

Vykon HVAC I/O Modules - Summary DATA SHEET

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 wide variety of modules enables cost-effective use in a range of applications, and LED's plus Hand/Off/Auto switches on some varieties help with commissioning. The IP20 rated modules may be plugged together on standard DIN rail or direct mounting; the cascadable design allows power and 2-wire RS485 Modbus communications to connect through without any extra wiring.

Connectivity

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

Engineering

Configuration and engineering of each module is performed using Vykon HVAC.

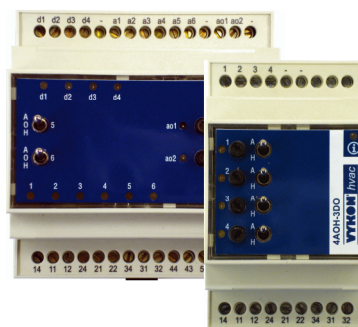
Module varieties

The following module varieties are available:

- 10 Digital Input
- 8 Analogue Input
- 4 Digital Output
- 4 Analogue Output & 3 Digital Output
- 6 Digital Output & 12 Digital Input
- 2 HILO Output
- 4 DI, 6AI, 6DO, 2AO Multi-function
- Power & RS485 connection - CON

To simplify wiring and reduce the risk of misconnection it is recommended that the CON module is used in association with I/O modules.

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Features

- 7 different Digital Input, Digital Output, Analogue Input, Analogue Output I/O module varieties
- Multi-function I/O module varieties available
- Power and communications connection to each module supplied from the CON module
- CON module provides protected RS485 communications for up to 15 I/O modules
- DIN rail or direct mounting
- 24V ac or dc power operation
- Supports RS485 2-wire Modbus Open Communication network
- Failsafe operation with outputs set to pre-defined state when communication is lost
- Easy address setting using rotary switches



General data:

module power supply	20-28V AC/DC
module current	275 mA AC / 110 mA DC
protection circuit	reverse power supply voltage protection
operating temperature range	0°C - +50°C
storage temperature range	-20°C - +70°C
DIN-VDE regulations	DIN-EN 50178: 1997 / DIN-VDE 0110 pollution degree 2, over voltage category III
electromagnetic compatibility	CE in compliance
conductor cross section	0,2 - 1,5 mm ² screw clamp connection
insulation stripping length	6 mm
Mounting	DIN-rail TS35 (35mm x 7.5mm) or direct mounting
installation position	any
assembly	up to 15 in a row with zero spacing
isolating material	Housing: Noryl. Terminals: Polyamid 6.6 V0
flammability class	UL94-V0
protection degree (DIN 40050)	IP 20

Bus data:

bus protocol	Modbus RTU
bus interface	RS485, half duplex, non isolated
bus topology	multidrop
bus length maximum	500m
bus nodes maximum	64
bus speed	19,200 bps
bus line termination	integrated termination resistors, activate via jumper (default: off)
bus protection	built-in transient protection

Module I/O varieties:

Product reference	DI	AI	DO	DOH	AOH	Comments
10DI	10					bi-colour LED per input
8AI		8				input configuration via hardware configuration block
4DO			4			4 x change over contacts
4AOH-3DO			3		4	3 x change over contacts
6DOH-12DI	12			6		3 x change over contacts + 3 x normally open contacts
2HILO	8		4			4 x change over contacts configured as 2 HI-LO switching pairs
MULTI I/O	4	6	4	2	2	mixture module

Key to I/O types

DI	24v ac/dc or volt-free contact (VFC)
AI	0-10v or 0-20mA or resistive temperature detector (RTD)
DO	relay – 250vac, 16A resistive, max power rating 4,000va
DOH	relay – 250vac, 8A resistive, max power rating 2,000va with hand-off-auto switch
AOH	0-10v with hand-auto switch and adjustable setting potentiometer output

How to Order

VY- 10DI	- 10 Digital Inputs
VY- 8AI	- 8 Analogue Inputs
VY- 4DO	- 4 Digital Outputs
VY- 4AOH-3DO	- 4 Analogue Output and 3 Digital Outputs
VY- 6DOH-12DI	- 6 Digital Outputs and 12 Digital Inputs
VY- 2HILO	- 2 pair Digital Outputs with 8 Digital Inputs
VY- MULTI-I/O	- 4 Digital Inputs, 6 Analogue Inputs, 6 Digital Outputs and 2 Analogue Outputs
VY- CON	- 24v ac or dc and RS485 connector module

