Technical Information

Honeywell

Experion LS I/O Specifications and Technical Data

EP03-110-400

Release 400

February 2012, Version 2

Sourcing: RTPs and pre-wired cable assemblies are purchased directly from Rockwell Automation (Allen-Bradley).

All components are part of the A-B 1492 I/O wiring system and all catalog numbers begin with 1492 followed by alpha-numeric characters that indicate desired features and options.

4.2.1 Terminology and Ordering Information

Cables: Except for the style of "Slide-on Cover" supplied the pre-wired cable assembly used for A-B I/O modules and Honeywell I/O modules are identical. All Honeywell cables must have the HW designator in the catalog number.

Basic pre-wired Cable Assembly catalog numbers:

- 1492-CABLE-Cable Assembly for Digital (discrete) IOM's (A-B Slide-on Cover supplied)
- 1492-ACABLE-Cable Assembly for Analog IOM's (A-B Slide-on Cover supplied)
- 1492-**HW**CAB-Cable Assembly for Digital (discrete) IOM's (Honeywell style Slide-on Cover)
- 1492-**HW**ACAB-Cable Assembly for Analog IOM's (Honeywell style Slide-on Cover)

Example catalog number:-1492-HWACAB ### UB
1492-HWACAB Indicates an analog IOM cable supplied with a Honeywell style cover.

The ### indicates the desired cable length in meters. Two standard lengths are provided (use 010 for one meter or 3.28 feet) and (025 for 2.5 meters or 8.2 feet). Custom cable lengths up to 99 meters (374.72 feet) can be specified.

UB indicates the wiring layout (In this case a cable pre-wired for module TC-IAH161 and single ended current inputs). Different letter designators are used with other IOM's.

RTPs: Honeywell always refers to the Din rail mountable terminal assembly as an **RTP** (Remote Terminal Panel). Rockwell uses the acronyms IFM, RIFM, AFIM, RAIFM, or XIM.

The Rockwell catalog numbers begin with 1492- followed by alpha-numeric characters that indicate desired features, options, and associated IOM.

When ordering RTPs, the following RTP catalog numbers are used:

- 1492-IFM - Identifies an RTP for use with Digital (discrete) I/O
- 1492-RIFM - Same as IFM with removable terminal blocks
- 1492-AIFM - Identifies an RTP for use with Analog I/O
- 1492-RAIFM - Same as AIFM with removable terminal blocks
- 1492-XIM -Identifies a "Relay Expander Module" that provide relays on the RTP for use with Digital Output IOM's

Example catalog number: - 1492-AIFM6TC-3

This RTP is use with the 6 channel TC-IXL062 T/C input module.

TC-IAH161, TK-IAH161

Table 6-11 High Level Analog, 16-Input, Voltage and Current (10 V & 4-20 mA) Module

Parameter	Specification
Number of Points	16 channels
Input Voltage Range (Voltage) Input Current Range (Current)	± 10.25 volts, 0 to 10.25 volts, 0 to 5.125 volts 0 to 20.5 mA (internal 250 Ω resistor)
Voltage Resolution ± 10.5 volt range 0 to 10.5 volt range 0 to 5 volt range Current Resolution	16 bits across each range shown below 320 µV 160 µV 80 µV 320 ηA
Module Publish Rate	250 msec
Input Impedance (Voltage) (Current)	Greater than 1.0 megΩ 249 ohms Ω nominal
Open Circuit Detection Typical OC Detection Time	Voltage Even channels - Positive Full scale reading Odd channels – Negative Full scale reading Current – Negative Full scale reading less than 5 seconds
Normal Mode Noise Rejection Common Mode Rejection	Greater than 33 dB @ 50 Hz Greater than 60 dB @ 60 Hz 100 dB @ 50/60 Hz
Channel Bandwidth	20 Hz(-3dB)
Calibrated Accuracy @ 25°C	Better than 0.05% of range (Voltage) Better than 0.15% of range including sense resistor (Current)
RFI Immunity	Error of less than 2.0% of range at 10 V/m, 27 to 1000 MHz
Overvoltage Capability	Continuous at room temperature (both) 30 VDC (Voltage) 8 VDC (Current)
Input Offset Drift with Temperature	<90 µV/°C(Voltage) <360 ηA/°C typical (Current)
Gain Drift with Temperature	15 ppm/°C (Voltage); 20 ppm/°C (Current)
Module Error Over Full Temp. Range	0.1% of range(Voltage) 0.3% of range(current)
Power Dissipation	4.1 W max
Backplane Current	See Module Power Consumption Data, page 46.
Isolation Voltage User to system	 100% Tested at 2550VDC for 1s
Connection Terminal Blocks	TC-TBCH, 36-position terminal block

TC-OAV081, TK-OAV081

Table 6-12 Analog Output, 8-Point, Current/Voltage Module

Parameter	Specification
Number of Points	8 channels
Voltage Output Range Current Output Range	±10.4 V 0 to 21 mA
Voltage Resolution Current Resolution	320 μV per count 650 ηA per count
Output Overvoltage Protection	24 VAC/VDC continuous at room temperature
Open Short Circuit Protection	Electronically current limited to 21 mA or less
Drive Capability	>2000 Ω (Voltage) 0-750 Ω (Current)
Calibrated Accuracy @ 25°C	Better than 0.05% of range From 4 to 21 ma (Current) From –10.4V to +10.4V(Voltage)
RFI Immunity	Error of less than 2.0% of range at 10 V/m, 27 to 1000 MHz
Module Update Rate for All Channels	25 ms
Output Settling Time	Less than 2 ms to 95% of final value with resistive loads
Output Offset Drift with Temperature	50 μV/°C typical (voltage) 100 nA/°C typical (current)
Output Gain Drift with Temperature	25 ppm/°C maximum (voltage) 50 ppm/°C maximum (current)
Module Error Over Full Temp. Range	0.15% of range(Voltage) 0.3% of range (Current)
Isolation Voltage User to system	 100% Tested at 2550VDC for 1s
Power Dissipation	6.9 W max
Backplane Current	See Module Power Consumption Data, page 46.
Connection Terminal Blocks	TC-TBNH, 20-position terminal block