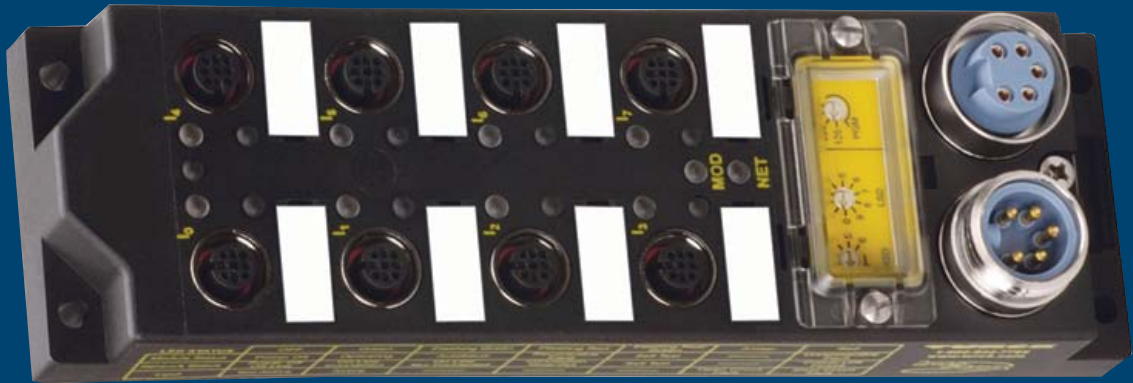




ITT

Pure-Flo®

ConnectITT



Engineered for life

www.ittpureflo.com

The ConnectITT series product line is made up of network hardware designed to offer our customers significant savings on their network needs. They are also designed for ease of installation.

The ITT Network Block combines standard discrete ITT switches to create a network for valves. The installed cost of this simple network is significantly less than traditional networked valves with DeviceNet nodes built in. Networked valves are not really “smart” and have no diagnostics or intelligence built in. If you need to know if the valve is open or closed and be able to turn the valve on and off, the Network Block is your solution.

The Network Block will also allow you to retrofit existing discrete valve installations so they can communicate with network systems. The Network Block is capable of connecting up to four valve switches. Additionally, it can power up to four additional devices requiring up to 0.5 A.

How DeviceNet™ Works

DeviceNet protocol is used to control and transfer data. It is a low cost communications protocol that connects and networks industrial devices such as limit switches, photoelectric sensors, valve manifolds, motor starters, process sensors, bar code readers, variable frequency drives, panel displays and operator interfaces, among other things.

The DeviceNet network eliminates point-to-point wiring by allowing direct connection to control devices. The direct connection provides improved communication between devices, as well as important device-level diagnostics not easily accessible or available through point-to-point I/O interfaces. DeviceNet is dedicated to the network and connected to PLCs by a single network cable. The stations obtain and transmit messages to the network via these PLCs and are typically programmed by a computer.



Features and Benefits

- Connects four valves to the DeviceNet
- Valves are “Non-Smart” or standard issue
- Regularly stocked valves that you have always used can be part of the network
- Allows connection of PNP or 2 wire switches and low wattage solenoid with spring return
- Bottom four ports are available for solenoids only or for Double-Acting Solenoids
- Impossible to improperly connect the valve to the valve block
- The 5 pin receptacle is factory mounted or field mounted in the valve
- One cordset connects the valve to the valve block

Advantages

- Fast and easy to install
- Less wire and labor is required compared to traditional networked valves
- Commissioning and debugging time is less than traditional networked valves
- Cost Savings!
 - Switch costs less than a DeviceNet switch
 - Wiring cost is reduced
 - Installation cost is reduced
 - Less I/O points (each block is a node vs. each switch)
 - Less bandwidth on the network is required, which will reduce overhead cost

Devices connected to DeviceNet stations can also be hot swapped, which means they can be removed and replaced without affecting other operations connected to the station.

A DeviceNet network supports up to 64 nodes and virtually an unlimited amount of I/O. The bus uses a trunkline-dropline topology, where bus power and communication are supplied on a single cable. Bus power is 24 VDC and supplies current to operate the nodes and (typically) power input devices. Some DeviceNet stations require an additional 24 VDC auxiliary power to supply current for outputs.

DeviceNet is a flexible network with the capability of bridging other networks such as PROFIBUS®, As-interface®, RS485, etc. Further, multiple manufacturers’ products are compatible with DeviceNet, thereby allowing stations to be added to existing operations with the ability to connect to virtually any device.

Input Circuits	(8) PNP 3-wire sensors or dry contacts
Input Voltage	11-26 VDC
Input Short-Circuit	<700 mA (total, short-circuit protected)
Input Signal Current (Input)	OFF <2 mA ON 2.5-3.2 mA at 24 VDC
Input Delay	2.5 ms

Output Circuits	(8) DC actuators
Output Voltage	11-26 VDC
Output Load Current	0.5 A per output
Maximum Switching Frequency	100 Hz

I/O LED Indications

Off = Not Active
Green = Active

Module Status LED

Off = Power off
Green = Operating
Flashing Green = Autobaud
Flashing Red = I/O short

Network Status LED

Off = No connection
Green = Established connection
Flashing Green = Ready for connection
Flashing Red = Connection time-out
Red = Connection not possible

Adjustments

Address 0-63 via rotary switch

Housing

220 x 60 x 40 (H x W x D)
Material Glass filled nylon with nickel plated brass connectors
Mounting 4 through-holes, 5.3 diameter
Enclosure NEMA 1, 3, 4, 6, 6P, 12, 13 and IP 67, 68, and 69K
Operating Temperature -40° to 70°C (-40° to 158° F)

Module Specifications

Supply Voltage

Bus Power 11-26 VDC, powers communication and I/O
Internal Current Consumption ≤75 mA plus sum of sensor and output currents (from bus power)

I/O Data Mapping

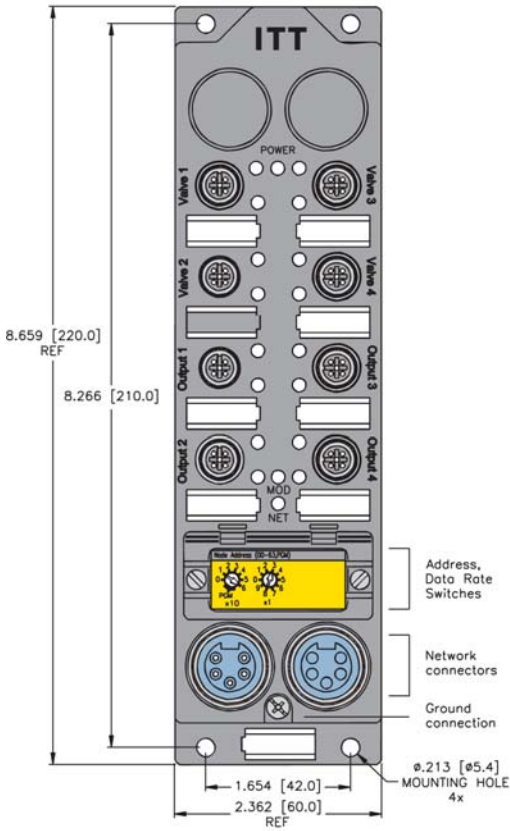
Item Number: F0148
Product Type/Code: 7/2369

Input Data	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	0	I-7	I-6	I-5	I-4	I-3	I-2	I-1	I-0
1	OS-7	OS-6	OS-5	OS-4	OS-3	OS-2	OS-1	OS-0	
2	IGS	OGS							
Output Data	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	0	O-7	O-6	O-5	O-4	O-3	O-2	O-1	O-0

Abbreviations

I = Input Data (0=OFF, 1=ON)
O = Output Data (0=OFF, 1=ON)
OGS = Output Group Status (0=Working, 1=Fault)
IGS = Input Group Status (0=Working, 1=Fault)

Dimensions



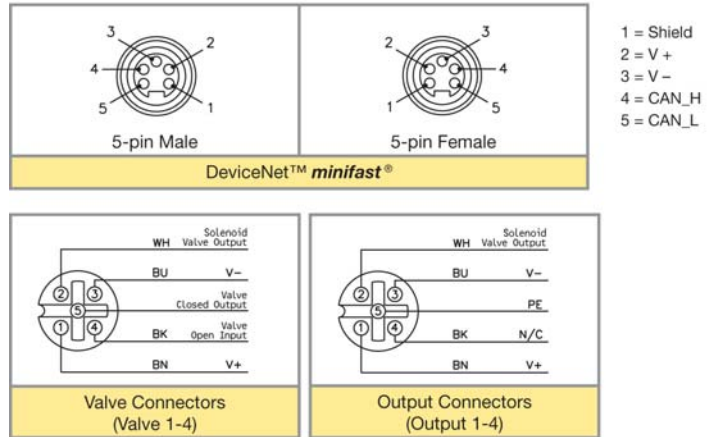
The unit is specifically designed to work with ITT valves that have two inputs and one output for each connector (Valve 1-4). The output is used to control the valve and the inputs provide open and closed feedback. The additional four connectors (Output 1-4) are for controlling additional solenoid valves (no feedback).

For more information, please contact:

Pure-Flo Headquarters
 33 Centerville Road
 Lancaster, PA 17603-2064 USA
 Phone +1 (800) 787-3561
 Phone +1 (717) 509-2200
 Fax +1 (800) 239-9402



Connectors



1 = Shield
 2 = V +
 3 = V -
 4 = CAN_H
 5 = CAN_L

- Advanced DeviceNet™ station
- Specially wired, 4 input/output ports, 4 output ports
- Special for ITT

Applications

- For use with four ITT valves with open/closed feedback
- Provides four additional solenoid outputs without feedback

Features

- Feedback inputs are shortcircuit protected
- Solenoid valve outputs provide up to 0.5A
- Automatic detection of network communication rate
- Rotary address switches

How to Order

ITT Part Number	Description
46791	Network Block 4 Valve D-N Station
46792	Splitter Cable
46793	Extension Cable (2 mtr)
46794	Extension Cable (5 mtr)
46795	Extension Cable (10 mtr)

NB-11
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