LACO TECHNOLOGIES

TITAN VERSA REMOTE I/O MODULE

User Manual

Description

The Remote I/O module (TV115893) can be connected to the Remote I/O port with three different cable lengths: TV5839 (1M cable), TV5840 (3M cable) and TV5841 (5M cable). The module is 6.1" (155mm) long X 1.2" (30.5mm) wide X 3.9" (99mm) high.

I/O Function	Total	Detail	Electrical Specifications
Digital Inputs	8	8 Bi-directional (PNP or NPN type)	10-28 Vdc On voltage (PNP), opto-isolated, 75 msec response
Digital Outputs	8	8 PNP Transistor	24 VDC, 1.5 A max per channel, 4.7 A total
Analog Outputs	2	Voltage (0-10 VDC)	16-bit A-D, 0.1% of full scale, 5kΩ min load resistance

Installation

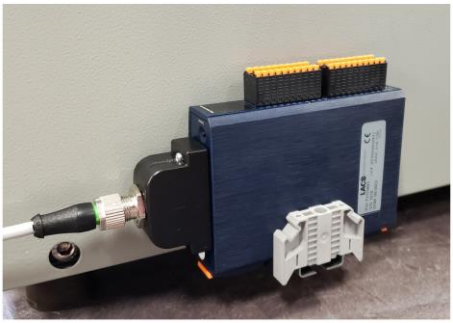
Wiring Recommendations

- The USB C port is for module configuration by Laco only and does not need to be connected.
- Use a separate +24V supply to power digital inputs/outputs. Do not "Tie in" to VERSA +24V power supplying remote IO module.

- Ensure all wire connections are neat and secured properly. The two terminal block connectors on the Remote I/O module can be removed for easier wiring assembly.

General Wiring and Mounting

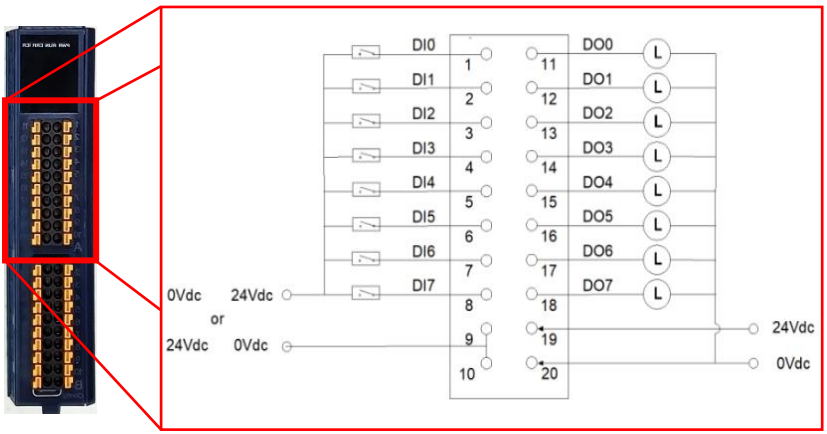
- Ensure power is off during all installation wiring.
- Connect M12 cable (purchased separately) from VERSA Remote I/O port to male M12 port on the I/O module. This cable provides both power (24 VDC fused at 2.0 amps) and communication for controlling the module.
- Module can be mounted using two main methods:
  - Install provided DIN rail section to underside of TITAN Versa frame per picture below. Install module and add provided stop block on end.
  - Install in a separate control panel or other locations as needed.



Wiring Digital Inputs/Outputs

- Connect Digital Input/Output wiring per diagram below. An external 24VDC supply (and corresponding 0V common) are required for Digital I/O functionality, further explained in each section below.

Digital Input/Output Wiring



Digital Inputs

- Wire either +24 or 0 Vdc to COM pins depending on desired digital input type per table below:

Digital Input Type	Wiring to Common (Pins 9 & 10)
PNP (+24V = Pin Active)	Connect Pin 9 or Pin 10 to 0V common
NPN (Pin grounded = Active)	Connect Pin 9 or Pin 10 to +24V

- Pins 9 and 10 are connected internally; only one pin needs to be utilized.
- Wire DI0 to DI7 to control circuitry per desired application inputs.

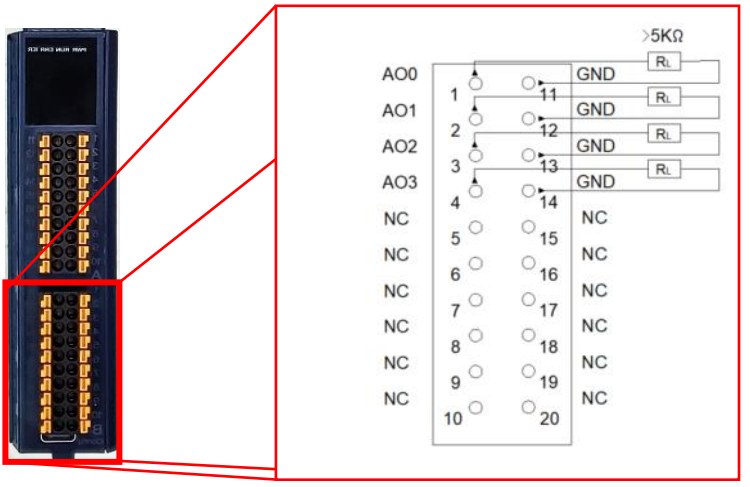
Digital Outputs

- Wire + 24 Vdc to Pin 19 and 0 Vdc to pin 20. Digital Outputs can only be operated in PNP (+24V when active) configuration.
- Wire DO0 to DO7 to control circuitry per desired application outputs.

Wiring Analog Outputs

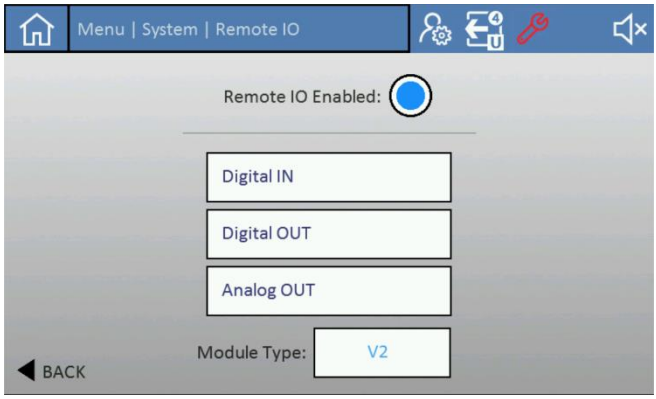
- Connect Analog Output wiring per diagram below. Analog Voltage output is sourced from the device's internal circuitry, no external source voltage is necessary.

Analog Output Wiring



Operation

- Power on the TITAN VERSA leak detector. Note **this Remote IO version requires the VERSA Software Revision to 1.6.3** or newer.
- Verify I/O module's PWR LED is on, and RUN LED is flashing rapidly.
- In the Versa software go to Menu > System > Remote IO and set the Remote IO as enabled and module type as V2. See Remote I/O section in the TITAN VERSA Operations Manual (SMT-07-1037) for more detail.



- Input/Output status is indicated on the small OLED screen on the module as follows:

Row	I/O Type:	Order as seen on Display
1	Digital In	7,6,5,4,3,2,1,0
2	Digital Out	7,6,5,4,3,2,1,0
3	Analog Out	3,2,1,0 (Outputs 3 & 2 are not used)

Maintenance and Accessories

P/N	Description
LMSA3850	Fuse, 5mm x 20mm, 2 AMP, slow blow, glass holder – (located inside TITAN VERSA in case – Fuse F2)
TV5839	1M Remote IO cable
TV5840	3M Remote IO cable
TV5841	5M Remote IO cable