

CIE-M10

(8 Ports Remote I/O Module)



Overview

CIE-M10 is an Ethernet remote I/O module that has 8 input ports, 8 output ports and an ADC(Analog to Digital Conversion) port for sensors to detect temperature, humidity or pressure. This remote I/O module is additionally equipped with a UART interface to allow your serial devices to establish an Ethernet networking connection. CIE-M10 mainly enables you to extend the distance of the I/O control system, therefore you are able to remotely control and monitor your I/O devices over the Internet from anywhere in the world.

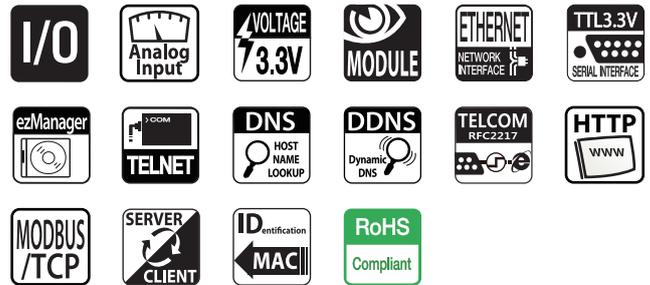
As well as with a simple management tool(ModMap), this Ethernet remote I/O module comes preloaded with a user web page, which is available to customize with your own graphic images, to ease control and surveillance on the website. Besides, a Macro function allows each relay output to be automatically controlled as set by simple logic formula.

Since this Ethernet remote I/O module has various methods to control outputs and monitor inputs such as HTTP, Modbus/TCP and Serialized Modbus/TCP, it is available on various environments such as Internet Switch, etc.

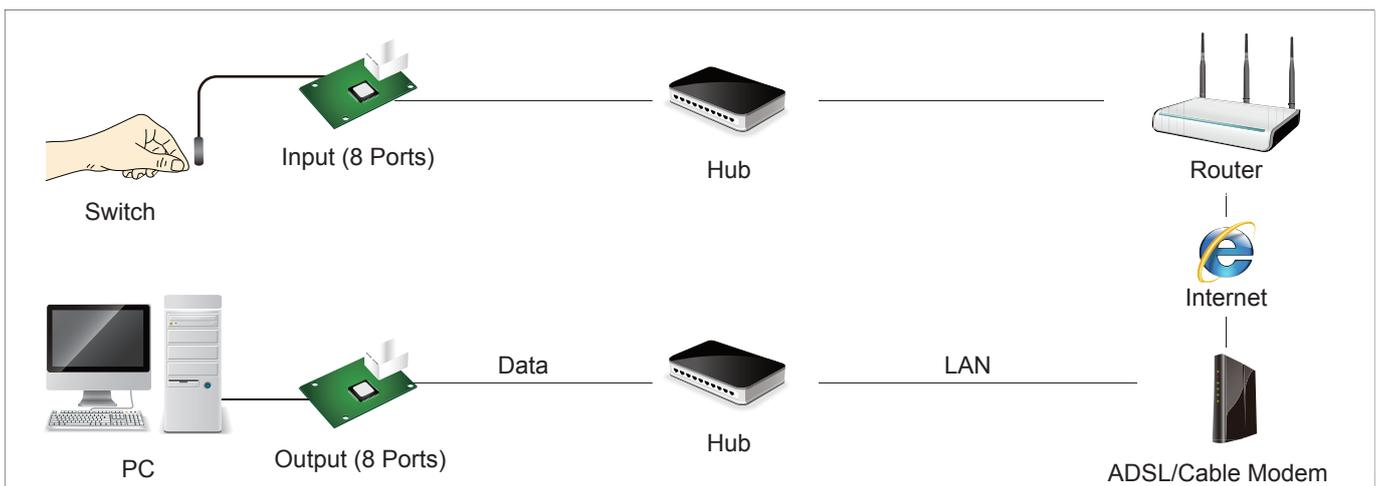
Highlights

- 10Base-T or 100Base-TX (Auto-Sensing), auto MDI/MDIX
- 8 x digital input ports (3.3V CMOS)
- 8 x digital output ports (3.3V CMOS)
- 1 x analog input port (10 bits resolution ADC)
- 1 x UART (Maximum data rate: 230,400bps)
- Supports Modbus/TCP
- Stored Web server for simple management (Custom web page)
- MACRO (Stand-alone operation supports simple logical expressions)

Icons



Applications

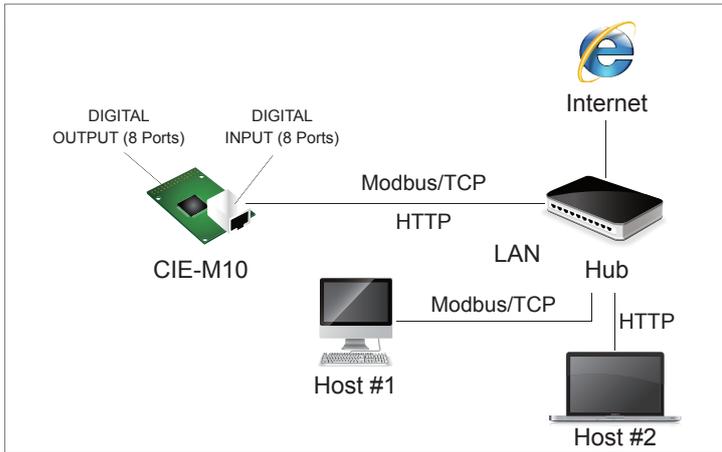


Specifications

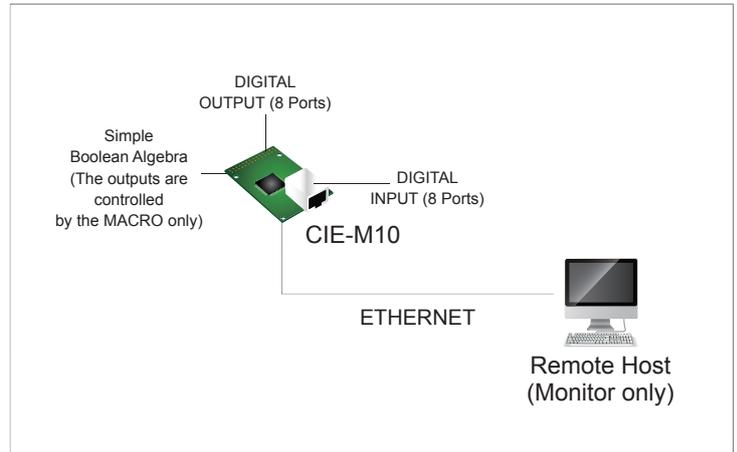
Digital Input Port	
Number of Ports	8
Interface	3.3V CMOS
Electric Parameter	Min VIL = -0.3V, Max VIL = 0.8V / Min VIH = 2.0V, Max VIH = 5.5V
Digital Output Port	
Number of Ports	8
Interface	3.3V CMOS
Relay Capacity	Min VOH = 2.9V, Max VOL = 0.4V
Analog Input Port	
Number	10bit ADC 1 Port
Interface	ADIN, ADVREF
Conversion Time	2.33us
Electric Parameter	Min ADVREF = 2.6V, Max ADVREF = 3.3V
	ADIN's Input Voltage Range = 0V ~ ADVREF
Serial Physical Interface	
Serial Interface	1 x UART Port / RXD, TXD, RTS, CTS, GND
Electric Parameter	Min VIL = -0.3V, Max VIL = 0.8V
	Min VIH = 2.0V, Max VIH = 5.5V
	Min VOH = 2.9V, Max VOL = 0.4V
Serial Port Property	
Baudrate	300 bps ~ 230,400 bps
Data Bits	5, 6, 7, 8 bits
Parity	None, Even, Odd, Mark, Space
Stop Bit	1, 1.5, 2
Network Physical Interface	
Network Interface	10Base-T/100Base-TX Ethernet (RJ45)
	Ethernet Speed Auto Sense
	1:1 or Cross-over Cable Auto Sense
	1000 VAC Isolation
Software Functions	
Protocols	TCP, UDP, IP, ICMP, ARP, Ethernet, TELNET
	TFTP, DHCP, PPPoE, DNS, DDNS, HTTP, Modbus/TCP
	Telnet COM Port Control Option (RFC2217)
Security	IP & MAC filtering - Restrict host or network
	Password for Configuring
Digital I/O Port Communication Mode	Modbus/TCP, HTTP(User web page)
	Stand alone(by simple equation)
Serial Communication Mode	TCP Server (T2S)
	TCP Client (COD)
	TCP Server/Client with AT command (ATC) - Patent
	UDP Mode (U2S)

Additional Functions	Remote Debug Function
	TCP Server/Client Mode
	Sending MAC address Option
Indicators (LEDs)	
Power	Red
Digital Output Port 0	Green
Management	
ezManager	Configuration and Monitoring Tool through Ethernet
Telnet	Telnet Login
AT Command	Configuring in ATC mode - Patent
Supplementary Software	
Modmap	Modbus/TCP program for management of CIE-M10
ezVSP	Serial to Network Virtual Driver for Windows
ezTerm	Simple TCP/IP Communication Test Tool
Dimension	
Size	644mm x 40mm x 17mm
Operating Environment	
Input Voltage	DC 3.3V±0.3V
Current Consumption	190mA @ 3.3V without load
Operating Temperature	0°C ~ +70°C
Storage Temperature	-40°C ~ +85°C

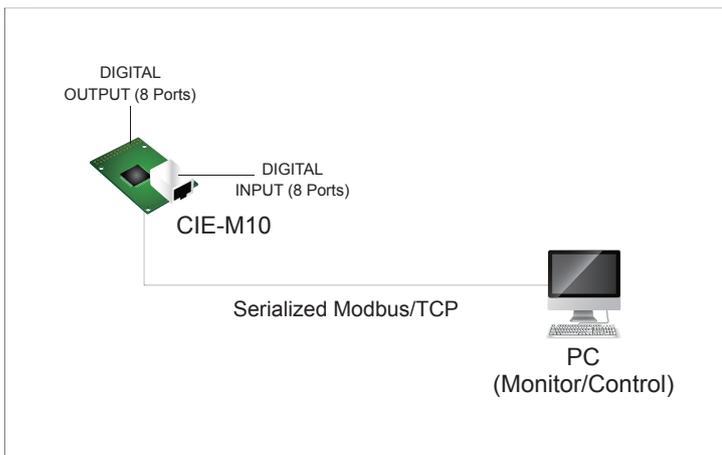
System Diagram



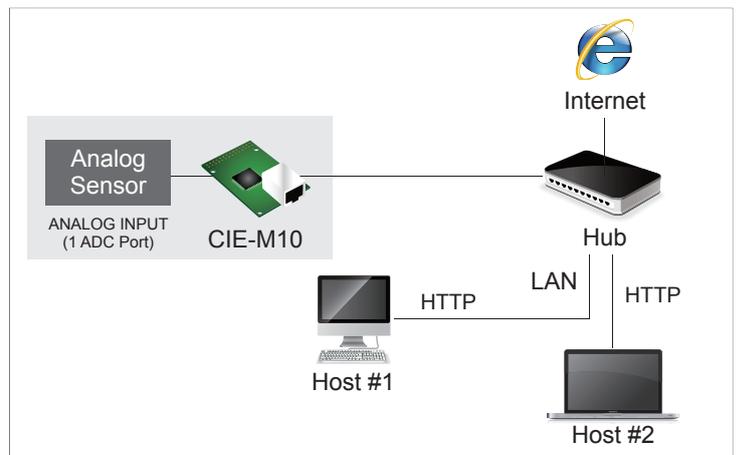
Modbus/TCP and HTTP



MACRO (Stand Alone)



Serialized Modbus/TCP



Analog Input Monitoring