

Bulletin 1404 Powermonitor 3000



Allen-Bradley

Catalog Numbers 1404-M4, 1404-M5, 1404-M6, 1404-M8

User Manual



Allen-Bradley • Rockwell Software

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Automation**

Optional Ethernet Communication

Powermonitor 3000 units with a catalog number ending in -ENT are equipped with an optional Ethernet 10/100BaseT communication port and a native RS-485 port in a dual-port configuration that allows simultaneous operation of the ports. You must configure the communication parameters before you connect your power monitor to an Ethernet network. See your network administrator for assistance in setting the communication options.

Configuration parameters include the following:

- IP (Internet Protocol) address
- Subnet Mask
- Gateway IP address

The IP Address uniquely identifies your Powermonitor 3000 unit on the network. You configure the unit's IP address the way it is most commonly expressed, as four decimal numbers connected by decimal points: aaa.bbb.ccc.ddd. You may set each number (also called byte or octet) within the range of 0...255 decimal. The default IP address is 192.168.254*x*, where *x* is the factory-assigned Unit ID number. An IP address of 255.255.255.255 is not permitted.

IMPORTANT	The IP address for your power monitor must not conflict with the IP address of any other device on the network. Contact your network administrator to obtain a unique IP address for your unit.
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The IP address is a 32-bit binary number, which consists of the network address (NetID) and the machine address (HostID). The Subnet Mask defines the boundary between the NetID and HostID in the IP address. Each 1 bit in the subnet mask represents the NetID and each 0 represents the HostID. Here is an example.

IP Address	(decimal):	192	.1	.1	.207
	(binary):	11000000	.00000001	.00000001	.11001111
Subnet Mask	(decimal):	255	.255	.255	.0
	(binary):	11111111	.11111111	.11111111	.00000000
		-----	Net ID	-----	-Host ID-

In this example, the NetID is 192.1.1.0 and the HostID is 0.0.0.207. The relationship between NetID and HostID depends on the IP address class, the discussion of which is beyond the scope of this document (the example uses a Class C IP address). Devices on the same subnet can communicate directly; devices on different subnets may communicate with each other only through a gateway or router.

The Gateway IP Address defines the address of the gateway or router on the unit's subnet that is used to route messages to other subnets for wide-area networking. Default: 128.1.1.1.

Optional Ethernet Communication

Parameter	Description	Range	Default	User Setting
IP Address Bytes 1...4	Unit IP address in format aaa.bbb.ccc.ddd.	0...255 decimal, each byte	192.168.254.UnitID	
Subnet Mask Bytes 1...4	Subnet mask in format aaa.bbb.ccc.ddd	0...255 decimal, each byte	255.255.255.0	
Gateway IP Address Bytes 1...4	Gateway IP address in format aaa.bbb.ccc.ddd	0...255 decimal, each byte	128.1.1.1	

Optional ControlNet Communication

Powermonitor 3000 units with a catalog number ending in -CNT are equipped with an optional redundant ControlNet port and a native RS-485 port in a dual-port configuration that allows simultaneous operation of the ports. You must configure the communication parameters before you connect the power monitor to a ControlNet network.

The only configuration parameter is the ControlNet node number (also called MAC ID). The range of this parameter is 1...99 with a default of 99. A node number of 0 is typically used as the address of a ControlNet scanner.