



General Purpose Interface Modules for MCN™ Monitoring and Control Systems



GPIO-1212A Shown

Introduction

The General Purpose Input/Output Modules are part of CTI Products' MCN™ Monitoring and Control Network. Versions are available with combinations of opto-isolated inputs, SSR (Solid-State Relay) outputs, or mechanical relay outputs. They can be used to monitor and control a wide range of devices at remote sites, including:

- Generators
- Doors / Intrusion alarms
- Door Locks
- Gate Controls
- Power Fail
- Temperature Alarms
- Microwave / T1 Link Status
- Tower Lights

Inputs

Inputs are optically-isolated and accept voltage inputs of 12 - 24 VAC/VDC (nominal).

Outputs

Several output types are available:

- SSR (Solid-State Relay) with SPST (Form A)
- Mechanical relay with SPDT (Form C)
- Magnetically latched relay with SPDT (Form C)
- Latching or momentary outputs are controlled in the MCNRCD software on the PC.

Latching Inputs

For applications that require latching for transient inputs, the GPIO-1212LA offers 12 alarm inputs and latched outputs. Latches can be set on either an On to Off transition or an Off to On transition. Each point has an indication of the current input state and the latched state. Latched state is available on the output pins.

PC Display

The PC display features real-time monitoring of inputs. Outputs are controlled with a mouse or keyboard. Input/Output names and screen positions are user-configurable.

User defined error conditions from Inputs can be displayed on the screen, saved on the disk, or printed out to provide an audit trail for easier problem resolution.

System Options

The following are some of the MCN system options available to work with the GPIO module:

- Quad Mounting Rack for mounting 4 GPIO module or other size A MCN modules
- AC Power supplies
- DC Power cables
- Network cables and terminators
- HIB Host Interface Modules, CIB Comparator Interface Modules, PCLTA Modules, and MCN Remote Comparator Display Software
- Routers/Repeaters, System Extenders

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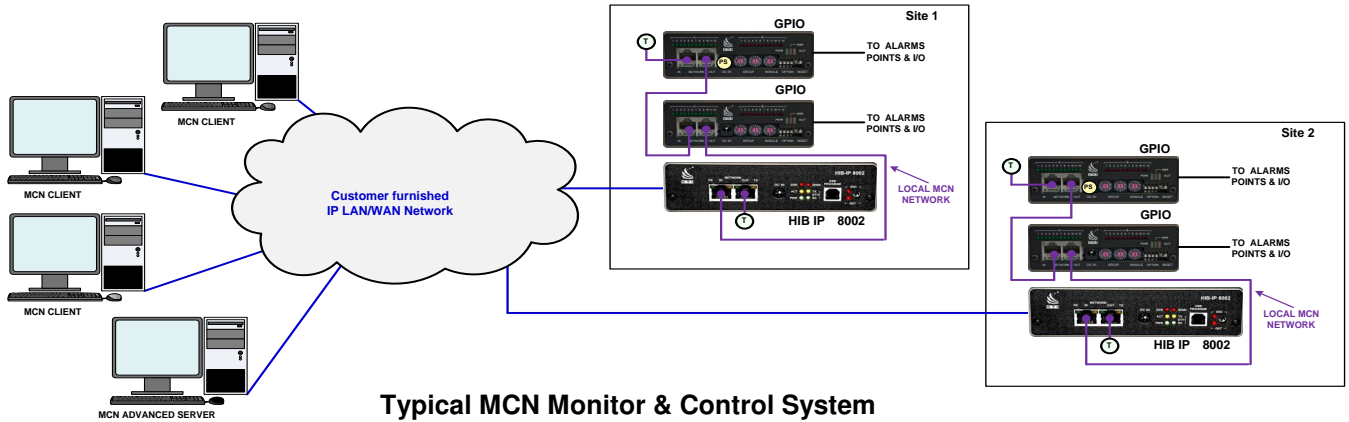
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Typical MCN Monitor & Control System

How the System Works

The MCN Monitoring & Control Network includes two basic parts: Interface Modules and the Operator Interface.

The Interface Modules mount near the equipment to be monitored or controlled. They pass the status indications from the equipment to the MCN network for display on a PC. The Interface Modules also accept control commands from the network and generate signals to control equipment inputs.

The status information from Interface Modules is passed over the network to Operator Interfaces. The diagram shows a PC (with MCN RCD™ Software) connected to GPIO modules via an IP network and HIB-IP 8002 modules.

Multiple Displays

The MCN System offers full parallel status and control at multiple PC Operator Interfaces.

Dial-Up Applications

For maintenance purposes, a PC display can be used over dial-up lines with HIB-232 modules. Technicians can remotely diagnose system problems from home using a properly equipped PC and dial-up modem.

General Specifications

Size (MCN Size A)	5.5" x 4.2" x 1.5" (140 x 107 x 38 mm)
Weight	16 oz, (455 g)
Temperature	0-50 °C
Humidity	10- 95% non-condensing
Inputs	Optically Isolated 12 – 24 VAC/VDC
Outputs for Solid State Relay Models	Optically Isolated SPST (Form A) 24 VAC/VDC, 1 A Max. Resistive
Outputs for Electro-Mechanical Relay Models	SPDT (Form C) 48 VAC/VDC, 1 A Max. Resistive
Inputs & Outputs per Module	See Models table
Indicators	One LED for each input & output
Equipment Connector	50 pin Telco style, Female
Network Connectors	(2) RJ-45 (1 in, 1 out)
Maximum Network Segment	4000 ft. without repeaters
Maximum Interface Modules	16 per network segment (Larger, multi-segment systems can be custom-configured)
Network Cabling	4 Pair Level 4 UTP
Power Input	12 to 30 VDC / 2 W

Models

Part Number	Model	Opto-Isolated Inputs	SSR Outputs (Form A)	E-M Relay Outputs (Form C)	Magnetically Latched Relay Outputs (Form C)
S2-61281	GPI-12	12			
S2-61282	GPI-24	24			
S2-61283	GPO-12A		12		
S2-61284	GPO-24A		24		
S2-61285	GPIO-1212A	12	12		
S2-61299	GPIO-1208C	12		8	
S2-61363	GPO-16C			16	
S2-61426	GPIO-1208L	12			8
S2-61437	GPO-16L				16
S2-61797	GPIO-1212LA	12	12 Latched Alarm		

Other I/O combinations may be available; consult CTI Products for part number.