

# 4DO IOM module

## 4 x 16A digital relay 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 4DO module provides 4 independent 250vac/16A rated digital relay output channels each with change over contact configuration. Each digital output has a yellow LED which indicates the current status of the connected device.

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 cascable 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 4DO 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 outputs with change over contacts
- 16A resistive load with high inrush current
- RS485 2-wire Modbus open communications
- Easy address setting using rotary switches
- Bi-colour LED for module status information
- Yellow LED output status indication
- Configurable output condition on comms failure
- Presetable hours on and hours off counters



## Specifications

### Digital output data:

- number of outputs 4
- rated switching voltage 250v ac
- rated / inrush current (resistive load) 16A / 80A (20mS)
- maximum power rating 4,000VA
- maximum total module current 32A
- electrical life expectancy at rated / 4A load 1 x 10<sup>5</sup> cycles / 7 x 10<sup>5</sup> cycles @ 23°C & resistive load
- mechanical life expectancy 30 x 10<sup>6</sup> cycles
- maximum switching frequency 6 min<sup>-1</sup> at rated current; 1,200 min<sup>-1</sup> at no load
- contact material AgSnO<sub>2</sub>
- isolation test voltage (coil to contact) 4 kV
- output relay contact configuration channels 1,2,3 & 4: change over contacts

### LED status indication:

- per digital output yellow: 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:

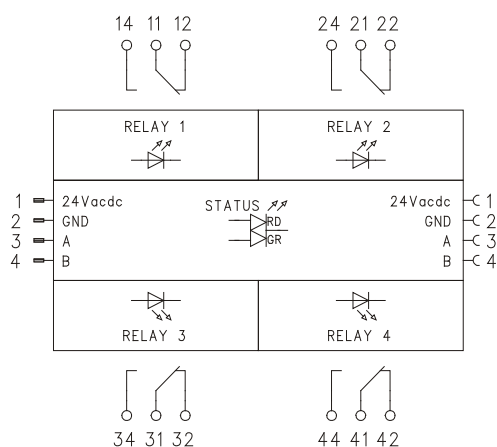
- module power supply 20v to 28v ac or dc
- module current 250ma ac or 100ma dc
- operating temperature range 0°C to +50°C
- storage temperature range -20°C to +70°C
- CE marking Low voltage directive (LVD) 2006/95/EC according requirements of EN 50178  
EMC directive 2004/108/EC according requirements of EN 55011 and EN 61326-1
- conductor cross section 0.2mm<sup>2</sup> to 2.5mm<sup>2</sup> 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) 53mm 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
- communications guide for Modbus communications details please refer to the IOM Module Communications guide

## How to Order

**Product Code**

**Description**

**IOMDOP** 4 Digital Outputs (16A rated relays)



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