Q-Mux™ Node (TCU-8)

Features

- Range: 5000 ft. from System 3505 Prism LX™ to node; additional 5000 ft. node to ID module.
- Addressable and programmable
- Low cost multiplex system
- High noise immunity
- Permits numerous inputs & outputs to share a single pair of wires.
- NFP-72 Compliant
- Will work with Systems 3505 Prism LX™; VersAlarm™ or MeshSentry™.

Specifications

Digitize Part Number:
425183-0004

Input Power:
10-14.V, 80 mA typical.
300 mA. Max (on T-Buss™ short).

Buss Capacity:
63 modules

Dimensions:
2.75 in. x 2.75 in. x 1.5 in.

Ports:
1 RS-232 Port
1 RS-485 Port
1 Firmware Programming Port

Operating Temperature:
32°F-165°F

Operating Humidity:
0-95%, non-condensing

Operating Environment:
Install in a dry, indoor environment.

Indicators:
2 sets of six leds. One set on the component side of pcb, on set on the solder side of the pcb. Leds indicate the presence of communication on the RS-485 port, the RS-232 port and the TBUSS.

System Overview:

The Q-Mux is a low cost multiplex system. Two wires are used to power and communicate serially to the ID modules (IDMs). Commands from the Q-Node to the ID modules take the form of modulating the Buss voltages between 0 and 10v. The data returned from the modules is in the form of increased Buss current. Each Q-node can control up to 99 mix/matched ID modules. Up to 32 Q-Nodes may be used in one system. Total range of the Q-Mux system is 5,000 feet from the System 3505 Prism LX™ and or VersAlarm™ to the last Q-Node and up to 5,000 feet from the Q-Node to the last ID module. ID modules may be set to any address from 1 to 99. Addresses are stored on an internal EEPROM and can be changed by the Q-Mux Programmer.

Qnode Controller PCB

Product Description:

The Q-MUX Node is a microprocessor based central polling controller Buss interface. The Q-MUX Node drives the Multiplex loop, and communicates with the modules along the buss. It communicates with the master controller through serial port communication.

The Q-MUX Node sends commands to, and receives data from, the ID modules. In turn, it sends the data to, and receives commands from, the System 3505 Prism LX™. Up to 32 Q-MUX Nodes may be installed in one system. Total wire run from the System 3505 Prism LX™ to the last Q-MUX Node is 5,000 ft. with 24 AWG.

Programming:

The Q-MUX Node can be set to any address from 1-32. The address is stored internally in an EEPROM. It is shipped pre-programmed to address #1. Changing the Q-Node address is accomplished with a computer and the Q-Node Utility program.

ADDITIONAL INFORMATION

Typical Q-Mux System.
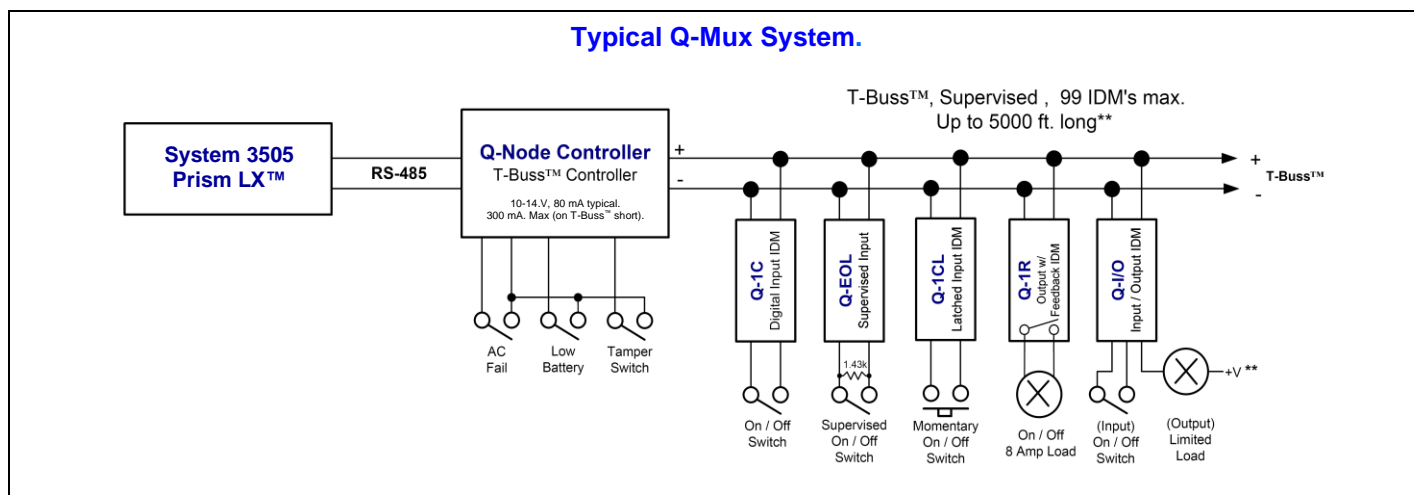
Partial List of Addressable Modules for the Q-Mux System.

Q-EOL   Part Number: 425182-0006
Addressable module for monitoring dry contact closure. Requires user supplied 1.43 K-ohms resistor for supervision across input contacts. This is the required module for monitoring fire alarm contacts.

Q-1R ID Module   Part Number: 425182-0004
Q-1R Addressable module that provides magnetically latching relay contact output under control of the System 3505 via Q-Mux Node. Relay activation is maintained without power. If Q-Mux system is reset, relay will return to Normal state.

Q-1C   Part Number: 425182-0008
Digital addressable module for monitoring dry contact closure. No EOL resistor required.

To see a complete list of the components available for the Qmux System and a detailed explanation of how to integrate it into your applications, see Manual PN 700226-0001.

Consult Distributor or Factory Prior to Ordering.

Q-I/O   Part Number: 425182-0001
Addressable module that combines features of the Q-1C with an open collector output transistor that may be used to control an indicator LED. No EOL resistor required.

Q-1CL   Part Number: 425182-0003
Latching addressable module for monitoring fast-acting momentary dry contacts. No EOL resistor required.

Q-SNP-EOL-O/C   Part Number: 425182-0009
Addressable module for monitoring dry contact closure. Same as Q-EOL in function but Q-SNP-EOL-O/C plugs into Q-SNP Motherboard.

Q-SNP-RLY-FORMC   Part Number: 425182-0010
Q-1R Addressable module that provides magnetically latching relay contact output under control of the System 3505 via Q-Mux Node. Relay activation is maintained without power. Same as Q-RLY in function but Q-SNP-RLY-FORMC plugs into Q-SNP Motherboard.