

Interface port with various applications

- 1) Ethernet Port: Modbus TP/IP, Ethernet I/P, Web Interface
- 2) Terminals 1-5: RS485, 2wire, Modbus
- 3) Terminals 6-10: Input Power, Relay Output

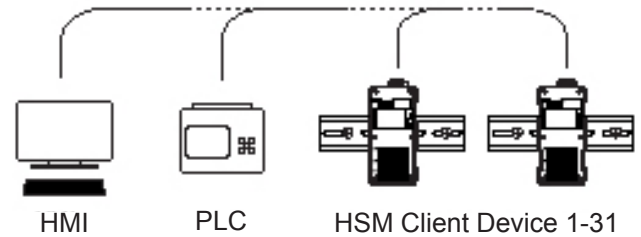
### CONNECT COMMUNICATION WIRING: 2 WIRE RS-485 MODBUS RTU (2 WIRE)

The only serial protocol that is recognized by HSM is 2 wire RS-485 Modbus. The device acts as a slave on the network.

TERMINALS 1-5				
Terminal Number	Name	Function	Wire Gauge	Wire Type
1	V-	Input Voltage Negative	22	Unshielded (<3m)
2	V+	Input Voltage Positive		Shielded (>3m)
3	Rx-	Inverting, 2-wire, RS-485		Shielded twisted pair
4	Tx+	Non-Inverting, 2-wire, RS-485		
5	Shd	Shielding of communication pair		Unshielded (<3m)
6	V-	Input Voltage Negative		
7	V+	Input Voltage Positive		
8	PE	Chassis Grounding		
9	COM	Relay: Common Terminal		Shielded (>3m)
10	NO	Relay: Normally Open Terminal		

### RS-485 MODBUS RTU NETWORK TOPOLOGY

This topology is usually referred to as “ring topology” in that each unit is connected sequentially along a datusbus. The flexibility of the system allows for one datusbus to communicate with up to 31 units. If more than 31 units are required, an additional datusbus must be added.



### MODBUS RTU SETTINGS AND PARAMETERS

CONFIGURATION WEB PAGE SETTINGS		
Parameter	Default Value	Range/Options
Client ID	1	1 - 31
MODBUS PORT	502	0 - 9999
Baud Rate	19200	9600, 19200, 38400, Baud

MODBUS RTU PARAMETERS		
Parameter	Default Value	Range/Options
Baud Rate	19200 Baud	9600, 19200, 38400 Baud
Data Bits	8	N/A
Parity	None	
Stop Bits	1	
Max # of Registers per Query	N/A	32
Max Polling Rate	3 Seconds	N/A

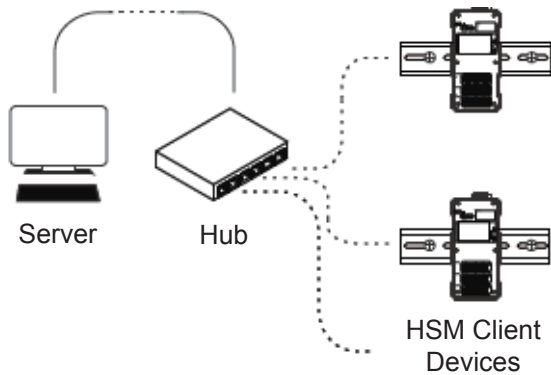
*Modbus TCP/IP and Ethernet I/P  
Network Settings continued on back*

## WIRING MODBUS TCP/IP

Shielded twisted-pair 10/100 Base-T cables (Cat5) with RJ45 connectors are supported. Connect cable to the Ethernet port on the device should either be Modbus TCP/IP or Ethernet I/P protocols be selected for real-time communication with the device.

## MODBUS TCP/IP AND ETHERNET I/P NETWORK TOPOLOGY

This topology is usually referred to as a “star”. Each unit is typically wired directly to the server through a network switch.



## MODBUS TCP/IP AND ETHERNET I/P NETWORK SETTINGS

NETWORK CONFIGURATION WEB PAGE SETTINGS		
Parameter	Default Value	Range/Options
IP Address	192.168.1.50	XXX.XXX.XXX.XXX (XXX is 0 - 255)
Gateway	192.168.1.2	XXX.XXX.XXX.XXX (XXX is 0 - 255)
Subnet Mask	255.255.255.0	XXX.XXX.XXX.XXX (XXX is 0 - 255)

MODBUS TCP/IP PARAMETERS		
Parameter	Default Value	Range/Options
IP Address	192.168.1.50	XXX.XXX.XXX.XXX (XXX is 0 - 255)
Port	502	1 - 9999