bul. 1492 cable consists of a cable wired to two 1756-ON8 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OND module output current limits versus (2)1756-ON8 limits are as follows:

|                        | 1771-OND      | 1756-ON8 w/ 1492-CONCAB005S2 |
|------------------------|---------------|------------------------------|
| a) Current/Point       | 2A            | 2A                           |
| b) Current/Module      | 8A            | 5A                           |
| c) Surge Current/Point | 25A for 100ms | 20A for 43ms                 |

③ The L2 terminal (Terminal E) on the 1771-ON8 module was an optional connection, but it is required for the 1756-ON8. This connection must be added if it was not connected.

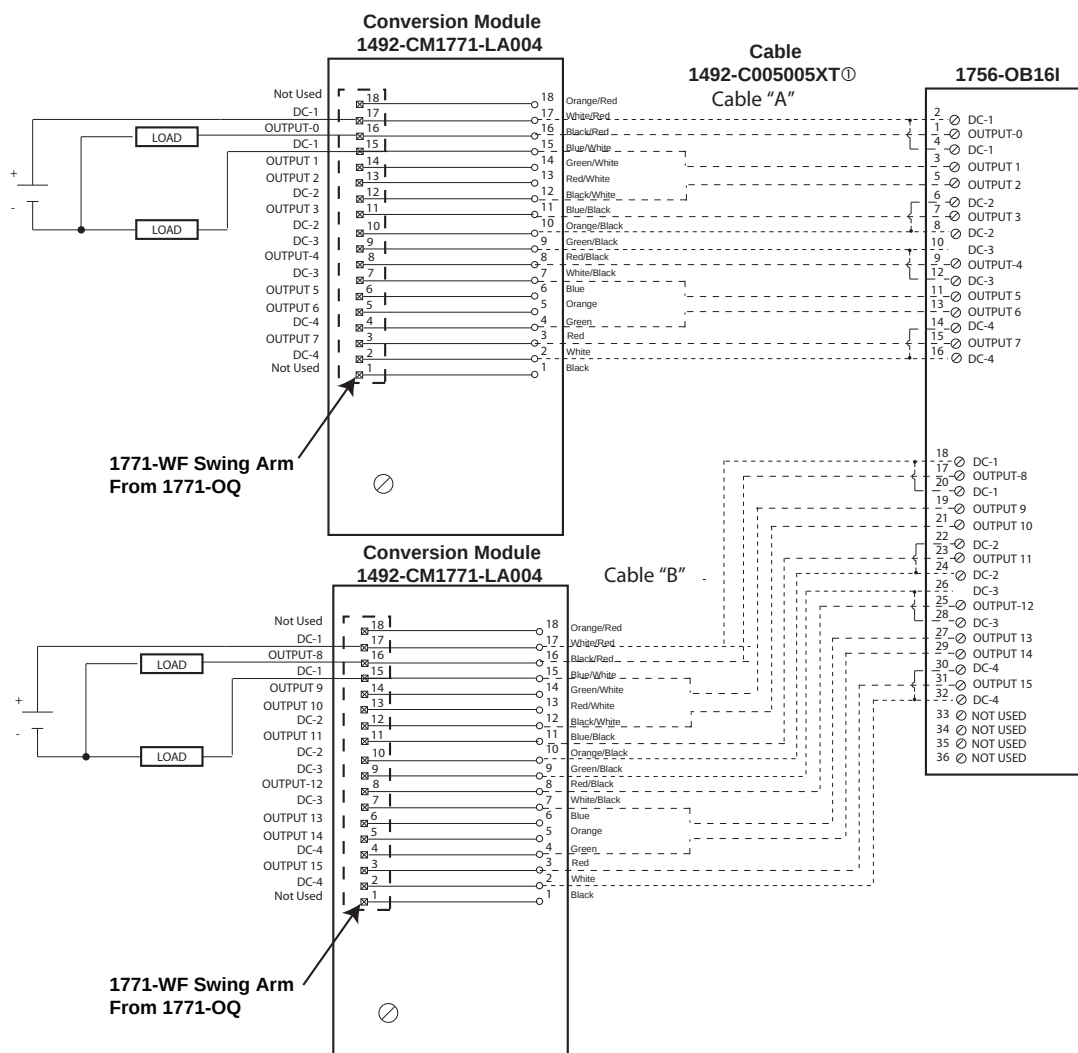
④ The 1771-OND is rated 24V AC. The 1756-ON8 is rated 10V to 30V AC.

⑤ Refer to your 1771-OND and 1756-ON8 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.  
[Reference Doc: 41171-008 (Version 00)]

## 1771-OQ to 1756-OB16I

**IMPORTANT**

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 2 separate cables (cable "A" and cable "B") wired to one 1756-OB16I RTB. Each cable can be either 0.5M or 1.0M (005=0.5M, 010=1.0M). Ensure that cable A and cable B are connected to the correct module in the conversion

② The 1771-OQ module output resistive current limits versus 1756-OB16I limits are as follows:

|                        | <b>1771-OQ</b> | <b>1756-OB16I w/ 1492-C005005XT</b> |
|------------------------|----------------|-------------------------------------|
| a) Current/Point       | 2.25A          | 2A                                  |
| b) Current/Module      | 9A             | 8A                                  |
| c) Surge Current/Point | 4A for 10ms    | 4A for 10ms                         |

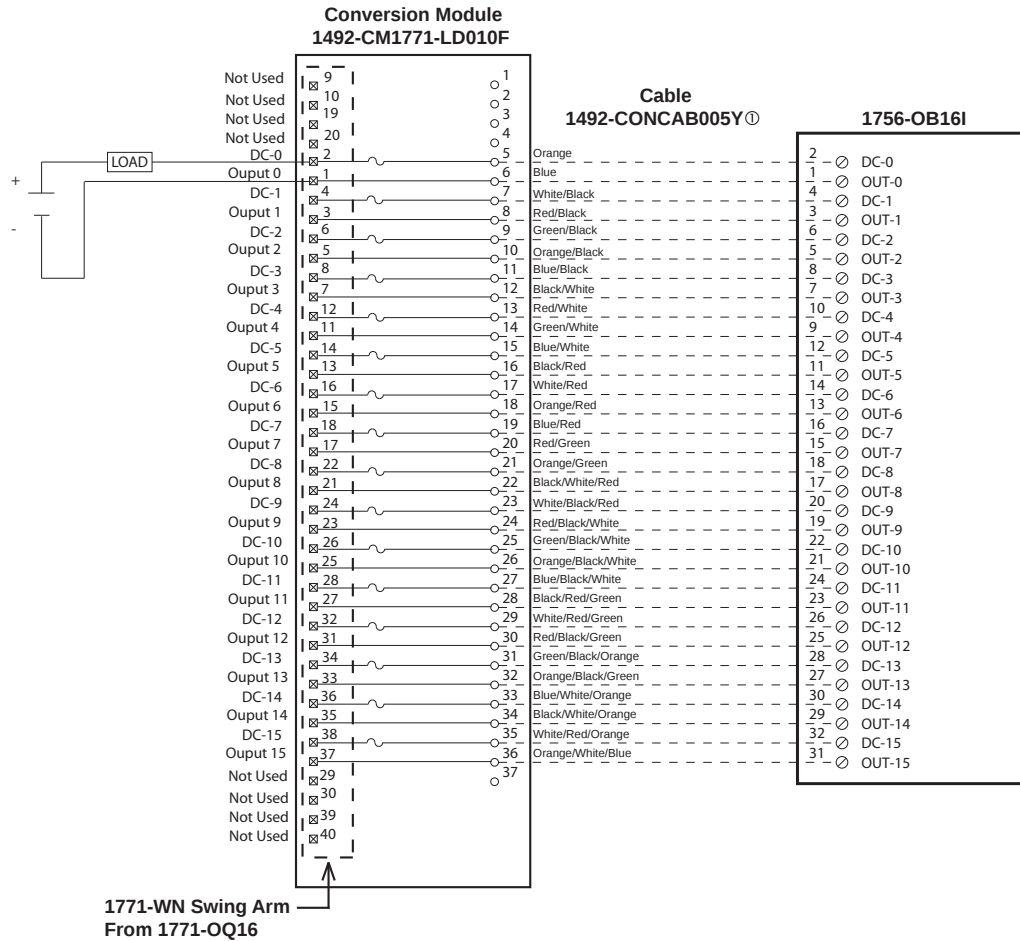
③ The 1771-OQ is rated 10V to 32V DC. The 1756-OB16I is rated 10V to 30V DC.

④ Refer to your 1771-OQ and 1756-OB16I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.  
[Reference Doc: 41171-033 (Version 00)]

## 1771-OQ16 to 1756-OB16I

**IMPORTANT**

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-OB16I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OQ16 module output current limits versus 1756-OB16I limits are as follows:

|                        | 1771-OQ16   | 1756-OB16I w/ 1492-CONCAB005Y |
|------------------------|-------------|-------------------------------|
| a) Current/Point       | 2A          | 2A                            |
| b) Current/Module      | 32A         | 8A                            |
| c) Surge Current/Point | 4A for 10ms | 4A for 10ms                   |

③ The 1771-OQ16 has sixteen (16) 3A, 250V rectifier fuses. The 1756-OB16I is NOT fused, as such sixteen(16) 2AG fuses and clips are provided on the 1492-CM1771-LD010F conversion module. Max fuse rating is 1.5A based on 1756-OA16I.

④ The 1771-OQ16 is rated 10V to 32V DC. The 1756-OB16I is rated 10V to 30V DC.

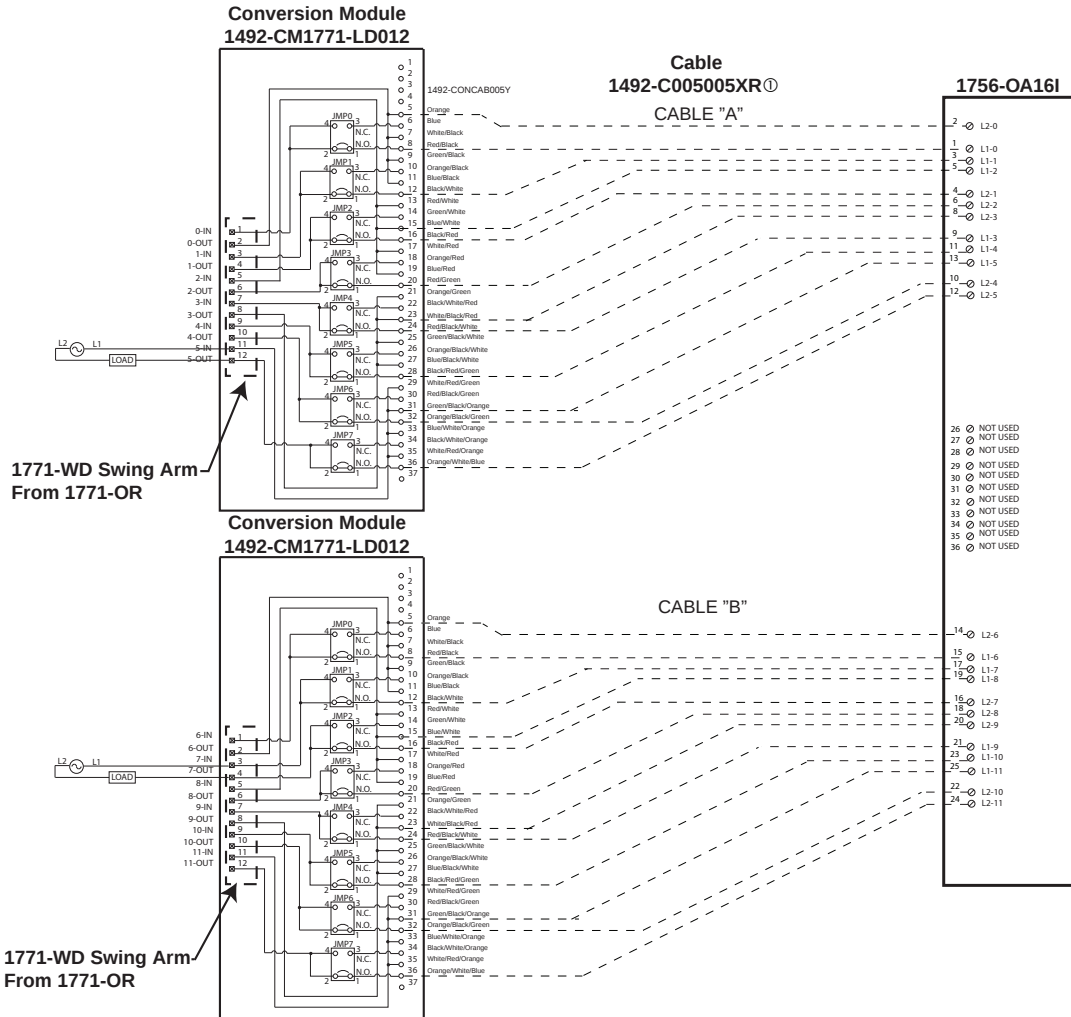
⑤ Refer to your 1771-OQ16 and 1756-OB16I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.

[Reference Doc: 41171-010 (Version 00)]

## 1771-OR to 1756-OB16I

**IMPORTANT**

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 2 separate cables (cable "A" and cable "B") wired to one 1756-OA16I RTB. Each cable can be either 0.5M or 1.0M (005=0.5M, 010=1.0M). Ensure that cable A and cable B are connected to the correct module in the conversion

② The 1771-OR module output resistive current limits versus 1756-OA16I limits are as follows:

|                        | <b>1771-OR</b> | <b>1756-OA16I w/ 1492-C005005XR</b> |
|------------------------|----------------|-------------------------------------|
| a) Current/Point       | 2A             | 2A                                  |
| b) Current/Module      | 6A             | 5A @ 60°C                           |
| c) Surge Current/Point | 15A for 100ms  | 20A for 43ms                        |

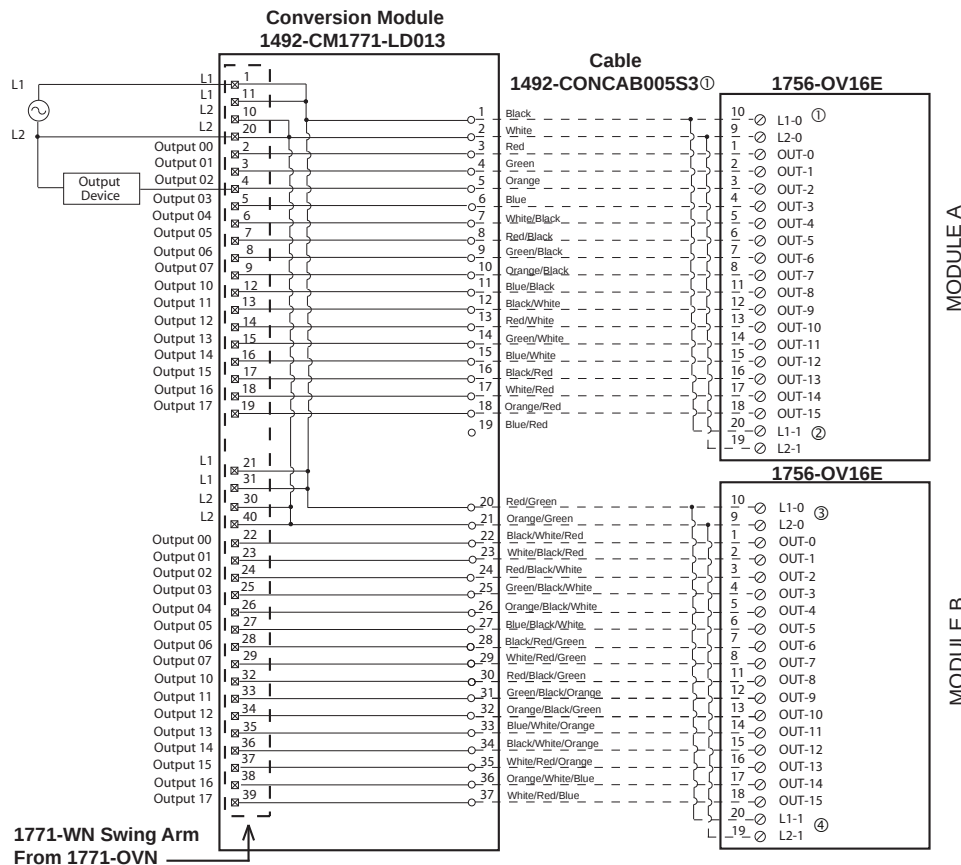
③ The 1771-OR module had a jumper selection of N.O. and N.C. outputs. The 1756-OA16I has both N.O. and N.C. outputs, but selection is by wiring termination on the 1756 swing arm. The 1492-CM1771-LD012 conversion module replaces the functionality of the 1771-OR jumpers with eight jumpers (JMP0 through JMP7). In the default position, the output will be N.O. If a N.C. output is required, change the jumper from pins 1-2 to pins 3-4.

④ Refer to your 1771-OR and 1756-OA16I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.  
[Reference Doc: 41171-017 (Version 00)]

## 1771-OVN to 1756-OV16E

**IMPORTANT**

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 two 1756-OV16E RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OVN module output current limits versus 1756-OV16E limits are as follows:

|                        | 1771-OVN    | 1756-OV16E w/ 1492-CONCAB005S3 |
|------------------------|-------------|--------------------------------|
| a) Current/Point       | 0.5A        | 1A                             |
| b) Current/Module      | 8A (32 pts) | 8A (16 pts)                    |
| c) Surge Current/Point | 2A for 10ms | 2A for 10ms                    |

③ The 1771-OVN has 4 groups (allowing 4 separate power supplies). This module/cable combination ties all 4 groups from the 1771-OVN together. Field wiring modification must be made to accommodate this if multiple supplies were used. If more than 1 supply was used, all but 1 of the power supplies must be removed.

④ The 1771-OVN did not allow connections for L2, however the 1756-OV16E requires an L2 connection for proper operation. The 1771-OVN did not use terminals 10, 20, 30, 40. These terminals have been reassigned for an L2 connection in this application. The installer must rewire L2 to one of these terminals.

⑤ Refer to your 1771-OVN and 1756-OV16E Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.

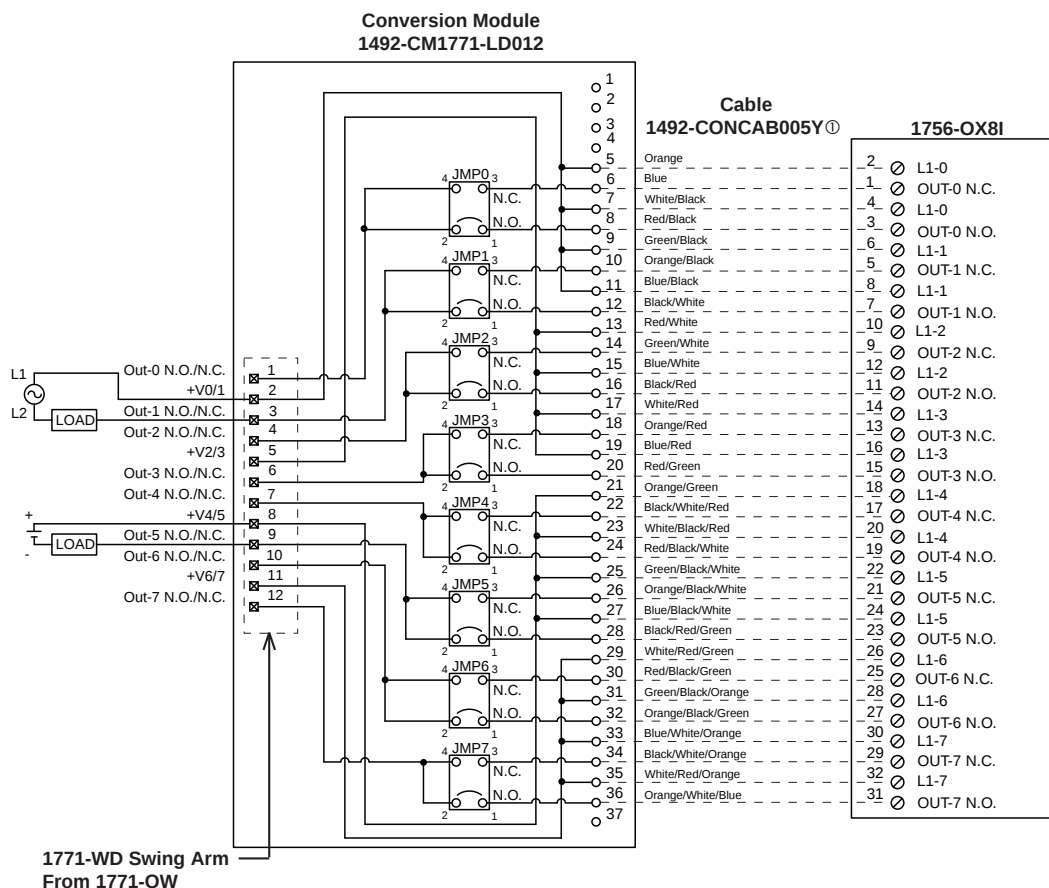
⑥ This configuration uses two (2) 1756-OV16E output modules to replace a single 1771-OVN output module. This may require the use of a larger 1756 I/O chassis and conversion mounting assembly. Ensure there is sufficient panel space to allow for this possibility.

[Reference Doc: 41171-018 (Version 00)]

## 1771-OW to 1756-OX8I

**IMPORTANT**

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-OX8I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M), 010=1.0M). See table 2 for other lengths.

② The 1771-OW module output resistive current limits versus 1756-OX8I limits are as follows:  
(NOTE: For switching and inductive current ratings, refer to the modules Installation Instructions)

|                  | 1771-OW         | 1756-OX8I w/ 1492-CONCAB005Y |
|------------------|-----------------|------------------------------|
| a) Current/Point | 0.2A @ 138V AC  | 2A @ 240V AC                 |
|                  | 1A @ 30V DC     | 2A @ 30V DC                  |
|                  | 0.25A @ 125V DC | 0.25A @ 125V DC              |

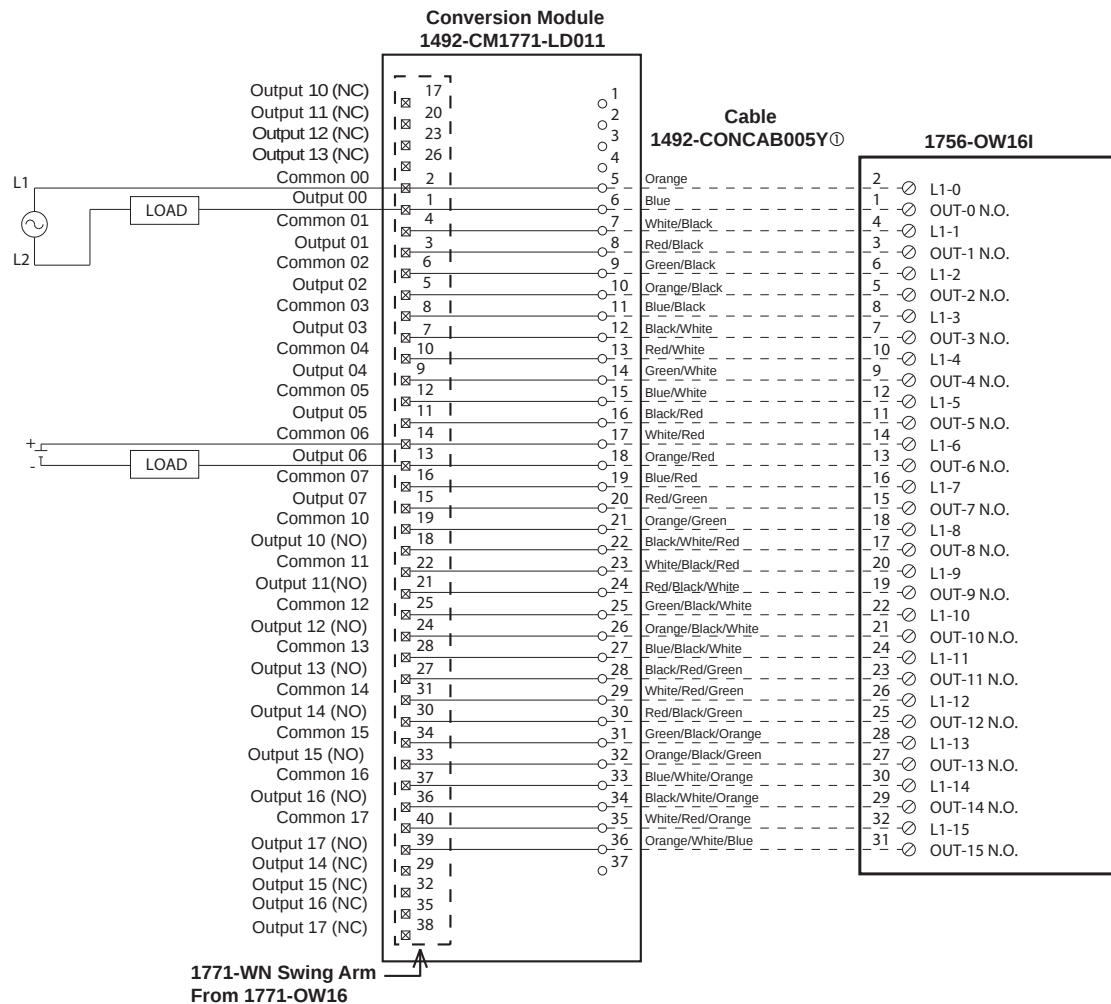
③ The 1771-OW module had a jumper selection of N.O. and N.C. outputs. The 1756-OX8I has both N.O. and N.C. outputs, but selection is by wiring termination on the 1756 swing arm. The 1492-CM1771-LD012 conversion module replaces the functionality of the 1771-OW jumpers with eight jumpers (JMP0 through JMP7). In the default position, the output will be N.O. If a N.C. output is required, change the jumper from pins 1-2 to pins 3-4.

④ Refer to your 1771-OW and 1756-OX8I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.  
[Reference Doc: 41170-941 (Version 01)]

## 1771-OW16 to 1756-OW16I

**IMPORTANT**

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 The 1771-OW16 module output resistive current limits versus 1756-OW16I limits are as follows:

|                  | <b>1771-OW16</b> | <b>1756-OW16I w/ 1492-CONCAB005Y</b> |
|------------------|------------------|--------------------------------------|
| a) Current/Point | 2A @ 250V AC     | 2A @ 240V AC                         |
|                  | 2A @ 30V DC      | 2A @ 30V DC                          |
|                  | 0.3A @ 150V DC   | 0.25A @ 125V AC                      |

② The 1492-CONCAB005Y is limited to 3A per pin.

③ The 1771-OW16 has N.O. and N.C. relay contact outputs. The 1756-OW16I has N.O. relay contact outputs only. The conversion module does not convert the N.C. to N.O. contacts. If the 1771-OW16 N.C. outputs were being used, the installer must rewire the 1771-WN swing arm and move the N.C. wires to the N.O. output terminals. In addition, the control Logix programming will need to be changed to simulate a N.C. relay with this output.

③ Refer to your 1771-OW16 and 1756-OW16I Installation Manual wiring schematics and diagrams for more details.

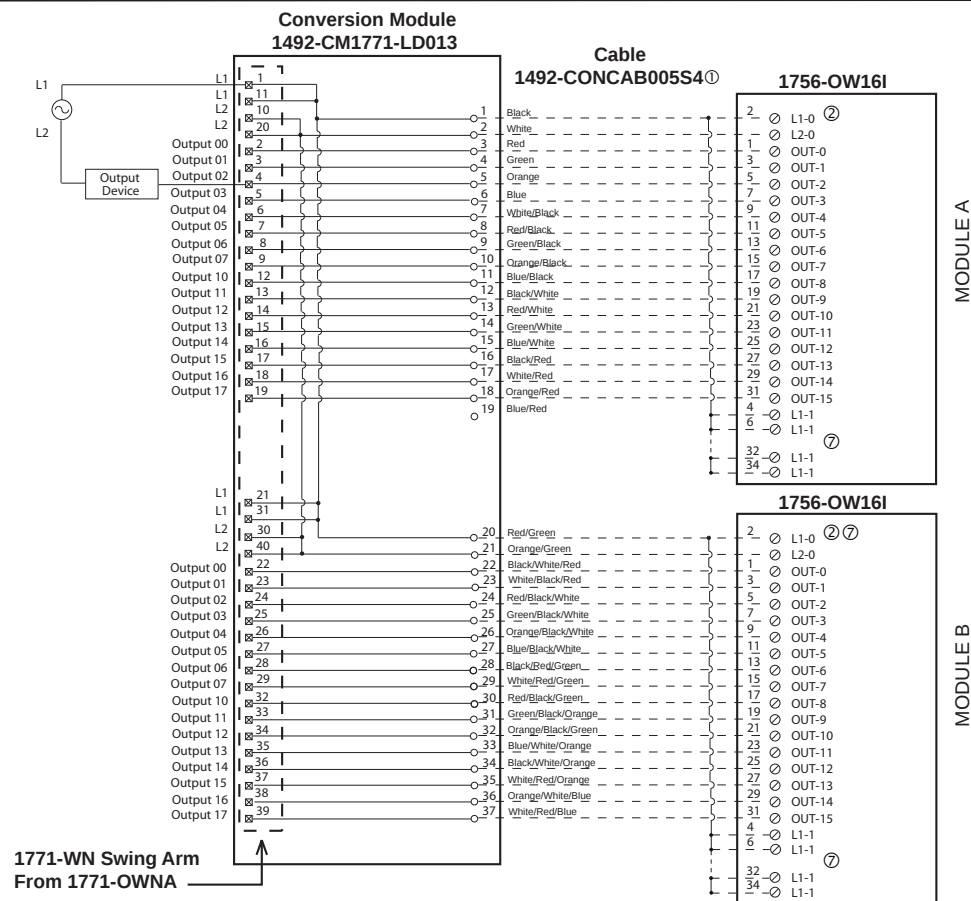
Ensure 1756 output module ratings are not exceeded.

Reference Doc: 41170-940 (Version 01)]

## 1771-OWNA to 1756-OW16I

**IMPORTANT**

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 two 1756-OW16I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OWNA module output current limits versus 1756-OW16I limits are as follows:

|                   | <b>1771-OWNA</b> | <b>1756-OW16I w/ 1492-CONCAB005S4</b> |
|-------------------|------------------|---------------------------------------|
| a) Current/Point  | 1A               | 0.5A                                  |
| b) Current/Module | 12A (32 pts)     | 2A (16 pts)                           |

③ The 1771-OWNA has 4 groups (allowing 4 separate power supplies). This module/cable combination ties all 4 groups from the 1771-OWNA together. Field wiring modification must be made to accommodate this if multiple supplies were used. If more than 1 supply was used, all but 1 of the power supplies must be removed.

④ The 1771-OWNA did not allow connections for L2, however the 1756-OW16I requires an L2 connection for proper operation. The 1771-OWNA did not use terminals 10, 20, 30, 40. These terminals have been reassigned for an L2 connection in this application. The installer must rewire L2 to one of these terminals.

⑤ Refer to your 1771-OWNA and 1756-OW16I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.

⑥ This configuration uses two (2) 1756-OW16I output modules to replace a single 1771-OWNA output module. This may require the use of a larger 1756 I/O chassis and conversion mounting assembly. Ensure there is sufficient panel space to allow for this possibility.

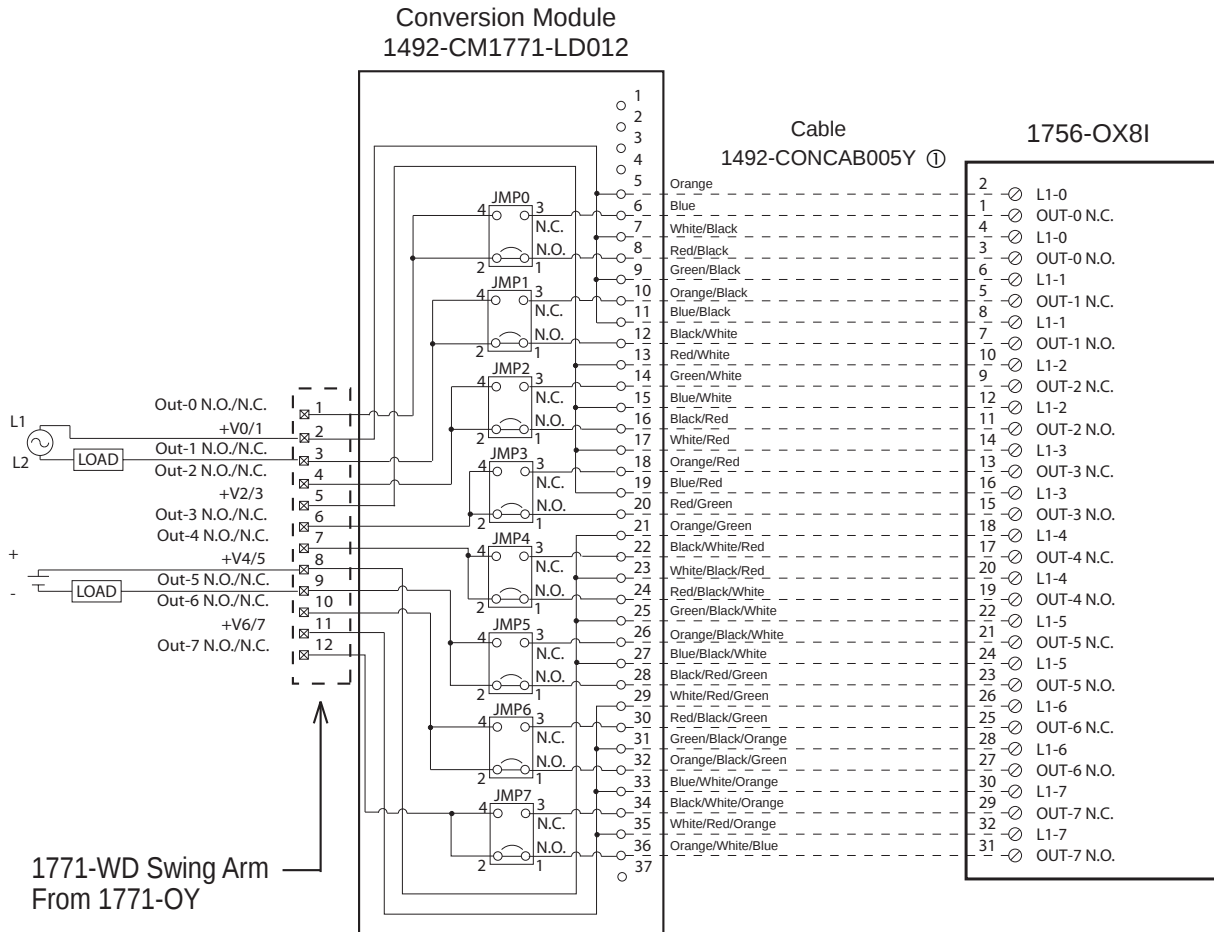
⑦ 1756-OW16I output modules has all inputs jumpered together pins 2 through 34 even.

[Reference Doc: 41171-019 (Version 00)]

## 1771-OY to 1756-OX8I

**IMPORTANT**

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. In addition, refer to the current draw requirements of the existing loads for this configuration to ensure they are within the current ratings of the 1756 output module.

**CONVERSION MODULE INSTALLATION AND APPLICATION CONSIDERATIONS**

- ① This Bul. 1492 cable consists of a cable wired to one 1756-OX8I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② The 1771-OY module output resistive current limits versus 1756-OX8I limits are as follows:  
(NOTE: for switching and inductive current ratings, refer to the modules Installation Instructions)
 

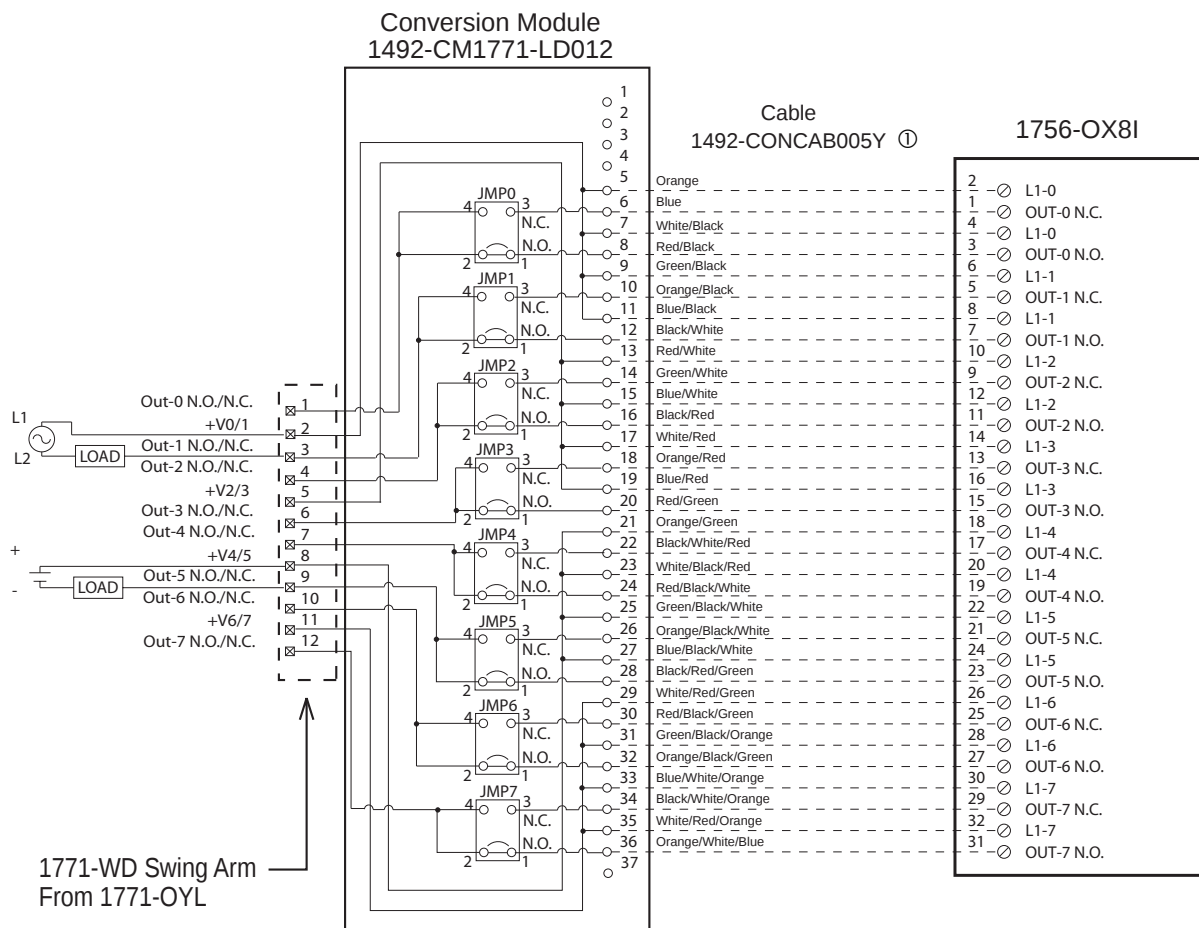
|                  | 1771-OY         | 1756-OX8I w/ 1492-CONCAB005Y |
|------------------|-----------------|------------------------------|
| a) Current/Point | 100mA @ 138V AC | 2A @ 240V AC                 |
|                  | 100mA @ 125V DC | 2A @ 30V DC                  |
|                  |                 | 0.25A @ 125V DC              |
- ③ The 1771-OY module had a jumper selection of N.O. and N.C. outputs. The 1756-OX8I has both N.O. and N.C. relay outputs, but selection is by wiring termination on the 1756 swing arm. The 1492-CM1771-LD012 conversion module replaces the functionality of the 1771-OY jumpers with eight jumpers (JMP0 through JMP7). In the default position, the output will be N.O.. If a N.C. output is required, change the jumper from pins 1-2 to pins 3-4.
- ④ Refer to your 1771-OY and 1756-OX8I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.

41171-011 (00)

## 1771-OYL to 1756-OX8I

## IMPORTANT

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. In addition, refer to the current draw requirements of the existing loads for this configuration to ensure they are within the current ratings of the 1756 output module.



## CONVERSION MODULE INSTALLATION AND APPLICATION CONSIDERATIONS

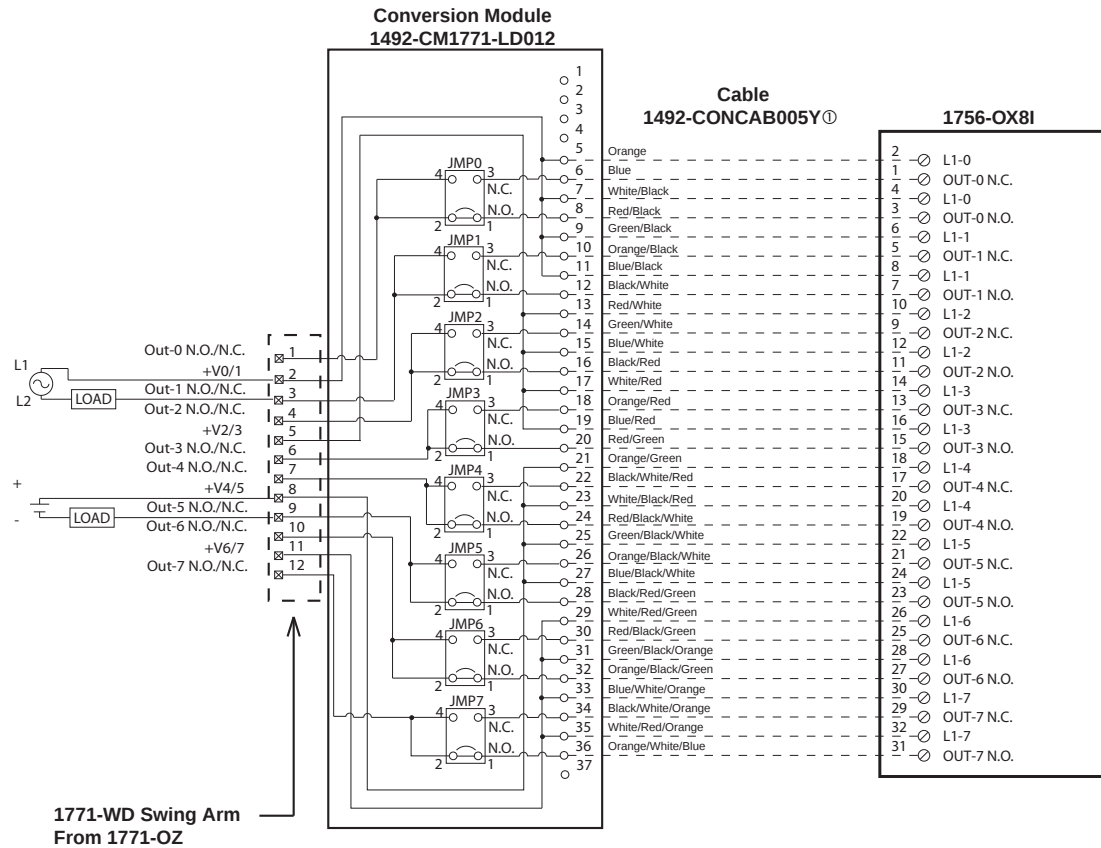
- ① This Bul. 1492 cable consists of a cable wired to one 1756-OX8I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
  - ② The 1771-OYL module output resistive current limits versus 1756-OX8I limits are as follows:  
(NOTE: for switching and inductive current ratings, refer to the modules Installation Instructions)
- |                  | 1771-OYL       | 1756-OX8I w/ 1492-CONCAB005Y |
|------------------|----------------|------------------------------|
| a) Current/Point | 100mA @ 24V AC | 2A @ 240V AC                 |
|                  | 100mA @ 24V DC | 2A @ 30V DC                  |
|                  |                | 0.25A @ 125V DC              |
- ③ The 1771-OYL module had a jumper selection of N.O. and N.C. outputs. The 1756-OX8I has both N.O. and N.C. relay outputs, but selection is by wiring termination on the 1756 swing arm. The 1492-CM1771-LD012 conversion module replaces the functionality of the 1771-OYL jumpers with eight jumpers (JMP0 through JMP7). In the default position, the output will be N.O.. If a N.C. output is required, change the jumper from pins 1-2 to pins 3-4.
  - ④ Refer to your 1771-OYL and 1756-OX8I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.

41171-012 (00)

## 1771-OZ to 1756-OX8I

**IMPORTANT**

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-OX8I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M), 010=1.0M). See table 2 for other lengths.

② The 1771-OZ module output resistive current limits versus 1756-OX8I limits are as follows:  
(NOTE: For switching and inductive current ratings, refer to the modules Installation Instructions)

|                  | 1771-OZ         | 1756-OX8I w/ 1492-CONCAB005Y |
|------------------|-----------------|------------------------------|
| a) Current/Point | 100mA @ 138V AC | 2A @ 240V AC                 |
|                  | 100mA @ 138V DC | 2A @ 30V DC                  |
|                  |                 | 0.25A @ 125V DC              |

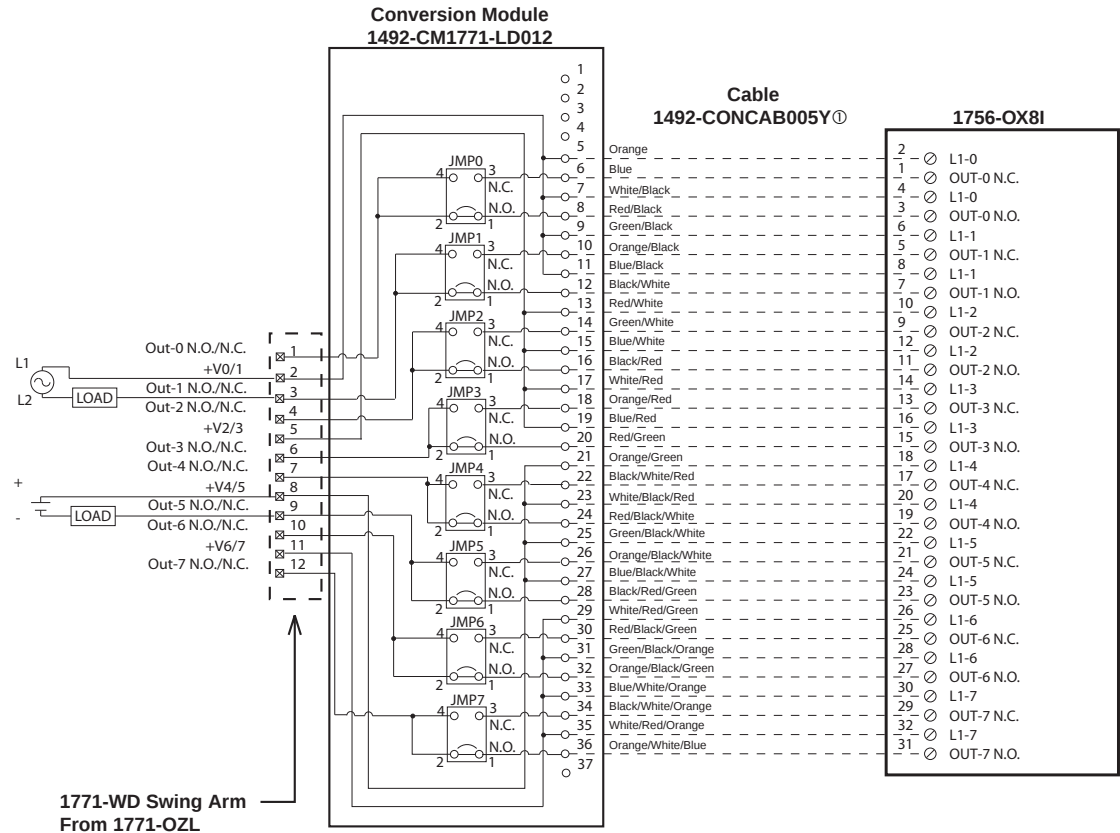
③ The 1771-OZ module had a jumper selection of N.O. and N.C. outputs. The 1756-OX8I has both N.O. and N.C. outputs, but selection is by wiring termination on the 1756 swing arm. The 1492-CM1771-LD012 conversion module replaces the functionality of the 1771-OZ jumpers with eight jumpers (JMP0 through JMP7). In the default position, the output will be N.O. If a N.C. output is required, change the jumper from pins 1-2 to pins 3-4.

④ Refer to your 1771-OZ and 1756-OX8I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.  
[Reference Doc: 41171-013 (Version 00)]

1771-OZL to 1756-OX8I

IMPORTANT

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-OX8I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M), 010=1.0M). See table 2 for other lengths.
- ② The 1771-OZL module output resistive current limits versus 1756-OX8I limits are as follows:  
(NOTE: For switching and inductive current ratings, refer to the modules Installation Instructions)
 

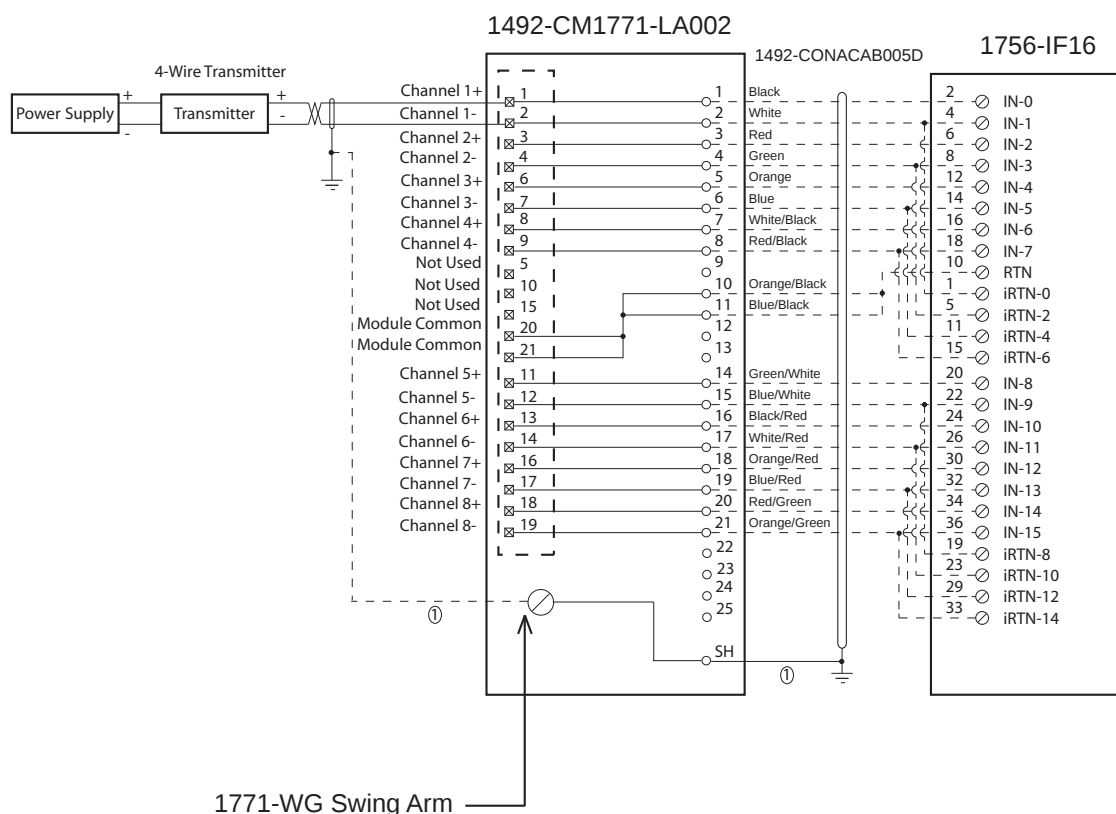
|                  | 1771-OZL        | 1756-OX8I w/ 1492-CONCAB005Y |
|------------------|-----------------|------------------------------|
| a) Current/Point | 100mA @ 138V AC | 2A @ 240V AC                 |
|                  | 100mA @ 138V DC | 2A @ 30V DC                  |
|                  |                 | 0.25A @ 125V DC              |
- ③ The 1771-OZL module had a jumper selection of N.O. and N.C. outputs. The 1756-OX8I has both N.O. and N.C. outputs, but selection is by wiring termination on the 1756 swing arm. The 1492-CM1771-LD012 conversion module replaces the functionality of the 1771-OZL jumpers with eight jumpers (JMP0 through JMP7). In the default position, the output will be N.O. If a N.C. output is required, change the jumper from pins 1-2 to pins 3-4.
- ④ Refer to your 1771-OZL and 1756-OX8I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.  
[Reference Doc: 41171-014 (Version 00)]

# Wiring Diagrams - Analog Inputs and Outputs

## 1771-IFE to 1756-IF16 Differential Current

### IMPORTANT

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 MODULE INSTALLATION AND APPLICATION CONSIDERATIONS

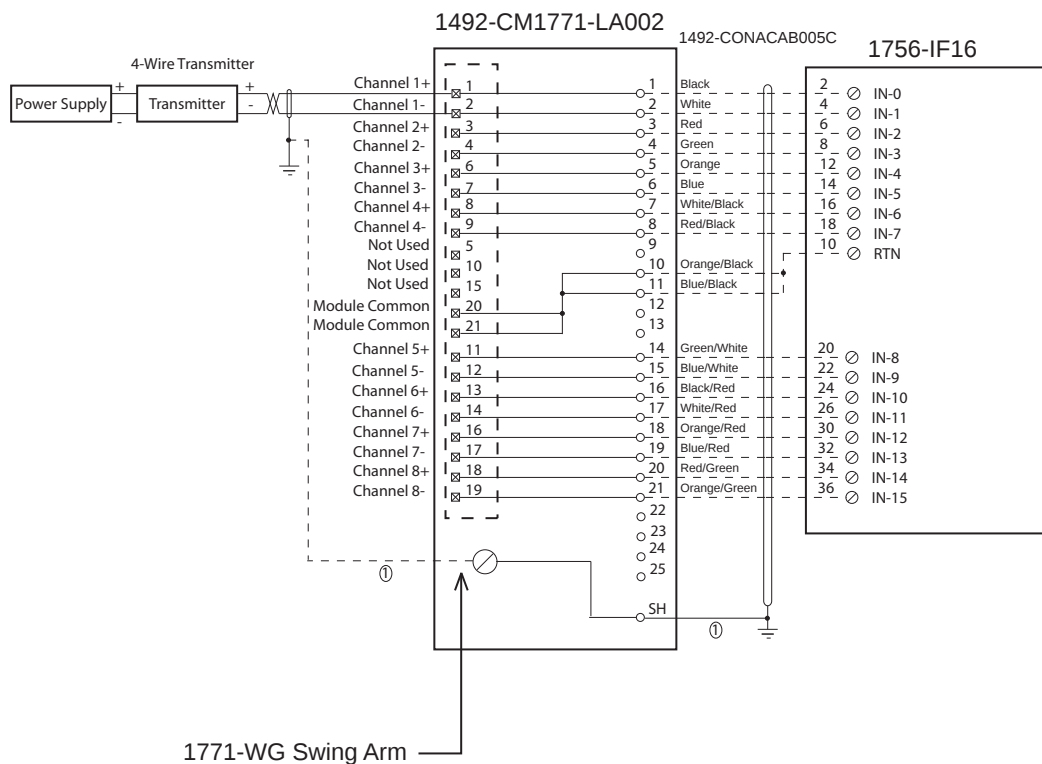
- ① **SHIELD GROUNDING:** In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA002 module. The pre-wired cable used between the 1492-CM1771-LA002 module and the 1756-IF16 [1492-CONACAB005D] 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.
- ② This design assumes that all inputs on the 1771-IFE were connected to current transmitters. If there was a mix of current and voltage transmitters, then modification of the pre-wired cable [1492-CONACAB005D] will need to occur at the 1756-IF16 terminal block. Refer to the 1756-IF16 Installation Manual for modification details.
- ③ The 1771-IFE analog input ranges were configured via software, as is the input range for the 1756-IF16. Please ensure the correct input range is configured in the 1756-IF16.
- ④ Refer to your 1771-IFE and 1756-IF16 Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

41170-946 (0)

## 1771-IFE to 1756-IF16 Differential Voltage

**IMPORTANT**

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**

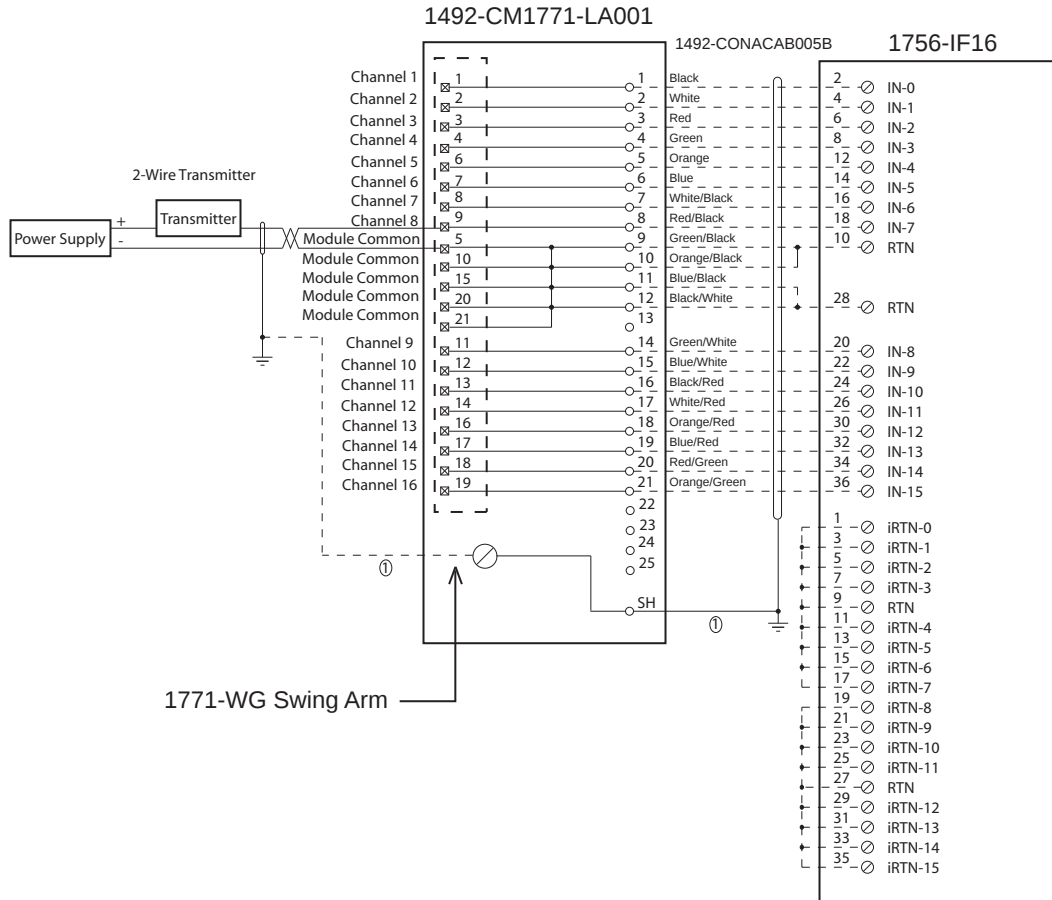
- ① **SHIELD GROUNDING:** In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA002 module. The pre-wired cable used between the 1492-CM1771-LA002 module and the 1756-IF16 [1492-CONACAB005C] 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.
- ② This design assumes that all inputs on the 1771-IFE were connected to voltage transmitters. If there was a mix of current and voltage transmitters, then modification of the pre-wired cable [1492-CONACAB005C] will need to occur at the 1756-IF16 terminal block. Refer to the 1756-IF16 Installation Manual for modification details.
- ③ The 1771-IFE analog input ranges were configured via software, as is the input range for the 1756-IF16. Please ensure the correct input range is configured in the 1756-IF16.
- ④ Refer to your 1771-IFE and 1756-IF16 Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

41170-947 (1)

## 1771-IFE to 1756-IF16 Single End Current

**IMPORTANT**

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**

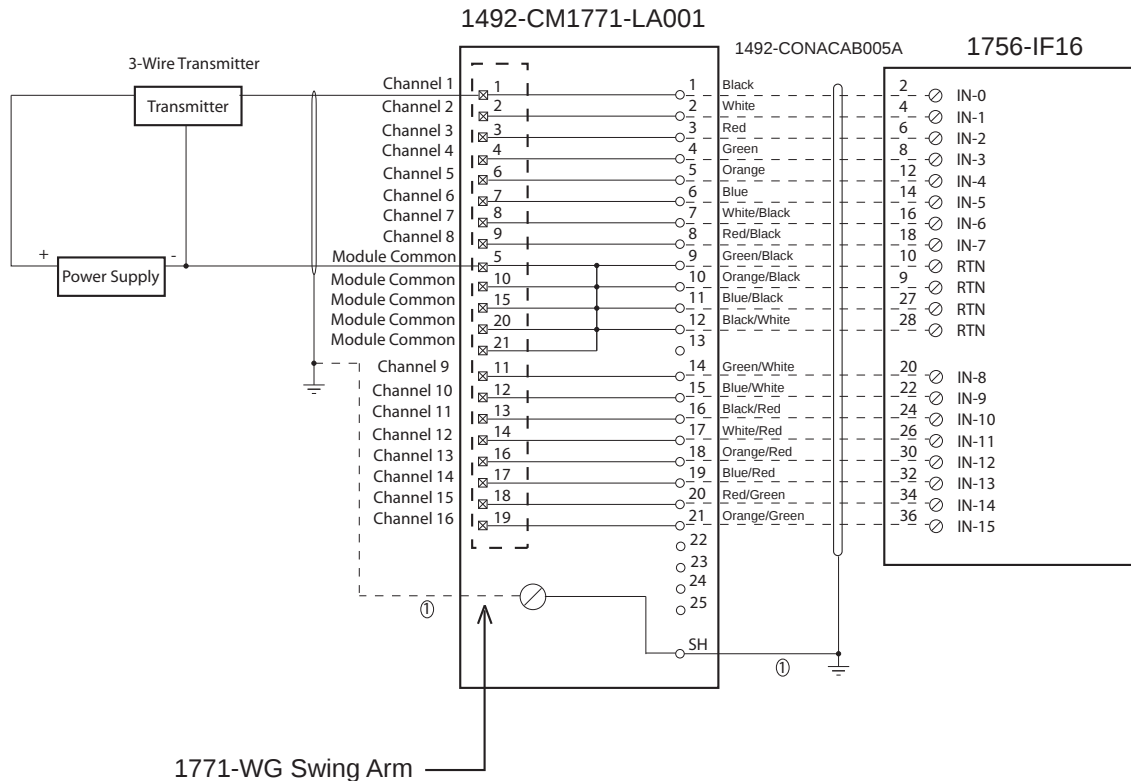
- ① **SHIELD GROUNDING:** In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA001 module. The pre-wired cable used between the 1492-CM1771-LA001 module and the 1756-IF16 [1492-CONACAB005B] 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.
- ② This design assumes that all inputs on the 1771-IFE were connected to current transmitters. If there was a mix of current and voltage transmitters, then modification of the pre-wired cable [1492-CONACAB005B] will need to occur at the 1756-IF16 terminal block. Refer to the 1756-IF16 Installation Manual for modification details.
- ③ The 1771-IFE analog input ranges were configured via software, as is the input range for the 1756-IF16. Please ensure the correct input range is configured in the 1756-IF16.
- ④ Refer to your 1771-IFE and 1756-IF16 Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

41170-944 (1)

## 1771-IFE to 1756-IF16 Single End Voltage

**IMPORTANT**

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**

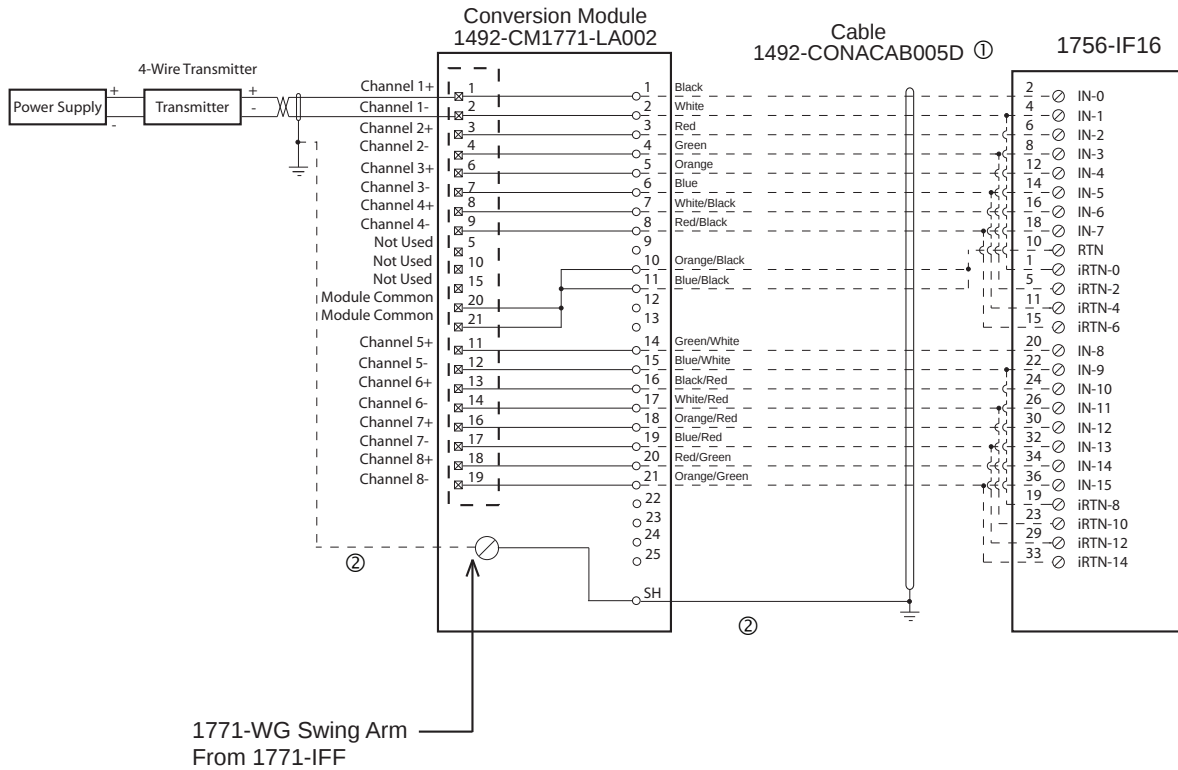
- ① **SHIELD GROUNDING:** In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA001 module. The pre-wired cable used between the 1492-CM1771-LA001 module and the 1756-IF16 [1492-CONACAB005A] 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.
- ② This design assumes that all inputs on the 1771-IFE were connected to voltage transmitters. If there was a mix of current and voltage transmitters, then modification of the pre-wired cable [1492-CONACAB005A] will need to occur at the 1756-IF16 terminal block. Refer to the 1756-IF16 Installation Manual for modification details.
- ③ The 1771-IFE analog input ranges were configured via software, as is the input range for the 1756-IF16. Please ensure the correct input range is configured in the 1756-IF16.
- ④ Refer to your 1771-IFE and 1756-IF16 Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

41170-945 (1)

## 1771-IFF to 1756-IF16 Differential Current

**IMPORTANT**

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**

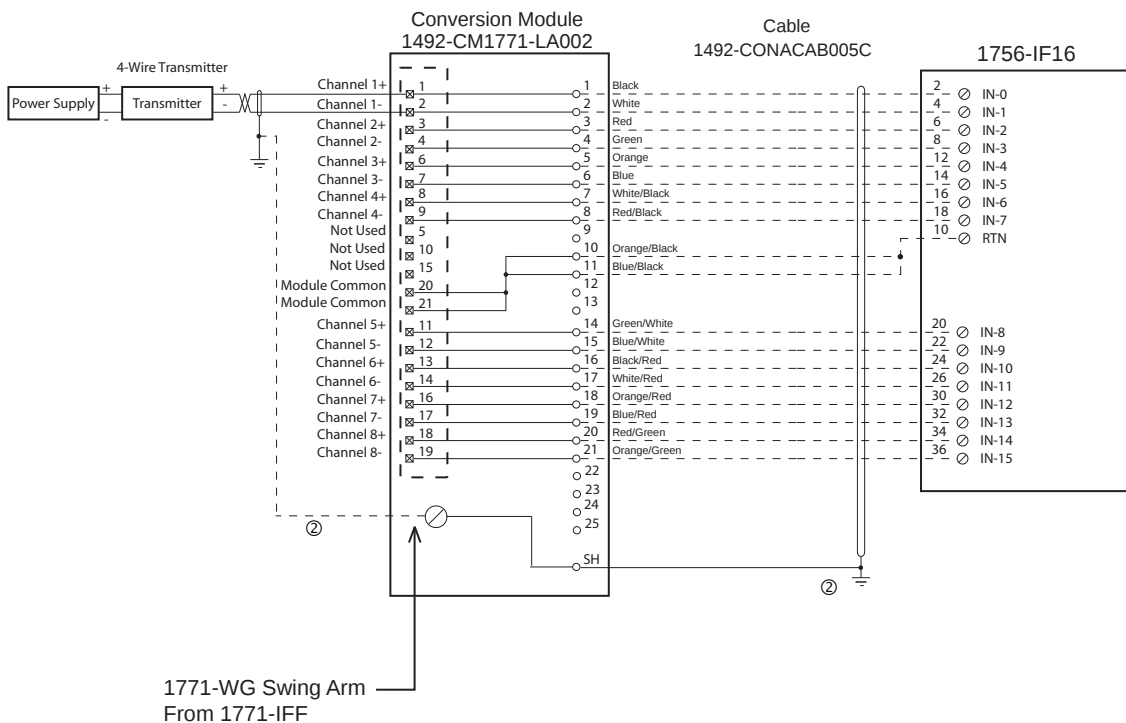
- ① This Bul. 1492 cable consists of a cable wired to one 1756-IF16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② **SHIELD GROUNDING:** In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA002 module. The pre-wired cable used between the 1492-CM1771-LA002 module and the 1756-IF16 [1492-CONACAB005D] 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 This design assumes that all inputs on the 1771-IFF were connected to current transmitters. If there was a mix of current and voltage transmitters, then modification of the pre-wired cable [1492-CONACAB005D] will need to occur at the 1756-IF16 terminal block. Refer to the 1756-IF16 Installation Manual for modification details.
- ④ The 1771-IFF analog input ranges were configured via software, as is the input range for the 1756-IF16. Please ensure the correct input range is configured in the 1756-IF16.
- ⑤ Refer to your 1771-IFF and 1756-IF16 Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

41171-025 (00)

## 1771-IFF to 1756-IF16 Differential Voltage

**IMPORTANT**

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**

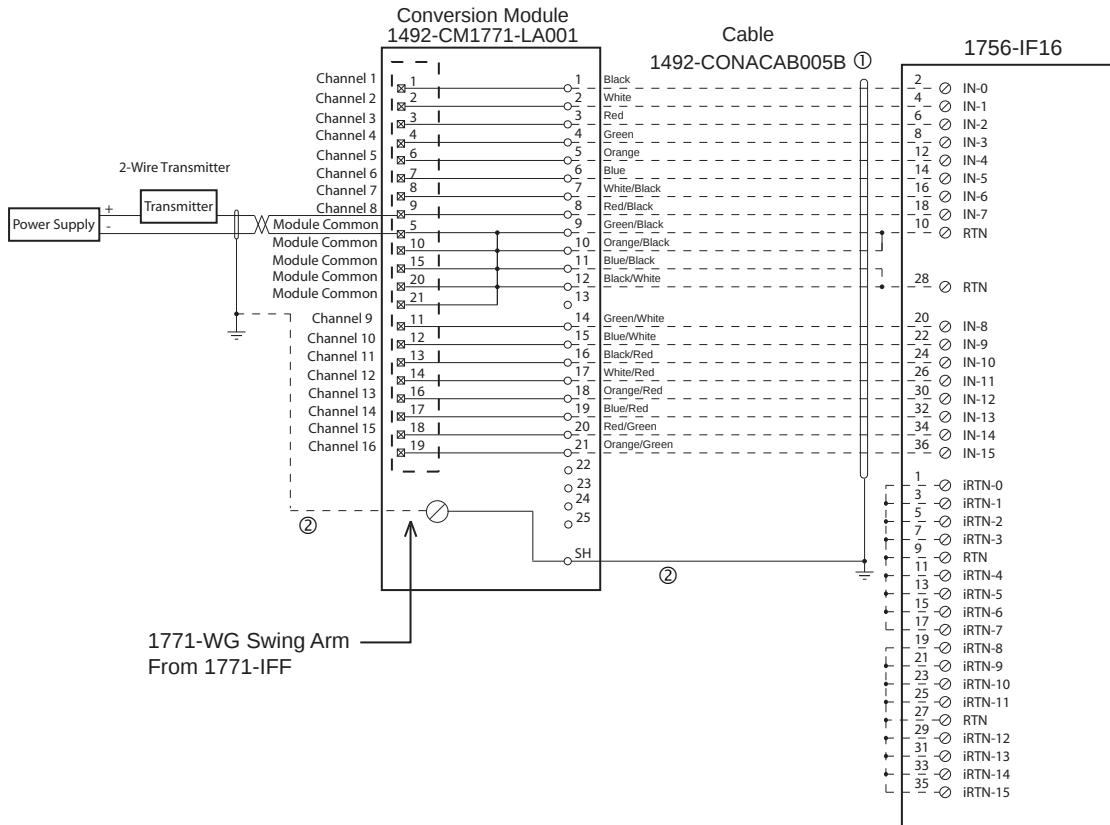
- ① This Bul. 1492 cable consists of a cable wired to one 1756-IF16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② **SHIELD GROUNDING:** In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA002 module. The pre-wired cable used between the 1492-CM1771-LA002 module and the 1756-IF16 [1492-CONACAB005C] 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 This design assumes that all inputs on the 1771-IFF were connected to voltage transmitters. If there was a mix of current and voltage transmitters, then modification of the pre-wired cable [1492-CONACAB005C] will need to occur at the 1756-IF16 terminal block. Refer to the 1756-IF16 Installation Manual for modification details.
- ④ The 1771-IFF analog input ranges were configured via software, as is the input range for the 1756-IF16. Please ensure the correct input range is configured in the 1756-IF16.
- ⑤ Refer to your 1771-IFF and 1756-IF16 Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

41171-026 (00)

## 1771-IFF to 1756-IF16 Single End Current

**IMPORTANT**

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**

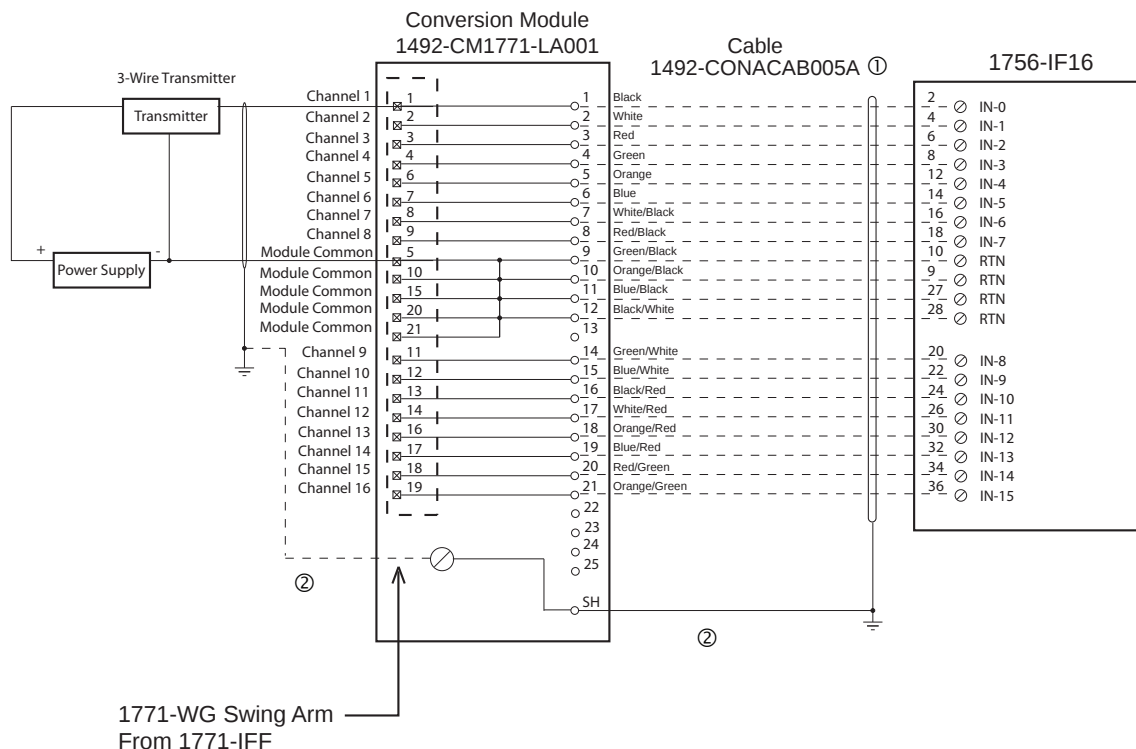
- ① This Bul. 1492 cable consists of a cable wired to one 1756-IF16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② SHIELD GROUNDING: In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA001 module. The pre-wired cable used between the 1492-CM1771-LA001 module and the 1756-IF16 [1492-CONACAB005B] 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 This design assumes that all inputs on the 1771-IFF were connected to current transmitters. If there was a mix of current and voltage transmitters, then modification of the pre-wired cable [1492-CONACAB005B] will need to occur at the 1756-IF16 terminal block. Refer to the 1756-IF16 Installation Manual for modification details.
- ④ The 1771-IFF analog input ranges were configured via software, as is the input range for the 1756-IF16. Please ensure the correct input range is configured in the 1756-IF16.
- ⑤ Refer to your 1771-IFF and 1756-IF16 Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

41171-023 (00)

## 1771-IFF to 1756-IF16 Single End Voltage

**IMPORTANT**

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**

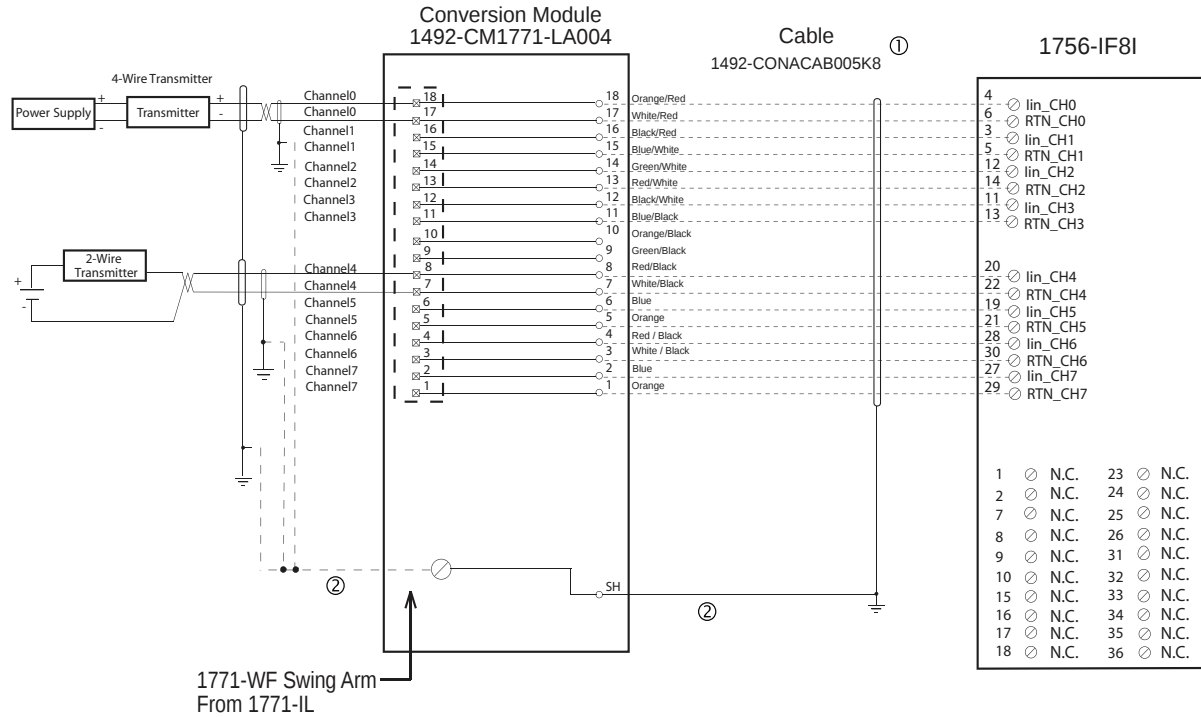
- ① This Bul. 1492 cable consists of a cable wired to one 1756-IF16 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② **SHIELD GROUNDING:** In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA001 module. The pre-wired cable used between the 1492-CM1771-LA001 module and the 1756-IF16 [1492-CONACAB005A] 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 This design assumes that all inputs on the 1771-IFF were connected to voltage transmitters. If there was a mix of current and voltage transmitters, then modification of the pre-wired cable [1492-CONACAB005A] will need to occur at the 1756-IF16 terminal block. Refer to the 1756-IF16 Installation Manual for modification details.
- ④ The 1771-IFF analog input ranges were configured via software, as is the input range for the 1756-IF16. Please ensure the correct input range is configured in the 1756-IF16.
- ⑤ Refer to your 1771-IFF and 1756-IF16 Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

41171-024 (00)

## 1771-IL to 1756-IF8I Current

**IMPORTANT**

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.

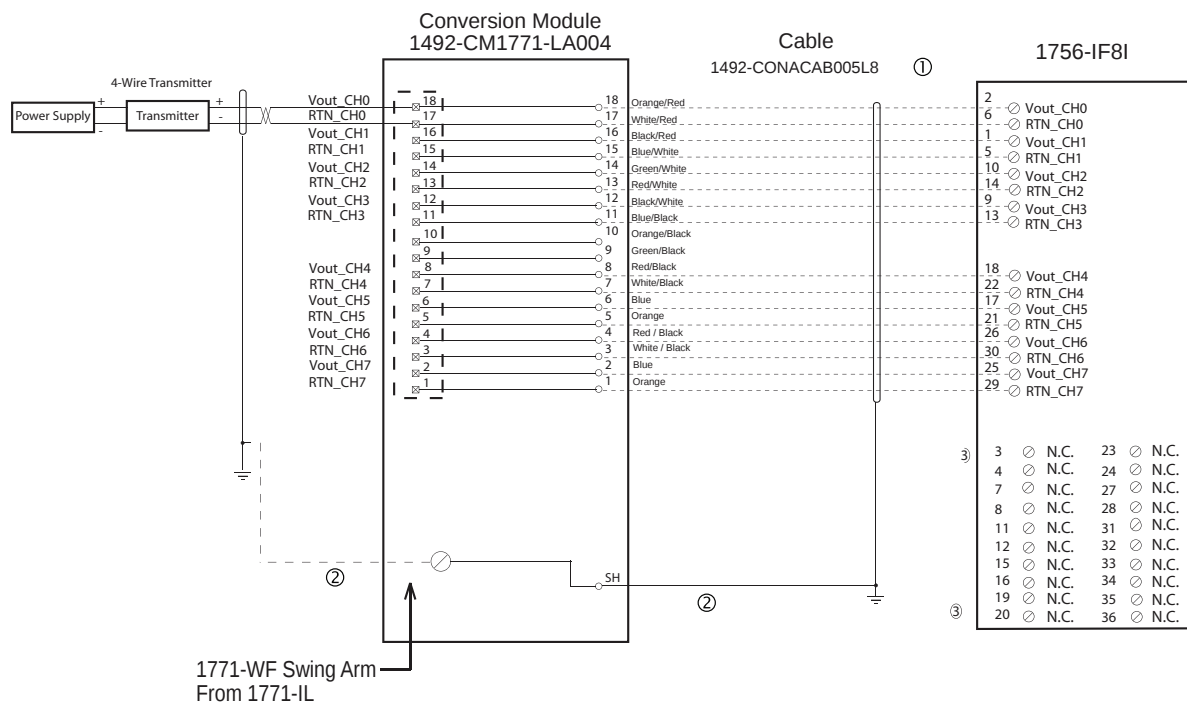
**CONVERSION MODULE INSTALLATION AND APPLICATION CONSIDERATIONS**

- ① This Bul. 1492 cable consists of a cable wired to one 1756-IF6I 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-LA004 module. The pre-wired cable used between the 1492-CM1771-LA004 module and the 1756-IF8I [1492-CONACAB005K8] 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-IL input configuration was software configured, as is the 1756-IF8I. Please ensure the correct configuration in the 1756-IF8I.
- ④ Refer to your 1771-IL and 1756-IF8I Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

## 1771-IL to 1756-IF8I Voltage

**IMPORTANT**

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.

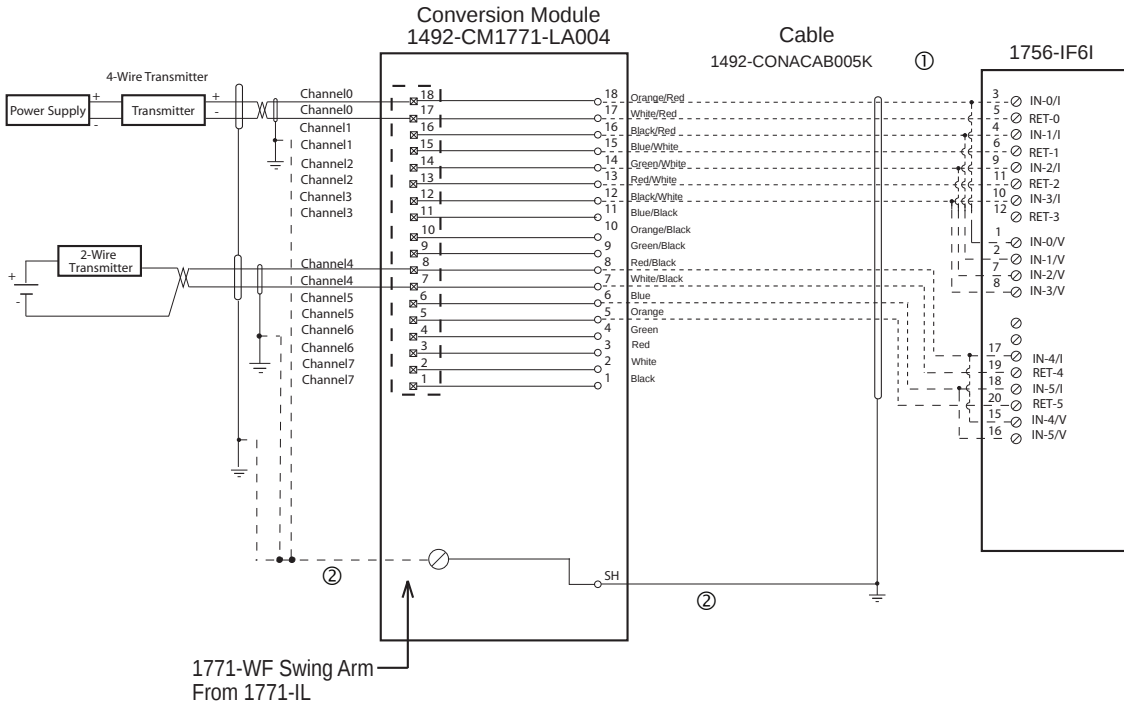


- ① This Bul. 1492 cable consists of a cable wired to one 1756-IF8I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M).
- ② SHIELD GROUNDING: In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA004 module. The pre-wired cable used between the 1492-CM1771-LA004 module and the 1756-IF8I [1492-CONACAB005L8] 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-IL input configuration was software configured, as is the 1756-IF8I. Please ensure the correct configuration in the 1756-IF8I.
- ④ Refer to your 1771-IL and 1756-IF8I Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

## 1771-IL to 1756-IF6I — 6-ch Current

**IMPORTANT**

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**

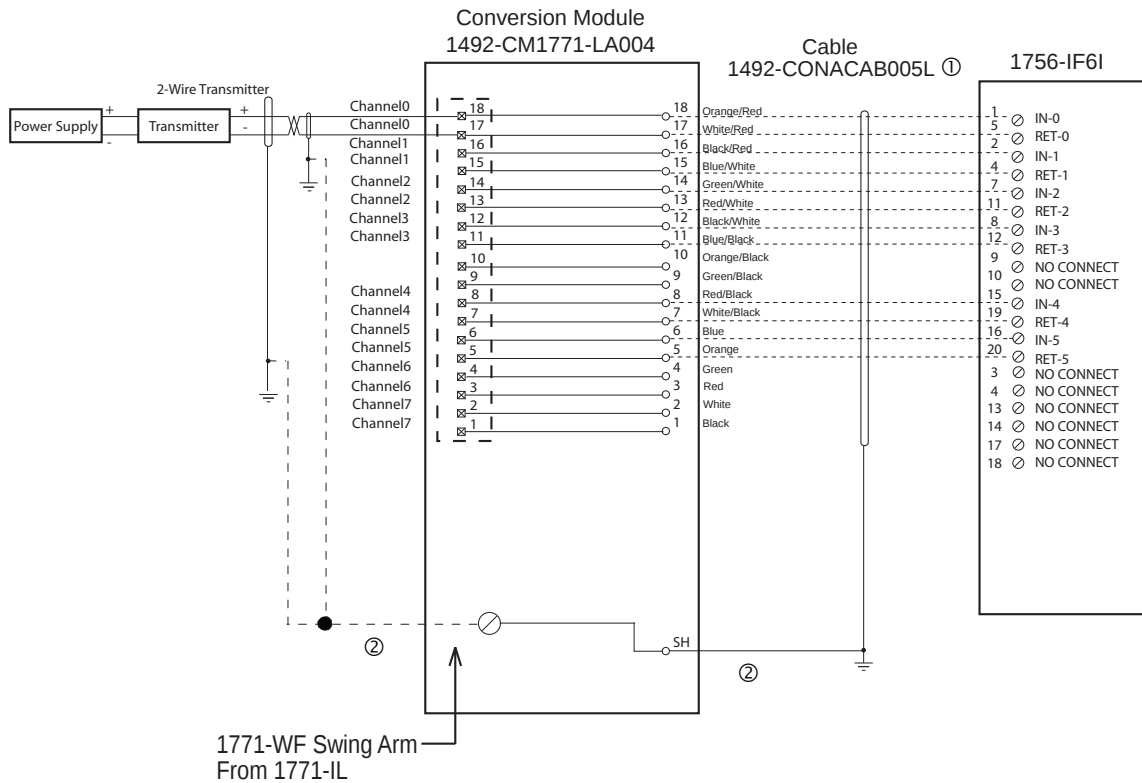
- ① This Bul. 1492 cable consists of a cable wired to one 1756-IF6I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② **SHIELD GROUNDING:** In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA004 module. The pre-wired cable used between the 1492-CM1771-LA004 module and the 1756-IF6I [1492-CONACAB005K] 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-IL input configuration was software configured, as is the 1756-IF6I. Please ensure the correct configuration in the 1756-IF6I.
- ④ Refer to your 1771-IL and 1756-IF6I Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

41171-030 (00)

## 1771-IL to 1756-IF6I — 6-ch Voltage

**IMPORTANT**

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.



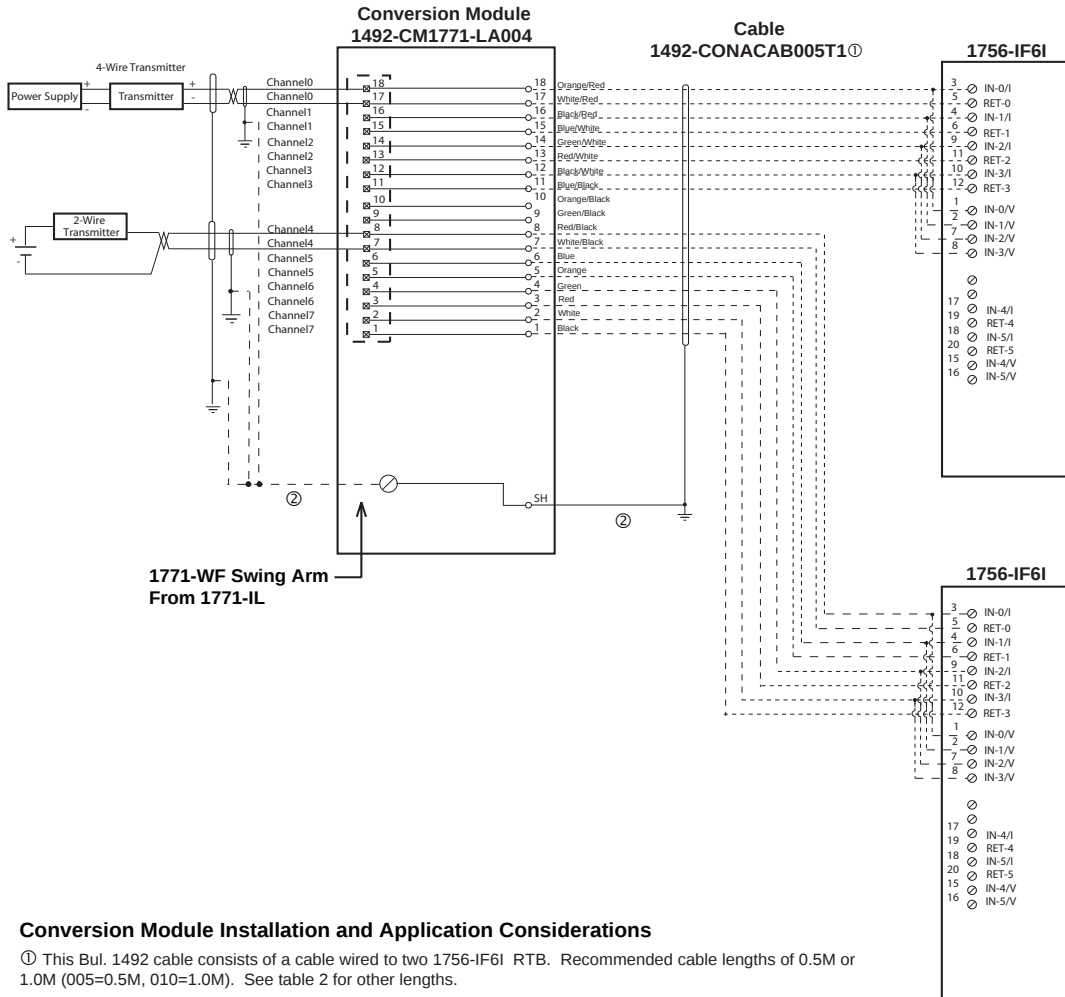
- ① This Bul. 1492 cable consists of a cable wired to one 1756-IF6I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② SHIELD GROUNDING: In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA004 module. The pre-wired cable used between the 1492-CM1771-LA004 module and the 1756-IF6I [1492-CONACAB005L] 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-IL input configuration was software configured, as is the 1756-IF6I. Please ensure the correct configuration in the 1756-IF6I.
- ④ Refer to your 1771-IL and 1756-IF6I Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

41171-029 (00)

## 1771-IL to 1756-IF6I — (2 x 4-ch) Current

**IMPORTANT**

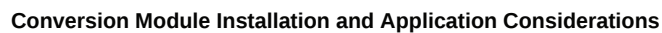
There are several key application considerations and system specifications (bottom of drawing) when using these components (conversion module, cable and input module). Read and understand these considerations before installation.

**Conversion Module Installation and Application Considerations**

- ① This Bul. 1492 cable consists of a cable wired to two 1756-IF6I RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- 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-LA004 module. The pre-wired cable used between the 1492-CM1771-LA004 module and the 1756-IF6I [1492-CONACAB005T1] 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-IL input configuration was software configured, as is the 1756-IF6I. Please ensure the correct configuration in the 1756-IF6I.
- ④ Refer to your 1771-IL and 1756-IF6I Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.
- ⑤ This configuration uses two (2) 1756-IF6I output modules to replace a single 1771-IL output module. This may require the use of a larger 1756 I/O chassis and conversion mounting assembly. Ensure there is sufficient panel space to allow for this possibility.

[Reference Doc: 41171-032 (Version 00)]

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.



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-LA004 module. The pre-wired cable used between the 1492-CM1771-LA004 module and the 1756-IF6I [1492-CONACAB005T2] 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.

④ Refer to your 1771-IL and 1756-IF6I Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

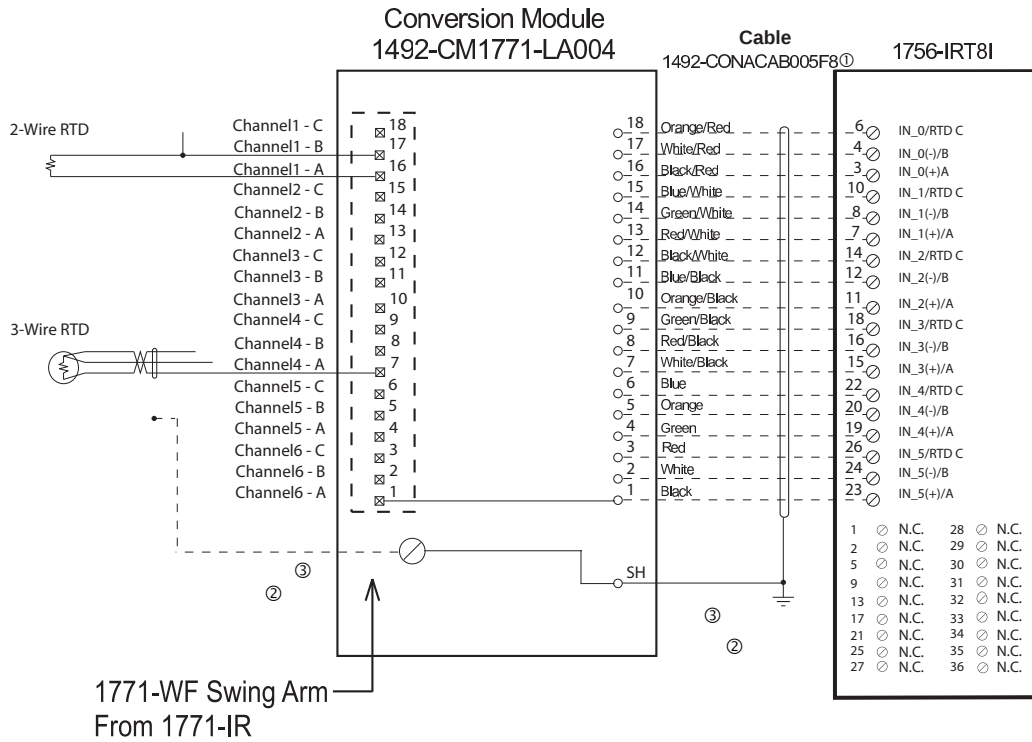
⑤ This configuration uses two (2) 1756-IF6I output modules to replace a single 1771-IL output module. This may require the use of a larger 1756 I/O chassis and conversion mounting assembly. Ensure there is sufficient panel space to allow for this possibility.

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## 1771-IR to 1756-IRT8I

**IMPORTANT**

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.

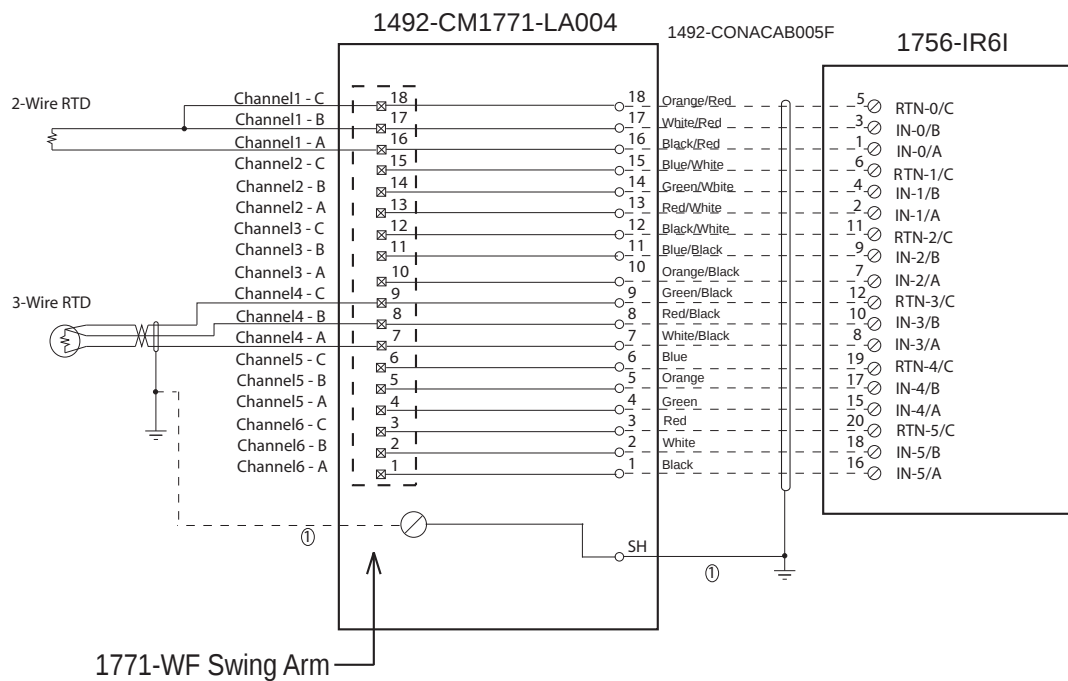
**Conversion Module Installation and Application Considerations**

- ① Cables are available in 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-LA004 module. The pre-wired cable used between the 1492-CM1771-LA004 module and the 1756-IRT8I [1492-CONACAB005F8] 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-IR input configuration was software configured, as is the 1756-IRT8I. Please ensure the correct configuration in the 1756-IRT8I.
- ④ Refer to your 1771-IR and 1756-IRT8I Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

## 1771-IR to 1756-IR6I

**IMPORTANT**

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**

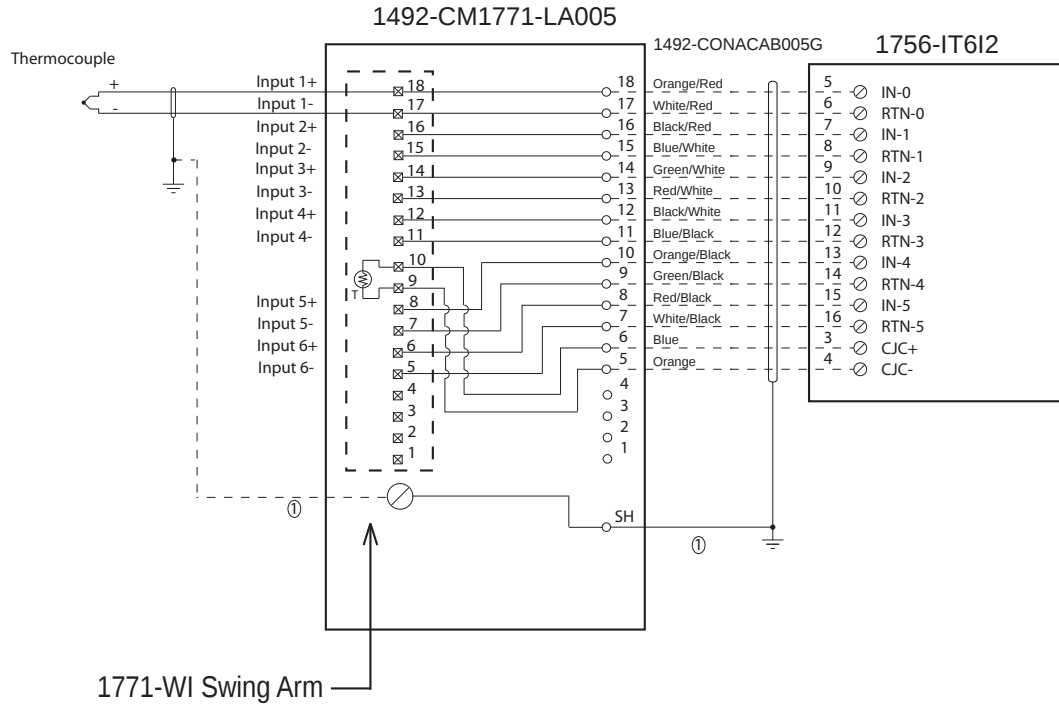
- ① **SHIELD GROUNDING:** In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA004 module. The pre-wired cable used between the 1492-CM1771-LA004 module and the 1756-IR6I [1492-CONACAB005F] 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.
- ② The 1771-IR input configuration was software configured, as is the 1756-IR6I. Please ensure the correct configuration in the 1756-IR6I.
- ③ Refer to your 1771-IR and 1756-IR6I Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

41170-950 (1)

## 1771-IXE to 1756-IT6I2

**IMPORTANT**

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**

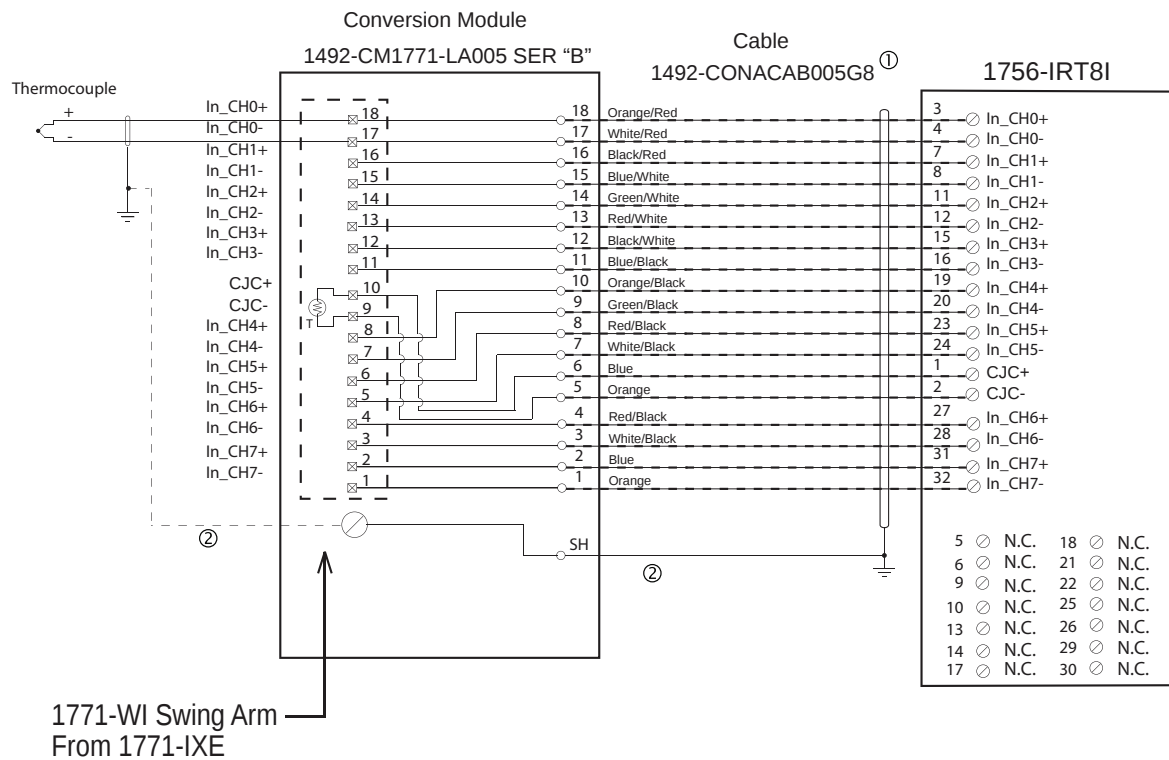
- ① **SHIELD GROUNDING:** In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA005 module. The pre-wired cable 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.
- ② 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.
- ③ 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.
- ④ The 1771-IXE input configuration was software configured, as is the 1756-IT6I2. Please ensure the correct configuration in the 1756-IT6I2.
- ⑤ Refer to your 1771-IXE and 1756-IT6I2 Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

41170-951 (1)

## 1771-IXE to 1756-IRT8I

**IMPORTANT**

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.

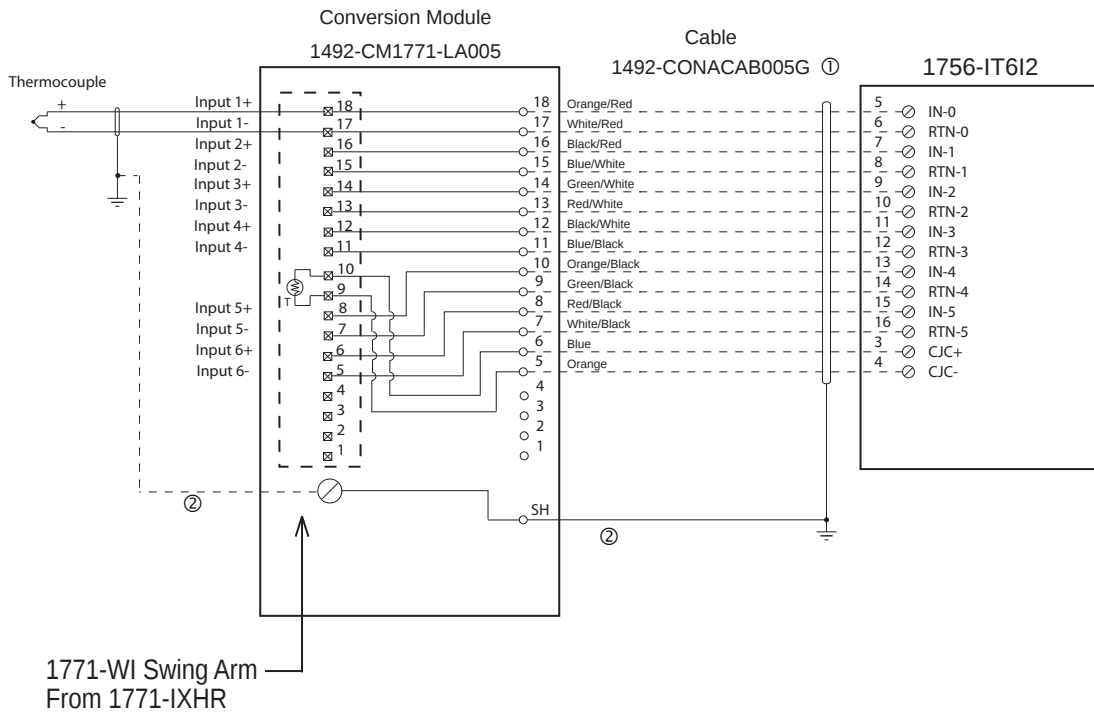
**CONVERSION MODULE INSTALLATION AND APPLICATION CONSIDERATIONS**

- 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.

## 1771-IXHR to 1756-IT6I2

**IMPORTANT**

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**

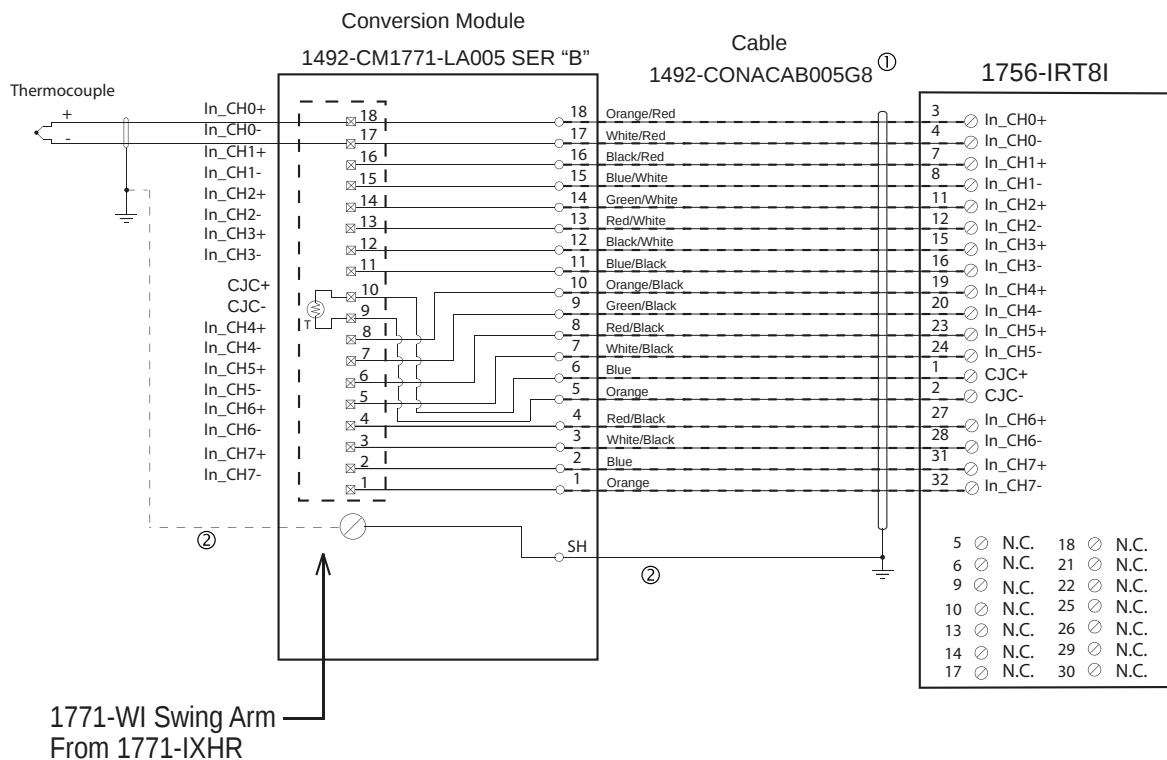
- ① This Bul. 1492 cable consists of a cable wired to one 1756-IT6I2 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.
- ② **SHIELD GROUNDING:** In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the 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-IHR.
- 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.

41171-035 (00)

## 1771-IXHR to 1756-IRT8I

## IMPORTANT

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.



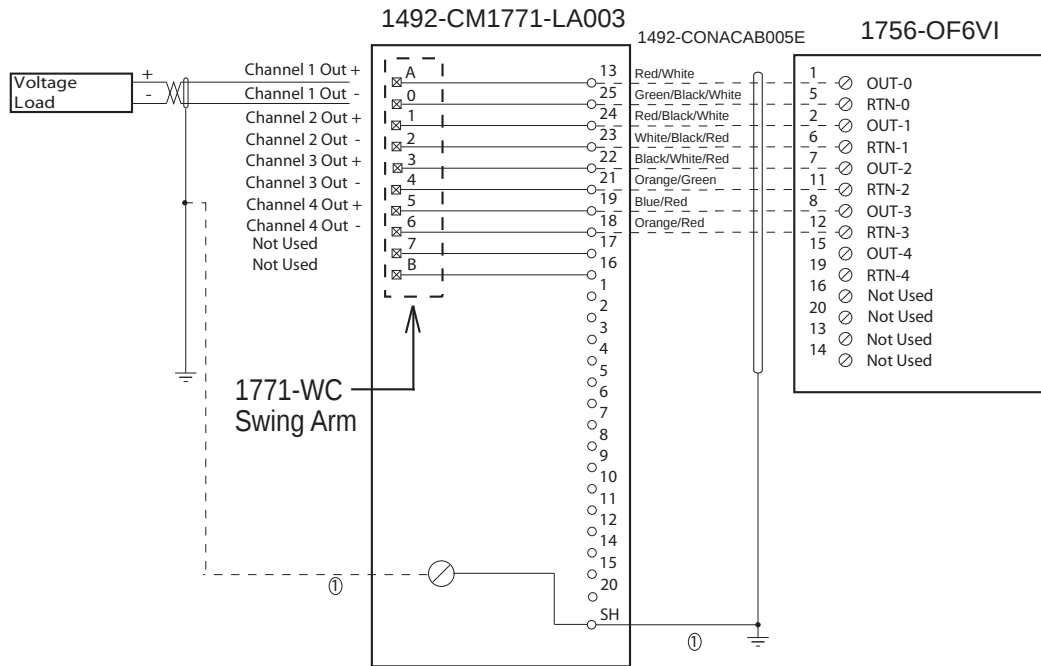
## CONVERSION MODULE INSTALLATION AND APPLICATION CONSIDERATIONS

- 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.

# 1771-OFE1 to 1756-OF6VI

## IMPORTANT

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 MODULE INSTALLATION AND APPLICATION CONSIDERATIONS

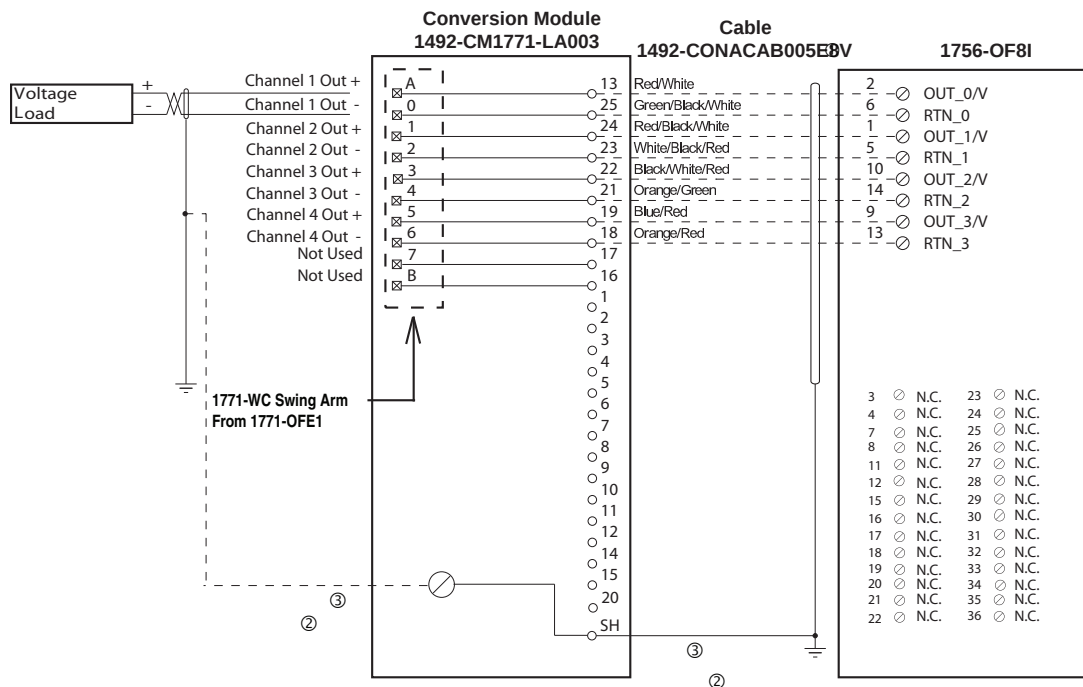
- ① **SHIELD GROUNDING:** In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA003 module. The pre-wired cable used between the 1492-CM1771-LA003 module and the 1756-OF6VI [1492-CONACAB005E] 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.
- ② The 1771-OFE1 analog output range was configured by jumpers, the output range for the 1756-OF6VI is software configured. Please ensure the correct output range is configured in the 1756-OF6VI.
- ③ Refer to your 1771-OFE1 and 1756-OF6VI Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

41170-949 (1)

## 1771-OFE1 to 1756-OF8I

**IMPORTANT**

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**

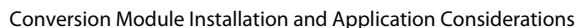
① Cables are available in lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M)

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-LA003 module. The pre-wired cable used between the 1492-CM1771-LA003 module and the 1756-OF8I [1492-CONACAB005E8V] 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-OFE1 analog output range was configured by jumpers, the output range for the 1756-OF8I is software configured. Please ensure the correct output range is configured in the 1756-OF8I.

④ Refer to your 1771-OFE1 and 1756-OF8I Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

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.



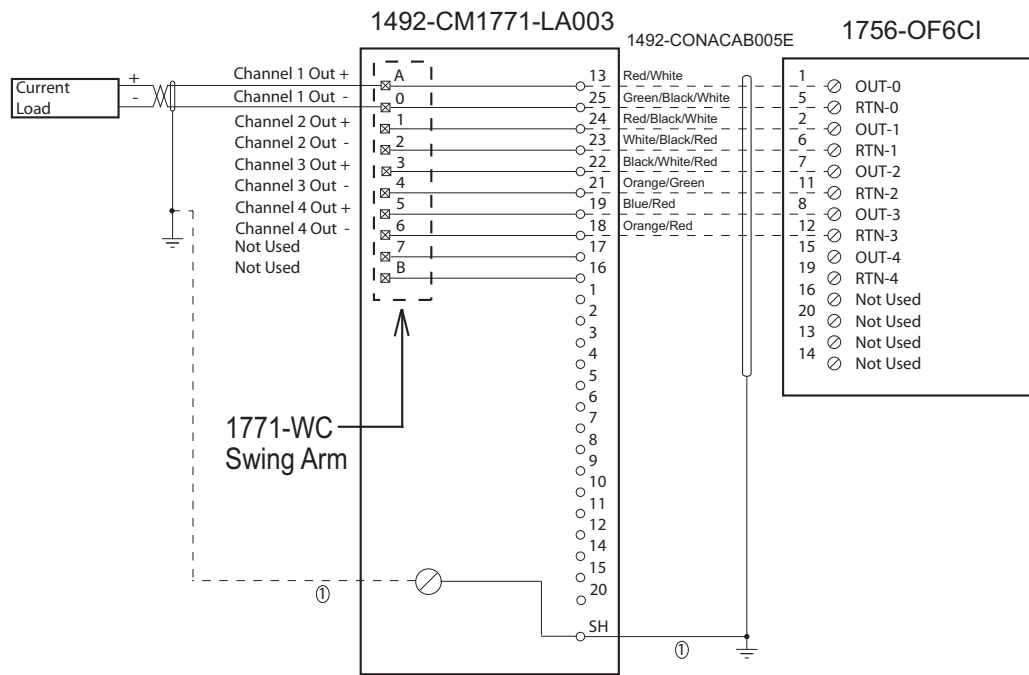
- ① This Bul. 1492 cable consists of 2 separate cables (cable "A" and cable "B") wired to one 1756-OF8L. Each cable can be either 0.5M or 1.0M (005=0.5M, 010=1.0M). Ensure that cable A and cable B are connected to the correct module in the conversion.
- ② SHIELD GROUNDING: In some installations, the 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-LA003 module. The pre-wired cable used between the 1492-CM1771-LA003 module and the 1756-OF8L [1492-C005005E8V] 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-OFE1 analog output range was configured by jumpers, the output range for the 1756-OF8L is software configured. Please ensure the correct output range is configured in the 1756-OF8L.
- ④ Refer to your 1771-OFE1 and 1756-OF8L Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

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## 1771-OFE2 to 1756-OF6CI

**IMPORTANT**

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 MODULE INSTALLATION AND APPLICATION CONSIDERATIONS**

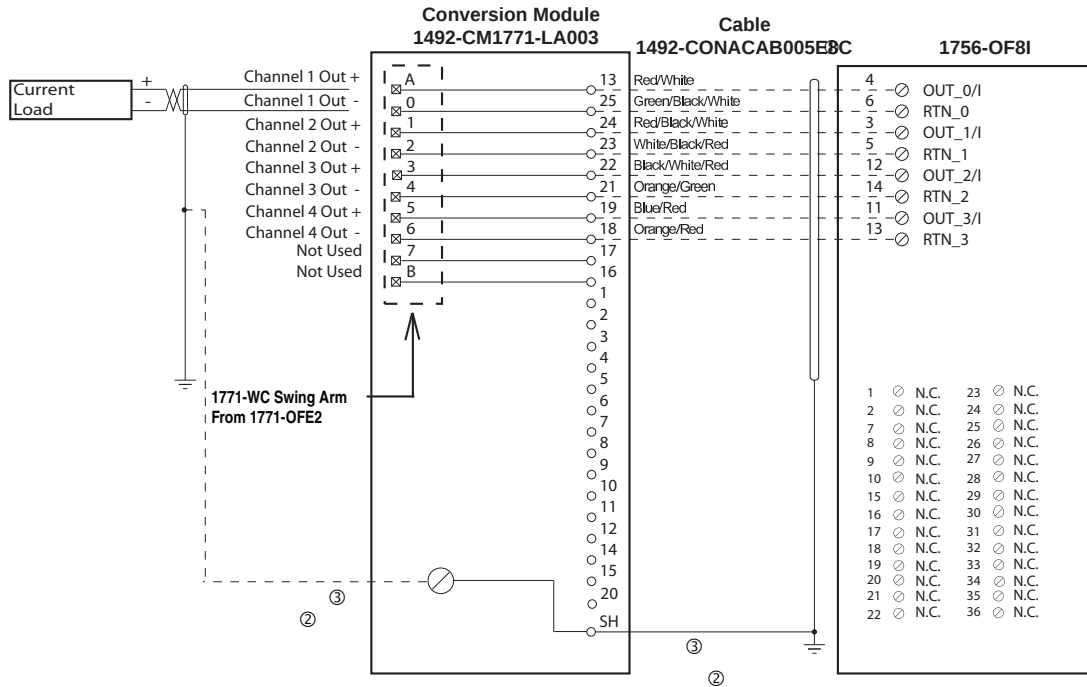
- ① **SHIELD GROUNDING:** In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA003 module. The pre-wired cable used between the 1492-CM1771-LA003 module and the 1756-OF6CI [1492-CONACAB005E] 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.
- ② **IMPORTANT:** The 1771-OFE2 module required the use of an external power supply to drive the analog device. The 1756-OF6CI analog output provides the drive power to the analog device. ENSURE the external power supply is REMOVED from the current loop before applying power to the 1756-OF6CI module or the analog output module may be damaged.
- ③ The 1771-OFE2 analog output ranges were factory set, the output range for the 1756-OF6CI is software configured. Please ensure the correct output range is configured in the 1756-OF6CI.
- ④ The 1756-OF6CI module can drive a load up to 550 ohms with the standard pre-configured cable [1492-CONACAB005E]. If greater than a 550 ohm drive current is required, the pre-wired cable can be modified at the 1756-OF6CI terminal block to drive up to a 1000 ohms. Refer to the 1756-OF6CI Installation Manual for modification details.
- ⑤ Refer to your 1771-OFE2 and 1756-OF6CI Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

41170-948 (1)

## 1771-OFE2 to 1756-OF8I

**IMPORTANT**

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**

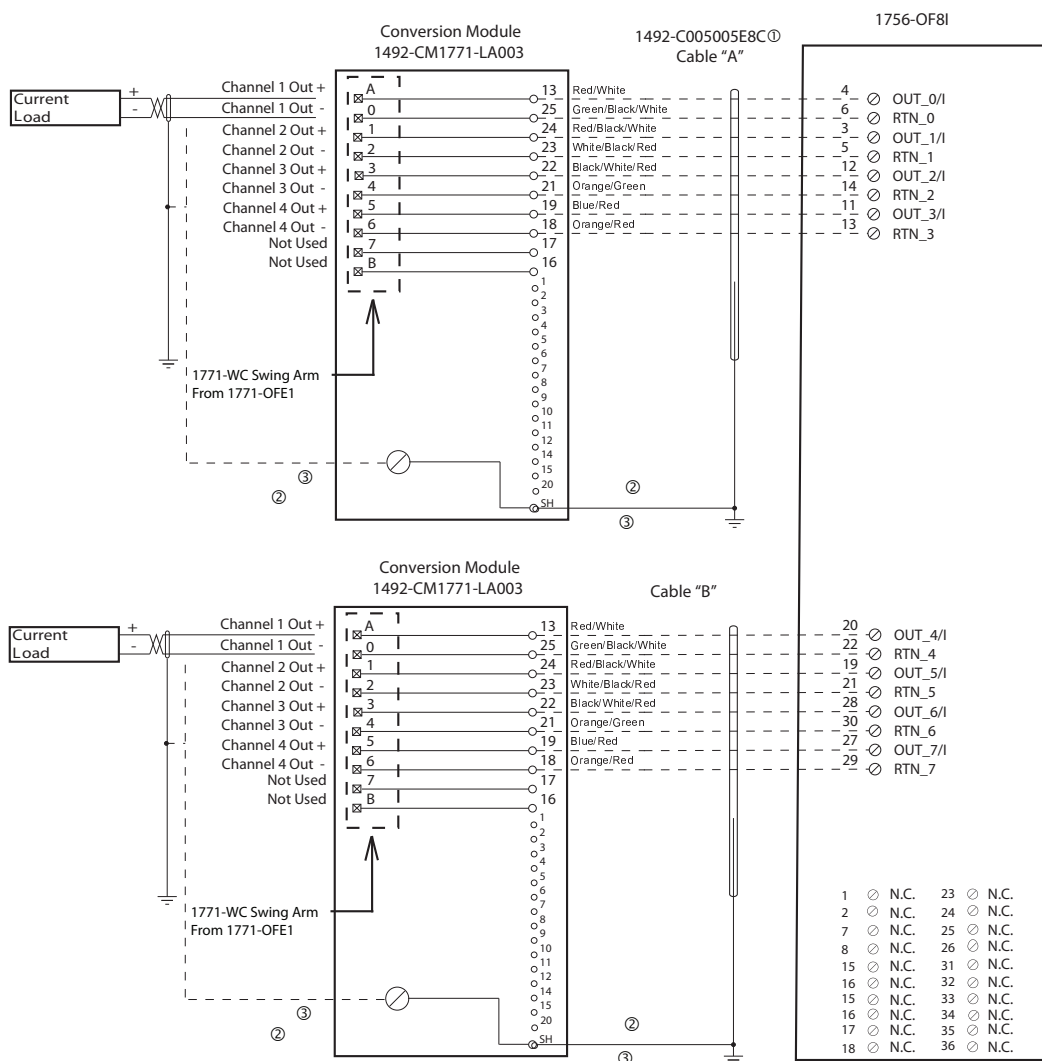
- ① Cables are available in lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M)
- ② SHIELD GROUNDING: In some installations, the field wiring shield was grounded on the 1771 chassis. If this was the case, the installer must remove these shield connections from the 1771 chassis and they can be connected to the grounding stud on the 1492-CM1771-LA003 module. The pre-wired cable used between the 1492-CM1771-LA003 module and the 1756-OF8I [1492-CONACAB005E8C] 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-OFE1 analog output range was configured by jumpers, the output range for the 1756-OF8I is software configured. Please ensure the correct output range is configured in the 1756-OF8I.
- ④ Refer to your 1771-OFE1 and 1756-OF8I Installation and User Manuals for additional information concerning comparisons of module wiring, features and configuration details.

DIR 10002306853 (Version 00)

## 1771-OFE2(2) to 1756-OF8I

**IMPORTANT**

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.



DIR 10002306859 (Version 00)

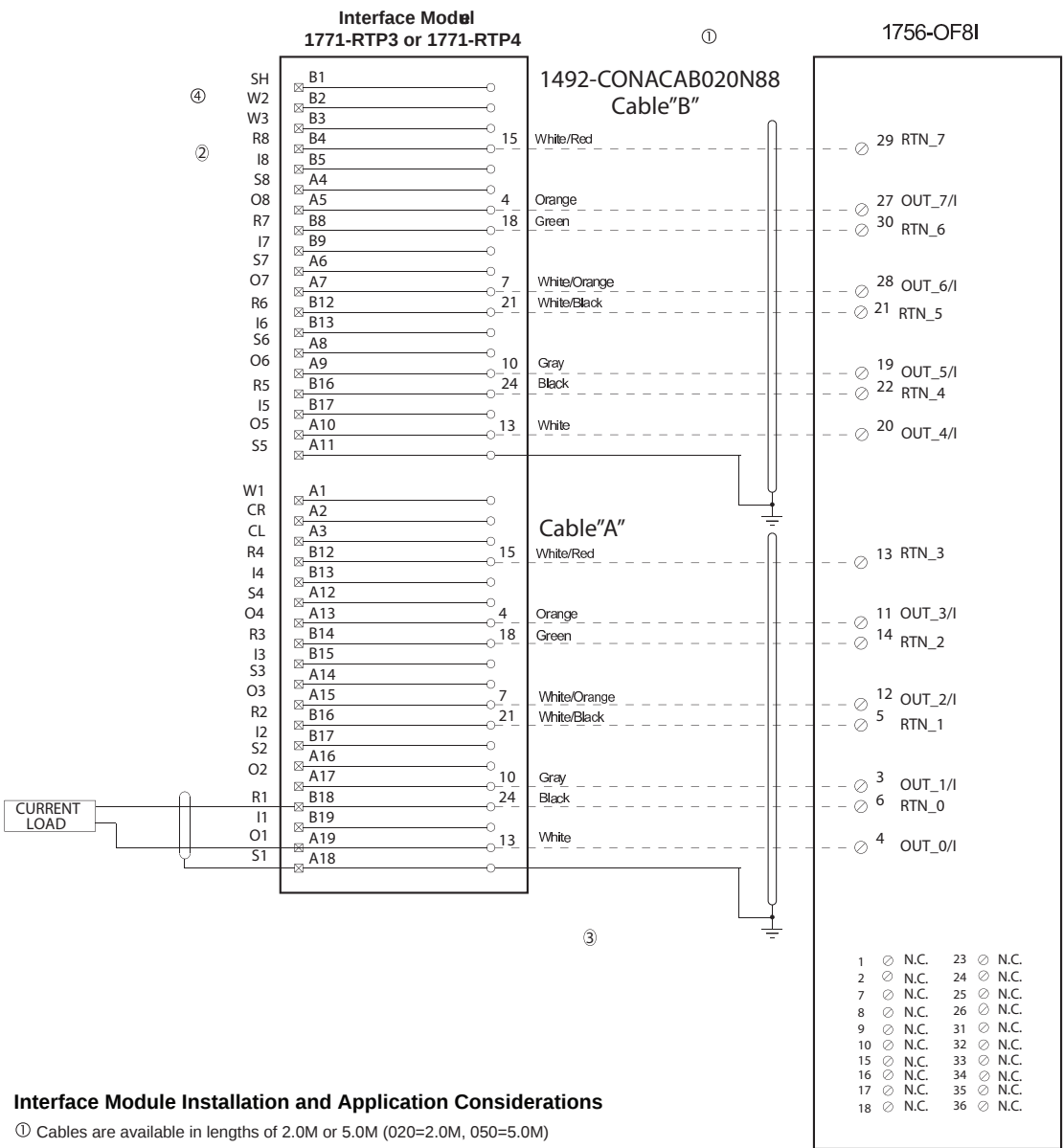
# Wiring Diagrams - High Resolution Isolated Analog

## Standard High Resolution I/O

### 1771-NOC to 1756-OF8I

**IMPORTANT**

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.



**Interface Module Installation and Application Considerations**

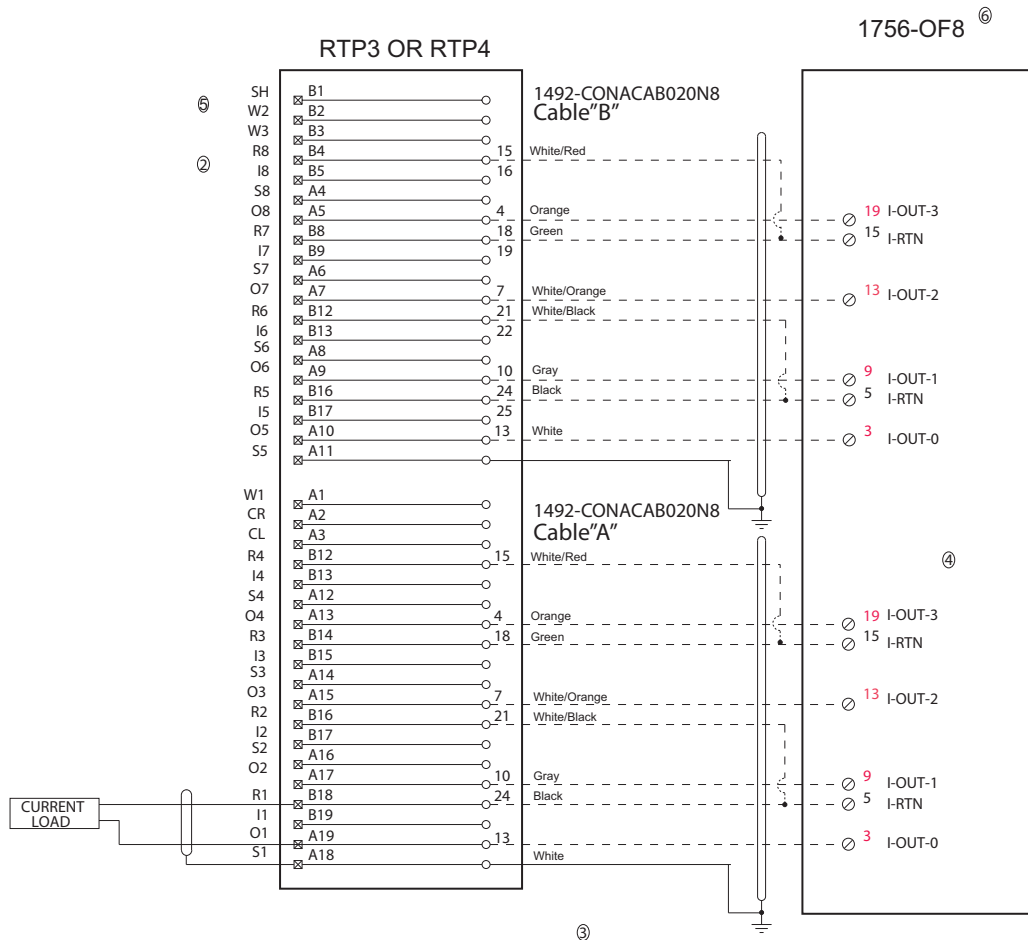
- ① Cables are available in lengths of 2.0M or 5.0M (020=2.0M, 050=5.0M)
- ② Terminals starting with A are the lower row terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: This is only true for module RTP3 and RTP4. cable does not connect to these terminals.

[Reference Doc: DIR 10002306650]

## 1771-NOC to 1756-OF8

**IMPORTANT**

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

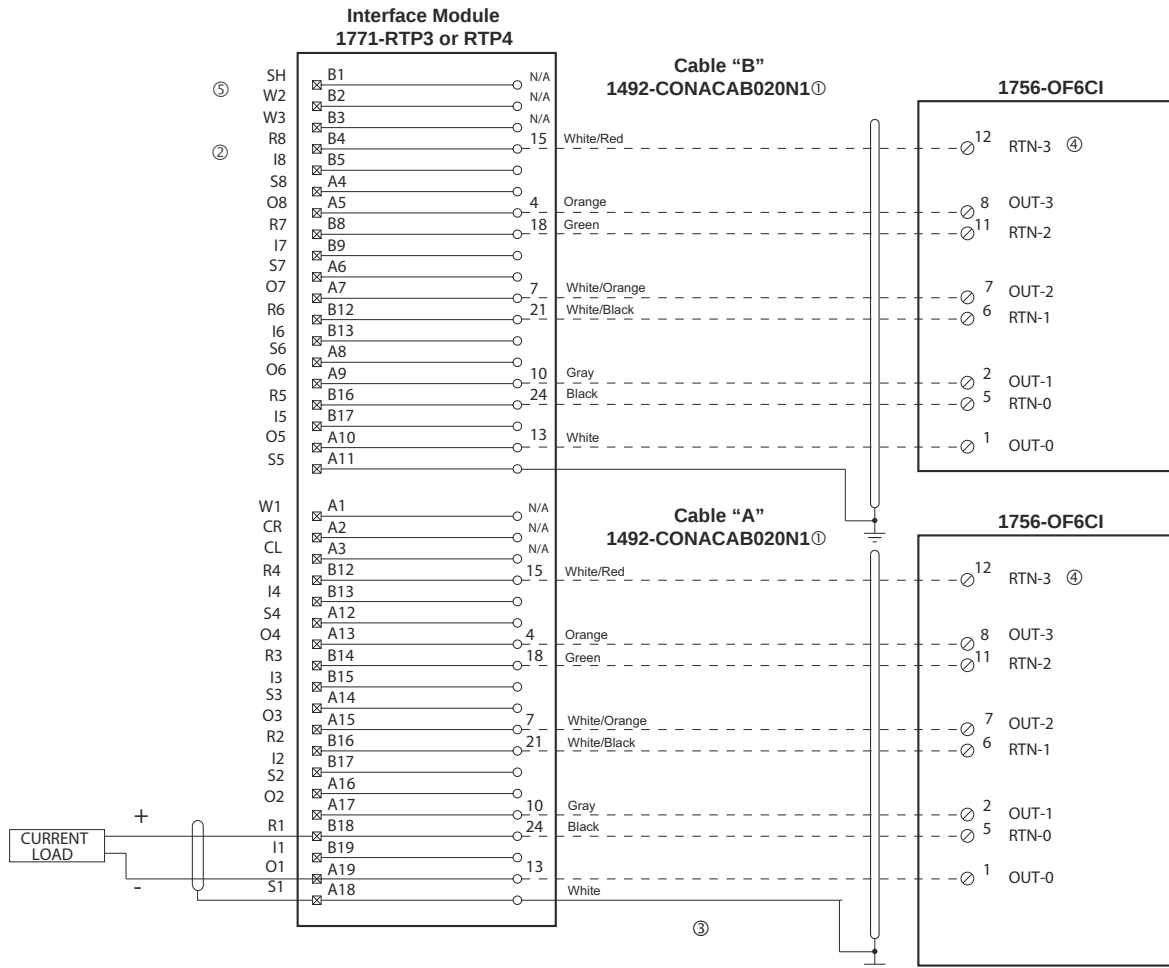
- ① Cables are available in 2.0m, or 5.0m
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ RTN terminals are internally connected on the 1756-OF8.
- ⑤ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: this is only true for modules RTP3 and RTP4. The Bul. 1492 cable does not connect to these terminals.
- ⑥ The 1771 - NOC module provides channel to channel isolation, the 1756-OF8 does not. A conversion from 1771-NOC to an isolated 1756-OF8 is available.

41171-079 (00)

## 1771-NOC to 1756-OF6CI

**IMPORTANT**

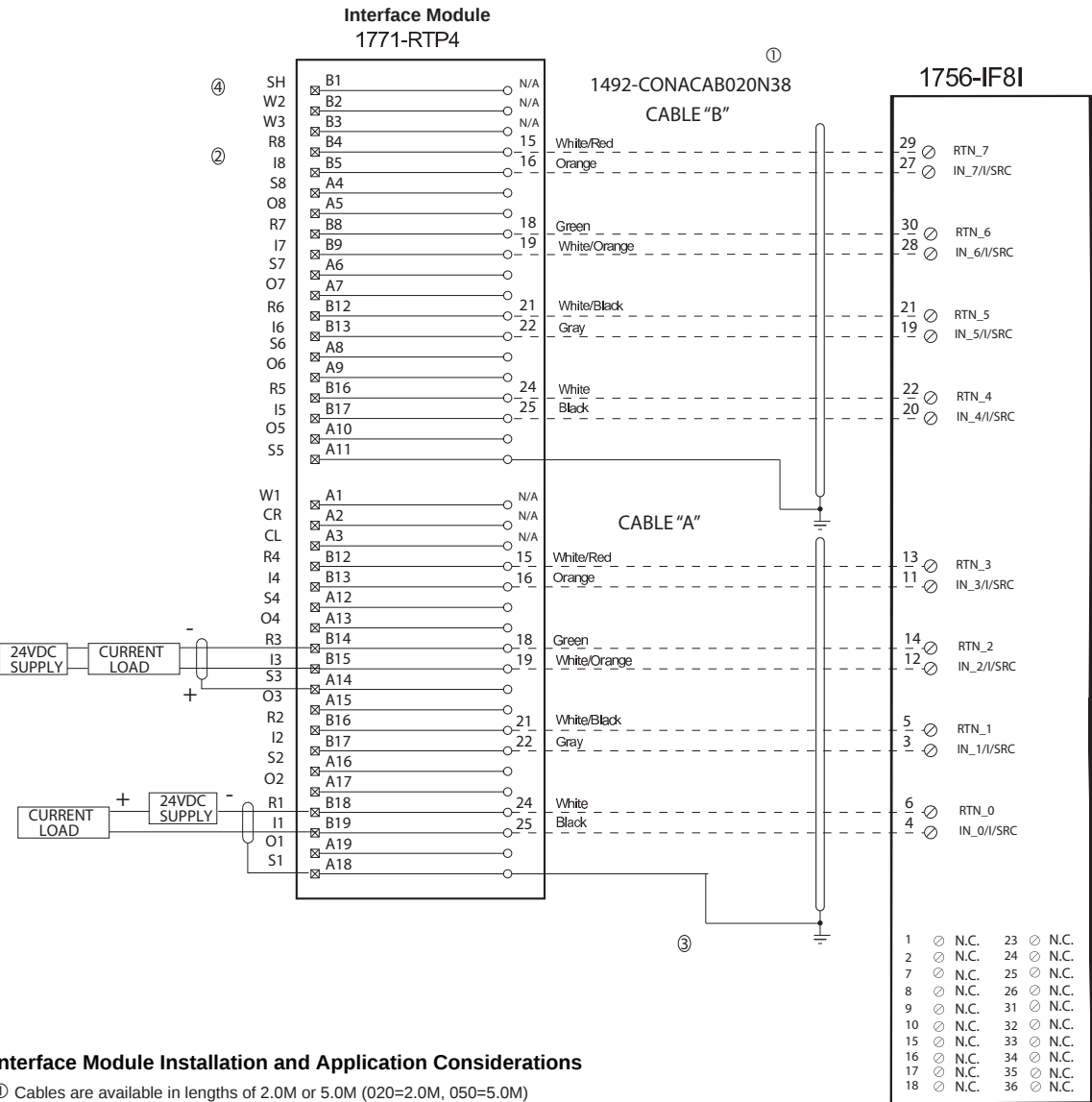
There are several key application considerations and system specifications (bottom of drawing) when using these components (conversion module, cable and input module). Read and understand these considerations before installation.



1771-NIS to 1756-IF8I

IMPORTANT

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.



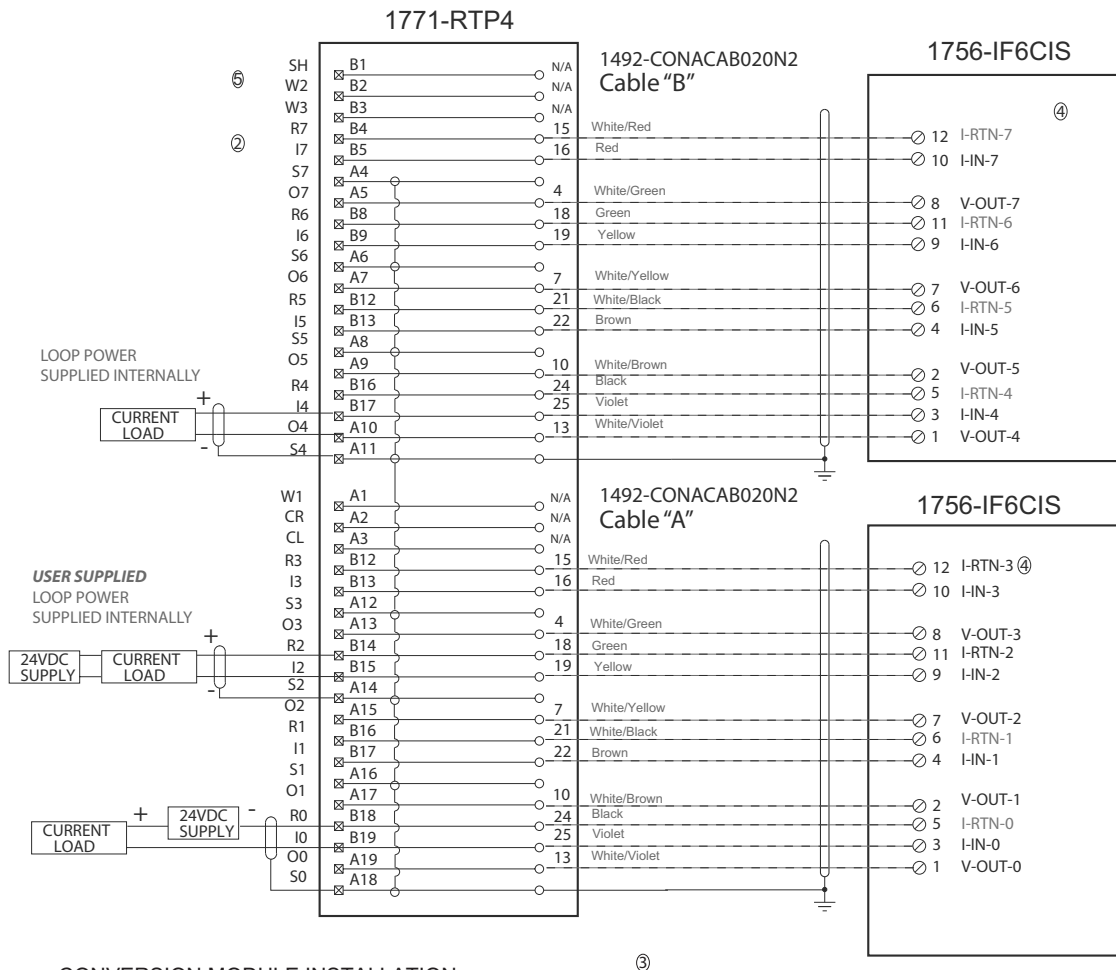
Interface Module Installation and Application Considerations

- ① Cables are available in lengths of 2.0M or 5.0M (020=2.0M, 050=5.0M)
- ② Terminals starting with A are the lower row terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: This is only true for module RTP4. The Bul. 1492 cable does not connect to these terminals

# 1771-NIS to 1756-IF6CIS

## IMPORTANT

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.



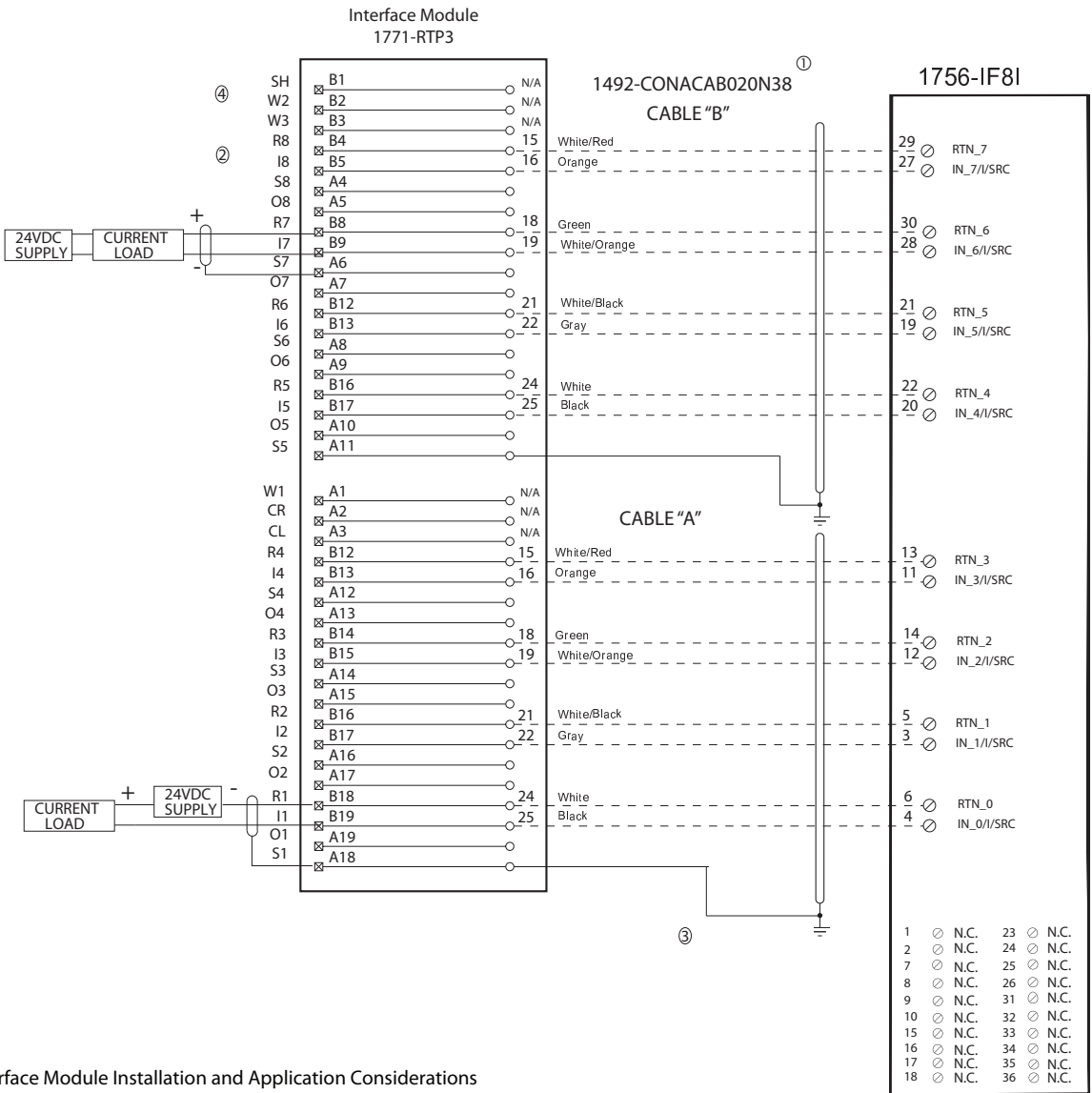
- ① Cables are available in 2.0m, or 5.0m
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ RTN terminals are internally connected on the 1756-IF6CIS.
- ⑤ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: this is only true for modules RTP4. The Bul. 1492 cable does not connect to these terminals.

41171-073 (01)

1771-NIV to 1756-IF8I — Current

IMPORTANT

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.



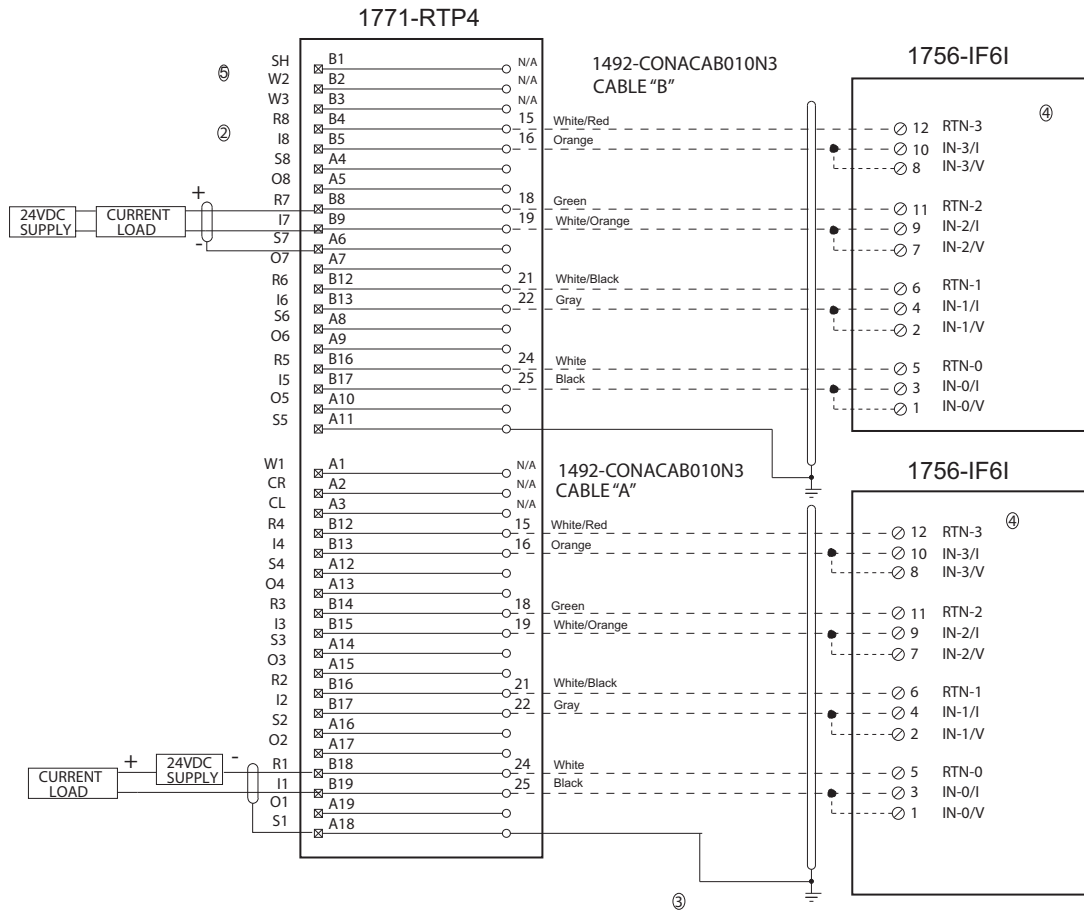
Interface Module Installation and Application Considerations

- ① Cables are available in lengths of 2.0M or 5.0M (020=2.0M, 050=5.0M)
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: This is only true for module RTP3 and RTP4. The Bul. 1492 cable does not connect to these terminals.

# 1771-NIV to 1756-IF6I — Current

## IMPORTANT

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.



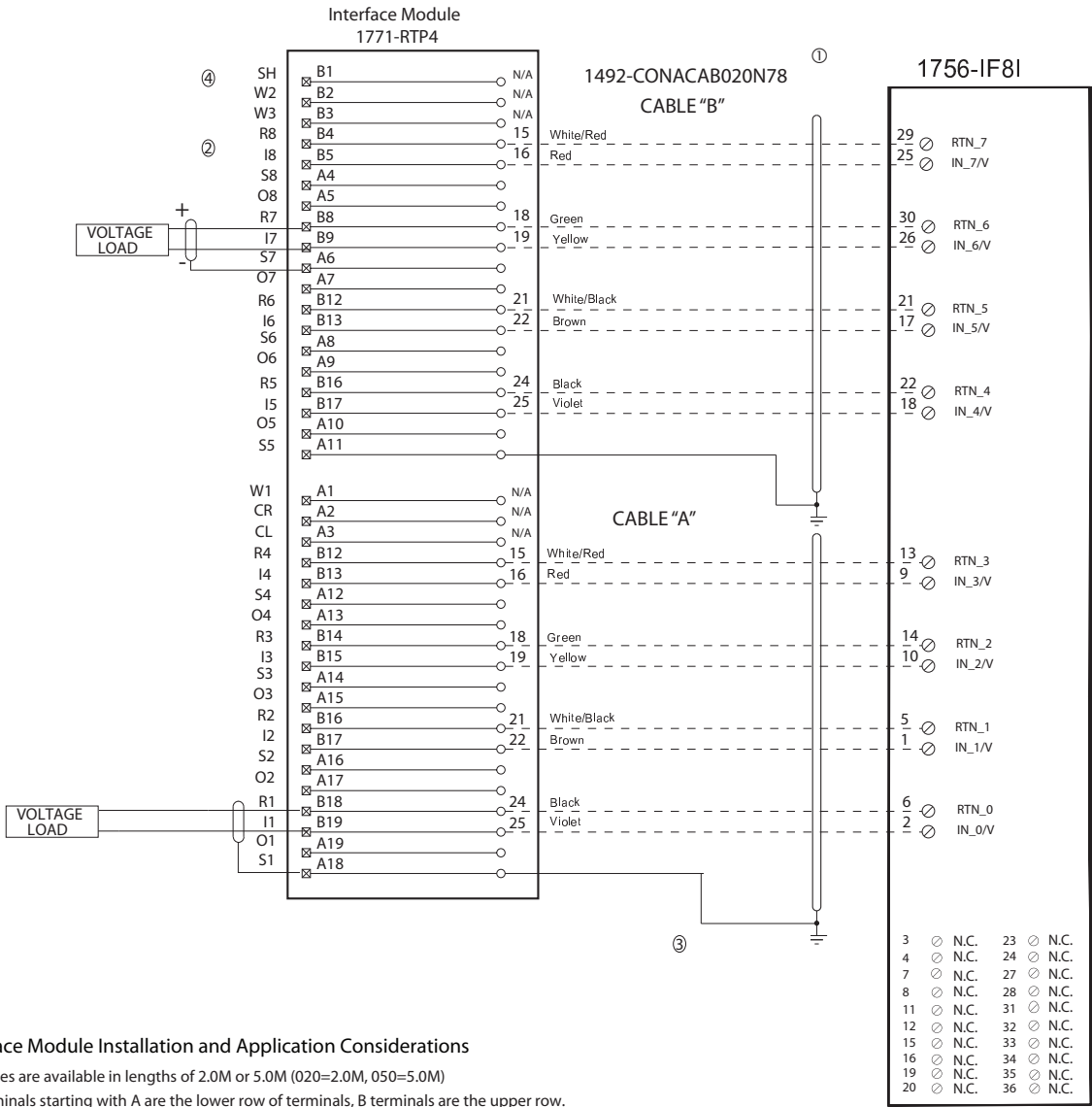
- ① Cables are available in 2.0m, or 5.0m
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ RTN terminals are internally connected on the 1756-IF6I.
- ⑤ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: this is only true for modules RTP3. The Bul. 1492 cable does not connect to these terminals.

41171-074 (00)

1771-NIV to 1756-IF8I — Voltage

IMPORTANT

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.



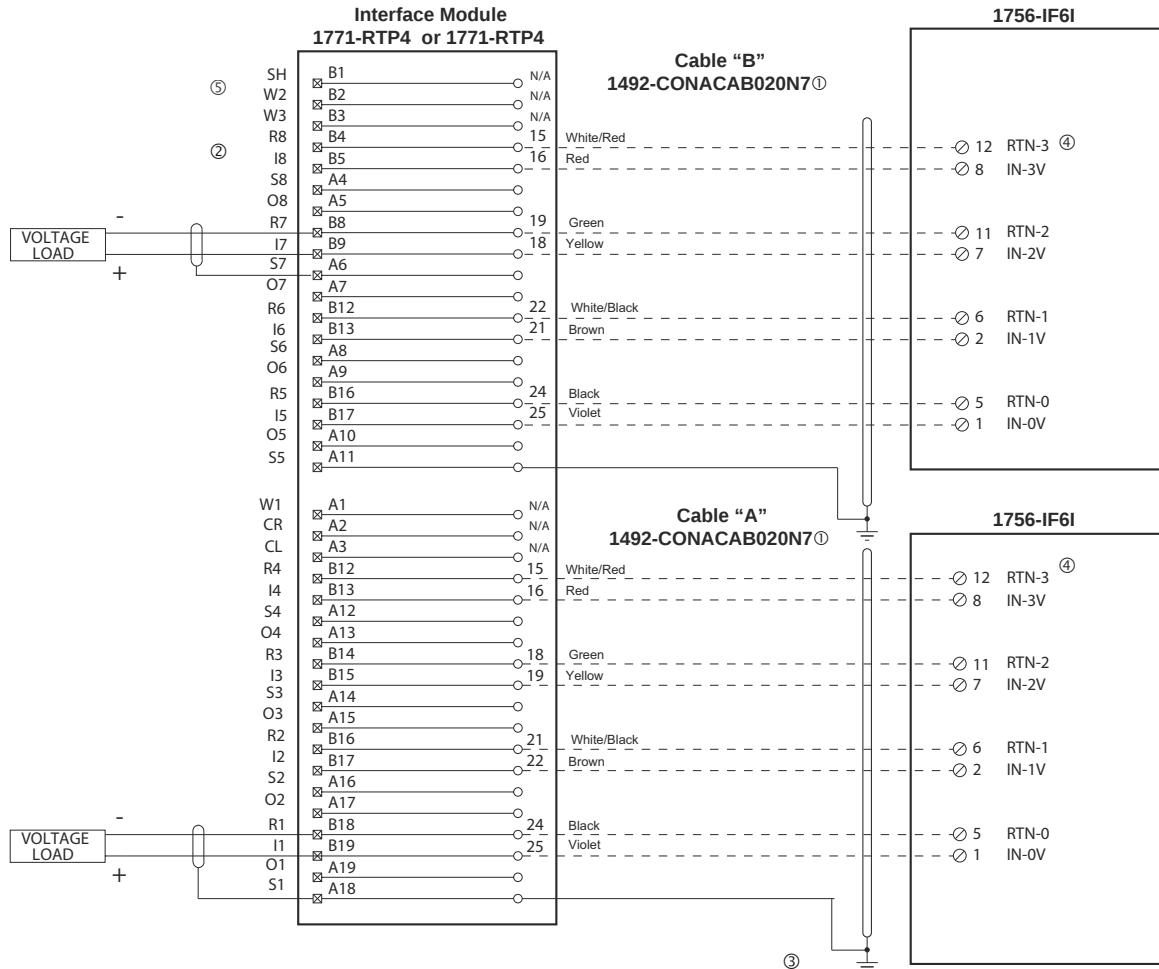
Interface Module Installation and Application Considerations

- ① Cables are available in lengths of 2.0M or 5.0M (020=2.0M, 050=5.0M)
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: This is only true for module RTP4. The Bul. 1492 cable does not connect to these terminals.

## 1771-NIV to 1756-IF6I — Voltage

**IMPORTANT**

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.

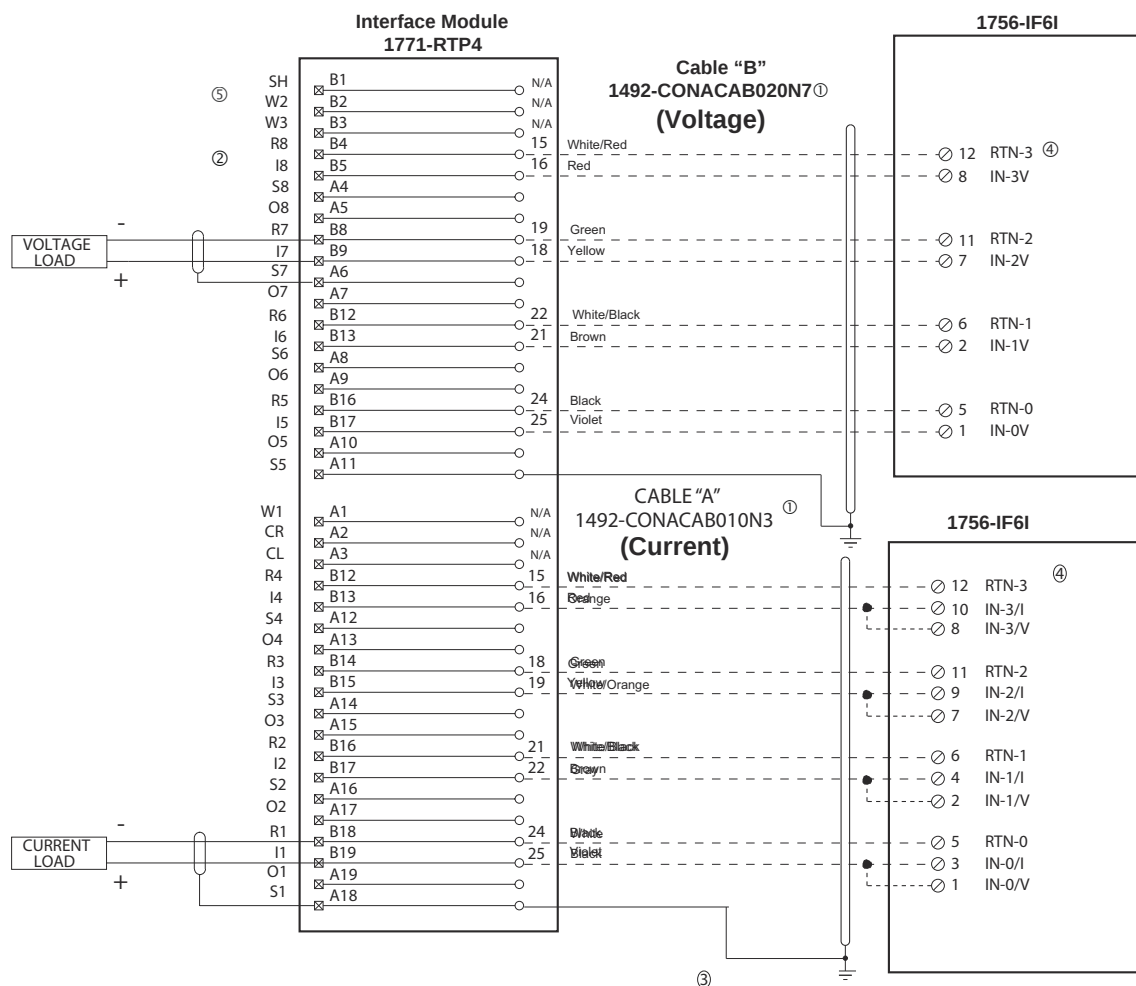


41171-080 Ver (00)

## 1771-NIV to 1756-IF6I — Current and Voltage

**IMPORTANT**

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.

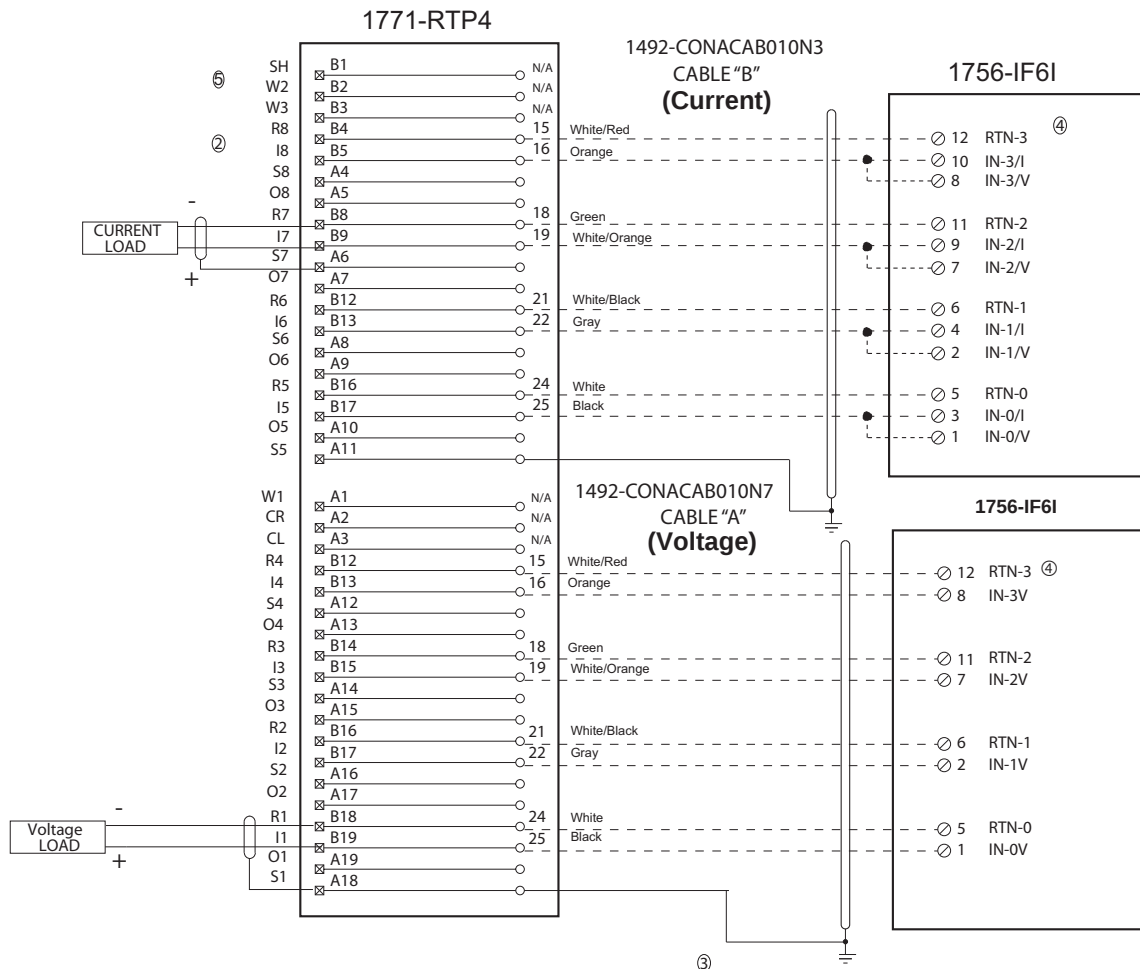


41171-039 Ver (00)

## 1771-NIV to 1756-IF6I — Voltage and Current

**IMPORTANT**

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.



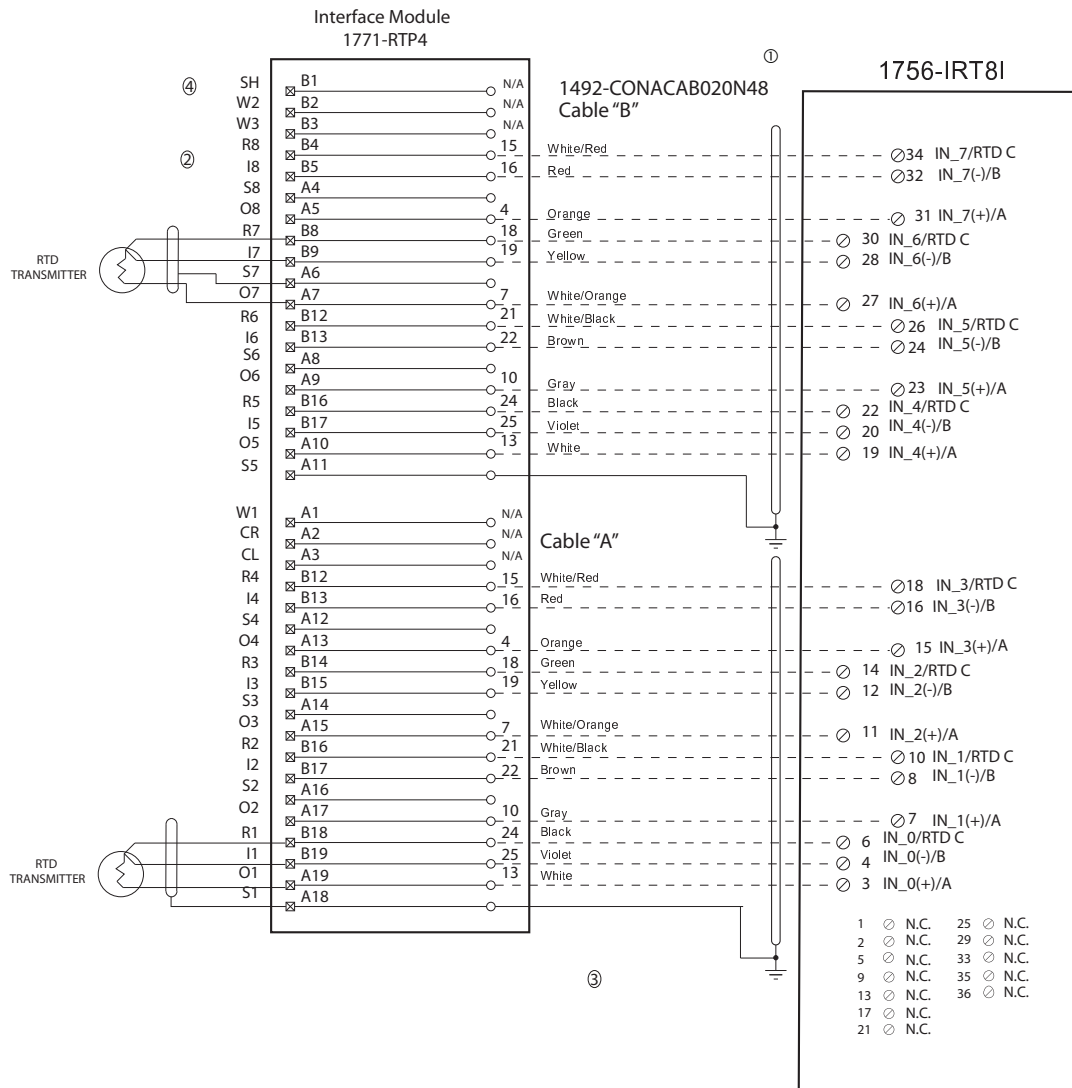
- ① Cables are available in 2.0m, or 5.0m
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ RTN terminals are internally connected on the 1756-IF6I.
- ⑤ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: this is only true for modules RTP3. The Bul. 1492 cable does not connect to these terminals.

41171-038 (00)

## 1771-NR to 1756-IRT8I

**IMPORTANT**

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.

**Interface Module Installation and Application Considerations**

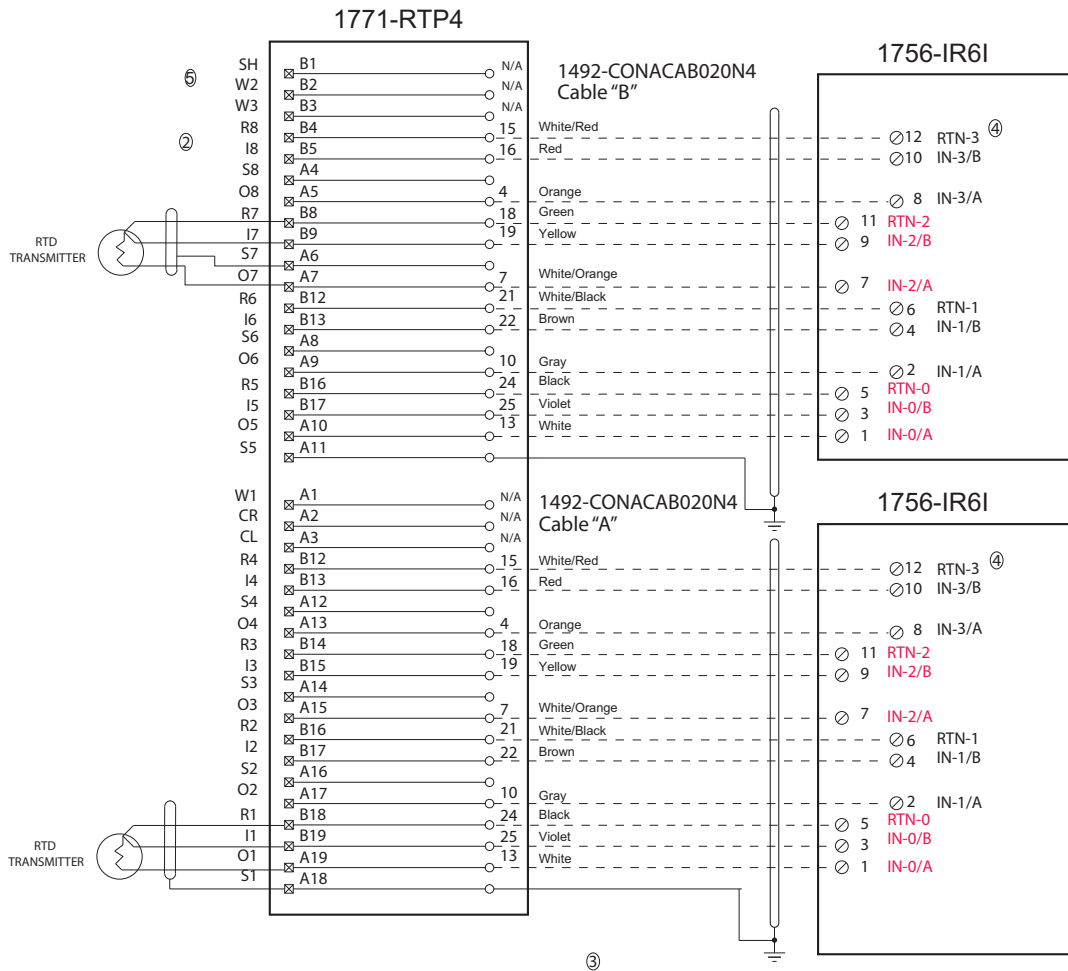
- ① Cables are available in lengths of 2.0M or 5.0M (020=2.0M, 050=5.0M)
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: This is only true for module RTP3 and RTP4. The Bul. 1492 cable does not connect to these terminals.

DIR 10002306848 (Version 00)

## 1771-NR to 1756-IR6I

**IMPORTANT**

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

**CONVERSION MODULE INSTALLATION AND APPLICATION CONSIDERATIONS**

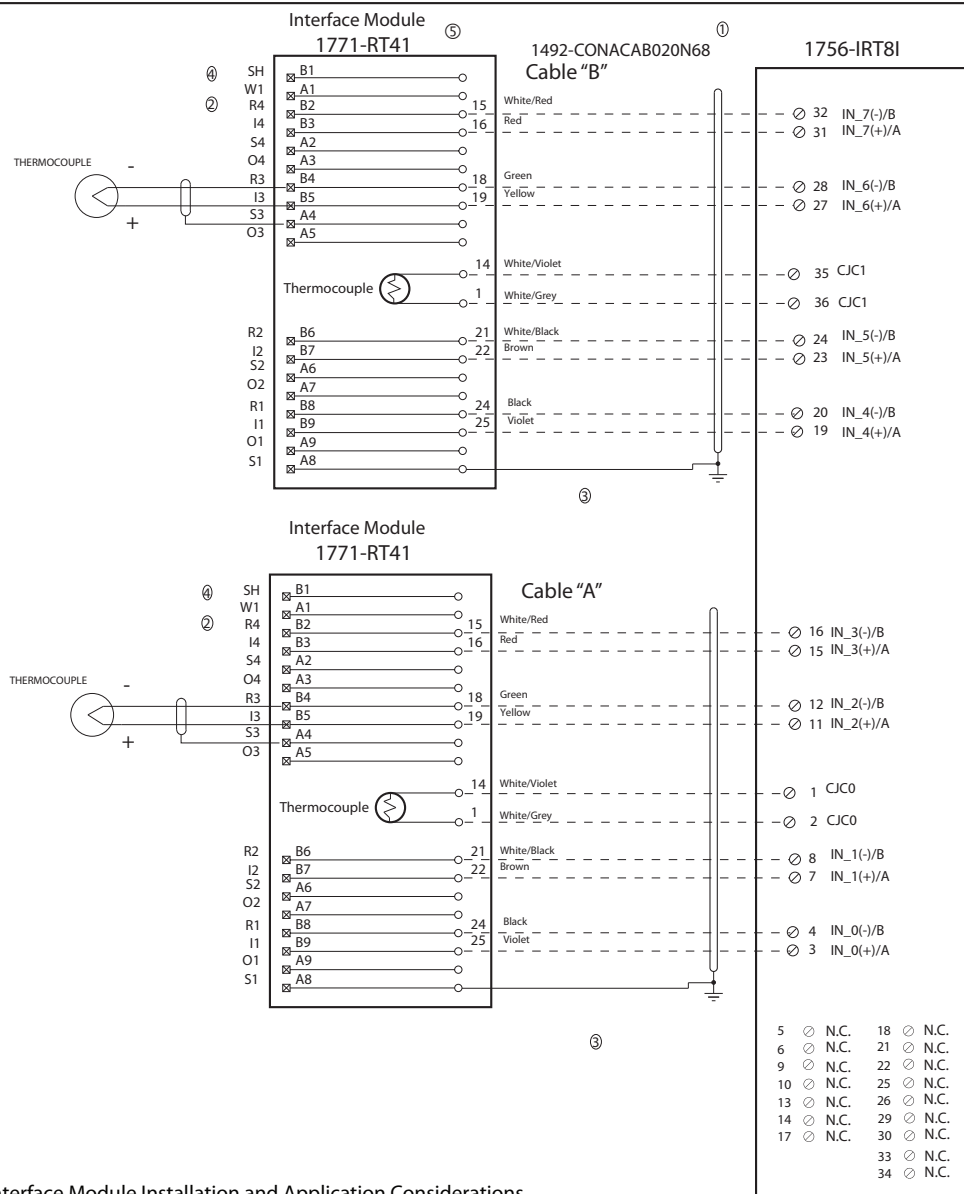
- ① Cables are available in 2.0m, or 5.0m
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ RTN terminals are internally connected on the 1756-IR6I.
- ⑤ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: this is only true for modules RTP4. The Bul. 1492 cable does not connect to these terminals.

41171-075 (00)

## 1771-NT1 or -NT2 to 1756-IRT8I

**IMPORTANT**

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.

**Interface Module Installation and Application Considerations**

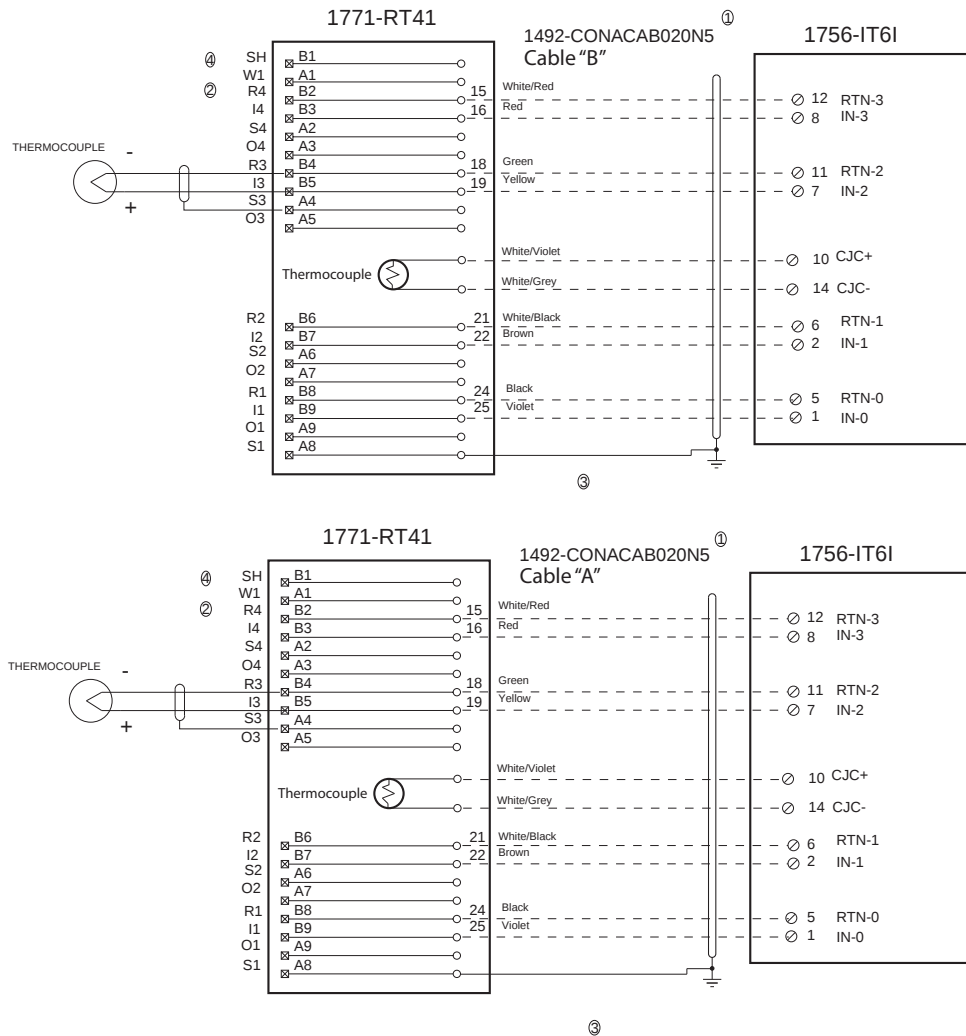
- ① Cables are available in lengths of 2.0M or 5.0M (020=2.0M, 050=5.0M)
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: This is only true for module RTP3 and RTP4. The Bul. 1492 cable does not connect to these terminals.
- ⑤ This conversion solution requires replacement of the existing (1) 1771-RTP1 interface module with (2) 1771-RT41 interface modules. Each 1771-RTP1 and RT41 module has there own cold junction compensation thermocouple attached to the interface module.

DIR 10002306849 (Version 00)

## 1771-NT1 to 1756-IT6I

**IMPORTANT**

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

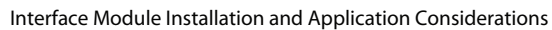


#### CONVERSION MODULE INSTALLATION AND APPLICATION CONSIDERATIONS

- ① Cables are available in 2.0M or 5.0M.
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals W1, W2 and W3 are spares used for field wire convenience. NOTE. This is only true for modules RT41 . The Bul. 1492 cable does not connect to these terminals.

41171-076 (01)

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.

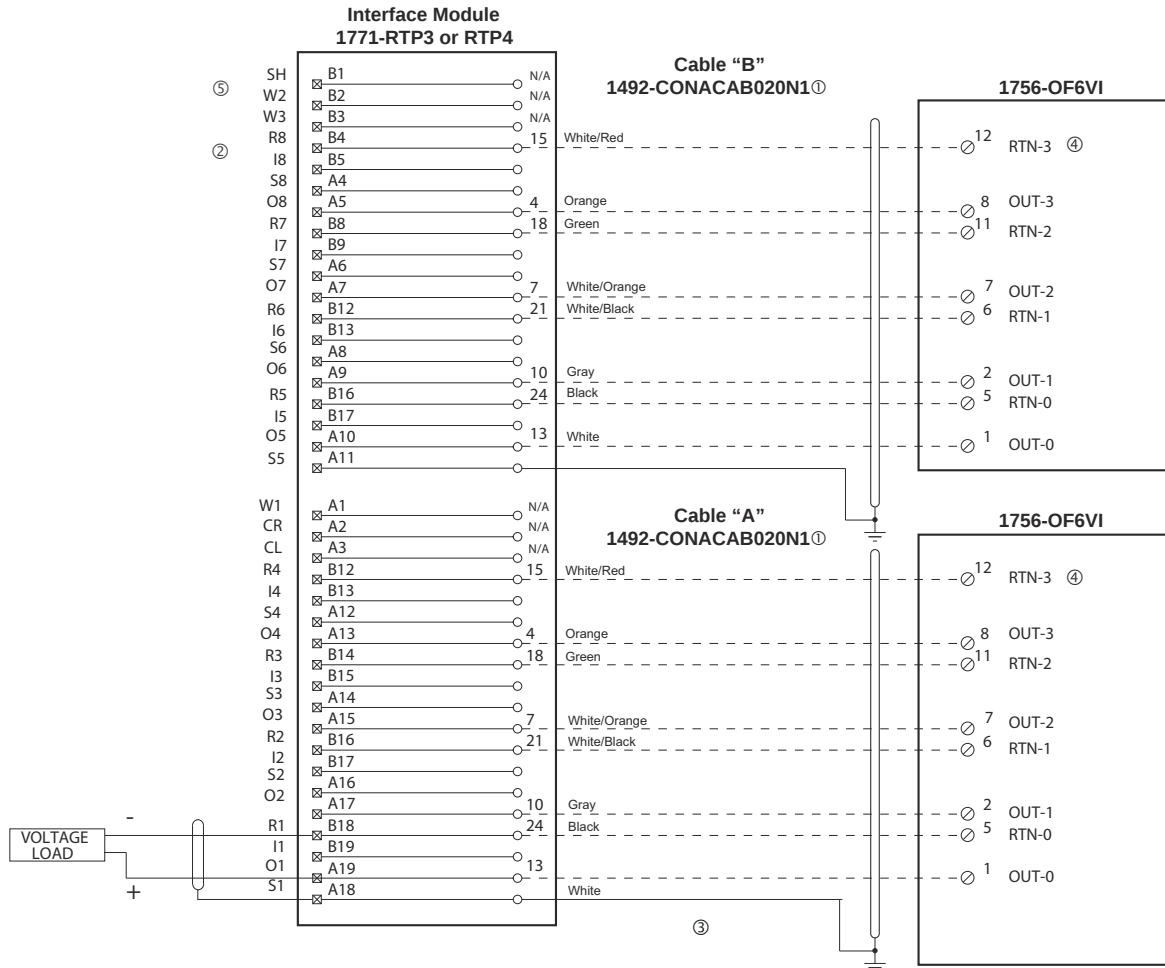


- ① Cables are available in lengths of 2.0M or 5.0M (020=2.0M, 050=5.0M)
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: This is only true for module RTP3 and RTP4. The Bul. 1492 cable does not connect to these terminals.

## 1771-NOV to 1756-OF6VI

**IMPORTANT**

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**

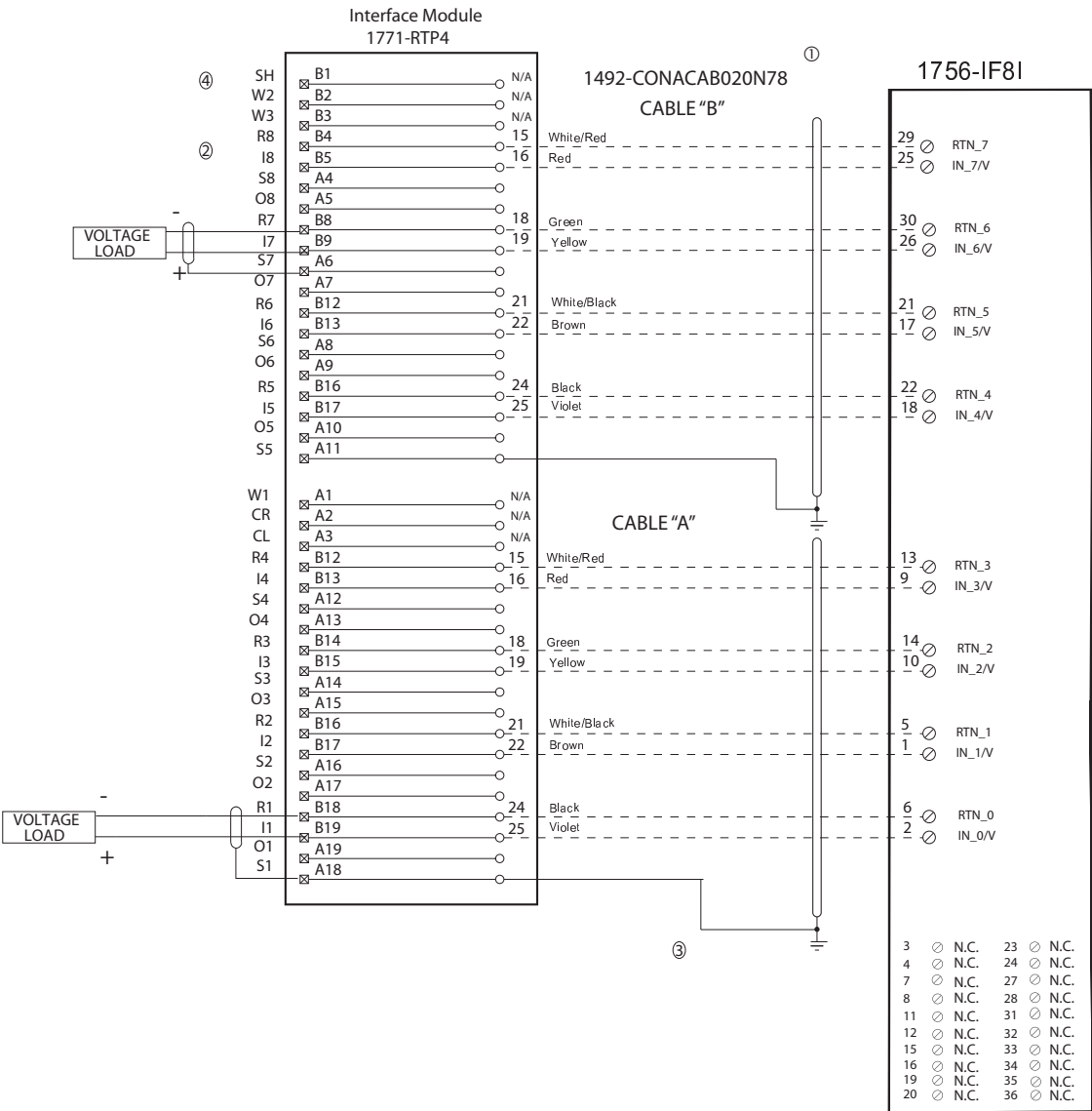
- ① Cables are available in 2.0m, or 5.0m
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ RTN terminals are internally connected on the 1756-OF6VI.
- ⑤ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: This is only true for modules RTP3 and RTP4. The Bul. 1492 cable does not connect to these terminals.

41171-081 Ver(00)

1771-NIV1 to 1756-IF8I

IMPORTANT

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.



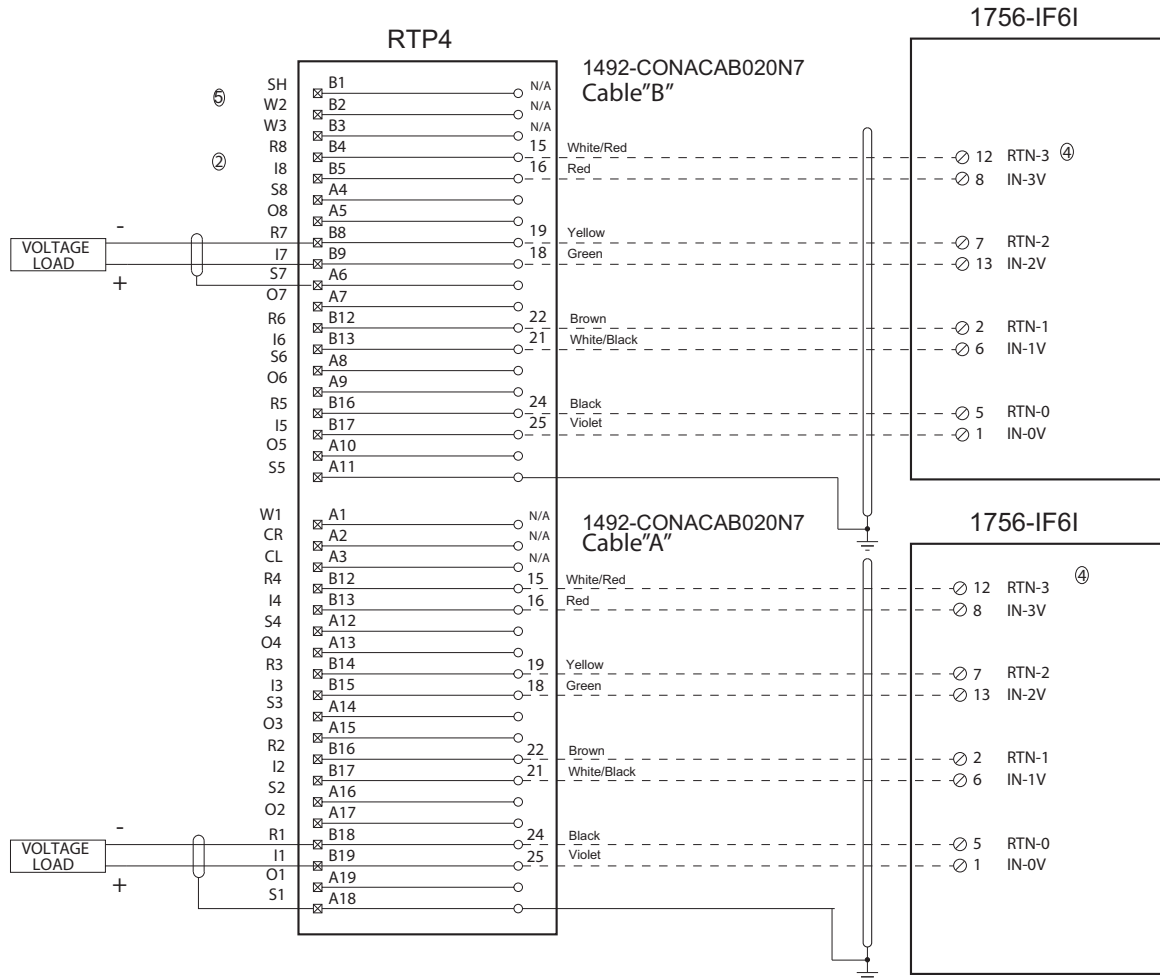
Interface Module Installation and Application Considerations

- ① Cables are available in lengths of 2.0M or 5.0M (020=2.0M, 050=5.0M)
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: This is only true for module RTP3 and RTP4. The Bul. 1492 cable does not connect to these terminals.

## 1771-NIV1 to 1756-IF6I

**IMPORTANT**

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.

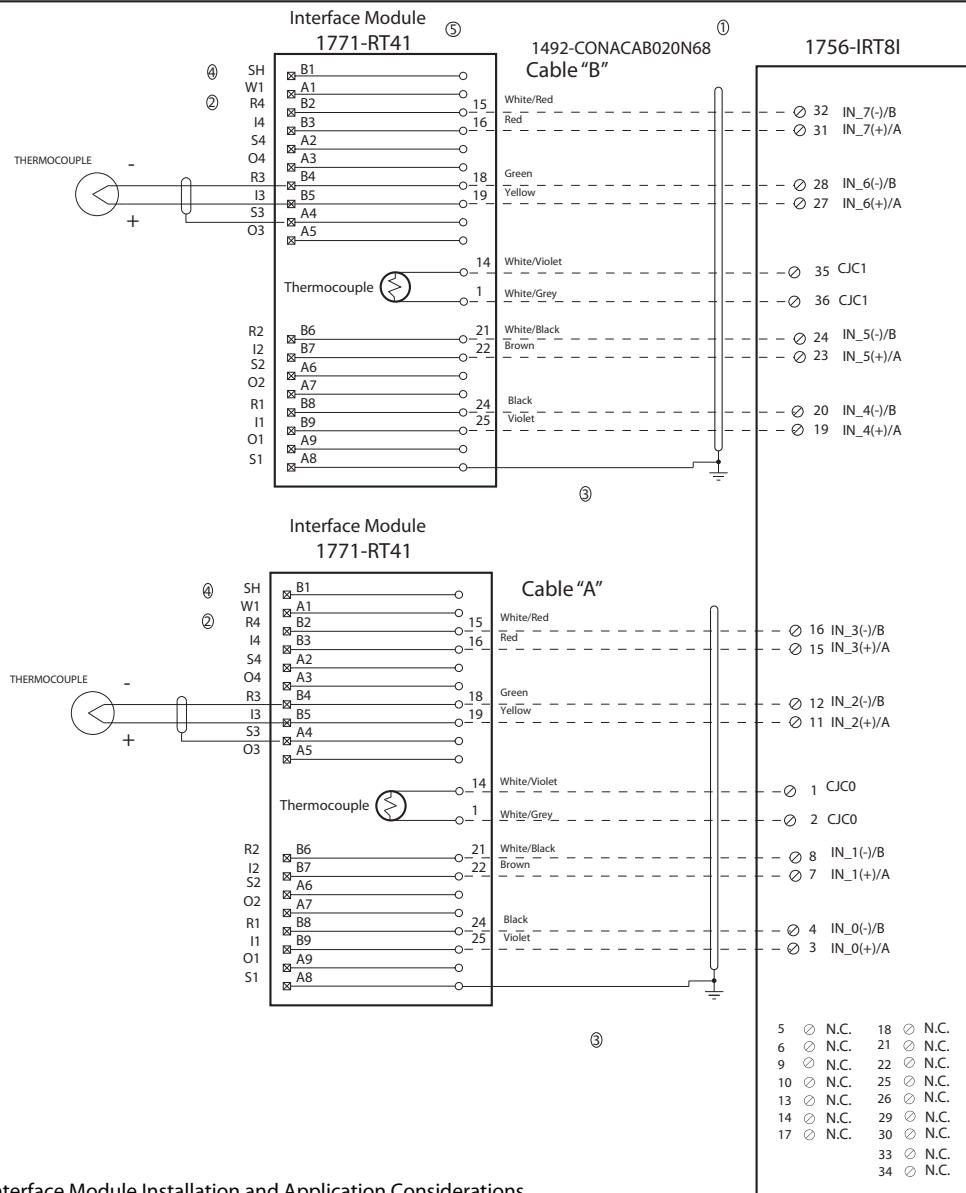


41171-078 (00)

## 1771-NT2 to 1756-IRT8I

**IMPORTANT**

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.

**Interface Module Installation and Application Considerations**

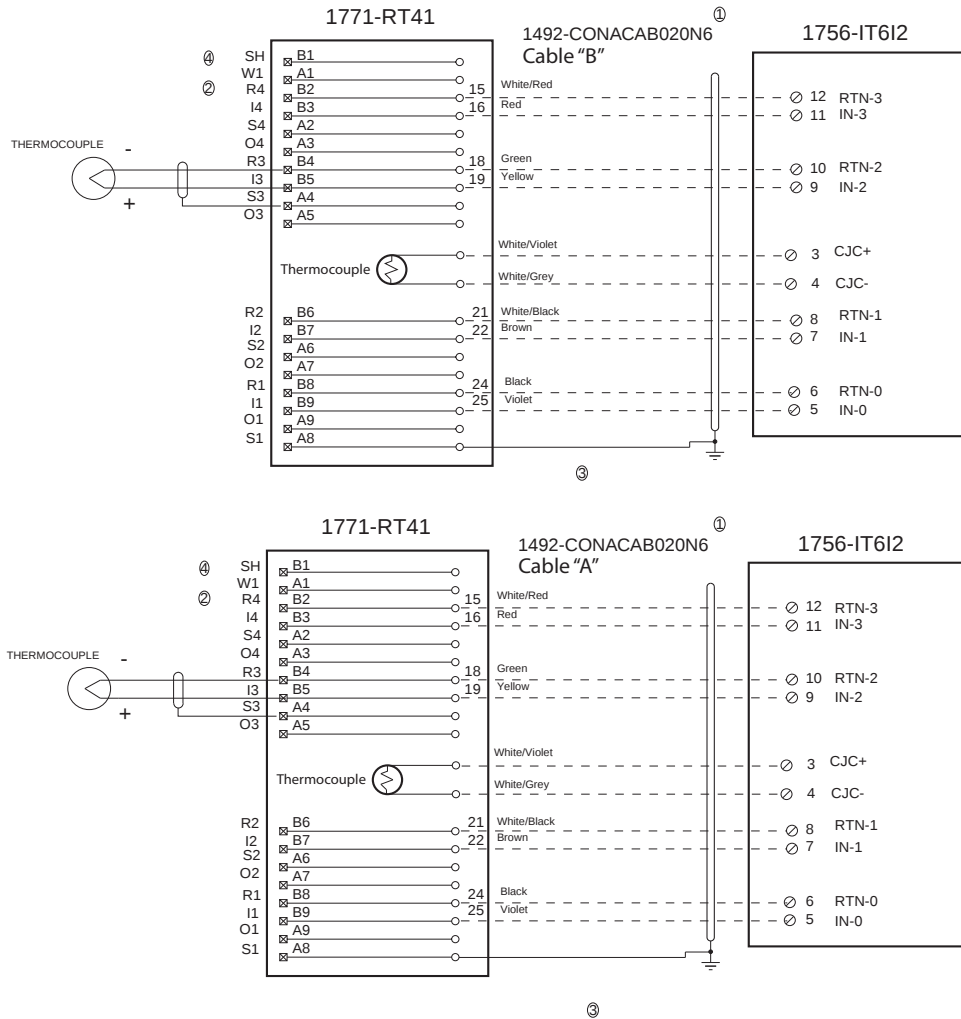
- ① Cables are available in lengths of 2.0M or 5.0M (020=2.0M, 050=5.0M)
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: This is only true for module RTP3 and RTP4. The Bul. 1492 cable does not connect to these terminals.
- ⑤ This conversion solution requires replacement of the existing (1) 1771-RTP1 interface module with (2) 1771-RT41 interface modules. Each 1771-RTP1 and RT41 module has there own cold junction compensation thermocouple attached to the interface module.

DIR 10002306849 (Version 00)

## 1771-NT2 to 1756-IT6I2

**IMPORTANT**

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 Cables are available in 2.0M or 5.0M.
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals W1, W2 and W3 are spares used for field wire convenience. NOTE. This is only true for modules RT41 . The Bul. 1492 cable does not connect to these terminals.

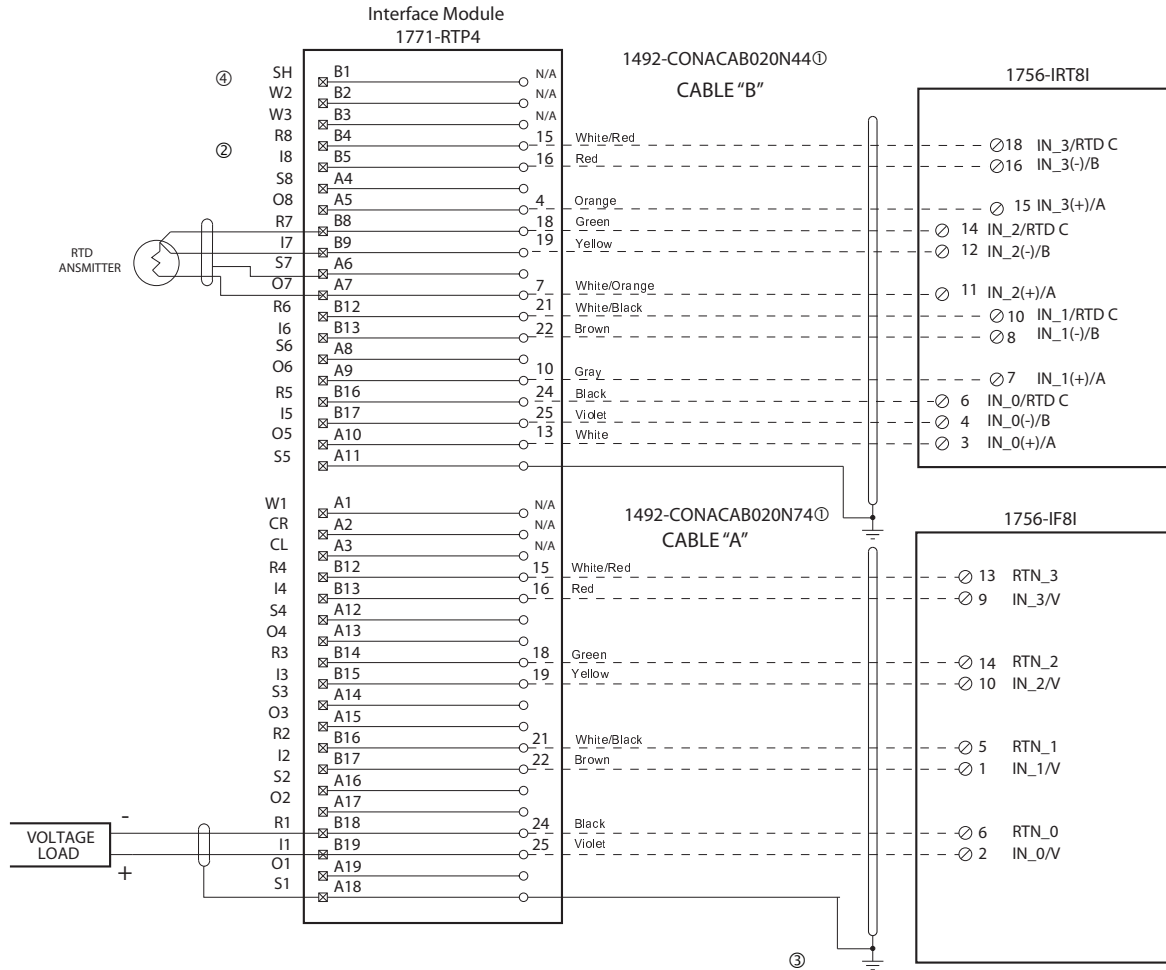
41171-077 (01)

## Combination High Resolution I/O

### 1771-NIVR to 1756-IRT8I and -IF8I

#### IMPORTANT

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.



#### Interface Module Installation and Application Considerations

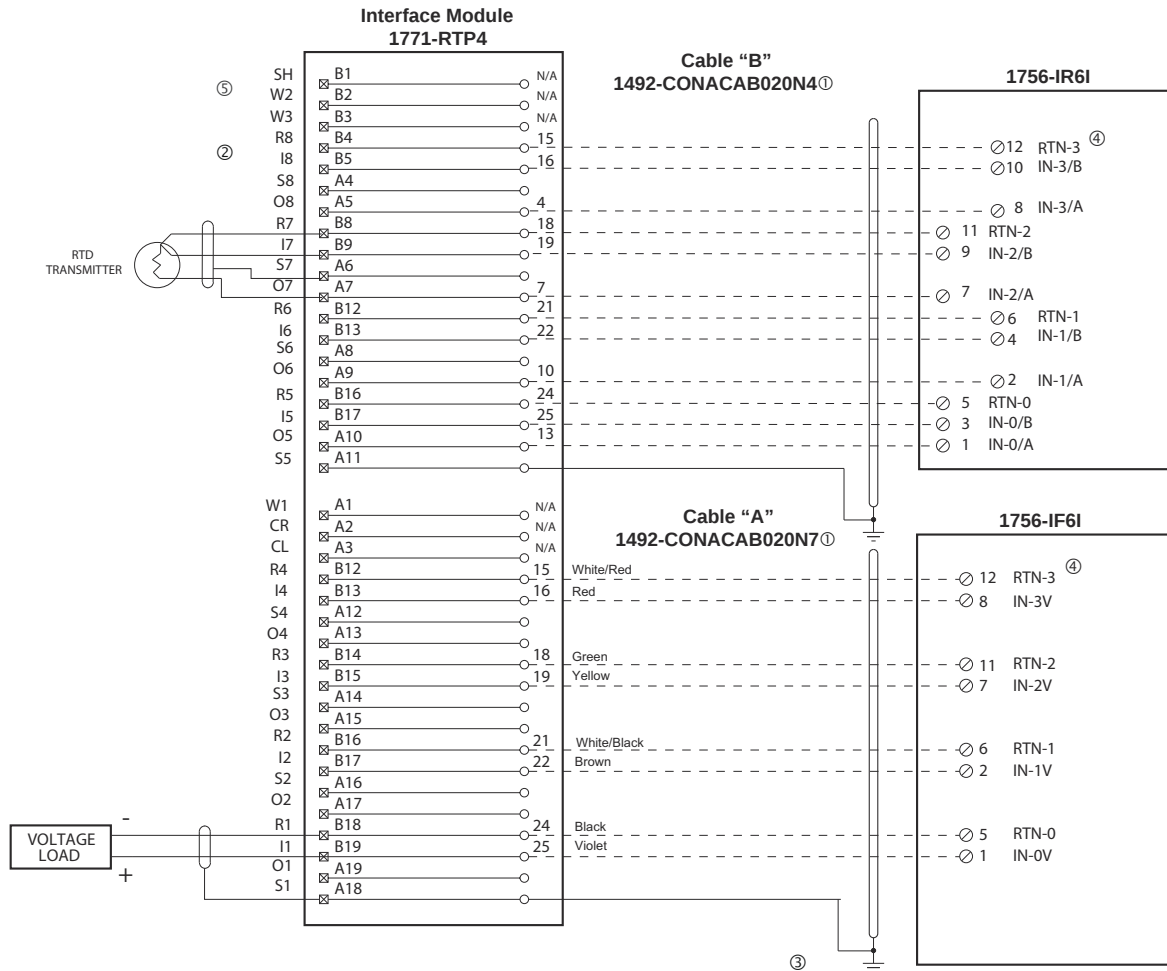
- ① Cables are available in lengths of 2.0M or 5.0M (020=2.0M, 050=5.0M)
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: This is only true for module RTP3 and RTP4. The Bul. 1492 cable does not connect to these terminals.

DIR 10002306496 (Version 00)

## 1771-NIVR to 1756-IR6I and -IF6I

**IMPORTANT**

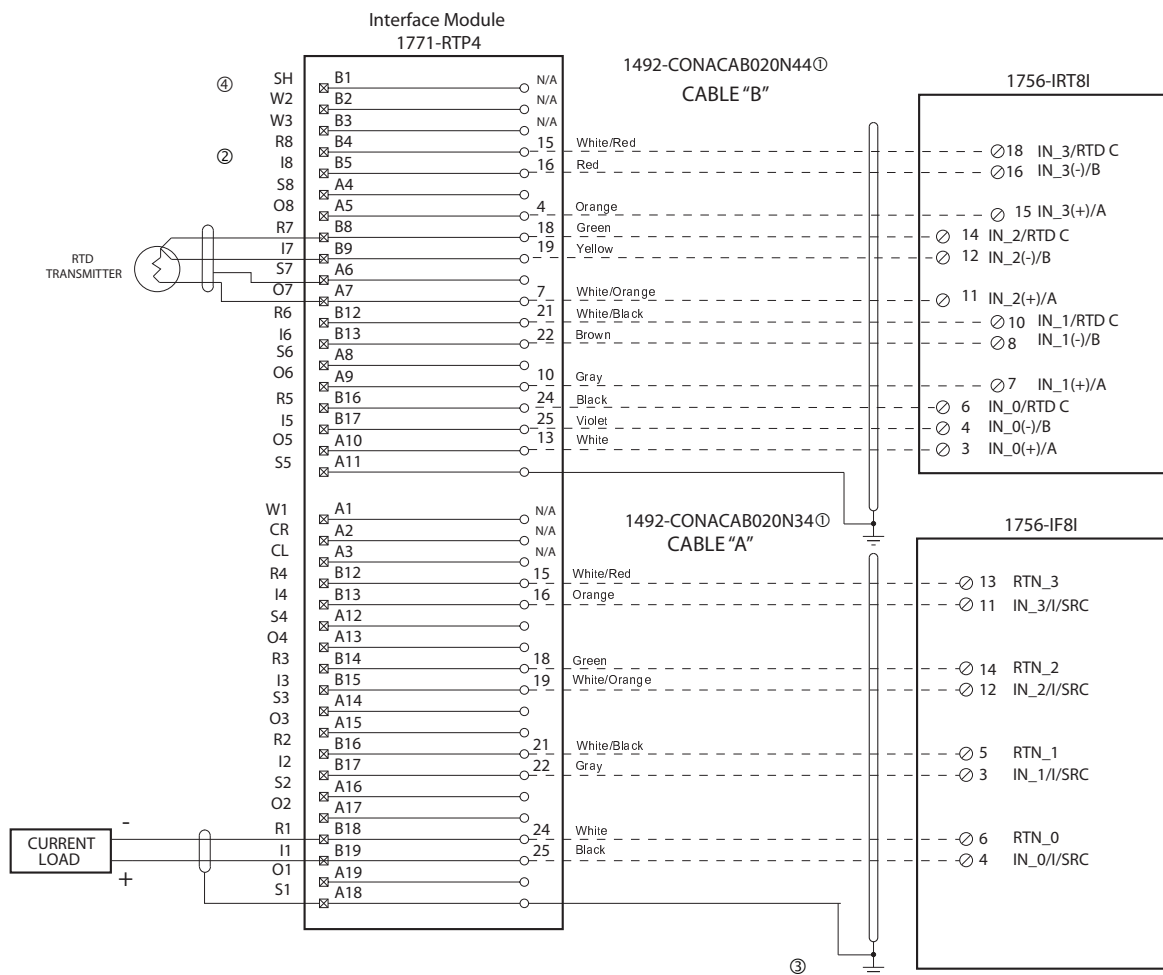
There are several key application considerations and system specifications (bottom of drawing) when using these components (conversion module, cable and input module). Read and understand these considerations before installation.



## 1771-NIVR to 1756-IRT8I and -IF8I

**IMPORTANT**

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.

**Interface Module Installation and Application Considerations**

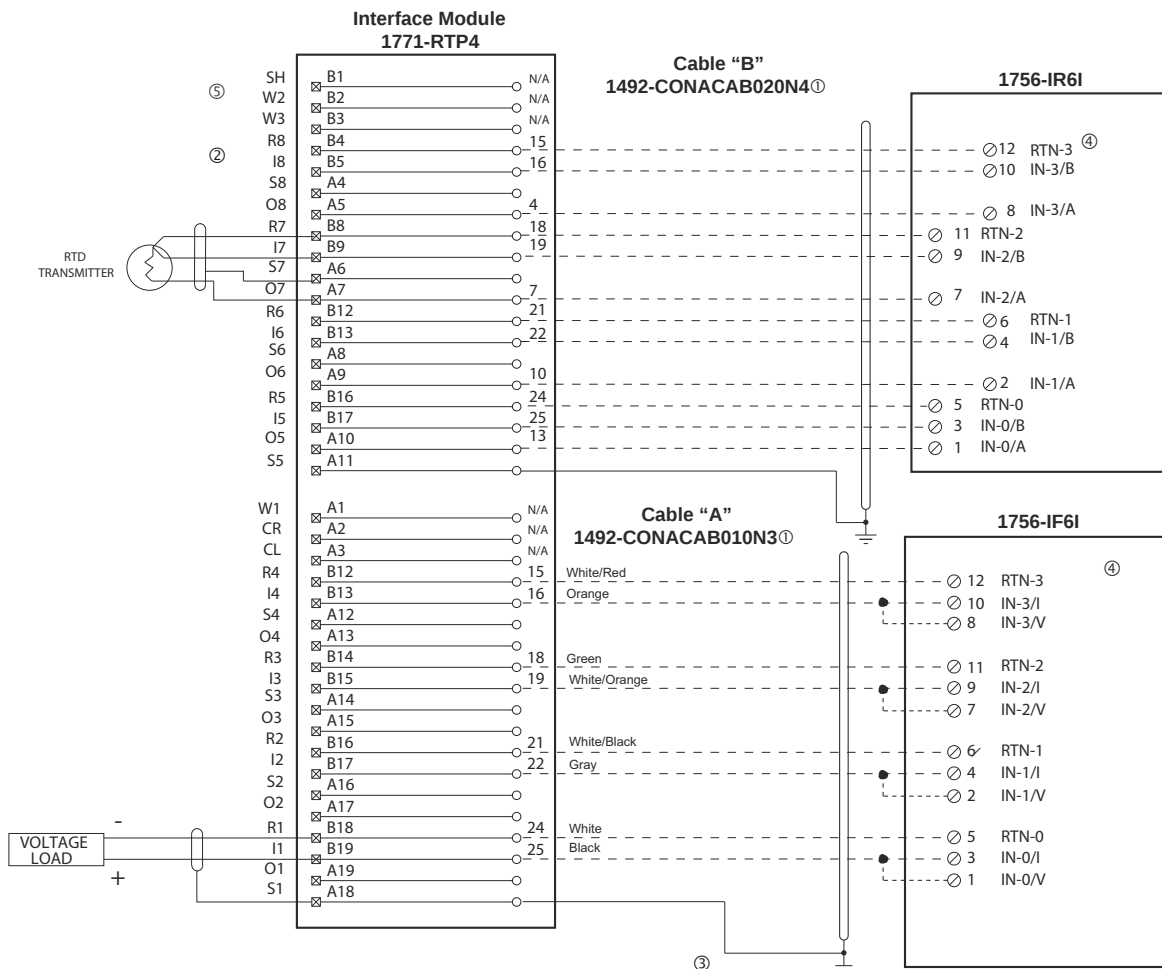
- ① Cables are available in lengths of 2.0M or 5.0M (020=2.0M, 050=5.0M)
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: This is only true for module RTP3 and RTP4. The Bul. 1492 cable does not connect to these terminals.

DIR 10002306490 (Version 00)

# 1771-NIVR to 1756-IR6I and -IF6I

## IMPORTANT

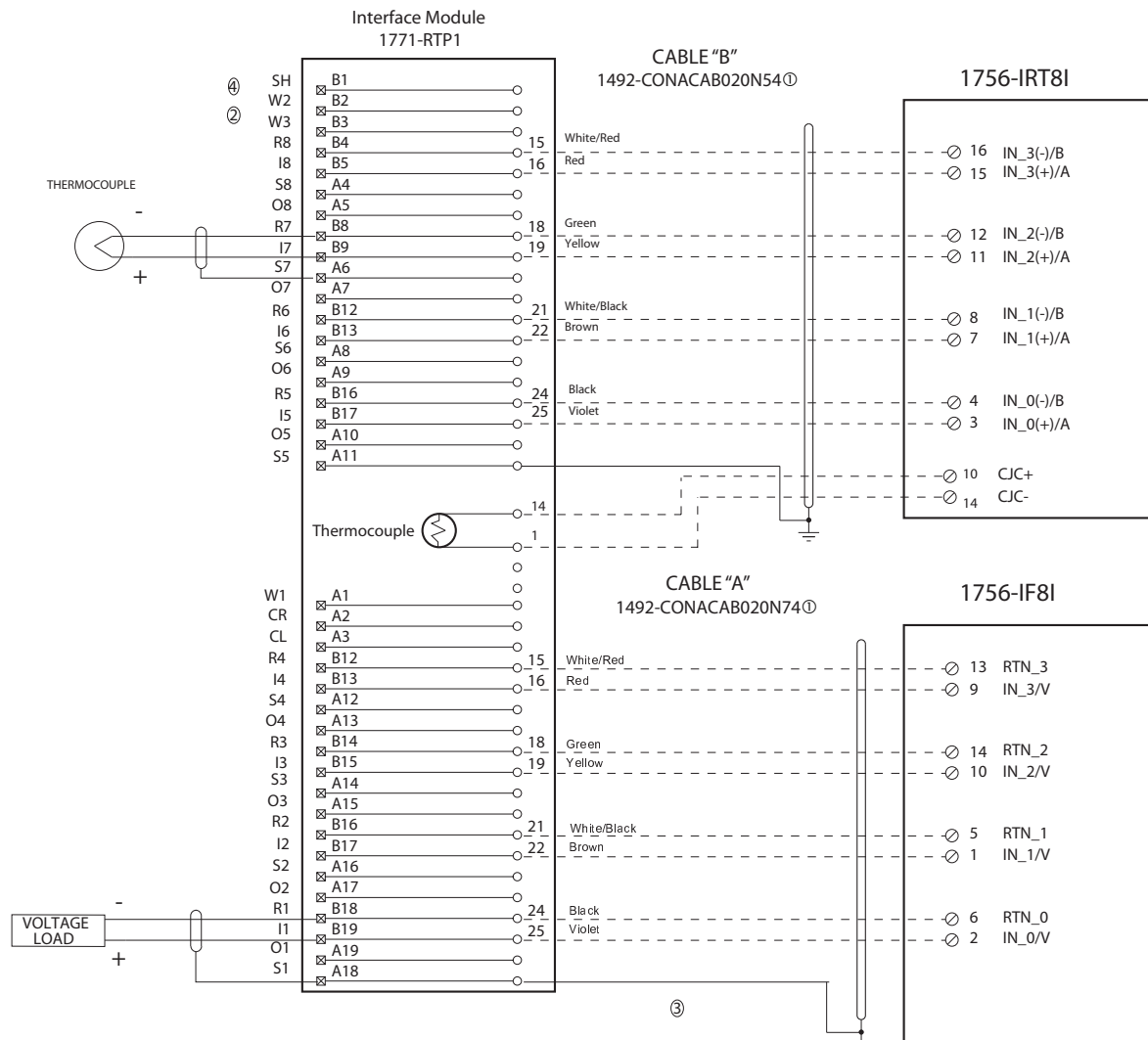
There are several key application considerations and system specifications (bottom of drawing) when using these components (conversion module, cable and input module). Read and understand these considerations before installation.



## 1771-NIVT to 1756-IRT8I and -IF8I

**IMPORTANT**

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.

**Interface Module Installation and Application Considerations**

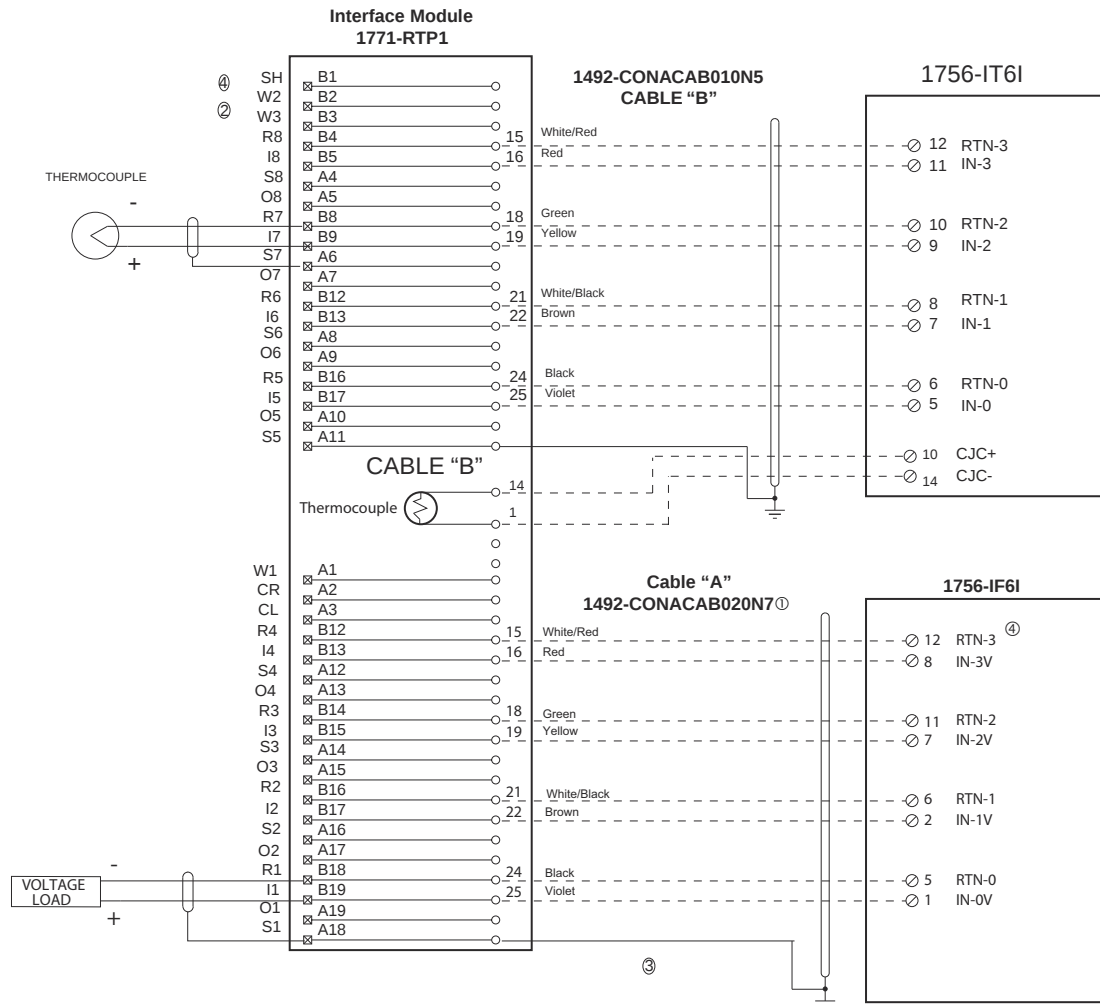
- ① Cables are available in lengths of 2.0M or 5.0M (020=2.0M, 050=5.0M)
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: This is only true for module RTP3 and RTP4. The Bul. 1492 cable does not connect to these terminals.

DIR 10002306594 (Version 00)

## 1771-NIVT to 1756-IT6I and -IF6I

**IMPORTANT**

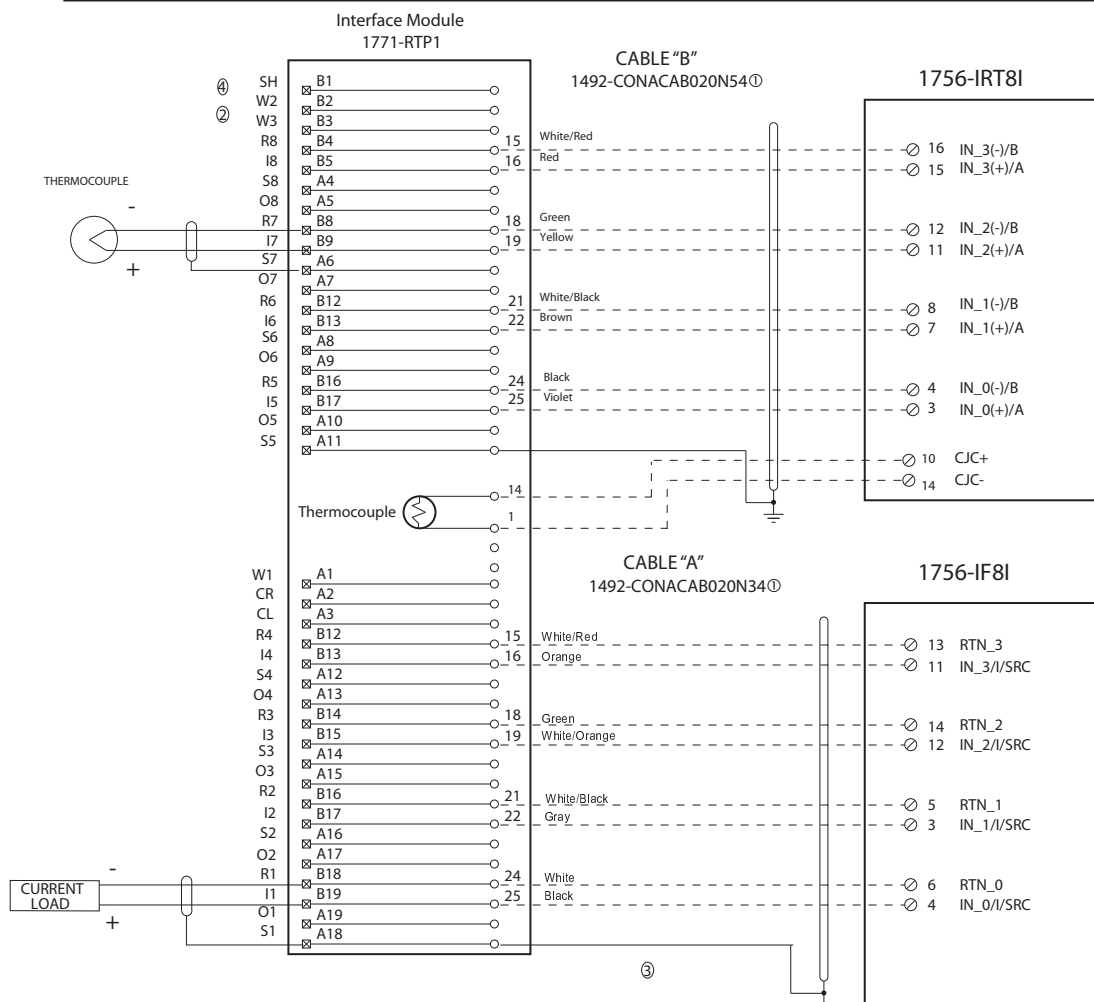
There are several key application considerations and system specifications (bottom of drawing) when using these components (conversion module, cable and input module). Read and understand these considerations before installation.



## 1771-NIVT to 1756-IRT8I and -IF8I

**IMPORTANT**

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.

**Interface Module Installation and Application Considerations**

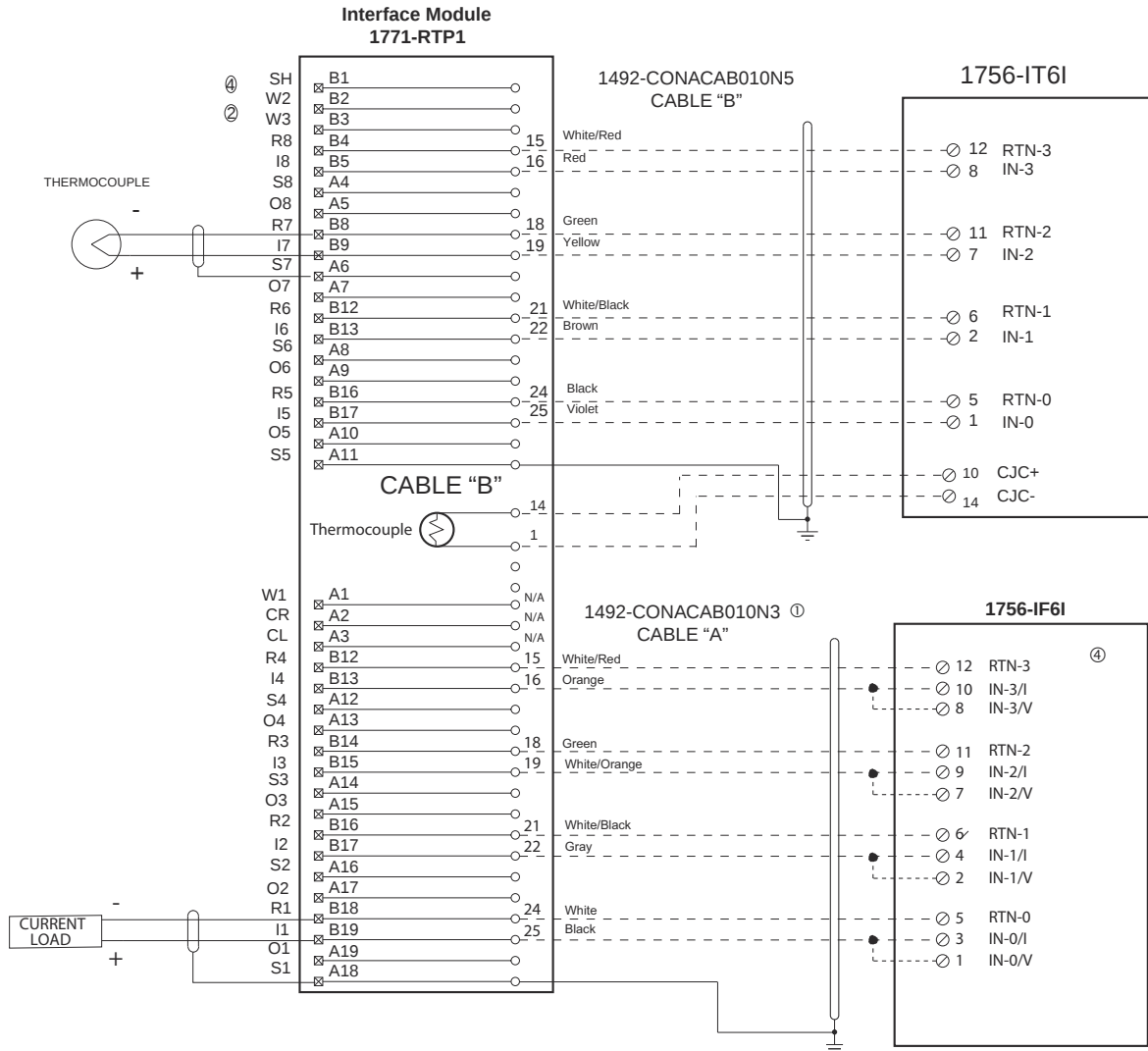
- ① This Bul. 1492 cable consists of a cable wired to one 1756-IF8I (or 1756-IRT8I). Recommended cable lengths of 2.0M or 5.0M (020=2.0M, 050=5.0M). See table 2 for other lengths.
- ② Terminals starting with A are the lower row of terminals, B terminals are the upper row.
- ③ Follow your PLC Analog User Manual for proper shield grounding instructions.
- ④ Terminals w1, w2, w3, are spares used for field wire convenience. NOTE: This is only true for module RTP4. The Bul. 1492 cable does not connect to these terminals.

DIR 10002306504 (Version 00)

## 1771-NIVT to 1756-IT6I and -IF6I

**IMPORTANT**

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.



# Rockwell Automation Support

Use the following resources to access support information.

|                                                         |                                                                                                                       |                                                                                                                                                    |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Technical Support Center</b>                         | Knowledgebase Articles, How-to Videos, FAQs, Chat, User Forums, and Product Notification Updates.                     | <a href="http://www.rockwellautomation.com/knowledgebase">www.rockwellautomation.com/knowledgebase</a>                                             |
| <b>Local Technical Support Phone Numbers</b>            | Locate the phone number for your country.                                                                             | <a href="http://www.rockwellautomation.com/global/support/get-support-now.page">www.rockwellautomation.com/global/support/get-support-now.page</a> |
| <b>Direct Dial Codes</b>                                | Find the Direct Dial Code for your product. Use the code to route your call directly to a technical support engineer. | <a href="http://www.rockwellautomation.com/global/support/direct-dial.page">www.rockwellautomation.com/global/support/direct-dial.page</a>         |
| <b>Literature Library</b>                               | Installation Instructions, Manuals, Brochures, and Technical Data.                                                    | <a href="http://www.rockwellautomation.com/literature">www.rockwellautomation.com/literature</a>                                                   |
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