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

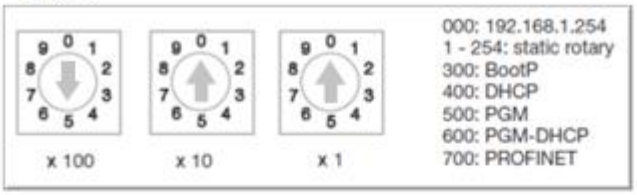
This configuration procedure applies to the Advanced Workholding Pump, HMI, IO Station 85595580, Turck Part No. FEN-16DXP

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

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

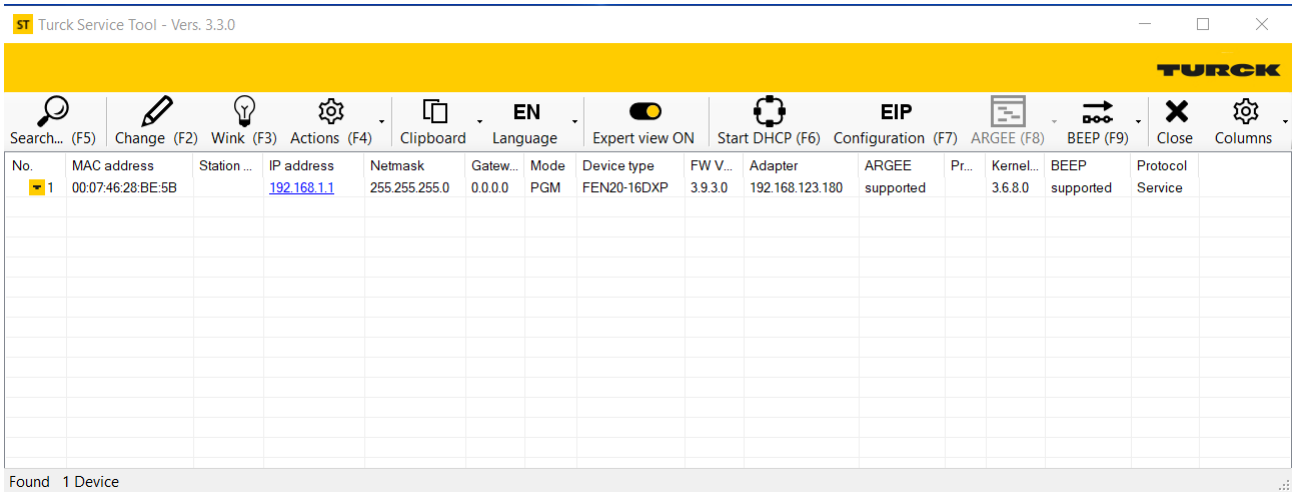
➤ The device cannot be connected to a PLC and it does not respond to any connection request.

Default IP Address

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

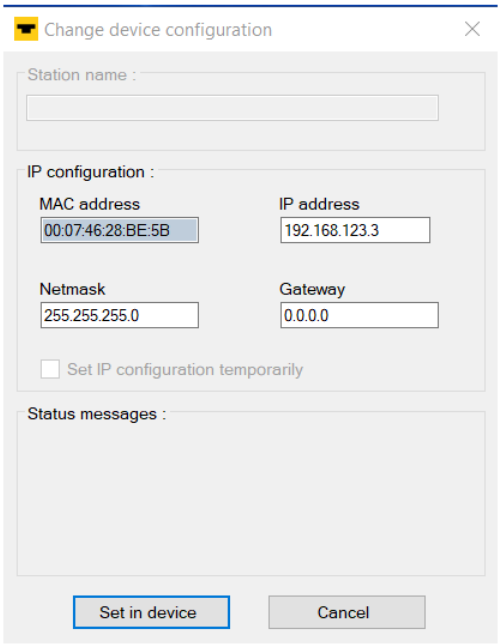
▪ IP address	192.168.1.254
▪ Subnet	255.255.255.0
▪ Gateway	0.0.0.0

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.

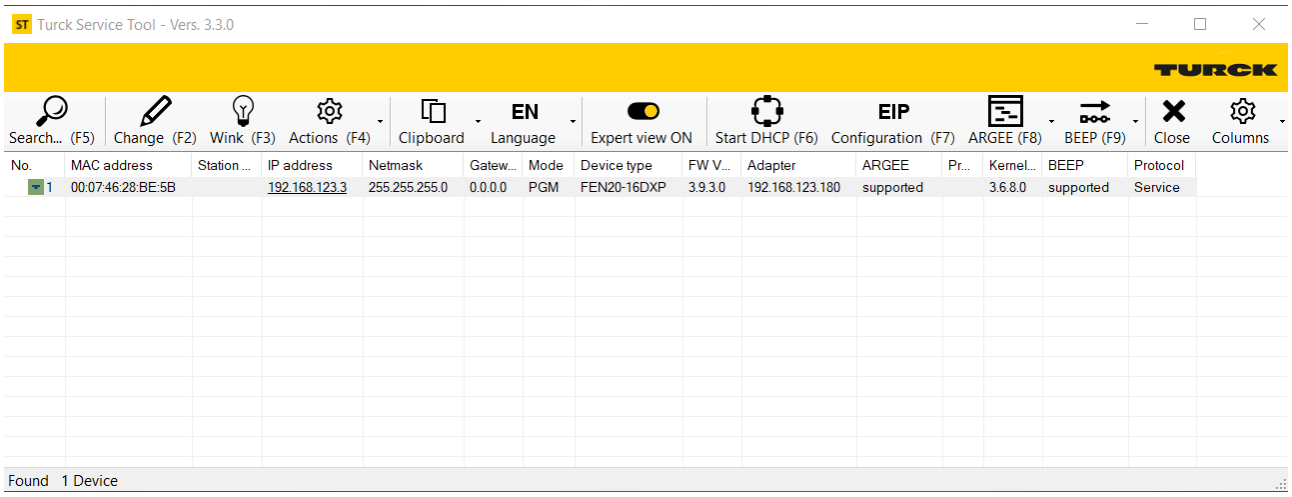


4. Select IP Address field and set to one of the following depending on configuration.

a. 1st Station Basic – 192.168.123.3
b. 2nd Station Job # – 192.168.123.4
c. 3rd Station Fixture # – 192.168.123.5

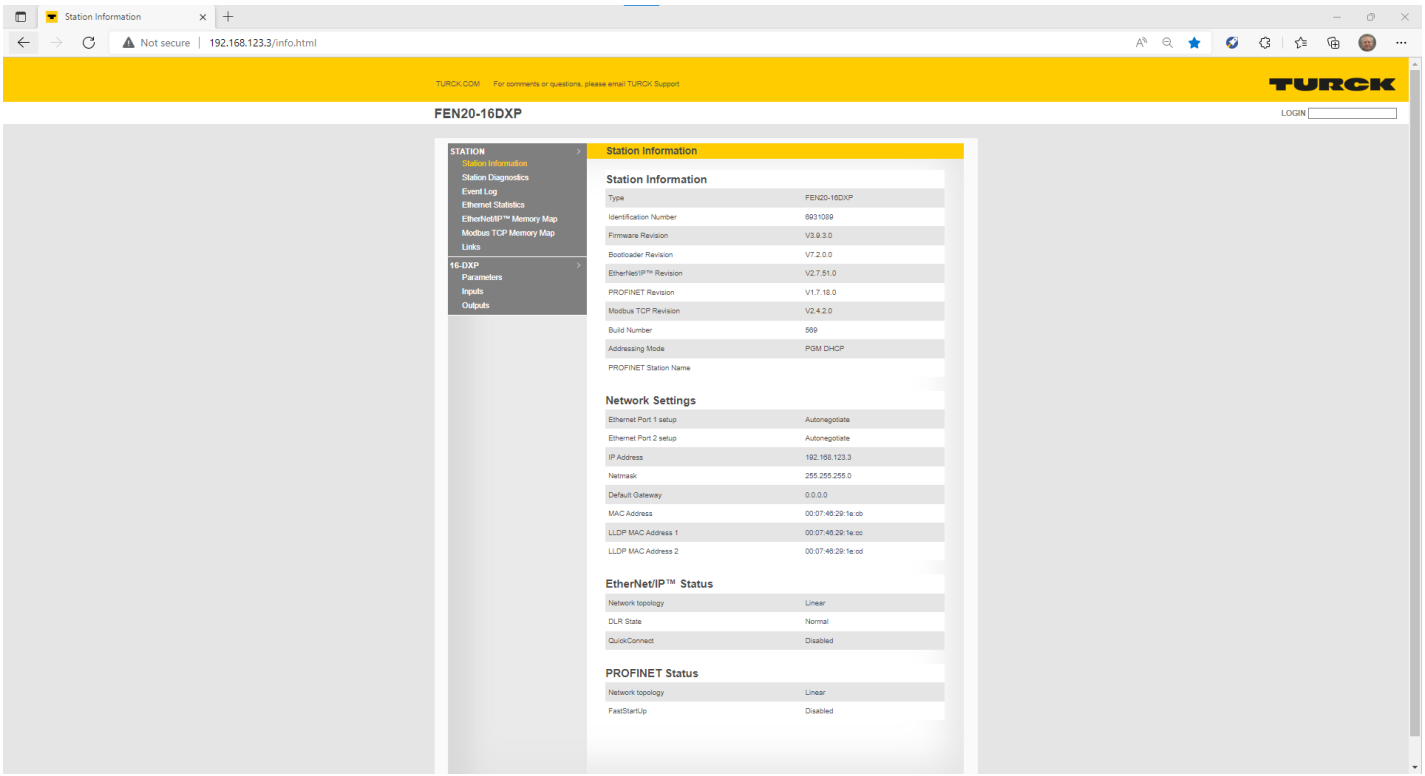


5. Select the Set in device button and the results are displayed in the updated Turck Service Tool.



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. 2nd Station Job # – 192.168.123.4
c. 3rd Station Fixture # – 192.168.123.5

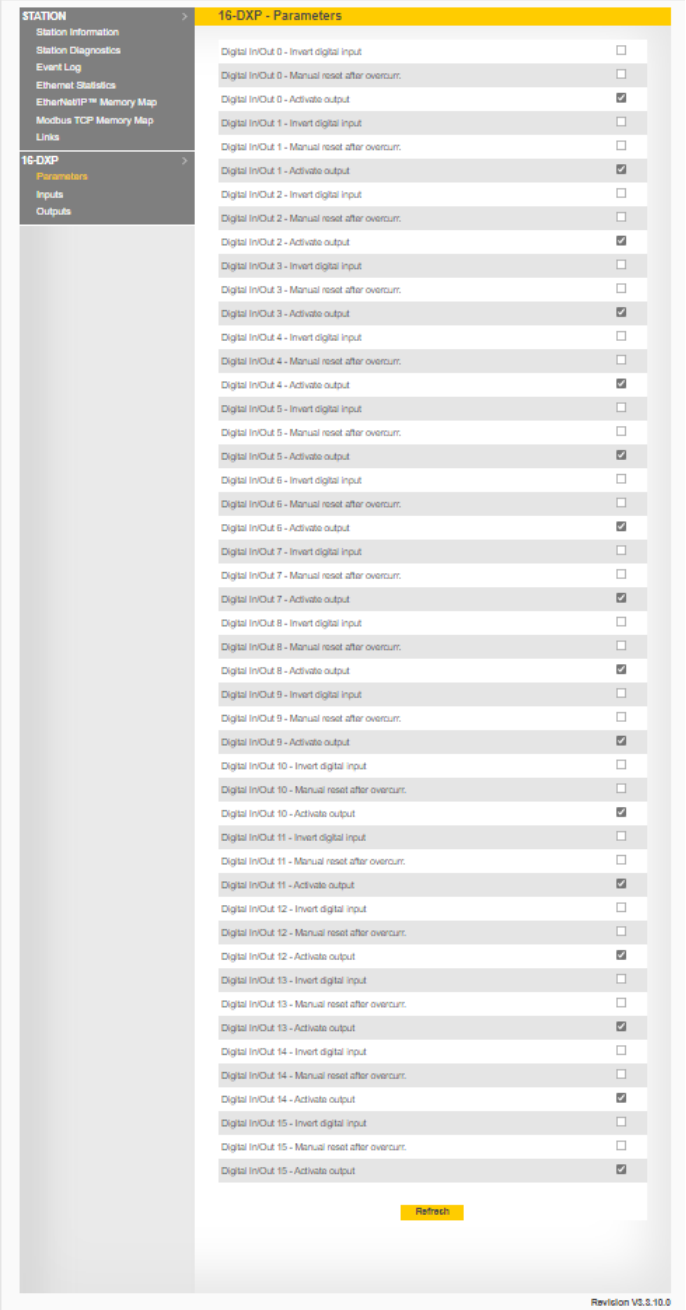


7. IO Station Parameter Assignment for 16 DXP Parameters

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.



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

1st 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. 2nd IO Station Job # Parameter Assignments

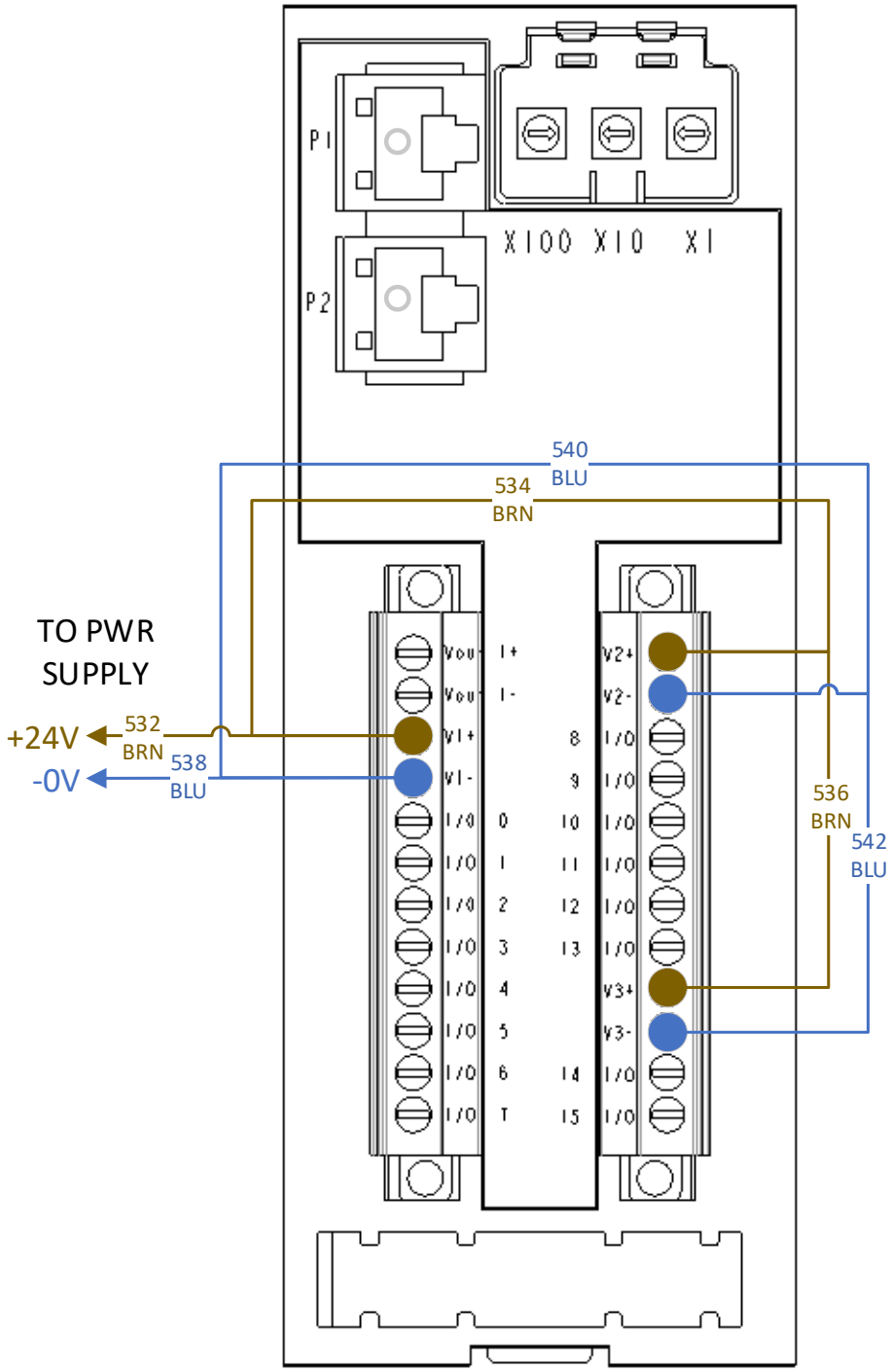
I0 – Job # - Bit 0
I1 – Job # - Bit 1
I2 – Job # - Bit 2
I3 – Job # - Bit 3
I4 – Not Used
I5 – Job Selection Pallet 1
I6 – Job Selection Pallet 2
I7 – Not Used
I8 – Not Used
I9 – Not Used
O10 – Job # ACK Bit 0
O11 – Job # ACK Bit 1
O12 – Job # ACK Bit 2
O13 – Job # ACK Bit 3
O14 – Not Used
O15 – Job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

a. 3r[d] 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

8. IO Module Connection Diagram

a. See EN5511 for wiring requirements as shown below.



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