

EDAM-4251A

10 DI (Wet) , 4 DO channels
and 2 counter channels module



Main Features

- ◆ 2-ports(RJ-45) Ethernet 10/100 Based-T Comm.
- ◆ Daisy chain connection with auto-bypass protection
- ◆ Support Modbus/TCP,TCP/IP,UDP,ICMP,ARP
- ◆ Support Automatic DIO Sync.(peer-to-peer).
- ◆ DO Auto-Off Time Mode.
- ◆ Support 4 Isolated digital output channels (NPN).
- ◆ Support 10 Isolated digital Input Channels(**Wet**)
- ◆ 2 counter (4.5 KHz) input channels
- ◆ Fully Photo-Isolation 3750Vrms
- ◆ Protocol: ASCII Format & Modbus TCP

■ Introduction

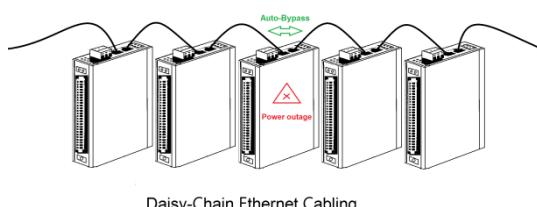
The EDAM-4251A is a high-density I/O module built-in two ports(RJ-45) 10/100 based-T interface for seamless Ethernet connectivity. It provides 10 Isolated digital input(**Wet Contact**) , 2 counter channel and 4 digital output channels with 3750VRMS Isolating protection. All of the Digital Input channels support input latch function for important signal handling. Mean while, these DI channels allow to be used as 300Hz(DI0~9) / 4.5KHz(C0~C1) counter. Opposite to the intelligent DI functions, the Digital Output channels also support pulse output function.

■ Features

◆ Daisy Chain Networking and Auto-Bypass Protection

Daisy chain connectivity offers flexible cabling and space saving capabilities. With Ethernet auto-bypass function supported, it prevents accidental power failure if one of the module's unexpectedly shuts down.

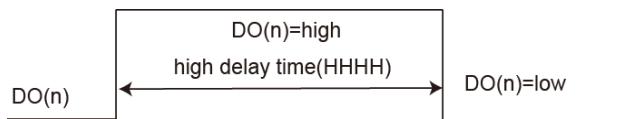
EDAM-4200 Series



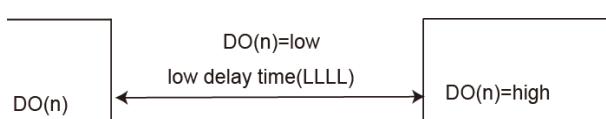
Daisy-Chain Ethernet Cabling

◆ DO Auto-Off Time Mode.

✓ Low to High to Low DO(n) pulse output

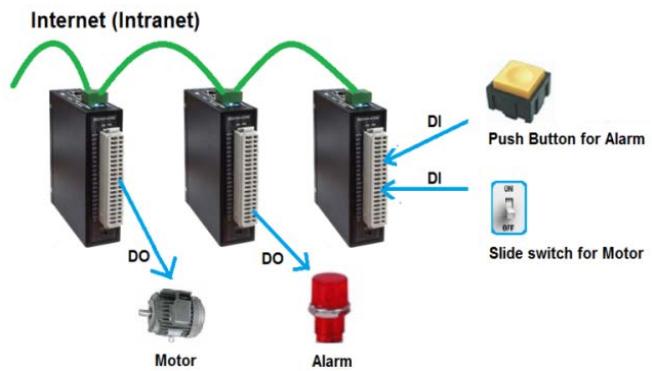


✓ High to Low to High DO(n) pulse output

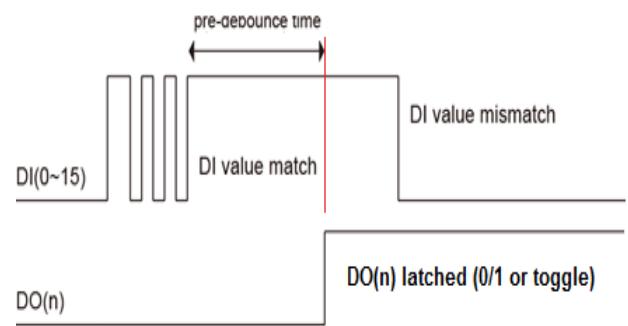


◆ Automatic DIO Synchronization (peer-to-peer)

EDAM-4251A module also provide a Automatic DIO Synchronization function. With peer-to-peer networking, users can define the mapping between a pair of EDAM-4200 series modules so that input values will be directly transferred to output channels. A single digital output channel (Local/Remote device) is activated(1/0 or toggle) dependent on the digital input channels state data pattern. When the specified DI channels state data pattern changed from "Match" to "Not-match" the corresponding DO will be set to active(1 or 0)



✓ DIO Synchronization: DI match/mismatch DO latch mode



■ Specifications

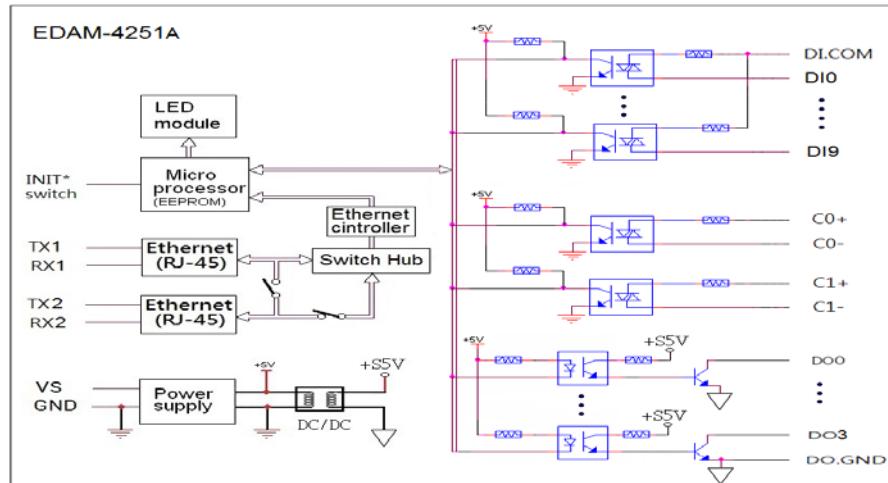
- ◆ Interface: 2-port(RJ45) Ethernet 10/100 Based-T comm.
- ◆ COMM.: Support TCP/IP, UDP, ICMP, ARP
- ◆ Daisy chain connection with auto-bypass protection
- ◆ Protocol: ASCII Format , Modbus/TCP
- ◆ Isolation Digital Input: Single ended (Wet contact)
 - Channel: 10 channels (DI0~DI9)
 - Input Level: Logic level status can be inversed via ASCII/Modbus command.
 - Wet Contact : Common source/ground.
 - ✓ Logic level 0 (active) : +5V to +30VDC
 - ✓ Logic level 1 (inactive): +2 Vdc max.
 - Input Impedance: 2K ohm
 - Counter input: 300Hz counter input (32-bit + 1-bit overflow)
 - Optical Isolation Voltage: 3750Vrms
- ◆ Counter:
 - Channel: 2 (C0=DI12, C1=DI13)
 - Input level:
 - Logic level 0 (active) : +5V to 30VDC max
 - Logic level 1 (inactive) : +2 Vac max
 - Maximum Count: 4,294,967,285(32 bit)
 - Input Impedance: 2K ohm .

- Input frequency: 4500 Hz max.
- Optical Isolation Voltage: 3750Vrms
- ◆ Isolation Digital Output :
 - Digital Output: isolated Open collector (NPN) .
 - Channel: 4 channels (DO0~DO3)
 - Output logical level: Logic level status can be inversed via ASCII/Modbus command.
 - Open Collector to +5 ~ 30V / 500 mA max load.
 - Each channel supports 300Hz pulse output
 - Optical Isolation Voltage: 3750Vrms
- ◆ Display:
 - Command status LED indicator.
 - 10 digital inputs & 4 digital output status LED
- ◆ Power Requirement:
 - Power Consumption: 3.5 W (Typical)
 - Power Input: +10 ~ +30 VDC
- ◆ Operating temperature: -10 ~ 70° C (14 ~ 158° F)
- ◆ Storage temperature : -25 ~ 85 °C (13 ~ 185 °F)
- ◆ Humidity : 5 ~ 95% RH, non-condensing

■ Ordering Information

EDAM-4251A: 10-ch DI , 2 counter & 4-ch DO TCP Module.

Block Diagram



Wire Connection

