

16DI Digital Input Module

for the MOSCAD RTU

FEATURES

The 16 Digital Input module is an accessory to the MOSCAD RTU family that allows up to 16 dry-contact closures, from switches or relays in other on-site equipment, to be connected to the RTU. Examples include site or equipment door switches, centrifugal switches on motors, equipment malfunction switches, and tank float switches.



Data Input

Under the control of the defined Application Program, the CPU module will read the current instantaneous status of one or more of the 16 inputs. It will move that data from the 16DI module into the CPU module via the motherboard.

◆ *This data may then be used by the Application Program to perform the desired functions.*

High-Speed Counter Inputs

Two additional inputs are provided for counting high-speed events. A closure connected to these inputs increments an on-module value accumulator, rather than just toggling a bit.

◆ *These two inputs may be used to count some high-speed event; the CPU module may then further process the counted event data as required by the Application.*

Low-Speed Counter Inputs

Each of the 16 digital inputs may be used as low-speed counter inputs if desired. The totalizing will be done within the CPU module under Application control.

◆ *Any number of counter inputs are easily obtained.*

Time-Tagging

Any of the 16 digital inputs may be defined to tag the time of the input event with one millisecond accuracy.

◆ *This time may then be read and used in sequence-of-event actions, etc. or used later for historical reports.*

Optical Isolation

All inputs are protected by optical isolators on the module.

◆ *Surge Withstand Capability (SWC) conformance is assured for the safety of the equipment and technicians.*

Packaging

The module is packaged in a plastic housing that plugs, and locks, into the motherboard. Wire connections (up to 14 ga. wire) are made to removable connectors on the face of the module. No jumpers, calibration pots, etc. are located on the module (any calibration is done electronically via software from the ToolBox program.)

◆ *Modularity allows the MOSCAD RTU to be easily expanded as system wants and needs change and makes field module replacement quick and easy.*

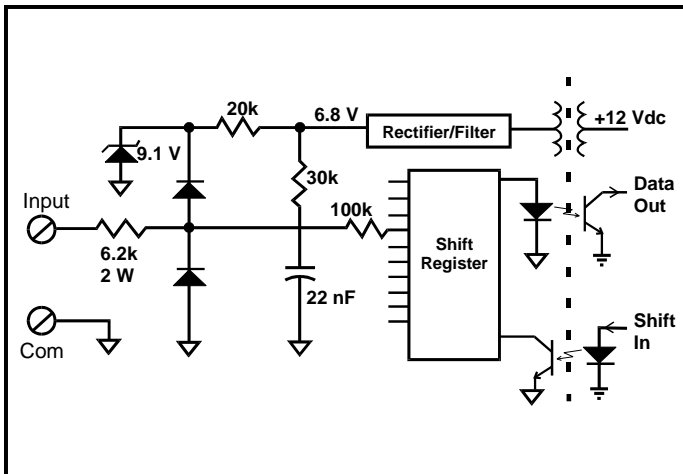


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Specifications

Order	Plant Installed: V115 Field Installed: FRN1420
Input Type	Digital: 16; may be counters (50 Hz or less) Counter: 2; up to 10 kHz (50 μ sec minimum pulse width)
Input Source Resistance	Close: <4 k Ω Open: >70 k Ω
Input Isolation Input Protection	On-board DC/DC converter; Optical isolation 5 kV fast-transient surge and 2.5 kV oscillatory SWC per ANSI C37.90.1-1989
Diagnostic	20 LEDs: 16 for digital inputs, 2 for counters, 1 each for Module Fail and No Clock
Power	5 Vdc: 15 ma 12 Vdc: 25 ma (65 ma when diagnostic LEDs are on)
Environment	Humidity: 0 to 90% @ +50°C Temperature: -30 to +60°C

Typical Input Circuit



Connections Chart

Term	Function	Term	Function
1	Counter1	11	Input8
2	Counter2	12	Input9
3	Input1	13	Input10
4	Input2	14	Input11
5	Input3	15	Input12
6	Input4	16	Input13
7	Input5	17	Input14
8	Input6	18	Input15
9	Input7	19	Input16
10	common	20	common



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