InterlinkBT Bus System for Sensors and Actuators

This ***busstop***® station takes in up to 16 discrete 3-wire inputs or eight discrete 4-wire input points per node. There are two inputs per connector - one on pin 4 and one on pin 2. Each input automatically detects a sourcing (PNP) or sinking (NPN) open-collector signal. Any combination of NPN and PNP devices may be used, but both inputs on a connector must be the same type.

Each connector input produces 4 bits of data - two input state bits, and two status bits. The state bit is set when the discrete input device closes. The LED at each input point indicates its status.

Each input pair is monitored for short-circuits and open circuits. The input LED turns red if the point current draw exceeds 80 mA; the LED is amber if the point current draw is less than 1 mA. Open circuit detection can be enabled for each input pair using a software configuration tool. The status bits automatically reset when the fault is removed.

The node address and communication rate can be set by the rotary switches located under the device cover or through software node commissioning. The unit can automatically detect the network communication rate.

The FDNL-L1600-T-0061 supports explicit messages, bit strobe, polled, change of state, and cyclic I/O messages.

Recommended Cordsets:

Bus line: ***InterlinkBT*** part #: RSM RKM 579-2M

Inputs: **TURCK** part #: VBRS 4.4-2RK 4T-0.3/0.3/S818 or RK 4.4T-*-RS 4.4T, BS8141-0 (male field wireable)

FDNL-L1600-T-0061

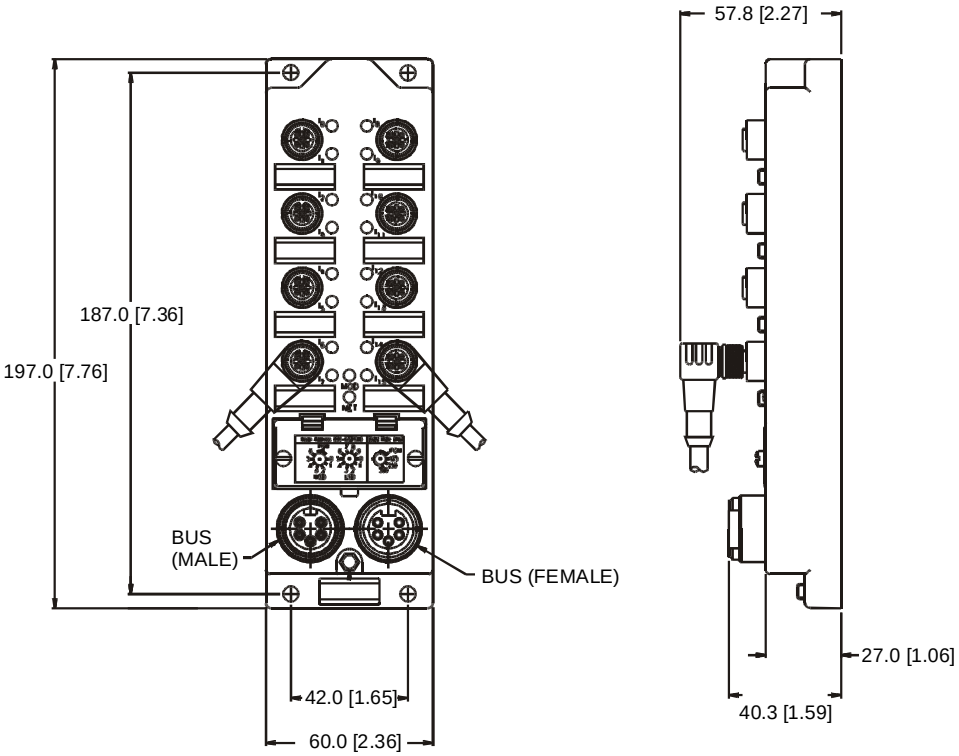
- **Advanced DeviceNet Station**
- **8 x 2 discrete inputs**

Applications

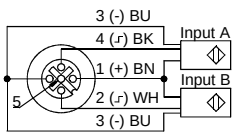
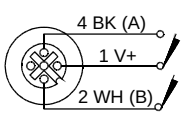
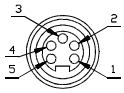
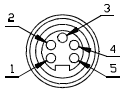
- **For high density applications**
- **For use with eight 4-wire sensors or 16 3-wire sensors through input splitters**

Features

- **PNP/NPN short-circuit protected and open-circuit monitored inputs**
- **Polyethelene housing with nickel plated brass connectors**
- **Rotary switch or software settable address and communication rate**
- **Automatic detection of network communication rate**



Wiring Diagrams

Inputs	Bus Line
Splitter and 2 Sensors  1 = V+ 2 = Input B (odd numbers) 3 = V - 4 = Input A (even numbers) **Mechanical Contacts***  *** Disable open-circuit detection.**	 1 = Shield 2 = + Voltage 3 = - Voltage 4 = CAN_H 5 = CAN_L  **Male** **Female**

Input Module
FDNL-L1600-T-0061
8 x 2 Input DC

Part Number	FDNL-L1600-T-0061
Item Number	F0061
Supply Voltage	
Bus power	11-26 VDC
Internal current consumption	140 mA plus sum of sensor currents (from bus power)
Input Circuits	(16) PNP or NPN 3-wire sensors or dry contacts
Input voltage	11-26 VDC (from bus power)
Open circuit current	<1 mA
Sensor current	<80 mA per input, short-circuit protected
Maximum switching frequency	100 Hz
LED Indications	Amber: Open-circuit Off: Input off Green: Input on Red: Short-circuit
Connections	
Bus line	5-pin ***minifast***® connectors
Inputs	***eurofast***® connectors
Settings	
Address	0-63 via node address switches
Comm rate	Auto/125/250/500 kbps via data rate switch
Internal Settings	Address and comm rate from internal EEPROM (rotary switches in PGM positions)
DeviceNet Identity Attributes	
Vendor ID	256 (100 hex)
Product type / code	7 / 977 (3D1 hex)
I/O Data Mapping	
I/O Message types	strobe, polled, change of state, or cyclic
Produced Data Size	4 Bytes

Abbreviations:
I = Input Data (0 = OFF, 1 = ON)
IS = Input Status

Input Data	**Bit**	**07**	**06**	**05**	**04**	**03**	**02**	**01**	**00**
	Meaning	**I-7**	**I-6**	**I-5**	**I-4**	**I-3**	**I-2**	**I-1**	**I-0**
	Bit	**15**	**14**	**13**	**12**	**11**	**10**	**09**	**08**
	Meaning	**I-15**	**I-14**	**I-13**	**I-12**	**I-11**	**I-10**	**I-9**	**I-8**
	Bit	**23**	**22**	**21**	**20**	**19**	**18**	**17**	**16**
	Meaning	**IS-7**	**IS-6**	**IS-5**	**IS-4**	**IS-3**	**IS-2**	**IS-1**	**IS-0**
	Bit	**31**	**30**	**29**	**28**	**27**	**26**	**25**	**24**
	Meaning	**IS-15**	**IS-14**	**IS-13**	**IS-12**	**IS-11**	**IS-10**	**IS-9**	**IS-8**

Housing (millimeters)	197 x 60 x 40 (H x W x D)
Material	HDPE, nickel plated brass connectors
Mounting	4 through-holes, 4.5 mm diameter
Enclosure	NEMA 1, 3, 4, 12, 13 and IEC IP 67
Operating temperature	-25° to +70°C (-13° to +158°F)