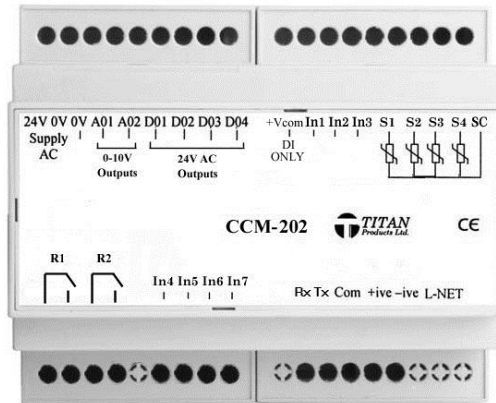
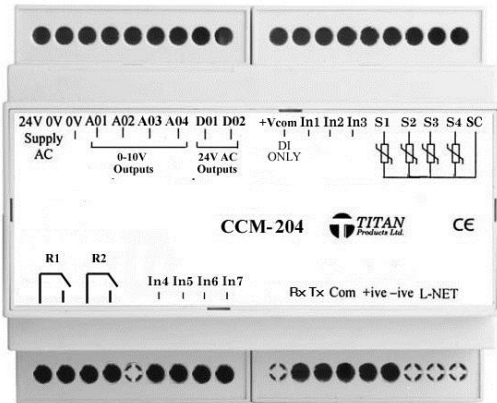


CCM-202 and 204 BACnet Intelligent I/O Modules



BACnet Enabled



DESCRIPTION

The CCM/IO intelligent modules are designed to provide low cost input and output points for system expansion when used as part of a BACnet BMS. The modules operate to Native BACnet standards on RS485 MS/TP communications.

All the CCM/IO inputs / outputs can be read / written to over BACnet MS/TP.

When used on a BACnet BMS network the CCM/IO can be used to control plant equipment such as actuators, valves and dampers while monitoring 4 x Titan 10K3 sensors.

FEATURES

- > 24V AC supply
- > Native BACnet communications
- > 2 or 4 x 0-10V outputs
- > 4 or 2 x 24V AC Triac outputs dependant on configuration
- > 7 x 0-10V Analogue inputs or use as Digital Inputs
- > Analogue input custom scaling
- > Change of Value reporting (COV)
- > Intrinsic reporting
- > 4 x Temperature sensor inputs 10K3 or Custom Profile
- > 2 x VF relays
- > Din Rail Mounting

SPECIFICATION

Supply	24VAC/DC
Power consumption	5 VA max
Triac outputs	350mA max
0-10V outputs	5mA max
Temperature Sensors	10K3A1 or Custom Profile
Analogue Inputs	0-10V
Digital Inputs	Voltfree
Relay output	240V 5 amp max.
Communications	Native BACnet
Network	MS/TP -RS485
Indication	Tx/Rx comm.'s
Enclosure	Din Mounting (IP20)
Enclosure Rating	L94-VO
Size	106 mm wide
	92 mm high
	62 mm deep

The CCM-204-IO and CCM-202-IO modules are part of the TITAN Products BACnet controller family and are fully compatible with the other controllers using Native BACnet communications.

PART CODES

CCM-202-IO	Temperature Controller with 2 x 0-10V outputs and 4 x 24V Triac Outputs
CCM-204-IO	Temperature Controller with 4 x 0-10V outputs and 2 x 24V Triac Outputs

Control Settings

The module inputs and outputs are pre- configured but they can be accessed and modified with the RDU or FPT-601 field programming tool or over the BACnet communications interface.

Controller Setting and Outputs

Description

Network	Native BACnet MSTP
Unit address	Sets the controller unit MAC address on MS/TP bus. Range 1 to 127 for a master
Baud Rate	Set communication baud rate Range Options: - 9,600 19,200 38,400 or 76,800
Dev Object ID	Allows the setting of the device object ID. Range 0 to 4194302

Note: - The CCM intelligent IO modules need to have the above settings programmed before connection to the BACnet network. To programme the above settings a RDU or FPT601 field programming unit is required.

Physical Inputs and Outputs

CCM202/IO

2 x 0-10V Analogue Outputs	0-10V outputs are rated at 5mA each
4 x Triac 24Vac Outputs	350mA switching capacity
4 x Temperature Sensor inputs	S1 to S4 Temperature sensor inputs are 10K3A1 Thermister. Optional input scaling is available via the FPT601.
7 x Analogue or Digital Inputs	Each of the inputs (In1 to In7) can be used as either analogue (0-10V) inputs or as digital voltfree switched inputs.
2 x Relay Outputs	The 2 independent Voltfree relays normally open contact and are rated at 240V 5amp maximum.

CCM204/IO

4 x 0-10V Analogue Outputs	0-10V outputs are rated at 5mA each
2 x Triac 24Vac Outputs	350mA switching capacity
4 x Temperature Sensor inputs	S1 to S4 Temperature sensor inputs are 10K3A1 Thermister. Optional input scaling is available via the FPT601.
7 x Analogue or Digital Inputs	Each of the inputs (In1 to In7) can be used as either analogue (0-10V) inputs or as digital voltfree switched inputs.
2 x Relay Outputs	The 2 independent Voltfree relays normally open contact and are rated at 240V 5amp maximum.

Temperature Sensor Inputs

Temperature sensor inputs include standard profiles for most commonly used Thermister Such as 10K3, 10K4, 20K6. They can also be used for resistive custom input profiles and potentiometers.

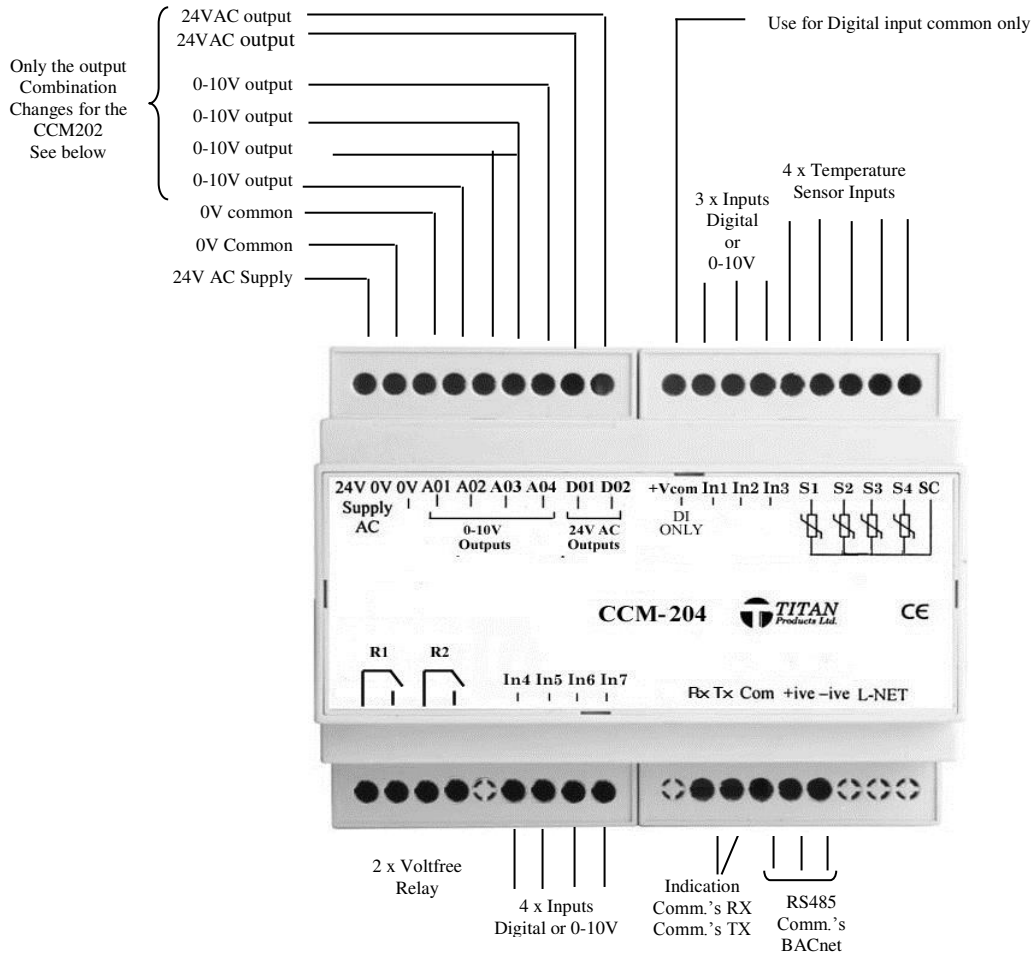
Analogue Inputs (up to 7 dependant on Digital Input use)

When the inputs are allocated to Analogue (0-10V) then the input signal is reference to the controller 0V supply.
The Analogue input profiles can be customised and pre-scaled with specific Unit labels

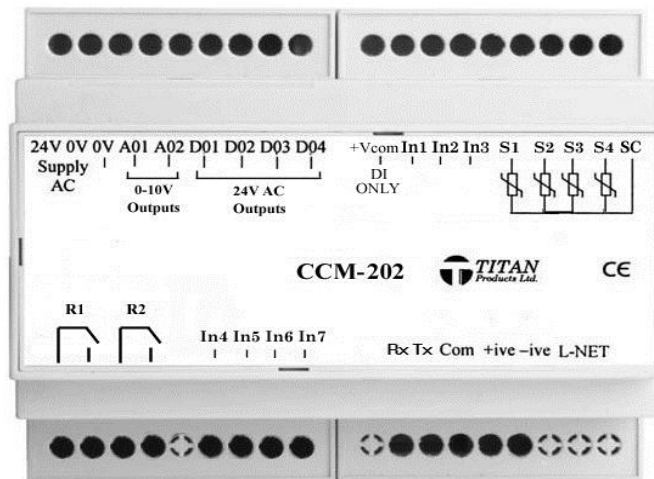
Digital Inputs (up to 7 dependant on Analogue Input use)

When used as Digital Inputs with voltfree switched contacts these inputs must be referenced to the controller DI Com:-
The Digital Inputs can be used for Status or pulse counting.

CONNECTION DIAGRAM CCM-204 (4x 0-10V outputs & 2 x 24V AC triac outputs)



CONNECTION DIAGRAM CCM-202 (2x 0-10V outputs & 4 x 24V AC triac outputs)



15 Latham Close
Bredbury Park Industrial Estate
Bredbury
Stockport SK6 2SD
Tel: +44 (0161) 406 6480
Fax: +44 (0161) 494 8309
Email: admin@titanproducts.com
Website: www.titanproducts.com