

10DI IOM module

10 digital inputs 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 IOM 10DI module supports 10 independent digital inputs with input voltages up to 24v ac or dc. The module also provides a voltage source that can be used for applications using 'volt-free' contacts. Each digital input has a pulse counting capability for use in metering applications. Each input channel has a configurable bi-colour LED to indicate 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 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 10DI 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
- 10 digital inputs 24v ac or dc
- Voltage source for inputs available
- Pulse counting up to 20Hz
- RS485 2-wire Modbus open communications
- Easy address setting using rotary switches
- Bi-colour LED for module status information
- Configurable bi-colour LED input status indication
- Configurable input channel 'sense'



Specifications

Digital input data:

	24v ac (12v to 28v):	24v dc (10v to 30v)
number of inputs	10	10
logic '0'	<2v	<3v
maximum pulse frequency	10Hz	20Hz
minimum pulse width	50ms	15ms
input resistance	60k Ω	60k Ω

Voltage source for inputs:

10v to 32v dc at 5ma maximum (to be used only for the inputs on this module)

LED status indication:

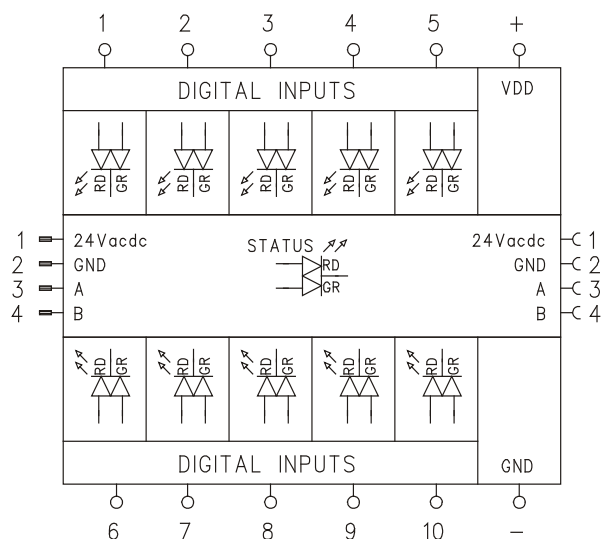
per digital input	bi-colour (software configurable): red, green or off
module status	bi-colour: red / green

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 (220 Ω); 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	75ma ac or 30ma dc
operating temperature range	0°C to +50°C
storage temperature range	-20°C to +70°C
CE marking	EMC directive 2004/108/EC according requirements of EN 55011 and EN 61326-1
conductor cross section	0.2mm ² to 2.5mm ² 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

IOMDIP 10 Digital Inputs with LED status indication

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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
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