

## Q-MUX<sup>™</sup> Modules Q1C, Q-1CL & Q-I/O



### Features:

- Range 6,000ft. to node; additional 6,000ft. from node to contact
- Addressable and Programmable
- Low cost multiplex system
- High noise immunity
- Permits numerous inputs and outputs to share a single pair of wires
- FM approved
- NFPA 72 compliant

### Specifications

**Buss Duty Cycle:**  
50%-100%

**Buss Current:**  
5u typical @7v ; 60u@  
10v

**Sub-Loop Current:** 0 -  
15mA@10v

**Module Wire Length:**  
8.0in. (+/- .5in.)

### Product Description

The Q-Mux<sup>™</sup> modules are compatible with the Digitize Q-Mux<sup>™</sup> Multiplex system. All M Q-Mux<sup>™</sup> ID modules connect to the Q-Mux<sup>™</sup> buss and to the contact that is to be monitored or controlled.

The Q-Mux<sup>™</sup> buss is the Digitize low-cost multiplex system. Two twisted wires are used to power the ID Modules, to send commands to the modules and to receive their data. The commands from the central polling controller to the ID modules take the form of modulating the Q-Mux<sup>™</sup> buss voltage between 0 and 10v. The data returned from the modules is in the form of increased Q-Mux<sup>™</sup> buss current.

### The Input Modules

The Q-1C and Q-1CL modules provide a direct interface between digital inputs and the Q-Mux controller. The Q-1C module can be programmed at the System 3505 to respond to normally open (NO) or normally closed (NC) inputs.

Any floating contact can be read by the Q-1C. A momentary input is latched by the Q-1CL until read and reset by the System 3505. The Q-1CL emulates the response of the standard, real-time Q-1C module. The external contact is connected to an internal latch in the Q-1CL. The Q-1CL can interface directly with fast acting momentary dry contacts.

### The Input/Output Module

The Q-I/O Module provides a direct interface between digital inputs (contact closures) and the Q-Mux controller. It also provides a digital output that can be used to turn on/off an LED indicator. Power to the LED can either be provided from the Q-Mux Buss (with some limitations), or from a tired conductor.

### Programming

The Modules can be set to any address from one to 63. The address is stored internally in an EEPROM and can be changed via the Q-Mux Programmer.



