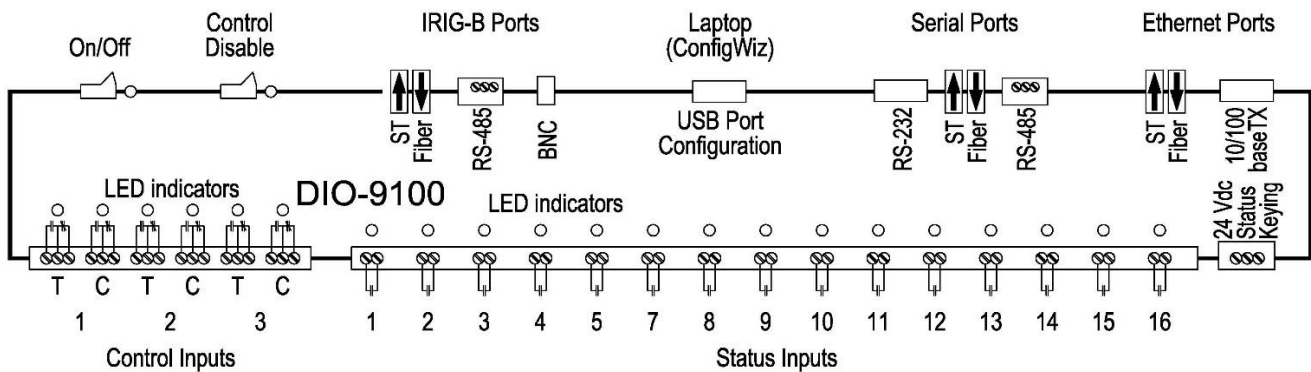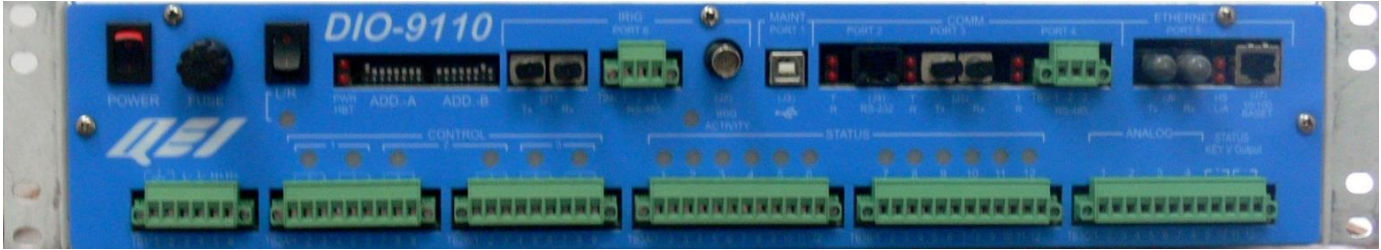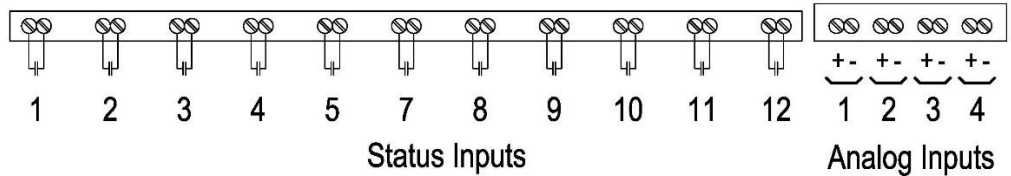# DIO-9100/9110 Distributed I/O

Distributed I/O Within the Substation or on the Distribution Feeder

The QEI DIO-9100/9110 will interface with status, analog, control and accumulator points within your substation, or beyond, using hardwired inputs and industry standard protocols such as **MODBUS or DNP3.** Able to be mounted within your substation 19" racks, or within pole-top enclosures out on the distribution feeder. It can serve as a cost effective, general purpose RTU or data concentrator for an IED throughout your system.

The DIO-9100 provides status, control and IED I/O, while the DIO-9110 can additionally support standard Transducer-based analog inputs. Configuration is with our Windows® based ConfigWiz®.

- *Cabinet or Rack Mounted, 2U*

- *Able to use DNP3 or Modbus Protocol (Client and Server)*

- *Expandable to include DC Analog Inputs*

- *Configuration through ConfigWiz 2.0® and 1.0® Windows Software*

- *Front Panel LED Indicators for easy assessment of operation*

SPECIFICATIONS

Control Outputs	3 control points (each with 2 momentary or 1 latching relay) Form C contacts, 10 amps @ 28 Vdc/120 Vac Optional momentary relays: Form A contacts, 10 amps @ 130 Vdc Highly secure select-before-operate (SBO) controls Internal log file of any failed controls and locally initiated controls
Status Inputs	16 contact inputs (configurable as pulse accumulators) optically isolated 1 msec Sequence-of-Events (SOE) time tagging 24 Vdc keying voltage generated by the DIO-9100/9110
Analog Inputs	4 analog inputs (with 12 status inputs) (DIO-9110 only) +/- 0-1 mA dc, or 4-20 ma, 0-5 Vdc standard scaling

Communication Ports	Network: 10/100BaseTX, 100BaseFX Multi-Mode (ST Connectors)
	Serial: RS-232 (RJ45 Connector)
	          RS-485 (Terminal Block)
	          Multimode Fiber Optic (ST Connector)
	          Fiber, RS-485 and BNC IRIG-B input for internal clock synchronization
	USB Port for local laptop/PC configuration

Server Protocols	DNP3 or Modbus. Maximum of one (1) server protocol.
Client Protocols	DNP3 or Modbus. Maximum of one (1) client protocol.
Power	12-24 Vdc, 48-130 Vdc, 120-277 Vac 50/60 Hz, 50 watts
LED Indicators	16 status input indications 6 control relay state indications Serial, Ethernet & IRIG-B port activity indications Local control disable switch indication Power On/Off indication
Physical	3.5"H x 17"W x 5"D metal enclosure, surface/19" Rack/DIN Rail mounting
Environment	-40° to +85°C, (-40° to 185°F) 0-95% humidity (non-condensing)