

Converting the Rockwell 1746-IV16/ITV16 to the Spectrum Controls 5069-IV16F-SC

Component requirement: Quantity 1 Rockwell 1492-CM1746-M01 I/O Conversion System

This conversion module may be used to connect signals from 1746 modules to 5069 modules.

The conversion module is an 18 point removable terminal block which connects directly to the 5069 modules.

The other end is a female removable connector to connect directly to the 1746 removable terminal block.



Figure 1

Reference Documents:

- Rockwell document [1492-in138 Installation Instructions](#) for information on the 1492-CM1746-M01
- Rockwell document [1492-sg010 IO Conversion System Selection Guide](#) for information on the entire bulletin 1492 line of 1746 to 5069 IO Conversion System products

1746-IV16/ITV16 Wiring 24V DC Sourcing

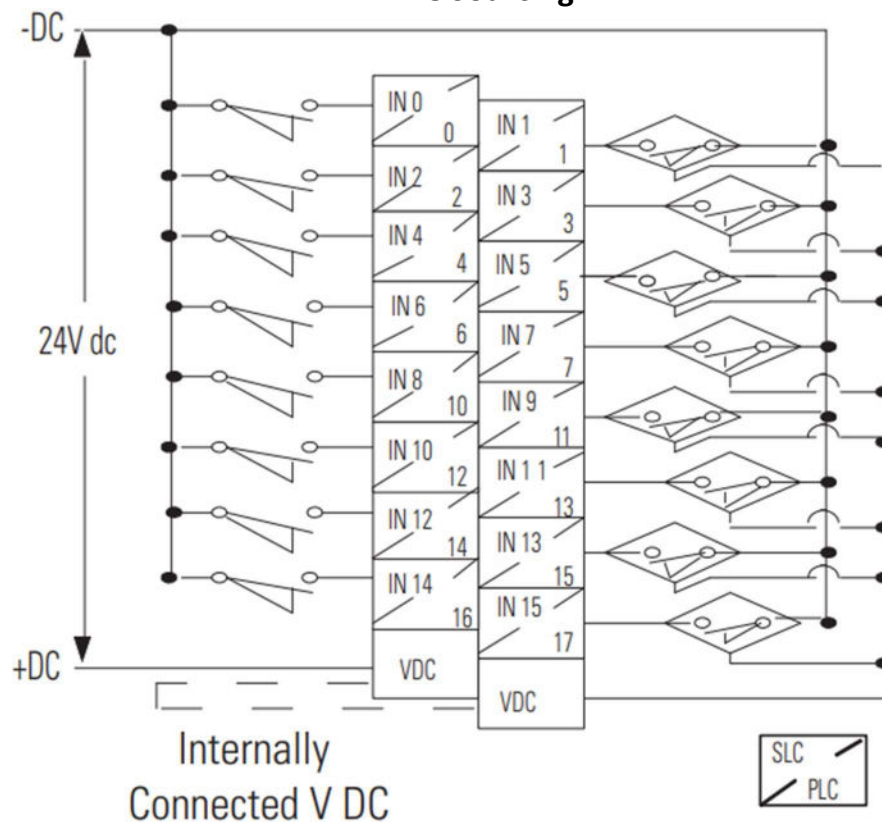


Figure 2

5069-IV16F-SC 16 HIGH-SPEED DISCRETE INPUTS (SOURCING)

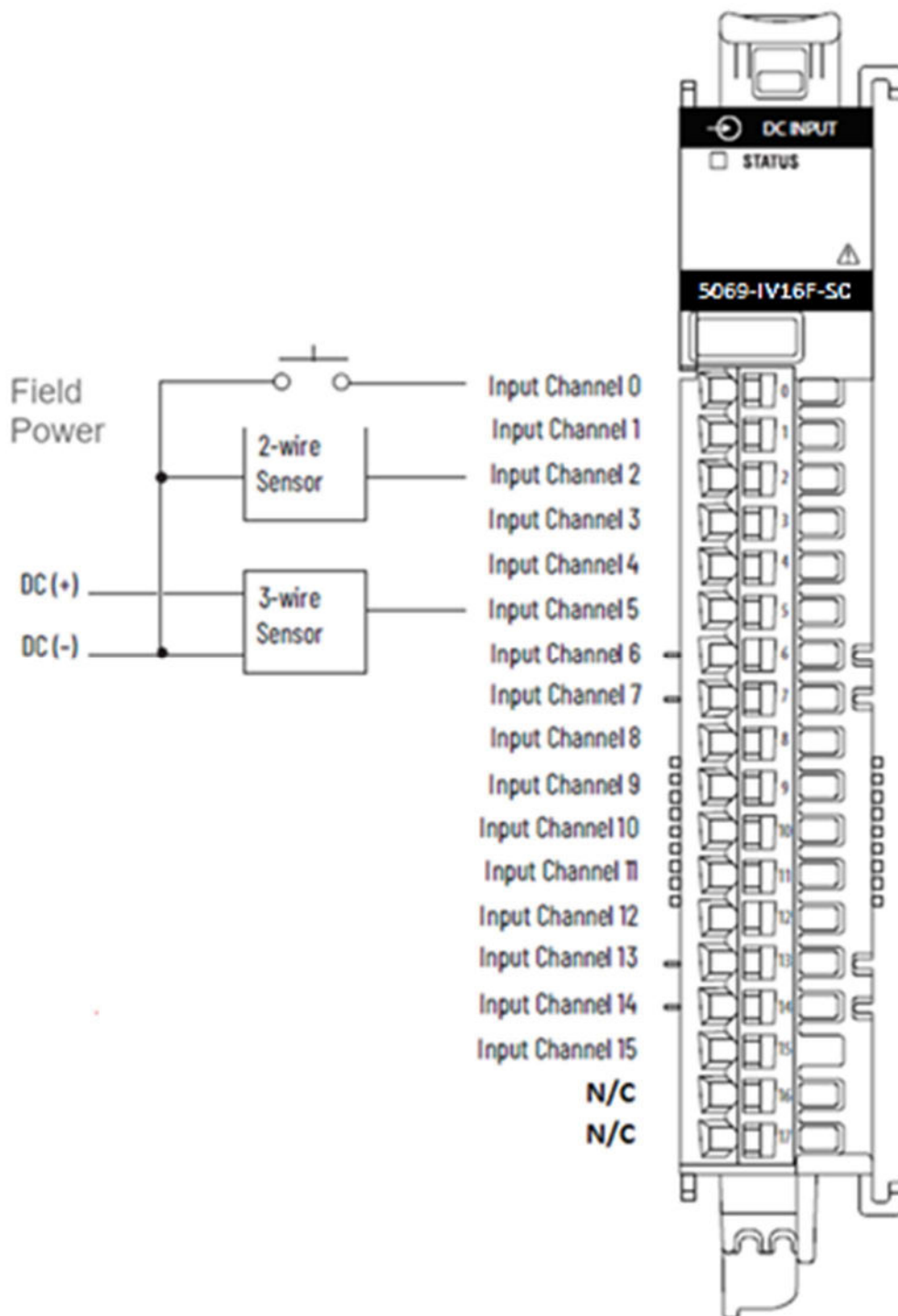


Figure 3

Figure 4 is Rockwell's Graphic connection flow for the Conversion module 1492-CM1746-M01:

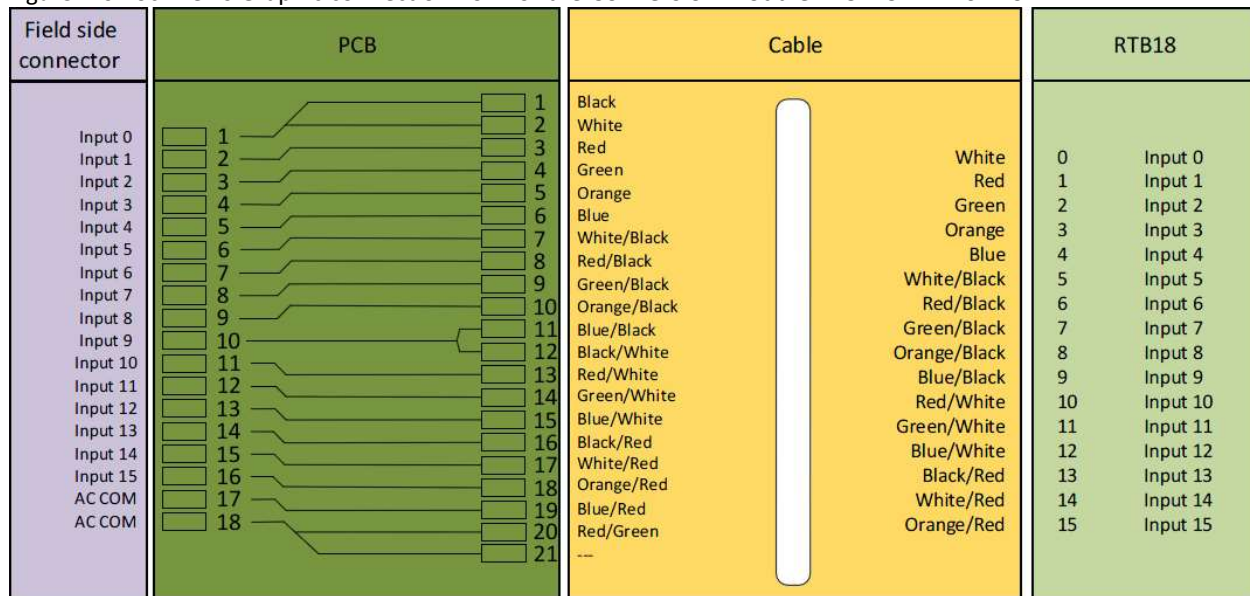


Figure 4

The 18 pin Field Side Connector on the 1746 side converts to a PCB inside the housing where the ends of a 21 conductor cable get soldered. The 16 required conductors on the 5069 side then get routed to the correct terminals on the 5069-RTB18 removeable terminal block. The two AC COM terminals on the 1746 Field Side Connector do not terminate on the 5069 side.

Figure 5 is a view of the Conversion module 18 pin Field Side Connector on the 1746 side. The sockets and hold down fasteners are visible as is the PCB inside the housing. The 18 pin removeable terminal block on the 1746 module plugs directly into the Field Side Connector.

In this view, Field Side Connector terminal for input 0 is on the lower row all the way to the left (circled in green), and connects to the terminal for input 0 on the 5069-RTB18 with the white wire. The terminal for input 1 is on the upper row just to the right.

The Field Side Connector terminal for input 15 (circled in green) is on the upper row second from the right, and connects to terminal 15 on the 5069-RTB18 with the orange/red wire. The terminal for input 14 is on the lower row just to the left.

The graphic in Figure 2 shows the two VDC terminals are at the end of the terminal block, but the 1492-CM1746-M01 does not connect those to terminals at the lower end.

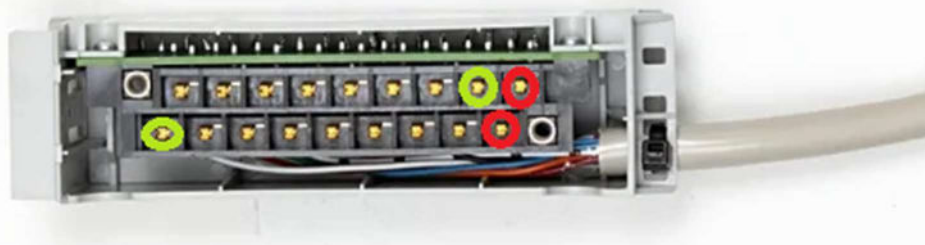


Figure 5

Figure 6 is a view of the Conversion module 18 pin connector on the 5069 side. Terminals 16 & 17 do not show up in Rockwell's Graphic, and nothing connects to the 5069 module through those terminals. No rewiring of any kind is required to use the Rockwell 1492-CM1746-M01 to convert a 1746-IV16/ITV16 to the Spectrum Controls 5069-IV16F-SC.



Figure 6