



Di161

SMART I/O™

DESCRIPTION

The Smart I/O™ Di161 programmable controller incorporates 16 channels of cost effective digital inputs. The inputs are monitored and controlled by a Neuron 3150 chip with Free Topology communication over a LonWorks® network. The Di161 can be utilized in many custom or fixed distributed control applications.

The inputs of the Di161 make it perfect for a variety of monitoring applications. The wide operating temperature range, -20 to 70 °C, makes the Di161 well suited for many demanding applications.

The sixteen signal-isolated digital inputs can be used for a variety of functions such as alarms inputs, switch inputs, occupancy sensor inputs, or any other dry contact or open-collector input.

The Di161 controller is protected from reverse power supply input wiring, over-voltages, transients, and other common electrical events that can damage unprotected inputs.

User defined algorithms and functions can be programmed using VisualControl™, NodeBuilder, LonBuilder or other third party LONWORKS programming tools. The application program can be downloaded over the free topology network and is stored in FLASH non-volatile memory so it is retained even after loss of power.

The enclosure snaps right onto a 35mm DIN-rail for quick and easy mounting. The spring-loaded latching mechanism on the base plate allows for easy removal of the controller from a DIN rail.

APPLICATIONS

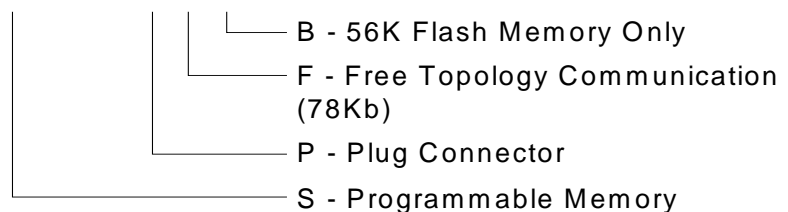
- Pulse Metering
- Central Plant
- Access Control
- Security Contacts
- Push-Button Monitoring
- Lighting
- Alarming
- Digital Status
- Equipment Monitoring
- Production line Monitoring
- Custom Applications

FEATURES

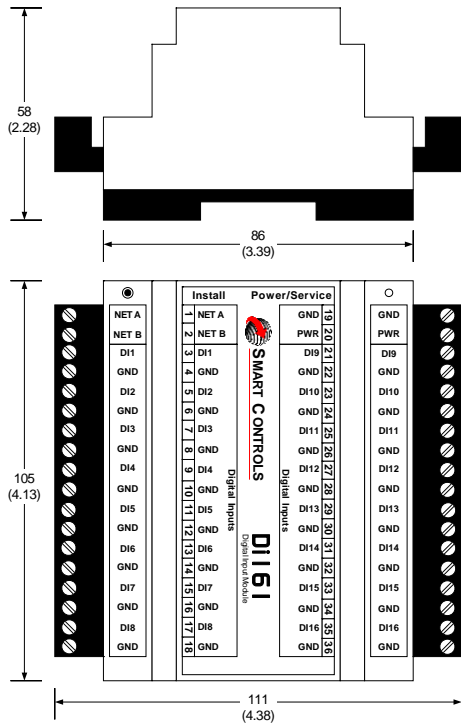
- LonTalk Protocol
- Free Topology Communication (FTT-10)
- 16 digital inputs for dry contact or open-collector monitoring
- FLASH Memory
- DIN-rail mounting
- Compact Size for Minimal Panel Space
- Fully programmable
- 2 Year Limited Warranty

SELECTION GUIDE

S-Di161P-F-B



DIMENSIONS



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AGENCY



SPECIFICATIONS

General
Communication: LONTALK™ Protocol
Transceiver: FTT-10, Free Topology
Processor: Neuron 3150 @ 10 MHz
Memory: 64K bytes FLASH
2K bytes SRAM (Neuron)
0.5K bytes EEPROM (Neuron)

Inputs
Number: 16
Digital: Dry Contact,
Open-Collector
(12V, sink 6 mA)
Protection Circuitry: Transient Over voltage, ESD

Power
Nominal Input Voltage: 24 VAC
Input Voltage Range: 21-28 VAC or 21-39 VDC
Maximum Consumption: 6 VA

Environmental
Operating Temperature: -20 °C to +70 °C, -4 °F to 158 °F
Storage Temperature: -40 °C to +70 °C, -40 °F to 158 °F
Relative Humidity: 5% to 95% (non-condensing)

Enclosure
Dimensions: L 105 x W 86 x H 58 mm
(4.13" x 3.39" x 2.28")
Cover: Lexan 940, UL94-V0 rated
Base: Noryl VO1550, UL94-V0 rated

Warranty
Period: 2 Years (Limited)

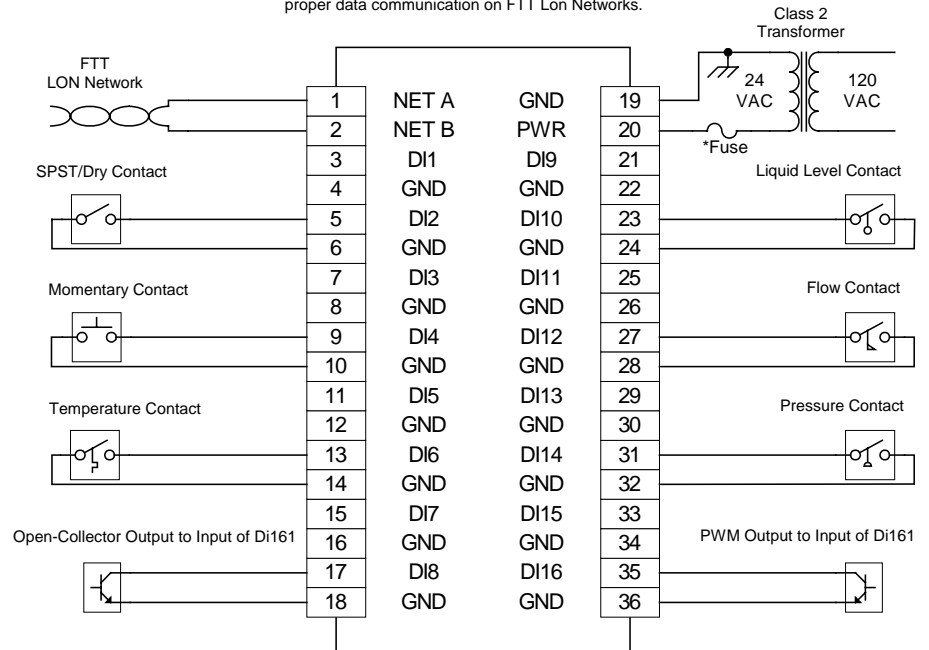
OPTION JUMPER SELECTIONS

There are no option jumpers on the Di161 that require jumpers for selection.

EXAMPLE WIRING DIAGRAM

IMPORTANT WIRING INFORMATION

- Secondary of Class 2 transformer should always be earth grounded to provide reliable communication and input readings.
- *External fuse not supplied. Size fuse according to application load and not to exceed 5 Amps.
- Twisted-pair unshielded cable with proper wire gauge and termination should be used to maximize distance and provide proper data communication on FTT Lon Networks.



DI1, DI3, DI5, DI7, DI9, DI11, DI13, DI15 are not connected to any device in this example.