

<b>Vektex LLC</b> 1334 East Sixth Ave. P.O. Box 625 Emporia, Ks. 66801 U.S.A.	<b>Instruction Sheet</b>	<b>IS 5506</b>	
		<b>REV: B</b>	
		<b>ECN 5093</b>	
		<b>BY/DATE: KR</b>	<b>05/16/23</b>
		<b>APPR/DATE:</b>	
<b>TITLE: CONFIGURATION OF IO STATION, AWP, HMI</b>			

This configuration procedure applies to the Advanced Workholding Pump, HMI, IO Station 85595580, Turck Part No. FEN-16DXP

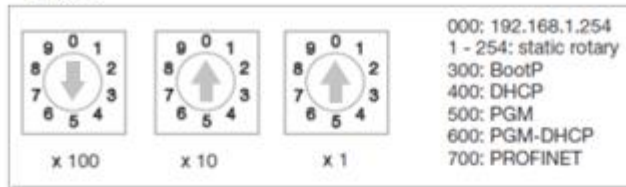


<b>Vektek LLC</b> 1334 East Sixth Ave. P.O. Box 625 Emporia, Ks. 66801 U.S.A.	<b>Instruction Sheet</b>	<b>IS 5506</b>	
		<b>REV: B</b>	
		<b>ECN 5093</b>	
		<b>BY/DATE: KR</b>	<b>05/16/23</b>
		<b>APPR/DATE:</b>	
<b>TITLE: CONFIGURATION OF IO STATION, AWP, HMI</b>			

1. All new part and replacement part IO Modules will need to be configured before shipment to the customer. It is necessary to know whether the IO Station will be used in Basic, Job #, or Fixture # Input/Output mode and configured accordingly. Use the following configuration instructions for Vektek Part No. 85595580 (Turck Part No. FEN-16DXP).
2. Set the station rotary switch x100 to 5, x10 to 0, and x1 to 0 to enable PGM programmable mode.

### FEN20-16DXP

► Three rotary switches of the FEN20-16DXP provide various modes of operation, as seen below.



### Modes of Operation

Based on the position of the switches, the device performs the following operation:

- 000 Restore IP address
- 300 BOOTP mode client
- 400 DHCP mode client
- 500 PGM programmable mode
- 600 PGM-DHCP mode
- 700 PROFINET mode
- 900 Device Recovery Mode (F\_reset)
- 1-254 Static IP address



#### NOTE

The general rule of handling rotary switches when selecting mode of operation is:

- Set the rotary switches to the desired position
- Cycle power to the station
- Proceed with intended operation as explained hereafter

### Restore Mode (000)

- The Restore IP address mode restores the IP address to the default value. When switches are set at 000, the device is capable to:
  - Respond to PING command,
  - Respond to Turck Service tool
  - Run device Webserver
- The device cannot be connected to a PLC and it does not respond to any connection request.

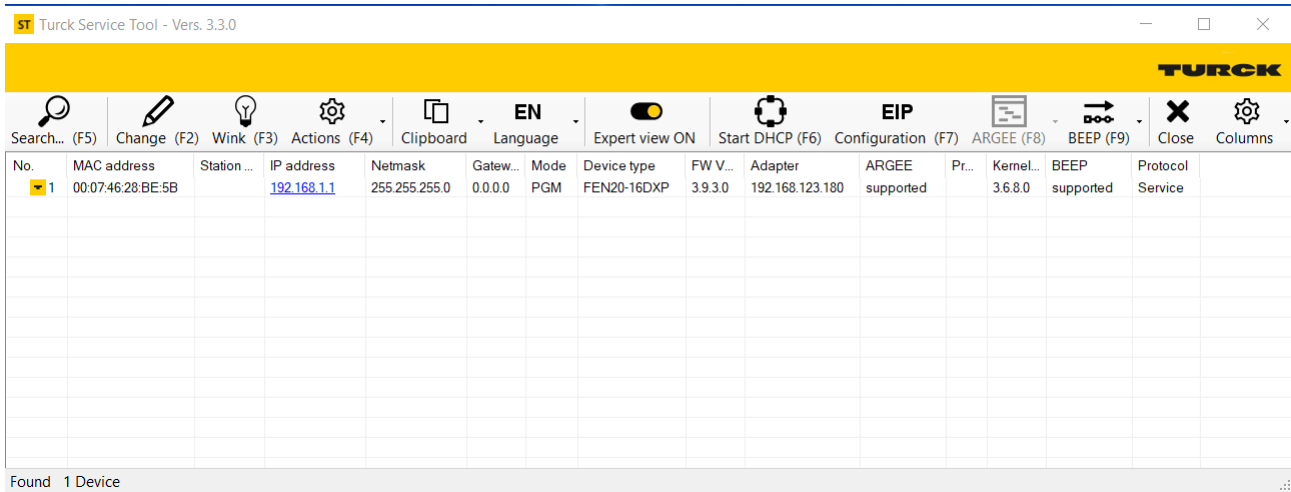
#### Default IP Address

The factory default setup when switches are set to "000" position:

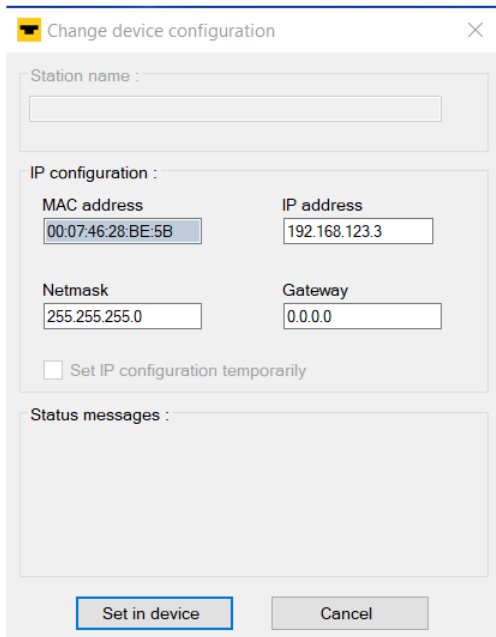
- IP address 192.168.1.254
- Subnet 255.255.255.0
- Gateway 0.0.0.0

<b>Vektex LLC</b> <b>1334 East Sixth Ave.</b> <b>P.O. Box 625</b> <b>Emporia, Ks. 66801</b> <b>U.S.A.</b>	<b>Instruction Sheet</b>	<b>IS</b>	<b>5506</b>		
		<b>REV:</b>	<b>B</b>		
		<b>ECN</b>	<b>5093</b>		
		<b>BY/DATE:</b>	<b>KR</b>	<b>05/16/23</b>	
		<b>APPR/DATE:</b>			
<b>TITLE: CONFIGURATION OF IO STATION, AWP, HMI</b>					

3. Connect PC to Turck IO Station via Ethernet cable and start Turck Service Tool.  
Set PC IP Address to fixed 192.168.1.xxx  
Select the Search button to display the connected station.  
Select Turck IO Station Line No and select the Change button.



4. Select IP Address field and set to one of the following depending on configuration.
  - a. 1st Station Basic – 192.168.123.3
  - b. 2<sup>nd</sup> Station Job # – 192.168.123.4
  - c. 3<sup>rd</sup> Station Fixture # – 192.168.123.5



<b>Vektex LLC</b> <b>1334 East Sixth Ave.</b> <b>P.O. Box 625</b> <b>Emporia, Ks. 66801</b> <b>U.S.A.</b>	<b>Instruction Sheet</b>	<b>IS 5506</b>	
		<b>REV: B</b>	
		<b>ECN 5093</b>	
		<b>BY/DATE: KR</b>	<b>05/16/23</b>
		<b>APPR/DATE:</b>	
<b>TITLE: CONFIGURATION OF IO STATION, AWP, HMI</b>			

5. Select the Set in device button and the results are displayed in the updated Turck Service Tool.

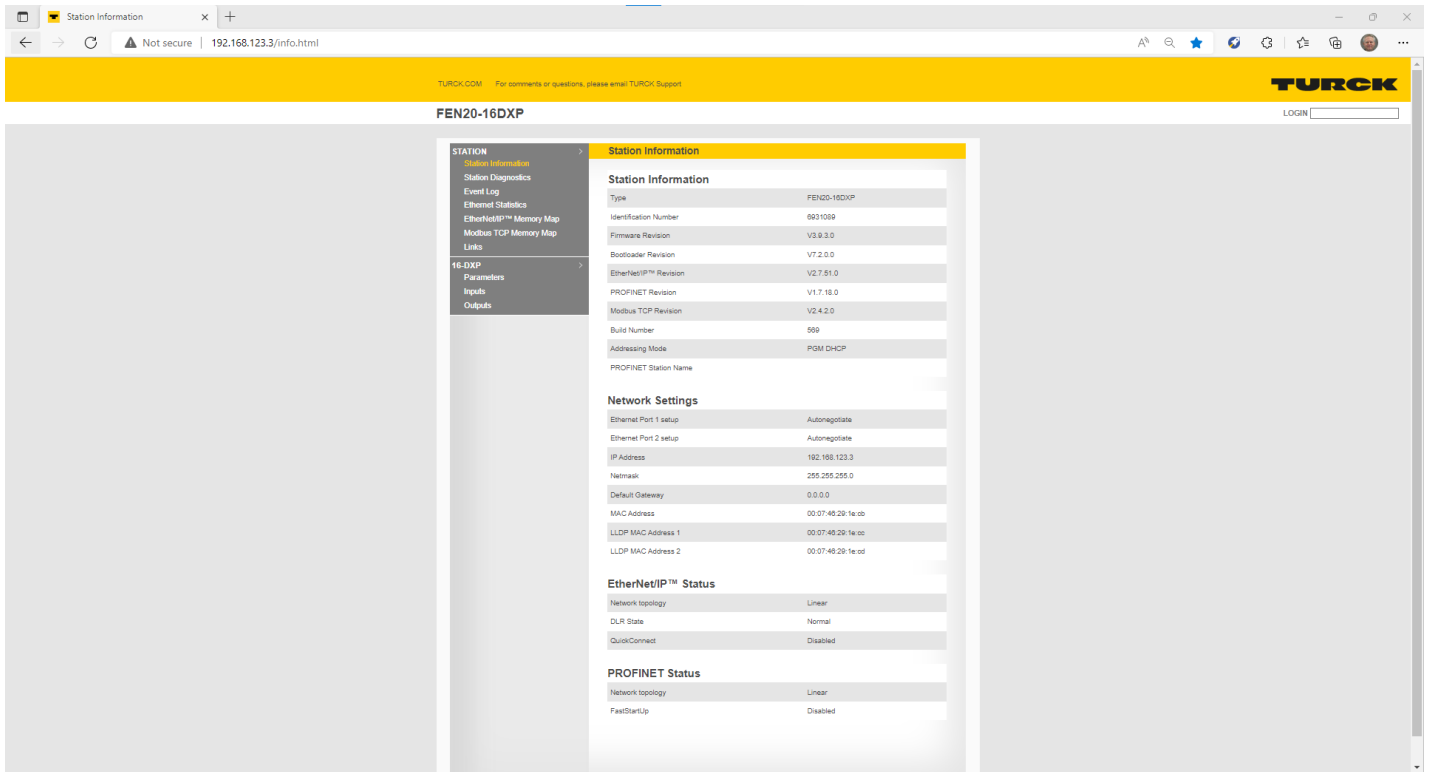
The screenshot shows the Turck Service Tool interface with the following data table:

No.	MAC address	Station ...	IP address	Netmask	Gatew...	Mode	Device type	FW V...	Adapter	ARGEE	Pr...	Kernel...	BEEP	Protocol
1	00:07:46:28:BE:5B		192.168.123.3	255.255.255.0	0.0.0.0	PGM	FEN20-16DXP	3.9.3.0	192.168.123.180	supported		3.6.8.0	supported	Service

Found 1 Device

<b>Vektex LLC</b> <b>1334 East Sixth Ave.</b> <b>P.O. Box 625</b> <b>Emporia, Ks. 66801</b> <b>U.S.A.</b>	<b>Instruction Sheet</b>	<b>IS 5506</b>	
		<b>REV: B</b>	
		<b>ECN 5093</b>	
		<b>BY/DATE: KR</b>	<b>05/16/23</b>
		<b>APPR/DATE:</b>	
<b>TITLE: CONFIGURATION OF IO STATION, AWP, HMI</b>			

6. Open a web browser and type in the default IP Address 192.168.123.X into the URL field. Select the LOGIN field on the right side of the web page and enter the word “password”.
  - a. 1st Station Basic – 192.168.123.3
  - b. 2<sup>nd</sup> Station Job # – 192.168.123.4
  - c. 3<sup>rd</sup> Station Fixture # – 192.168.123.5



<b>Vektex LLC</b> <b>1334 East Sixth Ave.</b> <b>P.O. Box 625</b> <b>Emporia, Ks. 66801</b> <b>U.S.A.</b>	<b>Instruction Sheet</b>	<b>IS 5506</b>	
		<b>REV: B</b>	
		<b>ECN 5093</b>	
		<b>BY/DATE: KR</b>	<b>05/16/23</b>
		<b>APPR/DATE:</b>	
<b>TITLE: CONFIGURATION OF IO STATION, AWP, HMI</b>			

7. IO Station Parameter Assignment for 16 DXP Parameters

- a. Do not check boxes to Invert digital input
- b. Do not check boxes for Manual reset after overcurrent
- c. Check boxes as shown to activate as inputs or outputs as required.

Inputs and outputs are configured automatically by PLC when connect to AWP.

Parameter	Invert digital input	Manual reset after overcurr.	Activate output
Digital InOut 0 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 0 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 0 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 1 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 1 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 1 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 2 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 2 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 2 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 3 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 3 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 3 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 4 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 4 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 4 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 5 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 5 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 5 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 6 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 6 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 6 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 7 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 7 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 7 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 8 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 8 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 8 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 9 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 9 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 9 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 10 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 10 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 10 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 11 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 11 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 11 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 12 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 12 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 12 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 13 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 13 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 13 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 14 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 14 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 14 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital InOut 15 - Invert digital input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 15 - Manual reset after overcurr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital InOut 15 - Activate output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

[Refresh](#)

Revision V0.3.10.0

<b>Vektek LLC</b> <b>1334 East Sixth Ave.</b> <b>P.O. Box 625</b> <b>Emporia, Ks. 66801</b> <b>U.S.A.</b>	<b>Instruction Sheet</b>	<b>IS 5506</b>	
		<b>REV: B</b>	
		<b>ECN 5093</b>	
		<b>BY/DATE: KR</b>	<b>05/16/23</b>
		<b>APPR/DATE:</b>	
<b>TITLE: CONFIGURATION OF IO STATION, AWP, HMI</b>			

d. IO Station Parameter Assignment is programmed by the PLC automatically upon connection and power up. No additional programming is required.

1<sup>st</sup> IO Station Basic Parameter Assignments

- I0 – CNC Machine Class B Alarm Active
- I1 – CNC Machine On No Fault
- I2 – CNC Machine Door Closed
- I3 – CNC Machine in Manual Mode
- I4 – CNC Machine in Auto Mode
- I5 – CNC Machine in MDI Mode
- I6 – CNC Machine Clamp
- I7 – CNC Machine Unclamp
- I8 – CNC Machine Pallet 1 Present Load Area
- I9 – CNC Machine Pallet 2 Present Load Area
- O10 – Not Used
- O11 – AWP Unit On, No Active Fault
- O12 – AWP Pallet 1 Clamped
- O13 – AWP Pallet 1 Unclamped
- O14 – AWP Pallet 2 Clamped
- O15 – AWP Pallet 2 Unclamped

e. 2<sup>nd</sup> IO Station Job # Parameter Assignments

- I0 – Job # - Bit 0
- I1 – Job # - Bit 1
- I2 – Job # - Bit 2
- I3 – Job # - Bit 3
- I4 – Not Used
- I5 – Job Selection Pallet 1
- I6 – Job Selection Pallet 2
- I7 – Not Used
- I8 – Not Used
- I9 – Not Used
- O10 – Job # ACK Bit 0
- O11 – Job # ACK Bit 1
- O12 – Job # ACK Bit 2
- O13 – Job # ACK Bit 3
- O14 – Not Used
- O15 – Job # ACK

<b>Vektek LLC</b> <b>1334 East Sixth Ave.</b> <b>P.O. Box 625</b> <b>Emporia, Ks. 66801</b> <b>U.S.A.</b>	<b>Instruction Sheet</b>	<b>IS 5506</b>	
		<b>REV: B</b>	
		<b>ECN 5093</b>	
		<b>BY/DATE: KR</b>	<b>05/16/23</b>
		<b>APPR/DATE:</b>	
<b>TITLE: CONFIGURATION OF IO STATION, AWP, HMI</b>			

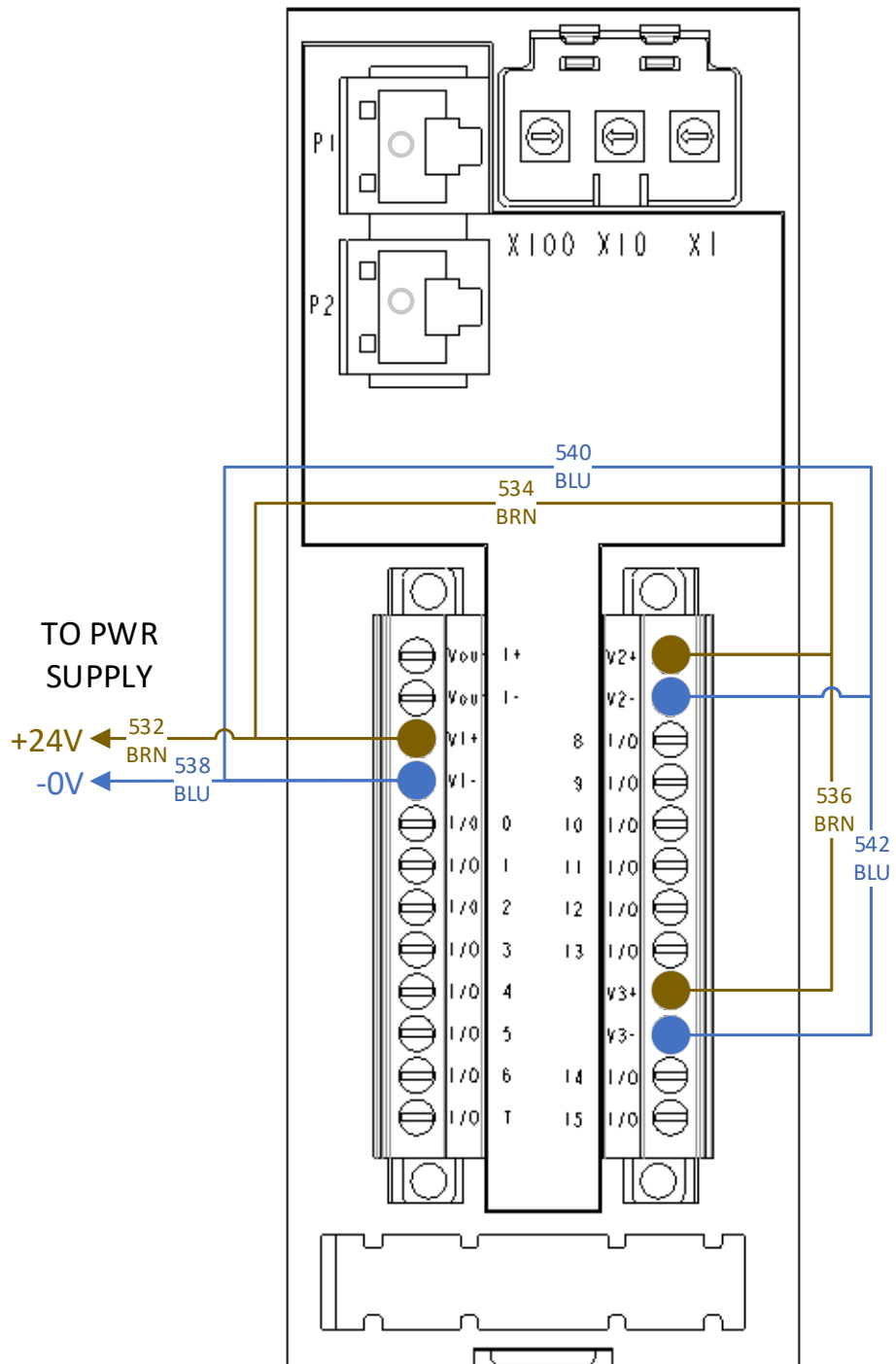
a. 3<sup>rd</sup> IO Station Fixture # Parameter Assignments

- I0 – Fixture # - Bit 0
- I1 – Fixture # - Bit 1
- I2 – Fixture # - Bit 2
- I3 – Fixture # - Bit 3
- I4 – Not Used
- I5 – Fixture Selection Pallet 1
- I6 – Fixture Selection Pallet 2
- I7 – Not Used
- I8 – Not Used
- I9 – Not Used
- O10 – Fixture # ACK Bit 0
- O11 – Fixture # ACK Bit 1
- O12 – Fixture # ACK Bit 2
- O13 – Fixture # ACK Bit 3
- O14 – Not Used
- O15 – Fixture # ACK

<b>Vektex LLC</b> 1334 East Sixth Ave. P.O. Box 625 Emporia, Ks. 66801 U.S.A.	<b>Instruction Sheet</b>	<b>IS 5506</b>	
		<b>REV: B</b>	
		<b>ECN 5093</b>	
		<b>BY/DATE: KR</b>	<b>05/16/23</b>
		<b>APPR/DATE:</b>	
<b>TITLE: CONFIGURATION OF IO STATION, AWP, HMI</b>			

8. IO Module Connection Diagram

a. See EN5511 for wiring requirements as shown below.



<b>Vektex LLC</b> <b>1334 East Sixth Ave.</b> <b>P.O. Box 625</b> <b>Emporia, Ks. 66801</b> <b>U.S.A.</b>	<b>Instruction Sheet</b>	<b>IS 5506</b>	
		<b>REV: B</b>	
		<b>ECN 5093</b>	
		<b>BY/DATE: KR</b>	<b>05/16/23</b>
		<b>APPR/DATE:</b>	
<b>TITLE: CONFIGURATION OF IO STATION, AWP, HMI</b>			

9. Confirm system operation by selecting Station Diagnostics and verify the System is working properly.

