

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES7650-1BA02-0XX0

MTA REDUNDANT POWER MONITOR BOARD

Used with the applicable SIMATIC ET 200M MTA configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens SIMATIC ET 200M MTA manufacturer documentation; applicable pages 245, 246, 247

19 Power Monitor Board

Part No. 6ES7650-1BA02-0XX0

19.1 Description

This section contains information and requirements to facilitate installation of Siemens Power Monitor Board (6ES7650-1BA02-0XX0), designed to interface with the Siemens ET 200M MTAs.



Caution

A previous version of the Power Monitor Board (6ES7650-1BA00) exists. The previous version is not suitable for use on MTAs with covers.

19.2 Features

The following features have been incorporated into this board:

- Dry contact output
- Plug-in option

19.3 Operation

The Power Monitor Board (PMB) is used to provide an isolated dry contact for use when redundant power is supplied to the MTAs. If power is supplied to both power inputs and the power monitor board is installed, then the output contacts are closed and can be used to indicate this status. The PMB is designed to detect only the presence or absence of power. The PMB is not designed to detect supply voltage that is outside the specification threshold.

The PMB is an optional accessory that plugs into the MTA and is secured via standoffs and screws. It contains 2 relays that are connected to the MTA power inputs. Power input **A** energizes one relay and Power input **B** energizes the second relay. The relay contacts are wired in series so that both power inputs must be valid before a complete contact closure is made. If one power supply is not functioning, then one relay de-energizes and one set of contacts open, breaking the circuit back to the sense system.

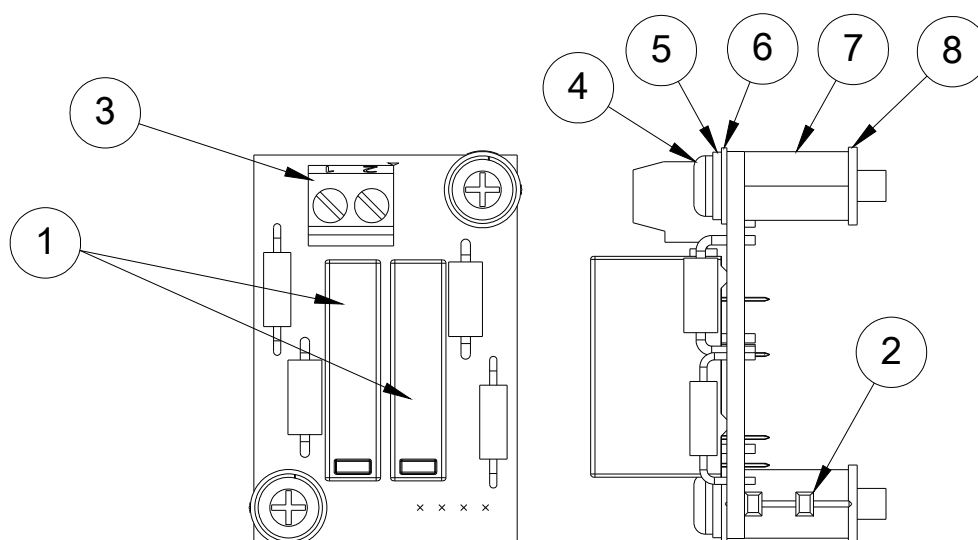
Field Terminals, 1 and 2, are the output contacts for the external sensing system.

See Section 2, *Installation*, before performing any installation and observe all warnings

See Section 3, *Maintenance*, before performing any maintenance and observe all warnings

19.4 Power Monitor Board

Figure 19–1 Power Monitor Board



Key to numbered items in Figure 19–1:	
Item	Description
1	Relays
2	Input Connector
3	Field Terminals 1 & 2 (Output Contacts)
4	Mounting Screw
5	Lock Washer
6	Flat Washer
7	Standoff
8	Retaining Washer

19.5 Technical Specifications

Technical Specifications for Power Monitor Board (6ES7650-1BA02-0XX0)	
Dimensions	
L x W x D – inches	1.40 x .95 x 1.0
L x W x D – mm	35.6 x 24.1 x 25.4
Relay Output Contact Ratings	
Maximum Switched Voltage	30 VDC
Maximum Switched Current	0.5 A
Terminal Block Wire Size	
Wire Size – US	26 – 16 gauge AWG
Wire Size – Metric	0,128 – 1,31 mm sq.
Power Input	
Voltage Input for Single or Redundant Feed	21.6 to 28.8 VDC
Current Consumption - All outputs ON	0.040 A maximum
Relay Operations	
Electrical	100,000 minimum
Mechanical	20,000,000 minimum