



24VDC Input Module

HE450DIM610

Positive / Negative Logic

16 Channels

SmartStix

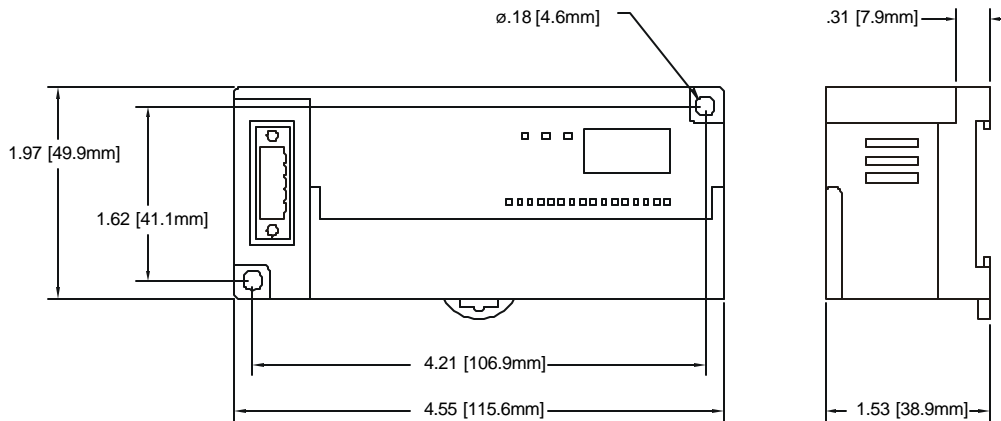
For electronic information including the GSD File, see www.SmartStix.com.
This product has a Programming Reference (SUP0552).

1 SPECIFICATIONS

Specifications			
Number of input points	16	OFF to ON Response	0 - 3ms. or less
Rated Input Current	7mA	ON to OFF Response	0 - 3ms. or less
ON Voltage Level	19VDC or more	Common Terminal	16 points / COM
OFF Voltage Level	6VDC or less	Operating Indicator	LED turns on during ON state of input
Input Characteristics	Bidirectional	External Connections	Terminal block connector (M3 x 6 screws)
Isolation Method	Photo Coupler	Altitude for use	Up to 2,000m
General			
Storage Temperature	-25° to 70° C	Pollution degree	2 or lower
Operating Temperature	0° to 55° C	Internal power Consumption (mA)	200mA
Atmosphere	Free from corrosive gases and excessive dust	Cooling method	Self-cooling
Operating and Storage Humidity	5 to 95% Non-condensing	Weight	5.6 oz. (158g)
Vibration			
Occasional Vibration			
Frequency	Acceleration	Amplitude	Sweep Count
10 ≤ f < 57 Hz	-	0.075 mm	10 times in each direction for X,Y,Z
57 ≤ f ≤ 150 Hz	9.8 m/s ² {1G}	-	
Continuous Vibration			
Frequency	Acceleration	Amplitude	Sweep Count
10 ≤ f < 57 Hz	-	0.035 mm	10 times in each direction for X,Y,Z
57 ≤ f ≤ 150 Hz	4.9 m/s ² {0.5G}	-	
Shocks			
Maximum shock acceleration	147 m/s ² {15G}		
Duration Time	11 ms.		
Pulse Wave	Half sine wave pulse (3 times in each of X, Y, Z directions)		

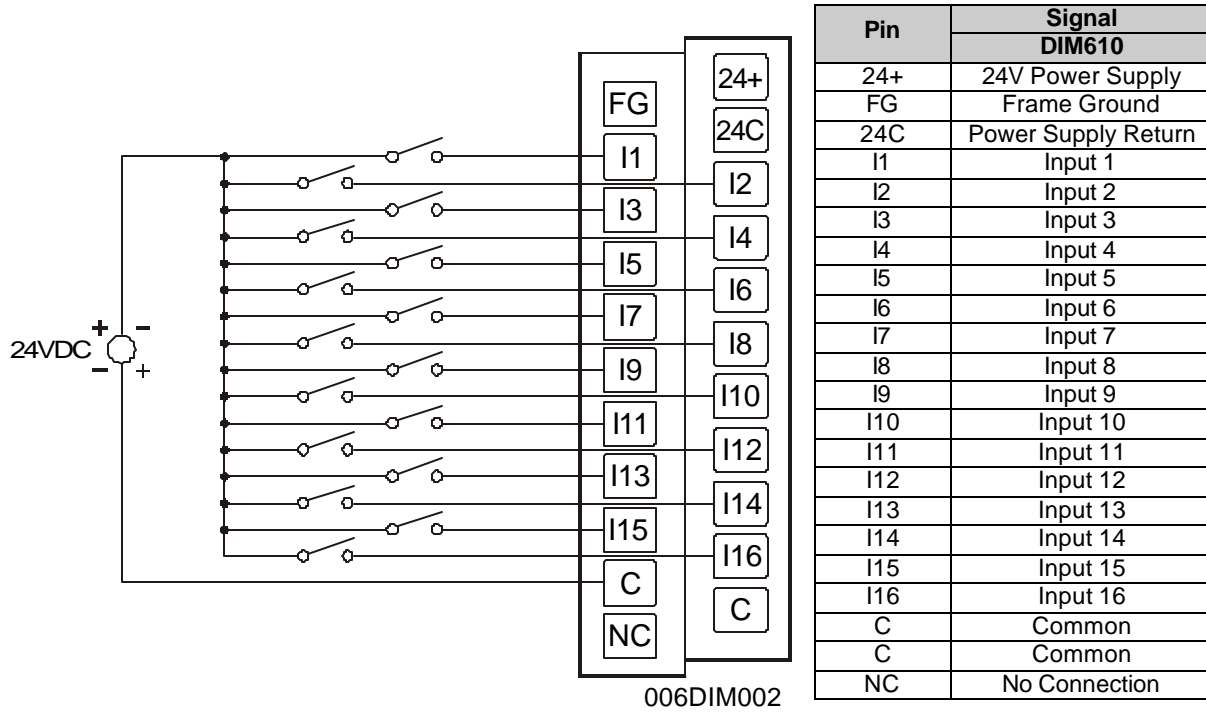
Specifications continued				
Noise Immunity				
Square wave impulse noise	AC: ± 1,500VDC DC: ± 900VDC			
Electrostatic Discharge	Voltage: 4kV (contact discharge)			
Radiated electromagnetic field	27 – 500MHz, 10V/m			
Fast Transient Burst Noise	Severity level	All power modules	Digital I/Os (Ue ≥24V)	Digital I/Os (Ue < 24 V) Analog I/Os Communication I/Os
	Voltage	2 kV	1 kV	0.25 kV

2 DIMENSIONS

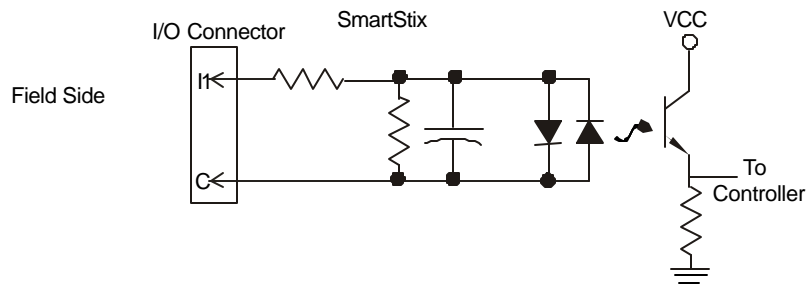


006ACC001

3 WIRING



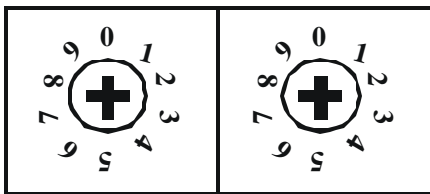
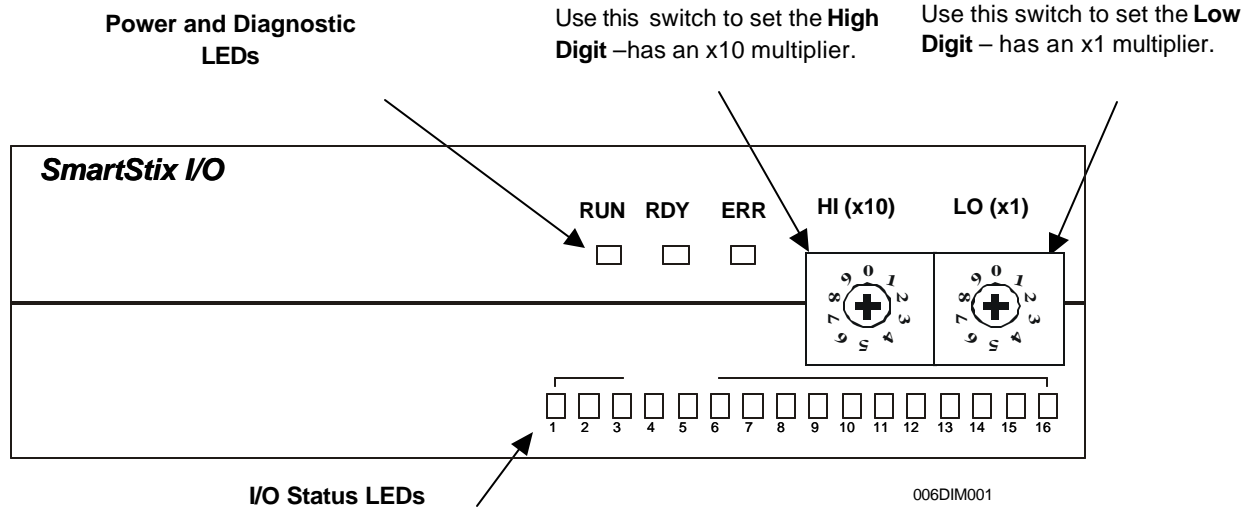
4 INTERNAL WIRING



5 SWITCHES

Setting Address Switches:

Profibus addresses are set using the decimal number system from 1 to 99. Set a unique Network ID by inserting a small Phillips screwdriver into the two *identical* switches as shown in the example.



Close-up of Switches

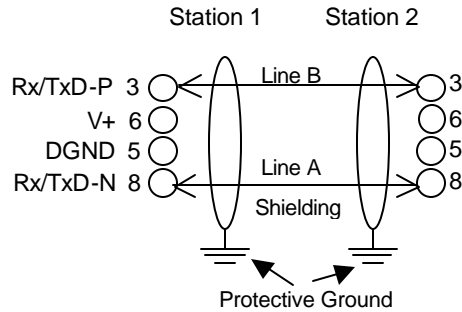
6 LEDs

Communication LED	MEANING
RUN	Displays the status of the power
RDY	Displays the communication status of the communication module
ERR	Displays abnormal condition of communication module

7 NETWORK CABLE

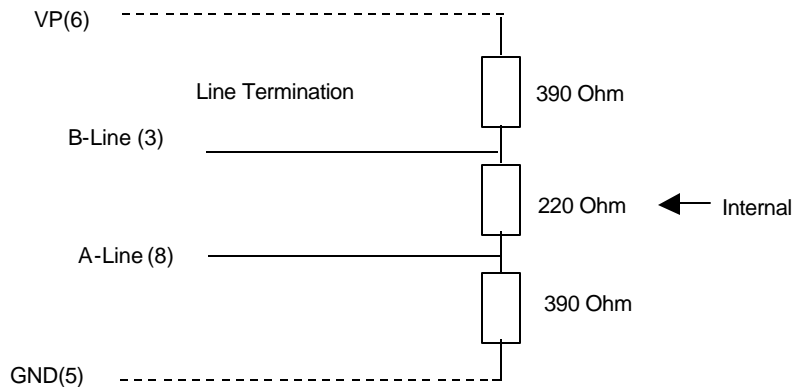
For detailed network information, refer to www.profibus.org.

- a. A SmartStix module uses a 9-pin D-sub plug connector for its DP port. The pin assignment of the plug connector and the wiring are shown below.



- b. It is necessary to terminate both ends of the network. Both terminations must have power to them to insure proper operation of the network. The following diagram illustrates the correct connection for the termination resistors. The diagram is for illustrative purposes only.

Note: Cabling and connectors need to be PTO-approved to achieve the desired performance results.



- c. The shield braiding (and if present, the shield foil) must be connected to protective ground on both sides and must have good conductivity via shield clamps that cover as large an area as possible. In addition, it is recommended that the data lines be kept separate from all high-voltage cables.

8 INSTALLATION / SAFETY

- a. All applicable codes and standards need to be followed in the installation of this product.
- b. For I/O wiring (discrete), use the following wire type or equivalent: Belden 9918, 18 AWG or larger.



Warning: Consult user documentation.



Warning: Electrical Shock Hazard.

9 TECHNICAL ASSISTANCE

For assistance, contact Technical Support at the following locations:

North America:

(317) 916-4274

www.heapg.com

Europe:

(+) 353-21-4321-266

www.horner-apg.com