

4DOt-2AO IOM module

4 digital triac & 2 analogue outputs for local or remote serial connection to a JACE® controller

Overview

The IOM range of I/O modules are designed for use as local I/O within motor control cabinets or as remote I/O connected via RS485 Modbus. Typical applications include building automation control systems. The arrangement of wiring terminals and the mixture of triac and analogue outputs make this module ideally suited for connection to 24vac thermic terminal valve actuators and 0-10vdc modulating valve actuators in room and zone control applications.

The 4DOt-2AO module provides 4 independent 24vac/0.5A rated triac output channels each with a green LED to indicate the current status of the connected device. The module also has 2 analogue output channels. Each analogue output has a yellow LED.

The IP20 rated module may be plugged together with other IOM modules and fitted onto standard TS35 DIN rail or fitted directly onto a backplate using screw fixings. The cascadable design allows power and 2-wire RS485 Modbus communications to connect through without any extra wiring.

Modbus address setting is by rotary switches which are easily accessible underneath the top cover. A bi-colour LED indicates the communications status. The 4DOt-2AO module has one 2-wire RS485 port supporting a Modbus communications network connection to a JACE® controller.



Key features

- DIN rail or direct mounting
- 24v ac or dc power operation
- 4 digital triac outputs with 0.5A rating
- 2 analogue outputs 0 to 10v dc
- RS485 2-wire Modbus open communications
- Easy address setting using rotary switches
- Bi-colour LED for module status information
- Short circuit protection on all outputs
- Green LED digital output status indication
- Yellow LED analogue output indication
- Configurable output condition on comms failure
- Configurable baud rate setting



Specifications

Digital triac output data:

- number of outputs / rated switching voltage 4 / 24v ac
- rated / inrush current (resistive load) 0.5A / 1A

Analogue output data:

- number of outputs / output range 2 / 0v to 10v dc
- load resistance / max load per channel >1,000Ω / <10ma
- resolution / conversion error 10mv / ± (30mv + 2% of measured value)
- 24v ac output actuator supply (per channel) <0.5A short circuit protected

LED status indication:

- per analogue output yellow: intensity relative to output voltage; V<1.5v=off
- per digital triac output green: on or off
- module status bi-colour: red / green

Bus data:

- bus protocol Modbus RTU
- bus interface RS485, half duplex, non isolated
- bus topology multidrop
- bus length maximum 500m
- bus speed 19,200 bps
- bus line termination integrated termination resistor (220Ω); activate via jumper (default: off)
- bus protection built-in transient protection
- bus connector pluggable male & female integrated connectors (modules mounted with zero spacing)
- bus cabling Shielded Twisted Pair (STP)

General data:

- module (only) power supply 20v to 28v ac or dc
- module (only) current 130ma ac or 46ma dc (@24v ac excluding triac and analogue output current)
- resettable fuse v / i(max) / i(hold) / i(trip) 24v ac / 2A / 2.5A / 5A (@23°C) - (fused supply for triacs and analogue outputs)
- operating temperature range 0°C to +50°C
- storage temperature range -20°C to +70°C
- CE marking Low voltage directive (LVD) 2006/95/EC according requirements of EN 50178
EMC directive 2004/108/EC according requirements of EN 55011 and EN 61326-1
- conductor cross section 0.2mm² to 2.5mm² screw clamp connection
- insulation stripping length 6mm
- mounting DIN-rail TS35 (35mm x 7.5mm) or direct mounting by M3 fixing
- installation position any
- assembly up to 15 in a row with zero spacing
- module size (l x w x h-TS35 / direct) 71mm x 95mm x 60mm / 58mm
- insulating material / flammability class Housing: Noryl. Terminals: Polyamid 6.6 V0 / UL94-V0
- protection degree (DIN 40050) IP 20
- installation guide for mounting and I/O wiring details;
please refer to the IOM Installation guide
for Modbus communications details;
please refer to the IOM Module
Communications guide
- communications guide



How to Order

Product Code

Description

IOMDAO 4 Digital Outputs (Triac) + 2 Analogue Outputs

Copyright © 2013 Tridium. All rights reserved ®. Tridium, Niagara, NiagaraFramework, JACE and Security are trademarks or registered trademarks of Tridium. Other marks are the properties of their respective owners. All specifications subject to change without notice or liability to provide changes to prior purchasers. Information and specifications published here are current as of the date of publication of this document. Tridium reserves the right to change or modify specifications without prior notice.

TRIDIUM®

Tridium Europe Ltd

1 The Grainstore, Brooks Green Road, Coolham, West Sussex, RH13 8GR, UK
Telephone: +44 (0) 1403 740290 www.tridumeurope.com

Page 2/2
TridiumEuropeIOM4DOT2AOS_v2