



The rugged NovaTech Distributed Discrete I/O Module (DDIO) can help reduce wiring and costs in substation monitoring and control applications. Its hardened design, small form factor, and distributed communications capability allow it to be installed virtually anywhere in the substation.

Distributed DDIO modules can be wired back to any RTU or PLC supporting the DNP3 protocol using an RS-232, RS-485, fiber optic or Ethernet connection.

Combinations of up to 24 inputs or outputs are provided to meet specific requirements.

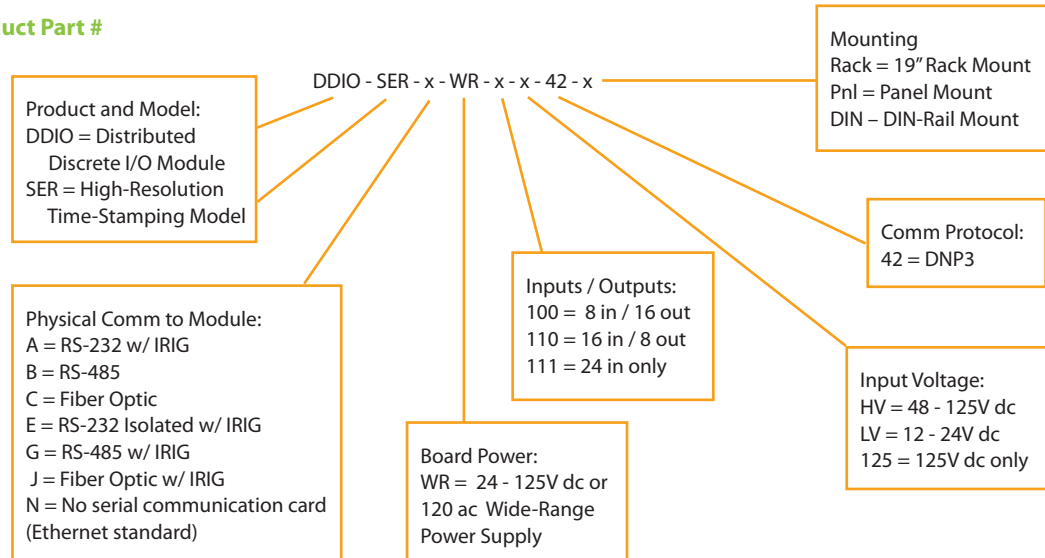
The DDIO also offers high resolution (1ms) time-stamping, an IRIG-B port, and independent input circuits in an enclosed package.

Customized input and output labels can be inserted into the front panel.



16 in / 8 out Distributed Discrete I/O Module, Panel or DIN-rail mount

Product Part #



Inputs/Outputs 16 in / 8 out, 8 in / 16 out or 24 in @ 12, 24, 48 or 125V dc (+/- 20%).
Other configurations available by special order.
Input circuit draw: 2mA
Output relays: Heavy duty protective relay-grade 10A for direct connection to circuit breaker trip coils
Removable Phoenix Type Screw Terminals, 12 to 24AWG

Environmental and Immunity Operating Temperature Range: -20 to +70°C; Tested to IEEE C37.90.1, 2 and 3 surge

Comm. Protocol DNP3 to module for status and control. Unsolicited Report-by-Exception (URBE) supported; Set Time on module supported; Serial baud rate set up to 57.6kb, Ethernet 10/100M Baud rate

Configuration Simple Mode: Set address and comm parameters with DIP switches. Advanced Mode: Set advanced comm parameters through webpages served from module

Mechanical 10 Million no load operations

Make 30A @ 180V dc per IEEE C37.90

Breaking Capacity (10,000 operations) .3A at 125V dc per IEC 60255-0-20:1974

Cyclic Capacity (2.5 cycles/second) .3A at 125V dc per IEC 60255-0-20:1974

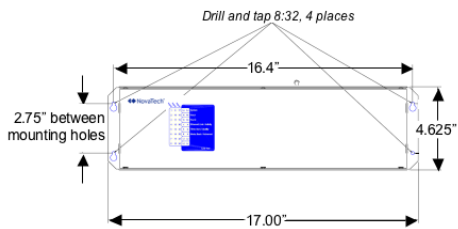


Physical Ports

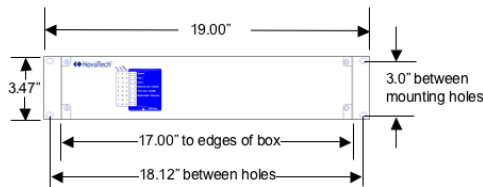
	Physical Ports on DDIO Module				
	Built-In RS-232 DB9F	Built-In Ethernet Port RJ45 Style 10/100BaseT	RS-485 Type B Screw Terminals Two-Wire or Four-Wire or Fiber Optic Type C ST Connector	RS-232 Type A DB9F or RS-485 Type G Screw Terminals Two-Wire or Fiber Optic Type J V-Pin Connector	IRIG-B or 1PPS Screw Terminal
Data Communications to DNP3 Master		X	X	X	
Time Synchronization		X (using NTP)		X	X
Online Diagnostics	X	X			
Configuration		X			

Dimensions and Mounting

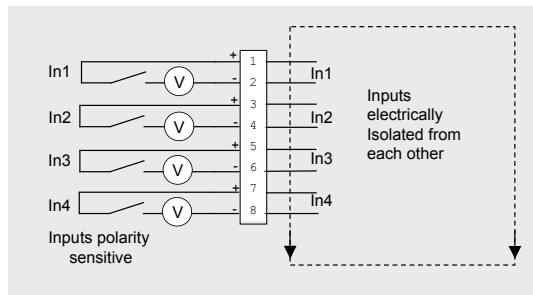
Dimensions for panel and DIN-rail mounting:
(17.00" wide x 4.625" high x 3.50" deep)



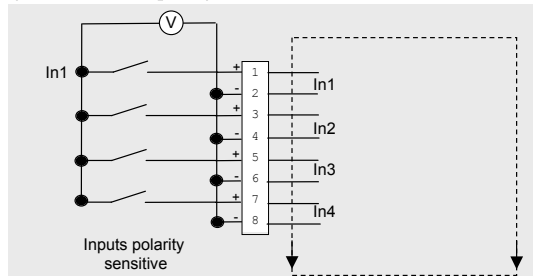
Dimensions for 19" rack mounting:
(19" wide x 3.47" high x 7.00" deep)



Circuit Diagram



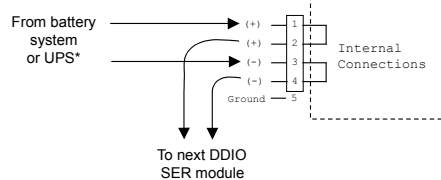
Input circuit showing independent and isolated circuits



Input circuit showing bussed connections for providing wetting voltage

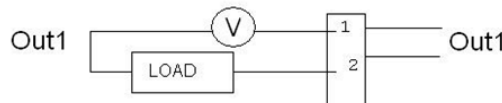
DC Power Input
19VDC to 145VDC
(24VDC or 125VDC nominal)

Also Supports
115VAC nominal



*Module internally fused

Circuit Diagram – Outputs



Contact: