SPECTRUM CONTROLS
An Allient Company

5069 Compact 5000 I/O Application Note Converting 1746 SLC I/O to 5069 Compact 5000 I/O

Document No: 0100314-01 Rev. A0

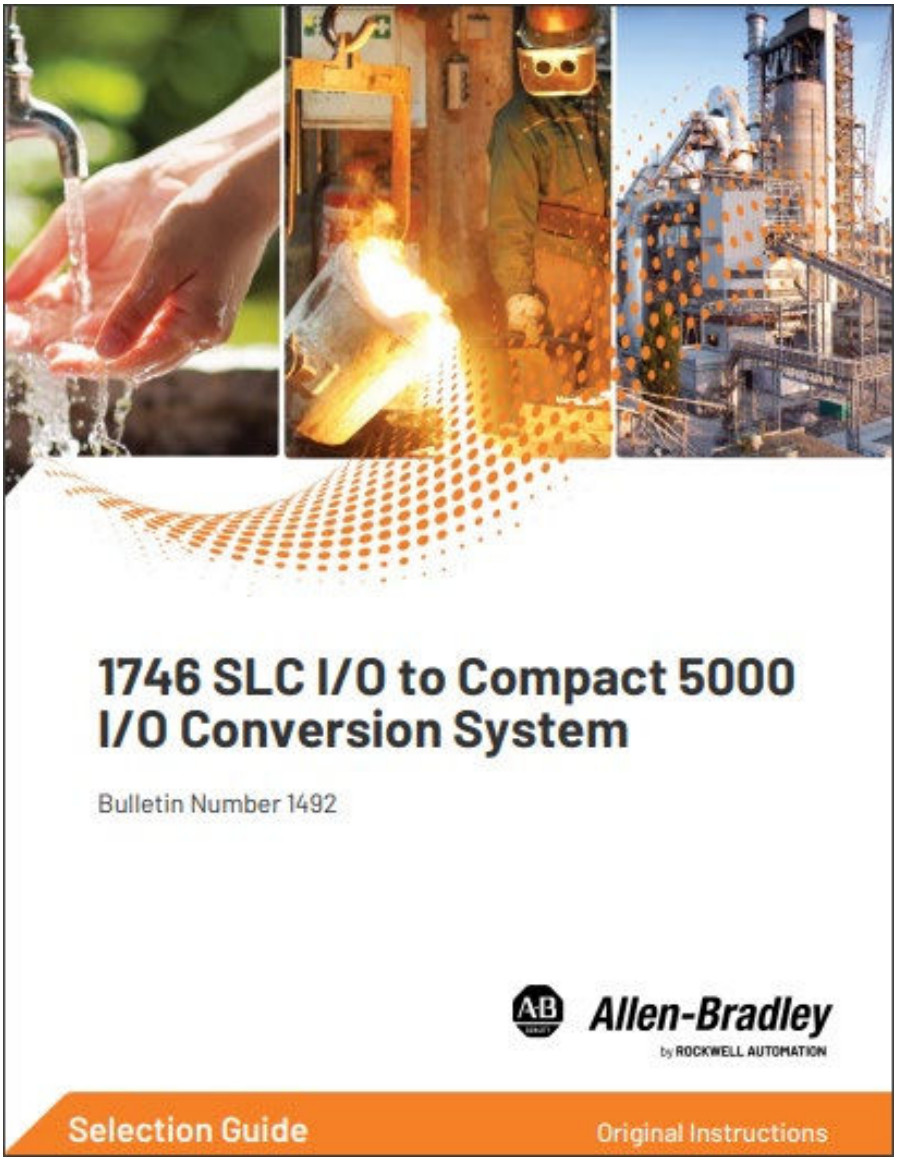
Overview

Rockwell's Integrated Architecture Builder (IAB) provides a wizard to help migrate 1746 I/0 modules to the 5069 platform.

Spectrum Controls 5069-IV16F-SC & 5069-OV16F-SC modules are now included in the migration wizard to assist in this conversion.

First, an overview of the conversion system that Rockwell has put together, which is incorporated into the1492 Wiring Systems platform.

The main document for this platform is **1492-TD008**, but this specific conversion system has its own document **1492-SG010B**.



Spectrum Controls, Inc.
1705 132nd Ave NE
Bellevue, WA 98005 USA

Telephone: (425) 746-9481
Fax: (425) 641-9473
Web Site: www.spectrumcontrols.com

SPECTRUM CONTROLS
An Allient Company

5069 Compact 5000 I/O Application Note Converting 1746 SLC I/O to 5069 Compact 5000 I/O

Document No: 010314-01 Rev. A0

Features of 1492 I/O Conversion System

The conversion system:

- Provides easy migration from an existing 1746 control system to the 5069 control system.
- Upgrades the control system while maintaining the existing control cabinet and without rewiring existing field devices.
- Saves installation time by using existing wiring system and mounting holes.

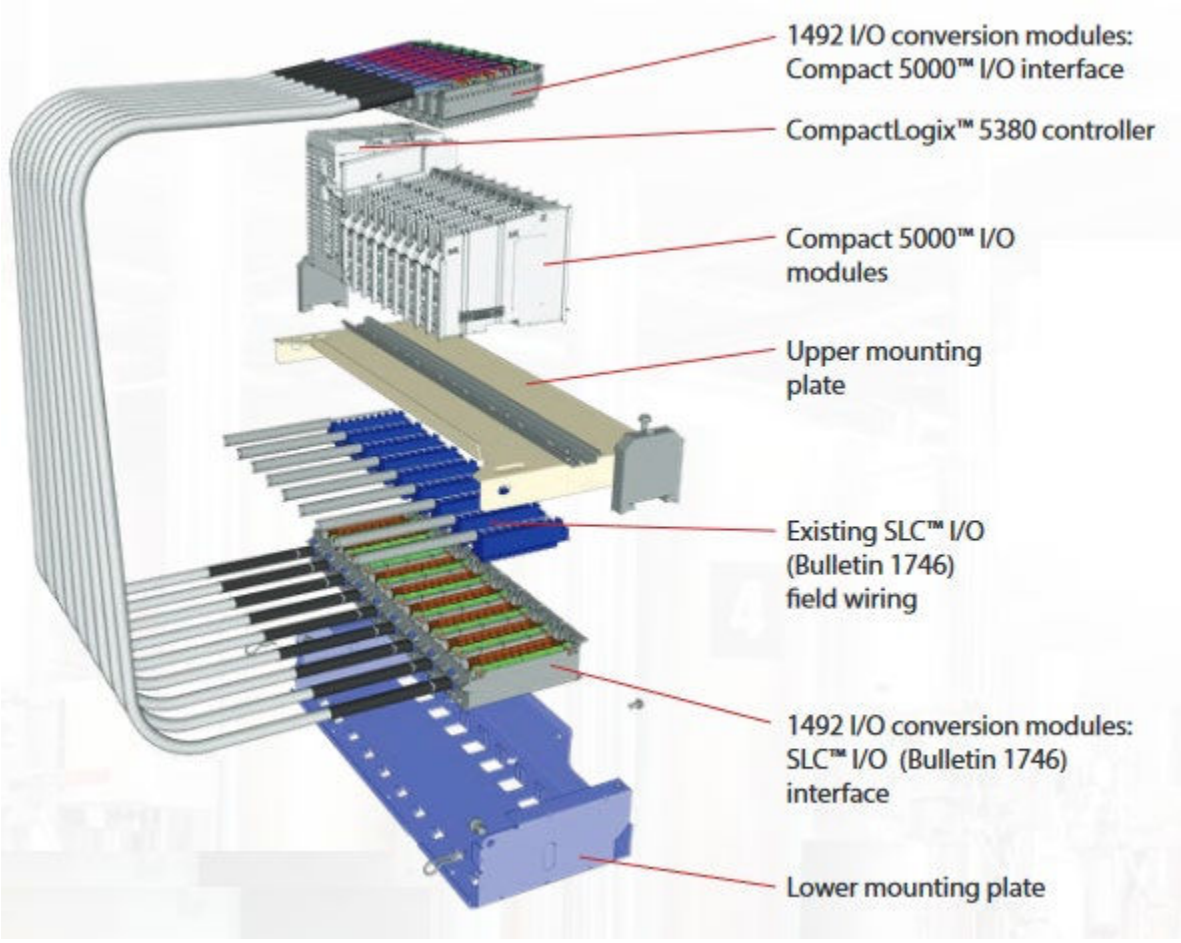
Benefits

- Reduced I/O rewiring time and risk.
- Off-the-shelf conversion modules easily convert 1746 I/O terminations to 5069 I/O terminations.
- Retains the existing backplane space with no additional holes to be drilled/tapped for mounting.

A visualization of how the 1746 SLC I/O to 5069 Compact 5000 I/O Conversion system components all fit together is provided below.

The existing 1746 rack is removed, leaving the 1746 RTBs wiring and mounting the lower plate in place of the old rack.

The 1746 RTBs are plugged into one end of the conversion modules. The upper mounting plate and new PLC are mounted and the 5069 RTBs are plugged in:



Spectrum Controls, Inc.
1705 132nd Ave NE
Bellevue, WA 98005 USA

Telephone: (425) 746-9481
Fax: (425) 641-9473
Web Site: www.spectrumcontrols.com

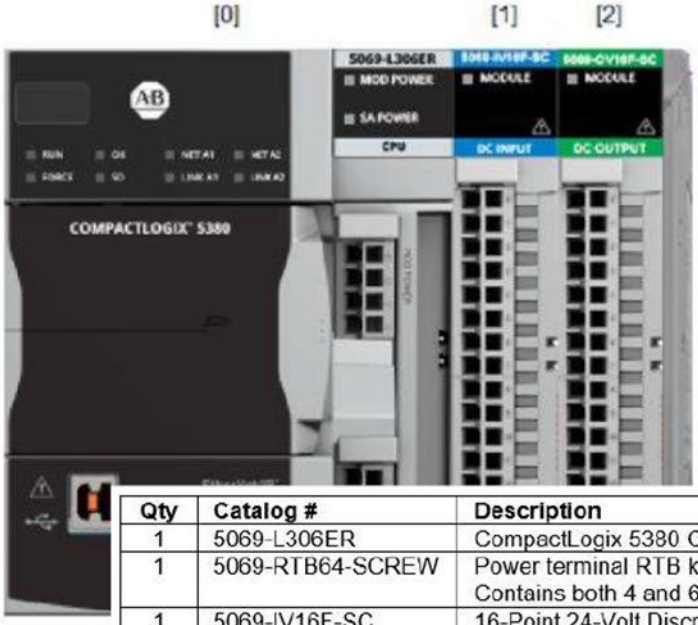
SPECTRUM CONTROLS
An Allient Company

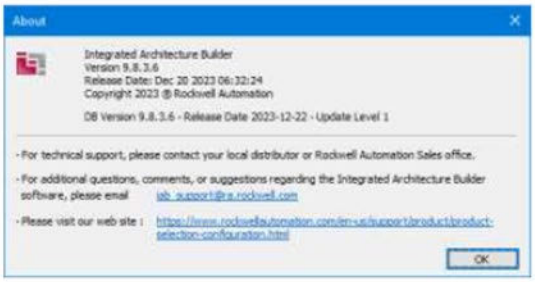
5069 Compact 5000 I/O Application Note Converting 1746 SLC I/O to 5069 Compact 5000 I/O

Document No: 010314-01 Rev. A0

Integrated Architecture Builder

Integrated Architecture Builder IAB V9.8.3.6 or newer versions have all of the 5069-*x*V16F-SC modules from Spectrum Controls. The 5069-*x*V16F-SC modules can be selected from the Spectrum Controls pick list:



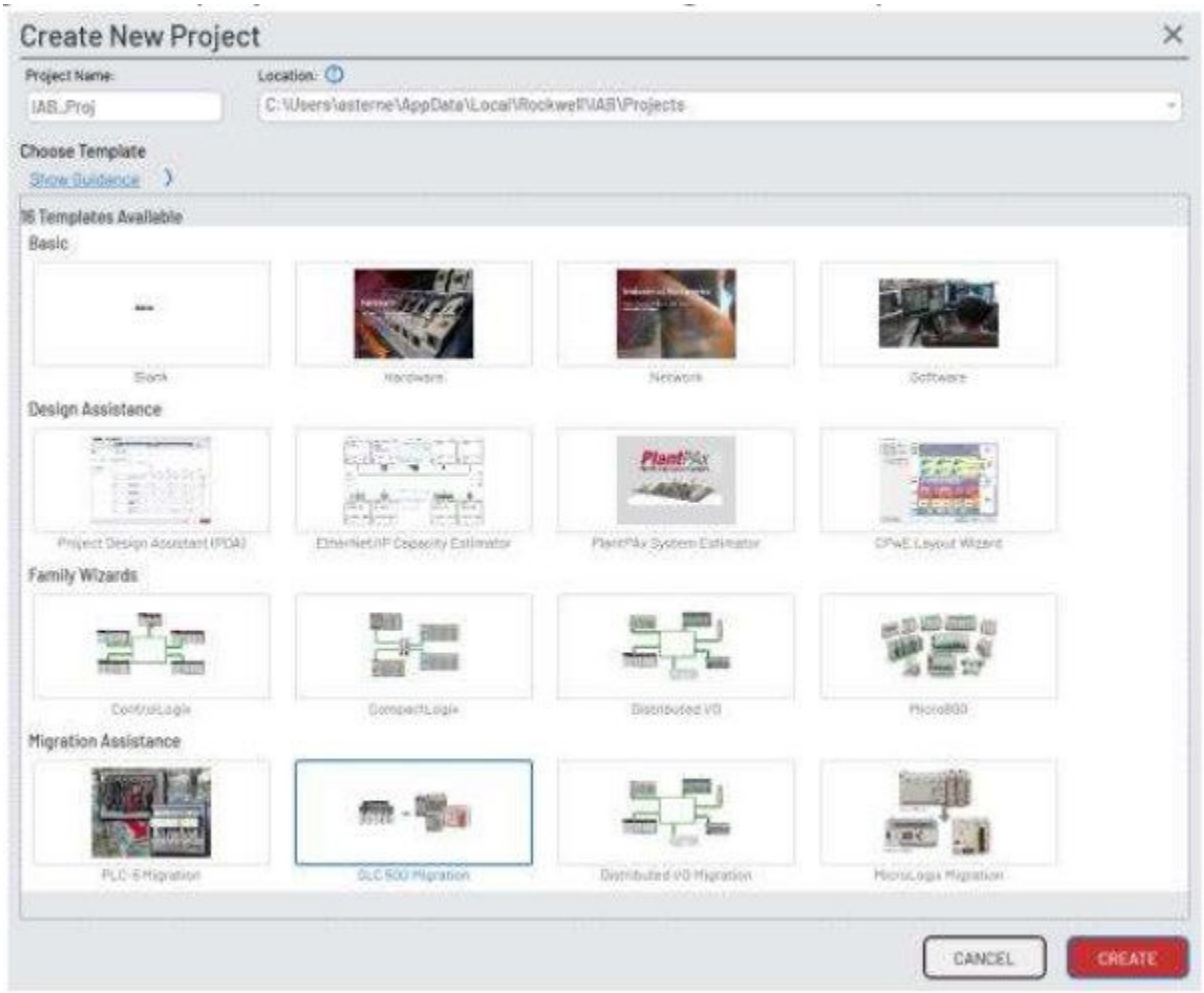


Qty	Catalog #	Description
1	5069-L306ER	CompactLogix 5380 Controller, 600KB, 8 I/Os, 16 nodes, Standard
1	5069-RTB64-SCREW	Power terminal RTB kit for CompactLogix 5380 Controllers and 5069-AEN2TR. Contains both 4 and 6 pin Screw type RTB
1	5069-IV16F-SC	16-Point 24-Volt Discrete Sourcing Input Module
2	5069-RTB18-SCREW	5069 Compact I/O 18 pins Screw type terminal block kit
1	5069-OV16F-SC	16-Point 24-Volt Discrete Sinking Output Module

Spectrum Controls, Inc.
1705 132nd Ave NE
Bellevue, WA 98005 USA

Telephone: (425) 746-9481
Fax: (425) 641-9473
Web Site: www.spectrumcontrols.com

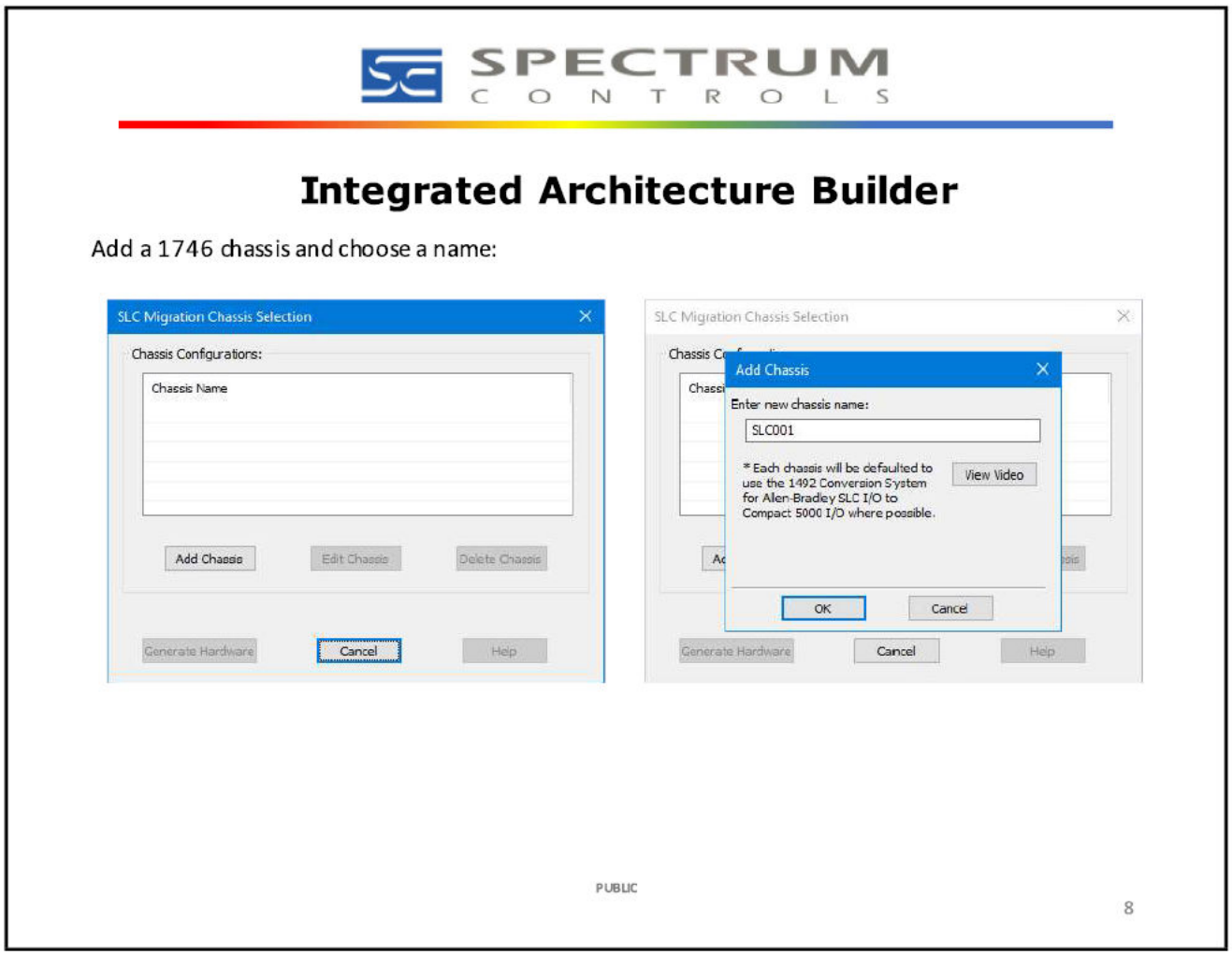
To start the conversion, use the IAB **SLC 500 Migration** wizard template:



Spectrum Controls, Inc.
1705 132nd Ave NE
Bellevue, WA 98005 USA

Telephone: (425) 746-9481
Fax: (425) 641-9473
Web Site: www.spectrumcontrols.com

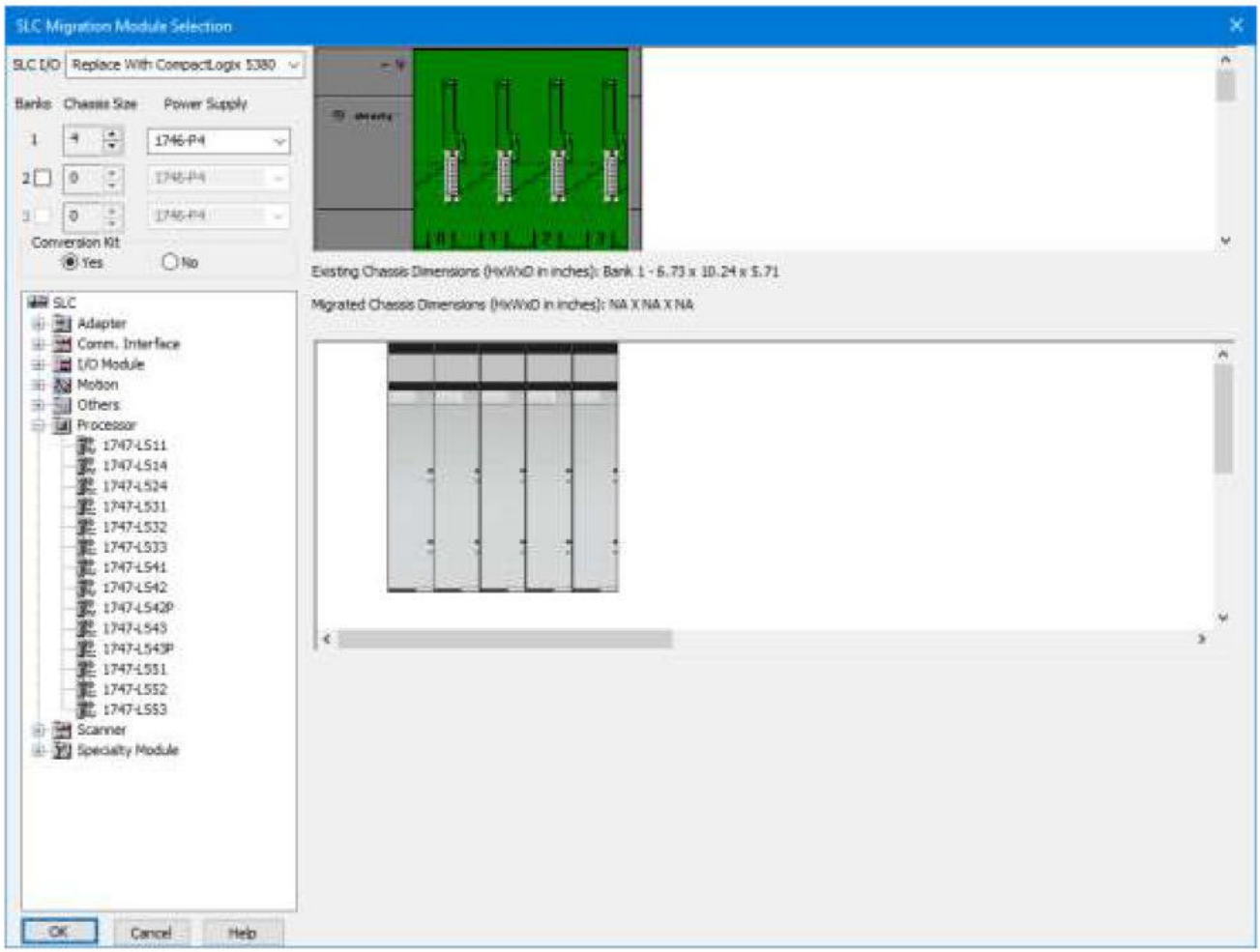
Add existing 1746 components, starting with the chassis:



Spectrum Controls, Inc.
1705 132nd Ave NE
Bellevue, WA 98005 USA

Telephone: (425) 746-9481
Fax: (425) 641-9473
Web Site: www.spectrumcontrols.com

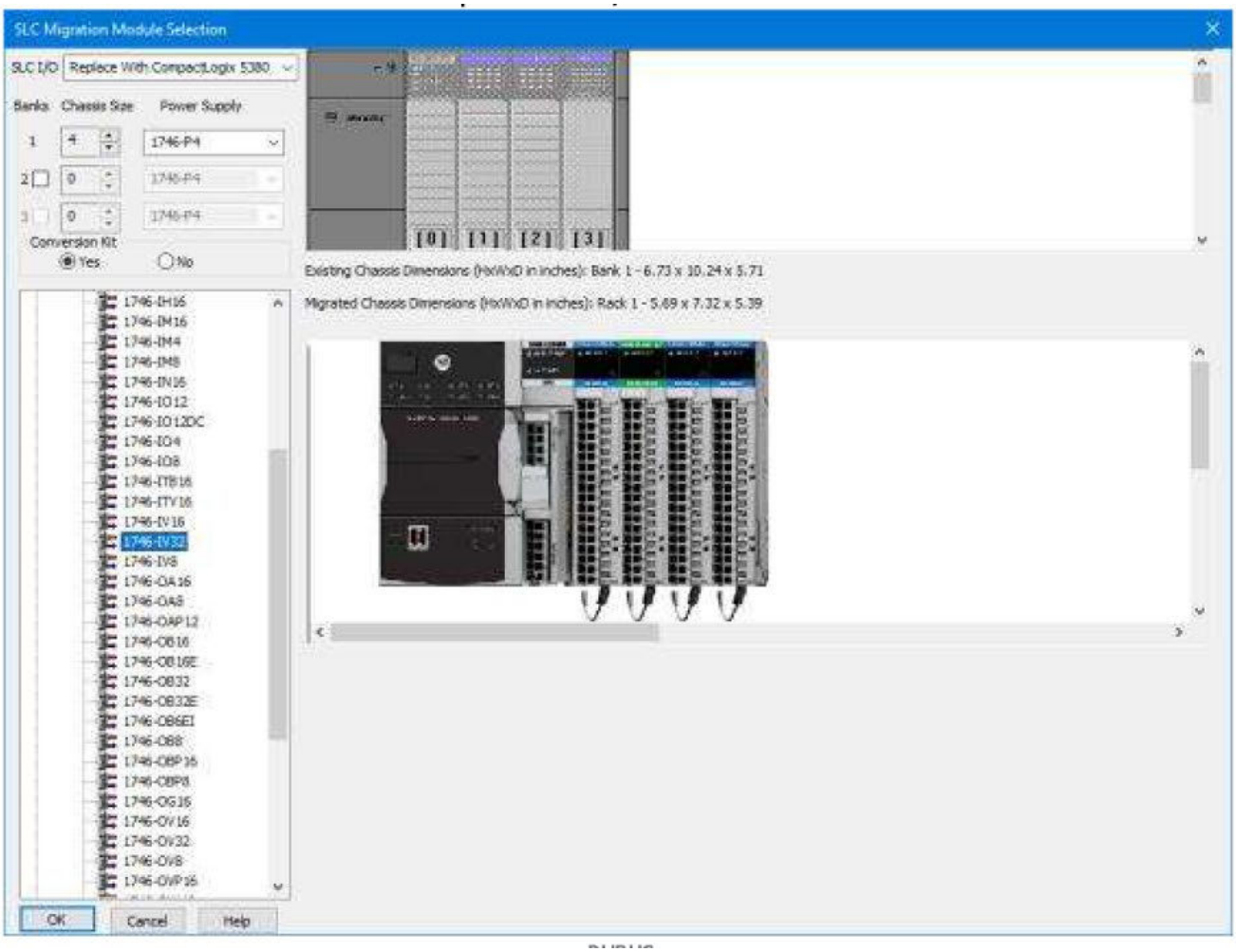
Select the 1746 chassis size. The size defaults to a four-slot rack:



Spectrum Controls, Inc.
1705 132nd Ave NE
Bellevue, WA 98005 USA

Telephone: (425) 746-9481
Fax: (425) 641-9473
Web Site: www.spectrumcontrols.com

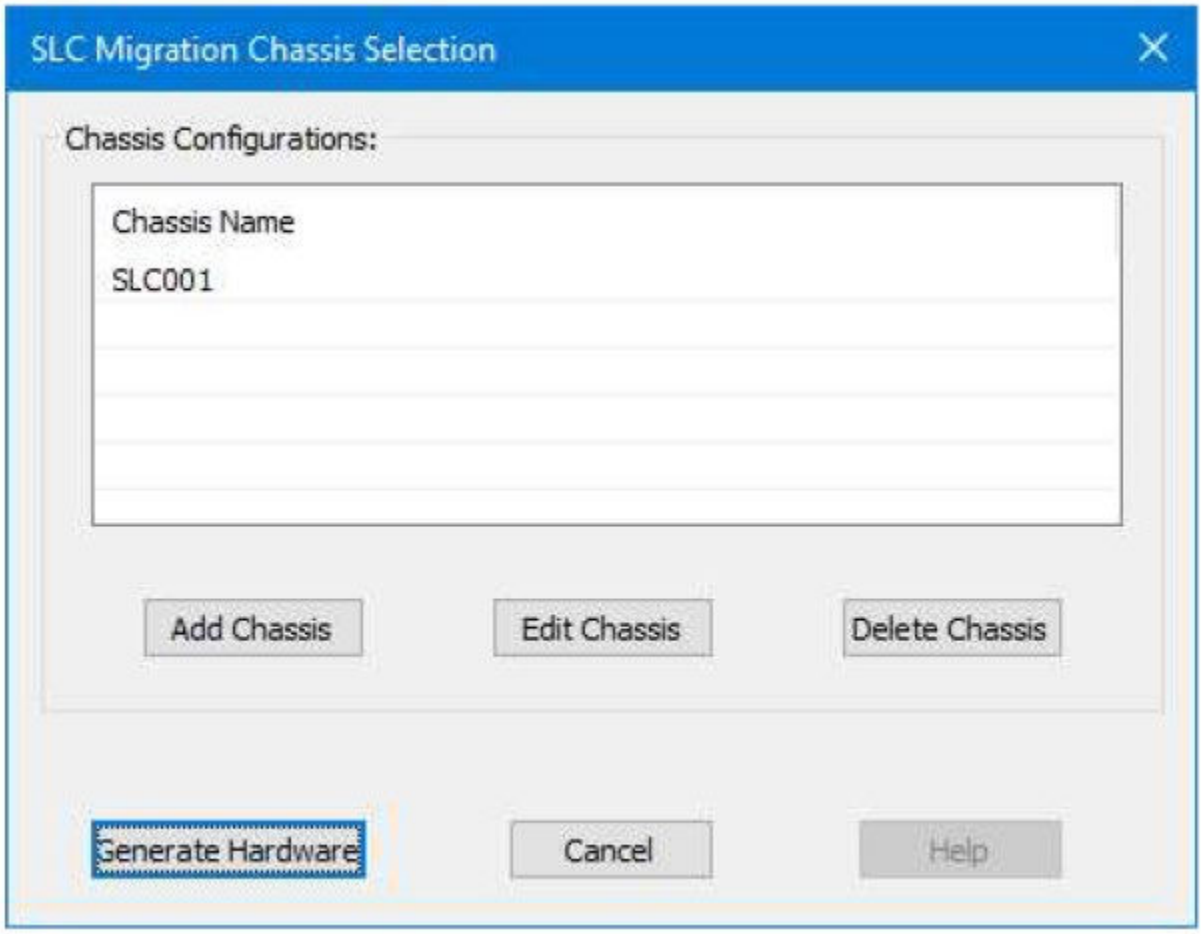
Select the 1746 components. The following dialog shows you what a 1746 rack looks like after adding the existing processor and I/O modules in their slots. IAB builds the 5069 rack with the process, I/O modules, and conversion modules:



Spectrum Controls, Inc.
1705 132nd Ave NE
Bellevue, WA 98005 USA

Telephone: (425) 746-9481
Fax: (425) 641-9473
Web Site: www.spectrumcontrols.com

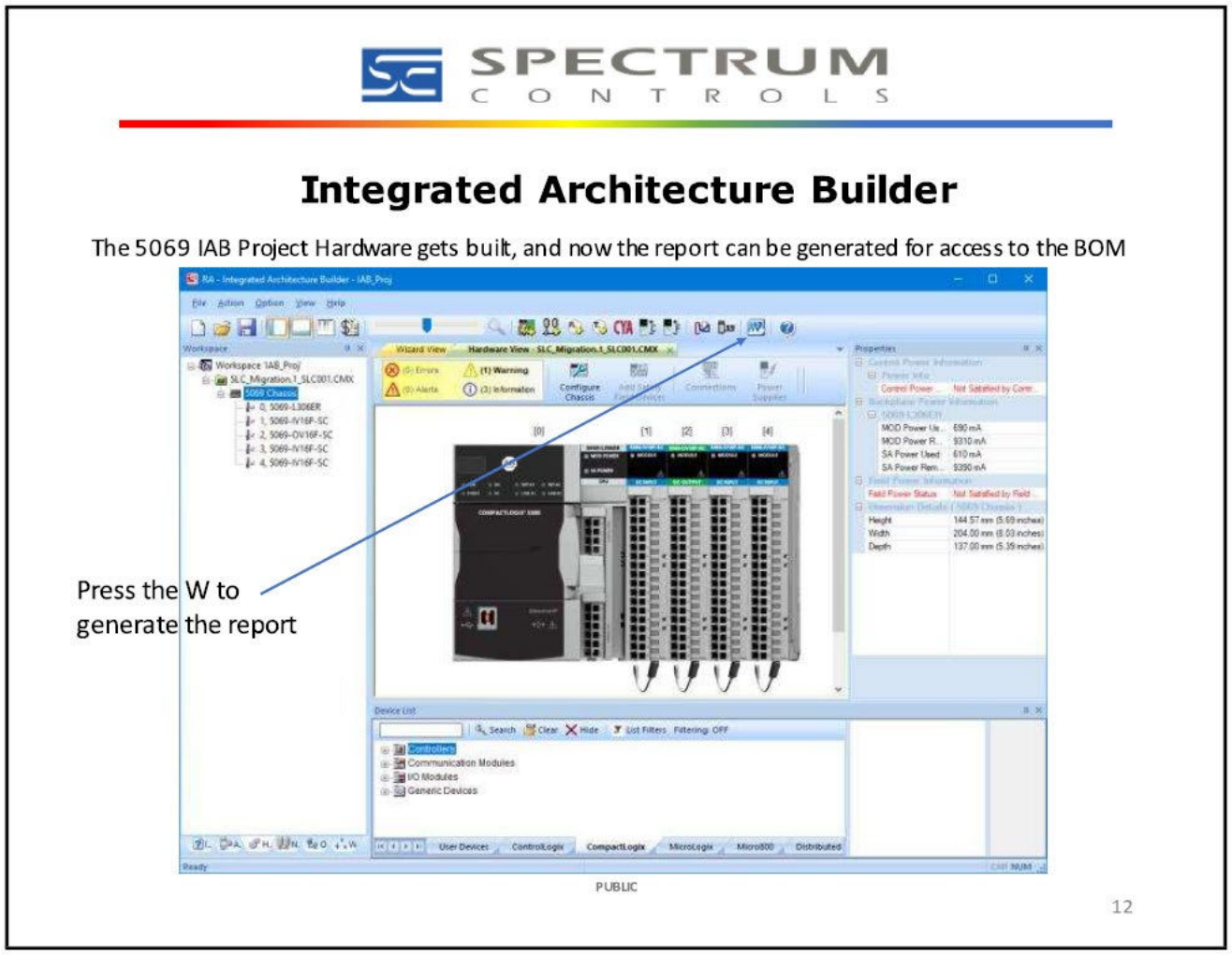
To build the 5069 IAM project rack with the processor, I/O modules, and the conversion modules, press the **Generate Hardware** button on the following dialog:



Spectrum Controls, Inc.
1705 132nd Ave NE
Bellevue, WA 98005 USA

Telephone: (425) 746-9481
Fax: (425) 641-9473
Web Site: www.spectrumcontrols.com

The 5069 Project Hardware gets built, and you can now generate the report for access to the BOM:



Spectrum Controls, Inc.
1705 132nd Ave NE
Bellevue, WA 98005 USA

Telephone: (425) 746-9481
Fax: (425) 641-9473
Web Site: www.spectrumcontrols.com

At this stage, the 5069 IAB Project is about 99% complete. You can now generate the report and view the BOM:

SPECTRUM CONTROLS

Integrated Architecture Builder

The 5069 IAB Project report contains the BOM in a variety of formats (Consolidated, Positional and Organized).

2.1 Consolidated BOM

Qty	Catalog #	Description
1	1492-CH1746-4	SLC 500 to 5069 CompactLogix conversion system chassis, 4 Slot
1	5069-L306ER	CompactLogix 5380 Controller, 600KB, 8 I/Os, 16 nodes, Standard
1	5069-RTB64-SCREW	Power terminal RTB kit for CompactLogix 5380 Controllers and 5069-AEN2TR. Contains both 4 and 6 pin Screw type RTB
3	5069-IV16F-SC	16-Point 24-Volt Discrete Sourcing Input Module
1	1492-CM1746-M01	SLC 500 to 5069 CompactLogix conversion module, 1746-IA16 to 5069-IA16, 1746-IM16 to 5069-IA16, 1746-IB16 to 5069-IB16, 1746-ITB16 to 5069-IB16
1	5069-OV16F-SC	16-Point 24-Volt Discrete Sinking Output Module
1	1492-CM1746-M03	SLC 500 to 5069 CompactLogix conversion module, 1746-OB16 to 5069-OB16, 1746-OB16E to 5069-OB16
1	1492-CM1746-M12	SLC 500 to 5069 CompactLogix conversion module, 1746-IB32 to 5069-IB16 (2x)

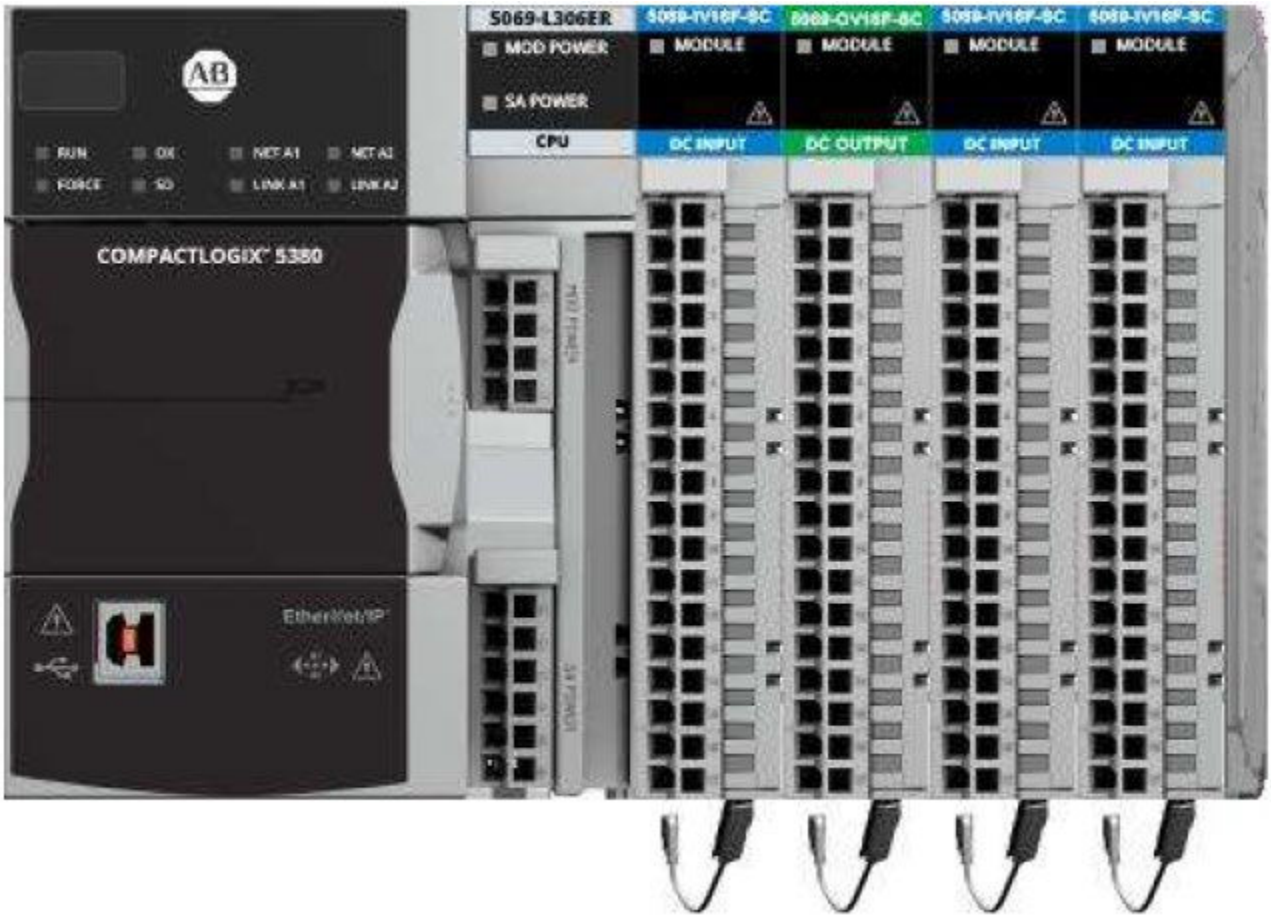
PUBLIC

13

5069 Compact 5000 I/O Application Note Converting 1746 SLC I/O to 5069 Compact 5000 I/O

Document No: 010314-01 Rev. A0

The 5069 IAB Project report graphics show the 5069 Modules in slot positions with the conversion modules attached:



PUBLIC

Spectrum Controls, Inc.
1705 132nd Ave NE
Bellevue, WA 98005 USA

Telephone: (425) 746-9481
Fax: (425) 641-9473
Web Site: www.spectrumcontrols.com

SPECTRUM CONTROLS
An Allient Company

5069 Compact 5000 I/O Application Note Converting 1746 SLC I/O to 5069 Compact 5000 I/O

Document No: 010314-01 Rev. A0

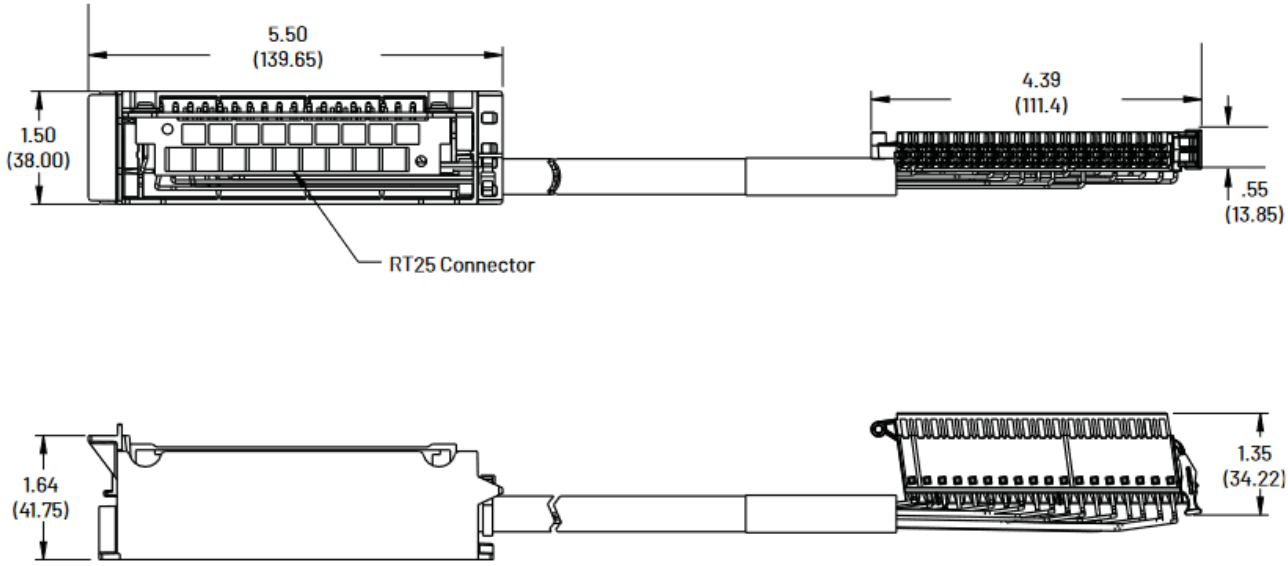
The first group of conversion modules allow migration from 1746 sixteen-point I/O modules to the Spectrum Controls 5069-IV16F-SC and 5069-0V16F-SC modules:

- The 1492-CM1746-M01 conversion modules migrate from the 1746-IV16 input type. This is a conversion from 16-to-16 point modules.
- The 1492-CM1746-M03 conversion modules migrate from the 1746-0V16 output type. This is a conversion from 16-to-16 point modules.

Conversion Module Approximate Dimensions

Approximate dimensions are shown in inches (millimeters) and are not intended to be used for manufacturing purposes.

1492-CM1746-M01, -M02, -M03, -M04, -M05, -M07, M09, M11 [a]



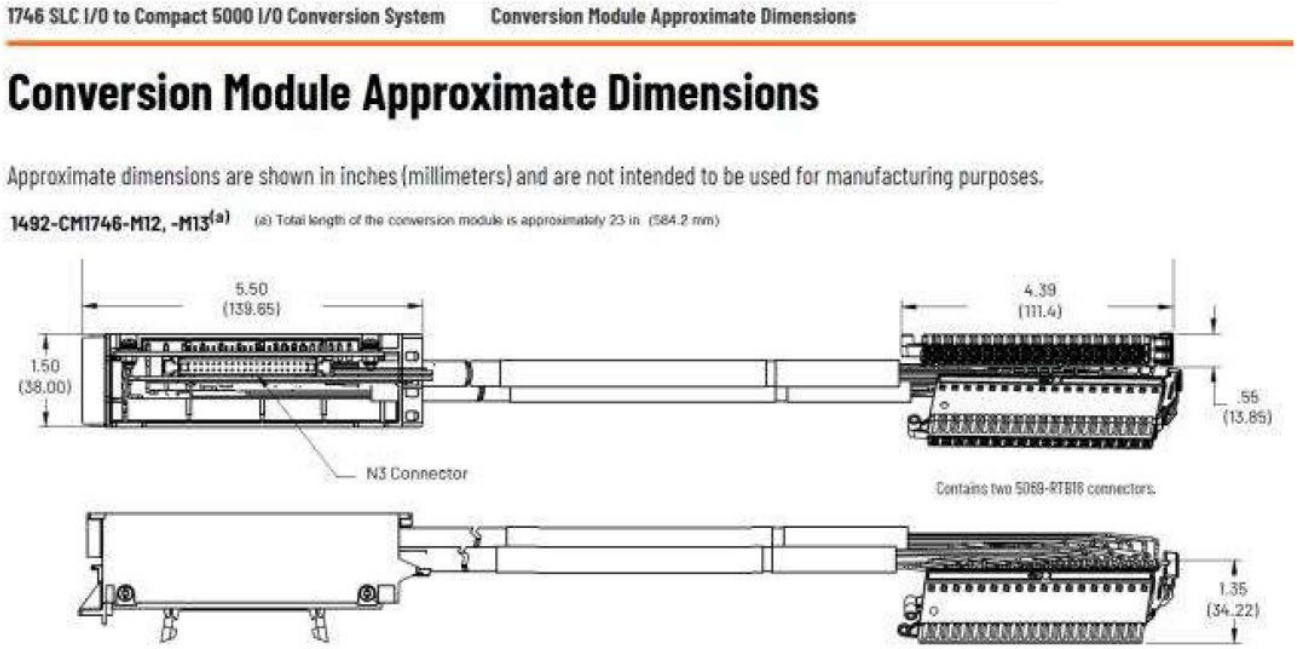
The 1492-CM 1746-MOl and MO3 conversion modules are used for 1746 sixteen-point I/O modules to Spectrum Controls 5069 sixteen-point I/O modules

Spectrum Controls, Inc.
1705 132nd Ave NE
Bellevue, WA 98005 USA

Telephone: (425) 746-9481
Fax: (425) 641-9473
Web Site: www.spectrumcontrols.com

The second group of conversion modules allow migration from 1746 thirty-two-point I/O modules to quantity two of the Spectrum Controls 5069 V16F-SC and 5069-0V16F-SC modules:

- The 1492-CM1746-M12 conversion modules migrate from the 1746-IV32 input type. This is a conversion from 32-point to quantity two sixteen-point modules.
- The 1492-CM1746-M13 conversion modules migrate from the 1746-0V32 output type. This is a conversion from thirty-two -point to quantity two sixteen-point modules.



The 1492-CMI 746-M12 & M13 conversion modules are used for 1746 thirty-two-point I/O modules to quantity two Spectrum Controls 5069 sixteen-point I/O modules.

Spectrum Controls, Inc.
1705 132nd Ave NE
Bellevue, WA 98005 USA

Telephone: (425) 746-9481
Fax: (425) 641-9473
Web Site: www.spectrumcontrols.com