

Product Overview

The Vykon HVAC 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.

The Vykon HVAC 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 bi-colour LED which indicates the current status of the connected device.

The IP20 rated module may be plugged together with other modules on standard TS35 DIN rail or direct mounting; 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.

Connectivity

The 10DI module has one 2-wire RS485 port supporting a Modbus communications network connection to the JACE® controller.

Engineering

Configuration and engineering of the 10DI module is performed using Vykon HVAC.

Typical applications

Typical applications include building automation control systems.

Vykon HVAC Digital input module 10 DI DATA SHEET



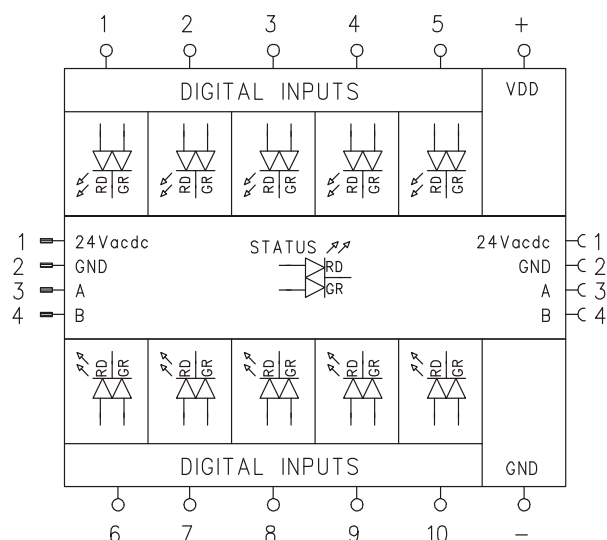
Features

- 10 digital inputs 24v ac or dc
- DIN rail or direct mounting
- 24V ac or dc power operation
- Supports RS485 2-wire Modbus Open Communication network
- Easy address setting using rotary switches
- Bi-colour LED for module status information
- Bi-colour LED status indication per input

Vykon HVAC

Digital input module 10 inputs 24v ac/dc

Ordering information: VY-10DI



Input data:

number of inputs
rated input voltage
logic '0'
maximum frequency
nominal sample time
minimum pulse width
input impedance

ac:

10
24v (12v to 28v)
<2v
10Hz
20ms
50ms
60,000Ω

dc:

10
24v (10v to 30v)
<3v
10Hz
20ms
50ms
60,000Ω

Voltage source for inputs:

10v to 32v dc at 5ma maximum (voltage depends on load)

LED status indication:

per digital input
module status

bi-colour: red; green or off. status: normal or inverted
bi-colour: green-normal operation; blinking red-communications error

Bus data:

bus protocol
bus interface
bus topology
bus length maximum
bus nodes maximum
bus speed
bus line termination
bus protection
bus connector
bus split connector (not included)
bus cabling

Modbus RTU
RS485, half duplex, non isolated
multidrop
500m
64
19,200 bps
integrated termination resistors, activate via jumper (default: off)
built-in transient protection
pluggable male & female integrated connectors (modules mounted with zero spacing)
pluggable male or female screw connector. 0.2mm² to 1.0mm² insulation stripping length 7mm
twisted pair (use STP in industrial environments)

General data:

module power supply
module current
protection circuit
operating temperature range
storage temperature range
DIN-VDE regulations
electromagnetic compatibility
conductor cross section
insulation stripping length
mounting
installation position
assembly
module size (l x w x h)
isolating material / flammability class
protection degree (DIN 40050)

20v to 28v ac or dc
75ma ac or 30ma dc
reverse power supply voltage protection
0°C to +50°C
-20°C to +70°C
DIN-EN 50178: 1997 / DIN-VDE 0110 pollution degree 2, over voltage category III
CE in compliance
0.2mm² to 1.5mm² screw clamp connection
6mm
DIN-rail TS35 (35mm x 7.5mm) or direct mounting by M3 fixing
any
up to 15 in a row with zero spacing
53mm x 95mm x 60mm
Housing: Noryl. Terminals: Polyamid 6.6 V0 / UL94-V0
IP 20