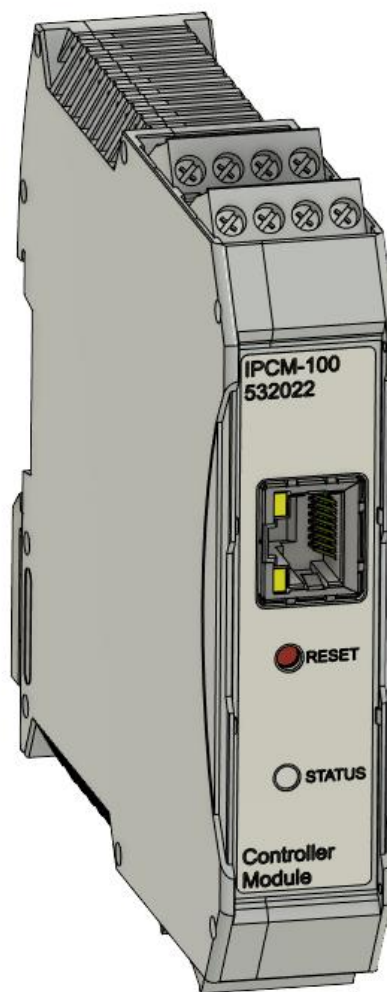


220010 TCP/IP Relay Controller

User Manual



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1. Introduction

1.1. Product summary

A device that allows reading 4 digital inputs and controlling 4 relays through TCP/IP communication.

2. Technical specification

2.1. Mechanical

Mounting

Mounted on 35 mm DIN rail. Connects to external modules via back connect system.



Image 1

Device dimensions

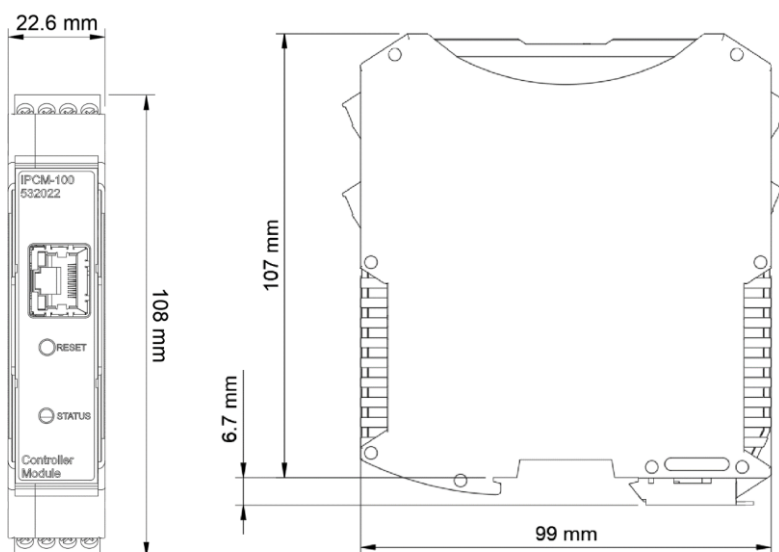


Image 2

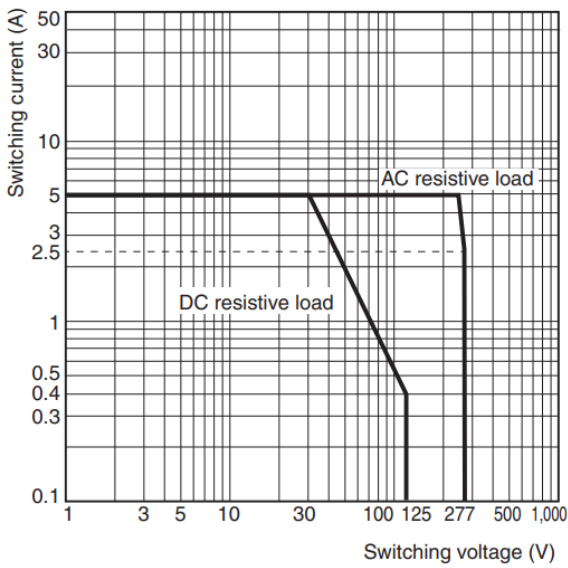
3. Electrical characteristics

Description	Conditions	Min	Typical	Max	Unit
Power supply					
Supply voltage		17		30	V
Operating power			1	10	W
Idle current draw (24 V)	Relay not powered		42		mA
Operating conditions					
Operating temperature	non-condensing	0		60	°C
Communications					
Poll interval		1			s
Digital Input					
Voltage		0		30	V
Input impedance		1			MΩ
Pulse low threshold			10.5		V
Pulse high threshold			13		V
Relay					
Voltage DC resistive load	See Graph 1			30	V
Current DC resistive load	See Graph 1			5	A
Voltage AC resistive load	See Graph 1			250	V _{RMS}
Current AC resistive load	See Graph 1			5	A
Voltage DC inductive load	See Graph 1			30	V
Current DC inductive load	See Graph 1			2	A
Voltage AC inductive load	See Graph 1			250	V _{RMS}
Current AC inductive load	See Graph 1			2	A

Table 1

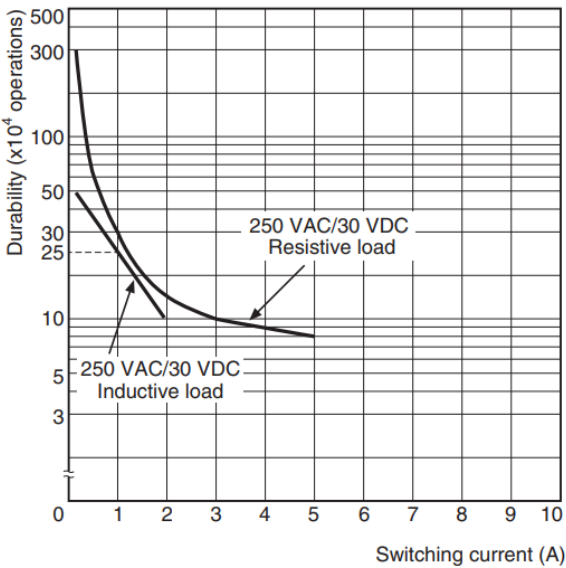
3.1. Graphs

●G6DN-1A, G6DN-1A-L



Graph 1

●G6DN-1A



3.2. Circuit

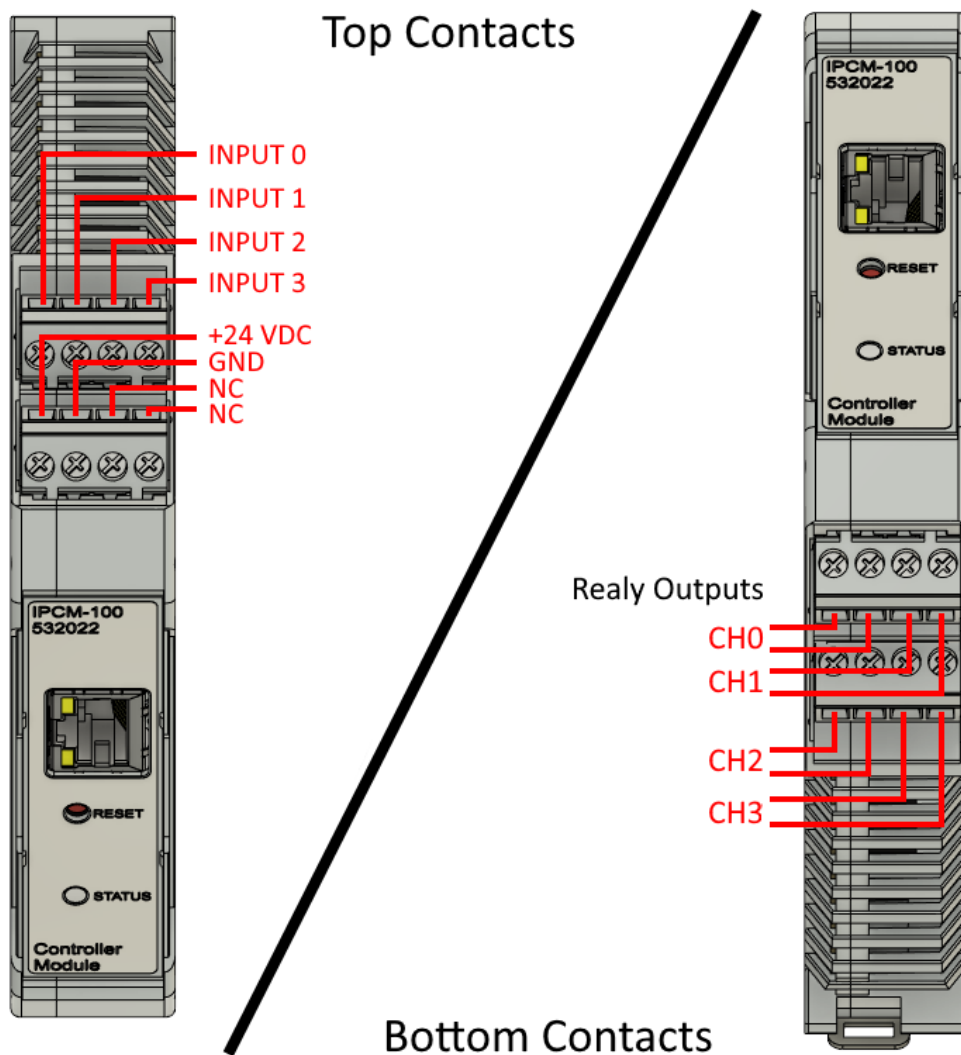


Image 3

3.2.1. Digital inputs

Can be read via TCP/IP communication.

3.2.2. Relay

Monostable relay, will return to relaxed position on power down. Stays in relaxed position after boot up on power failures.

3.2.3. Power input

Standard Phoenix Contact screw connector and can be switched for a screwless clamp connector.

4. Communication protocol

4.1. IP Address

Initial IP address can be changed by navigating to the IP with a web browser or programmatically.

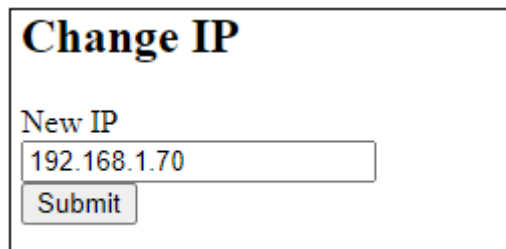


Image 4

4.2. Protocol

Standard HTTP protocol is used to transfer messages. GET requests return metadata for browsers, while POST requests only transfer the raw measurement value. Commands are sent to the IP of the device to port 80 or 8085. Both ports behave the same and are provided for compatibility.

Measurement	Command
Communications	
Change IP	SET_IP_[0...255]_[0...255]_[0...255]_[0...255]
GPIO	
Read pin state	GPIO_IN_[00..03]
Internal Relays	
Set state	RELAY_INT_CH_[RELAY NO:00...04]_[STATE:1/0]
External Relay Modules	
Set state	RELAY_EXT_[MODULE CODE:00...07]_CH[RELAY NO:00...08]_[STATE:1/0]

Table 2

4.3. Examples

4.3.1. Read digital in

cURL is shipped with most Linux, Windows and iOS distributions. Enter the following rows to the command line.

```
curl http://192.168.1.195/GPIO_IN_1
```

Code block 1

Will give a response when the input is 0 volts:

```
0
```

Code block 2

Or browse to the address http://192.168.1.70/GPIO_IN_1 for the response.

4.3.2. Set Relay

Set internal relay 0 to active state.

```
curl http://192.168.1.195/RELAY_INT_CH0_1
```

Code block 3

4.3.3. Changing the IP

Change IP to 192.168.2.50.

```
curl http://192.168.1.195/ SET_IP_192_168_2_50
```

Code block 4

5. Revision History

1.0: Initial

1.1: Section 4.2 Protocol updated