



GAI-TRONICS®
A HUBBELL COMPANY

Model 378-003 E3 IP MIM (Monitored Input Module) Station

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General Information

The Model 378-003 E3 IP MIM (Monitored Input Module) station operates in an *Elemec3* system. The E3 controller software configuration controls its operation.

The MIM monitors up to eight input circuits. A voltage-free contact (either opening or closing) or the presence/absence of a 24 V dc input voltage activates each input. The MIM can supervise the cabling between the input terminal and the remote contact device when using voltage-free input contacts.

Program each input circuit to initiate one of the following functions in the *Elemec3* system:

- activate an alarm
- reset all alarms
- cancel the current alarm
- report a fault condition
- reset the system MCU

The Model 378-003 E3 IP MIM station's housing is a NEMA 4X stainless steel enclosure measuring 13.00 W × 14.30 H × 6.23 D inches (330.2 × 363.2 × 158.2 mm). Internal components include:

- 24 V dc power supply
- No. 030-02-0098-001 E3 IP MIM
- one terminal block

The No. 030-02-0098-001 E3 IP MIM has two components (see [Figure 1](#)):

- No. 999-02-1203-001 IP CPU PCBA
- No. 999-02-3011-002 Monitored-Input PCBA

The scope of this manual is mounting and wiring the Model 378-003 IP MIM station. Refer to Pub. 502-20-0672-001 ISS 4 for additional information on the No. 030-02-0098-001 E3 IP MIM (see the [Reference Documentation](#) section).

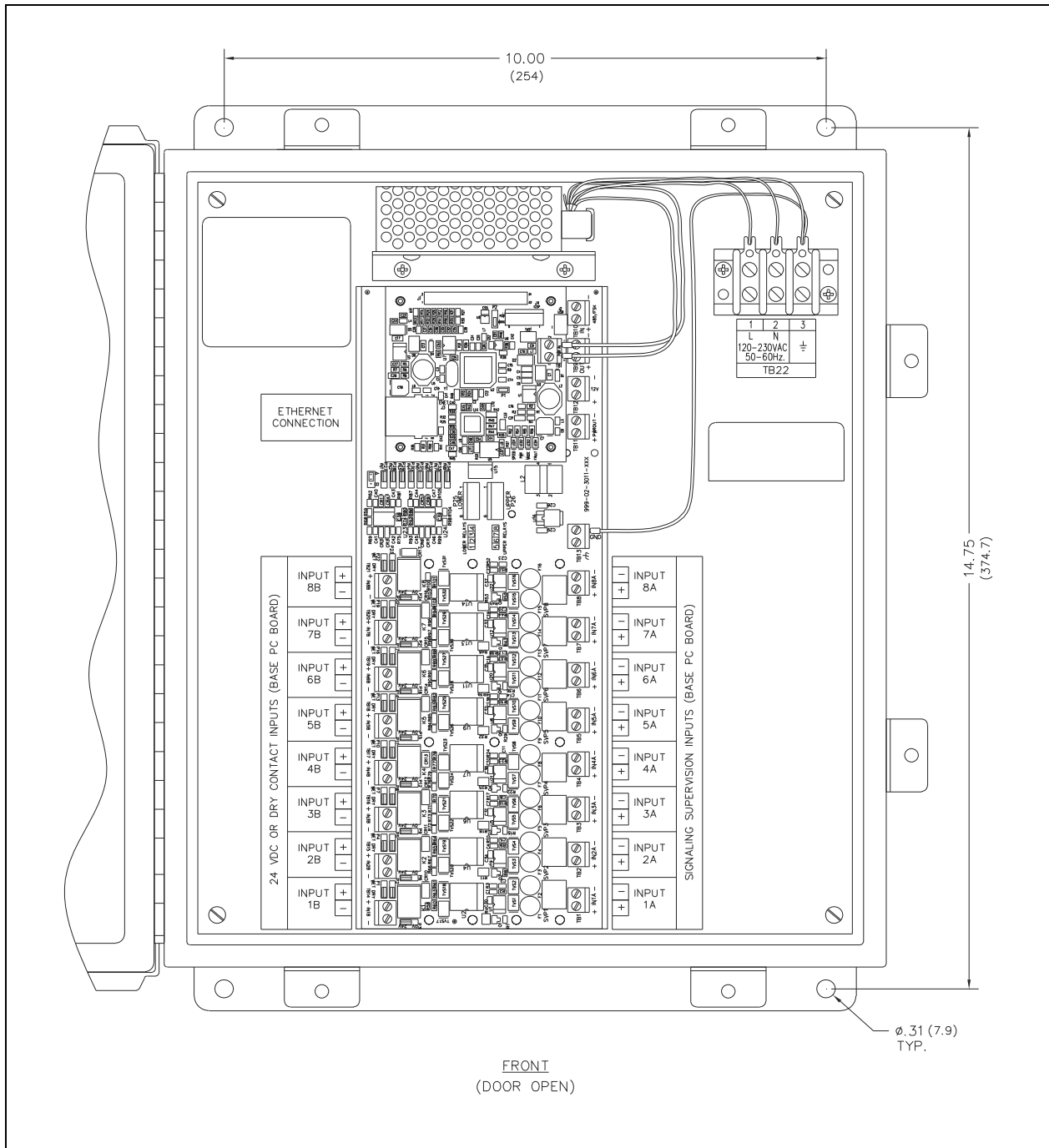


Figure 1. Model 378-003 E3 IP MIM Station (Interior View)

Installation

 **CAUTION**  —Do not install this equipment in hazardous areas. Disconnect power before installing or removing the MIM.

Mounting

The Model 378-003 E3 IP MIM station enclosure is not supplied with conduit or cable gland holes:

1. Drill or punch openings at the required locations before mounting the enclosure.
 - Separate cable entries for power, Ethernet, and input circuit wiring are typically required (see the [Wiring](#) section).
 - Use caution when drilling or punching the enclosure to avoid damaging internal components.
 - GAI-Tronics recommends bottom cable entry to prevent moisture from entering the enclosure and dripping onto the terminals or circuit boards.
2. Mount the enclosure to a suitable surface using appropriate (customer-supplied) hardware (see [Figure 1](#) for mounting hole dimensions).
3. Remove the shipping tie-wrap securing the PCBA to the mounting Snaptrack.

Wiring

The IP MIM station requires 120 to 230 V ac, 50/60 Hz power and an Ethernet connection to the *Elemec3* IP Controller. Connect one to eight activation circuits (inputs), as needed to the MIM. Refer to Pub. 502-20-0672-001 ISS 4 for detailed information on input circuits, input circuit connections, and input configuration (see the [Reference Documentation](#) section).

Power

Connect 120 to 230 V ac power to terminal block TB22, at the top of the panel (see [Figure 1](#)).

 **WARNING**  —Ensure proper grounding to protective earthing.

Terminal TB22-3 provides earth ground termination.

Table 1. AC Power Termination

Function	Terminal Block	Wire Color
AC Line (hot)	TB22-1	Black
Neutral	TB22-2	White
Ground	TB22-3	Green/yellow

Ethernet Connection

Plug the Category 5 or better Ethernet cable with RJ45 plug from the network into the RJ45 jack, located on the CPU PCBA (see [Figure 1](#)).

Replacement Parts

Part Number	Description
999-02-1203-001	PCBA, E3 ETHERNET CPU
999-02-3011-002	PCBA, E3 IN8
40404-011	Power Supply, 24 V dc, 25 W

Reference Documentation

For additional information, please refer to the standard publication listed below. GAI-Tronics' publications are located on the GAI-Tronics website at <https://www.gai-tronics.com>.

E3 MIM and MRM manual502-20-0672-001 ISS 4

Specifications

Electrical

Power requirements 120 to 230 V ac, 50/60 Hz, 300 mA maximum

Mechanical

Enclosure material No. 16 gauge 316 stainless steel

Dimensions 13.00 W × 14.30 H × 6.23 D in (330.2 × 363.2 × 158.2 mm)

Weight..... 18 lb

Environmental

Temperature range -22 °F to 158 °F (-30 °C to 70 °C)

Humidity 95% non-condensing relative humidity

Environmental ratingNEMA 4X

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his expense.

Warranty

Equipment. GAI-Tronics warrants for a period of one (1) year from the date of shipment, that any GAI-Tronics equipment supplied hereunder shall be free of defects in material and workmanship, shall comply with the then-current product specifications and product literature, and if applicable, shall be fit for the purpose specified in the agreed-upon quotation or proposal document. If (a) Seller's goods prove to be defective in workmanship and/or material under normal and proper usage, or unfit for the purpose specified and agreed upon, and (b) Buyer's claim is made within the warranty period set forth above, Buyer may return such goods to GAI-Tronics' nearest depot repair facility, freight prepaid, at which time they will be repaired or replaced, at Seller's option, without charge to Buyer. Repair or replacement shall be Buyer's sole and exclusive remedy. The warranty period on any repaired or replacement equipment shall be the greater of the ninety (90) day repair warranty or one (1) year from the date the original equipment was shipped. In no event shall GAI-Tronics warranty obligations with respect to equipment exceed 100% of the total cost of the equipment supplied hereunder. Buyer may also be entitled to the manufacturer's warranty on any third-party goods supplied by GAI-Tronics hereunder. The applicability of any such third-party warranty will be determined by GAI-Tronics.

Services. Any services GAI-Tronics provides hereunder, whether directly or through subcontractors, shall be performed in accordance with the standard of care with which such services are normally provided in the industry. If the services fail to meet the applicable industry standard, GAI-Tronics will re-perform such services at no cost to buyer to correct said deficiency to Company's satisfaction provided any and all issues are identified prior to the demobilization of the Contractor's personnel from the work site. Re-performance of services shall be Buyer's sole and exclusive remedy, and in no event shall GAI-Tronics warranty obligations with respect to services exceed 100% of the total cost of the services provided hereunder.

Warranty Periods. Every claim by Buyer alleging a defect in the goods and/or services provided hereunder shall be deemed waived unless such claim is made in writing within the applicable warranty periods as set forth above. Provided, however, that if the defect complained of is latent and not discoverable within the above warranty periods, every claim arising on account of such latent defect shall be deemed waived unless it is made in writing within a reasonable time after such latent defect is or should have been discovered by Buyer.

Limitations / Exclusions. The warranties herein shall not apply to, and GAI-Tronics shall not be responsible for, any damage to the goods or failure of the services supplied hereunder, to the extent caused by Buyer's neglect, failure to follow operational and maintenance procedures provided with the equipment, or the use of technicians not specifically authorized by GAI-Tronics to maintain or service the equipment. **THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES AND REMEDIES, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

Return Policy

If the equipment requires service, contact your Regional Service Center for a return authorization number (RA#). Equipment should be shipped prepaid to GAI-Tronics with a return authorization number and a purchase order number. If the equipment is under warranty, repairs or a replacement will be made in accordance with the warranty policy set forth above. Please include a written explanation of all defects to assist our technicians in their troubleshooting efforts.

Call 800-492-1212 (inside the USA) or 610-777-1374 (outside the USA) for help identifying the Regional Service Center closest to you.