

AquiTron

AT-MZA-EXP

Multi Zone Alarm Expansion Card



**INSTALLATION
INSTRUCTIONS**



aquilar
leak detection solutions

AT-MZA-EXP

Multi Zone Alarm Expansion Card

Please read these instructions carefully and keep them in a safe place (preferably close to the module) for future reference. These instructions must be followed carefully to ensure proper operation.

A. GENERAL INFORMATION

The AT-MZA-EXP multi zone alarm expansion card has been designed specifically for use with the AquiTron AT- MZA panel. These installation instructions should be read in conjunction with the installation instructions of the AT- MZA panel.

Note: To avoid damage to the MZA and the MZA-EXP electronics, store them in their cardboard boxes until construction is complete.

STORAGE

Keep the module in a dry place prior to installation to avoid possible damage to internal components.

B. PRODUCT INFORMATION

AT-MZA-EXP

The additional sensing zones are powered by the AT-MZA motherboard, no additional power is required.

RELAYS

Number: One LEAK relay per zone (max 8), One common LEAK and one summary FAULT (cable break/power failure).

Type: SPDT

Rating: 3 A at 250Vac/24 Vdc

TEMPERATURE

Storage: -18°C to 60°C (0°F to 140°F)

Operating: 0°C to 50°C (32°F to 122°F)

APPROVALS

The MZA is approved for use in ordinary areas. The module must be located in an Ordinary Area, but may monitor intrinsically safe TraceTek sensing cables located in Hazardous Locations:

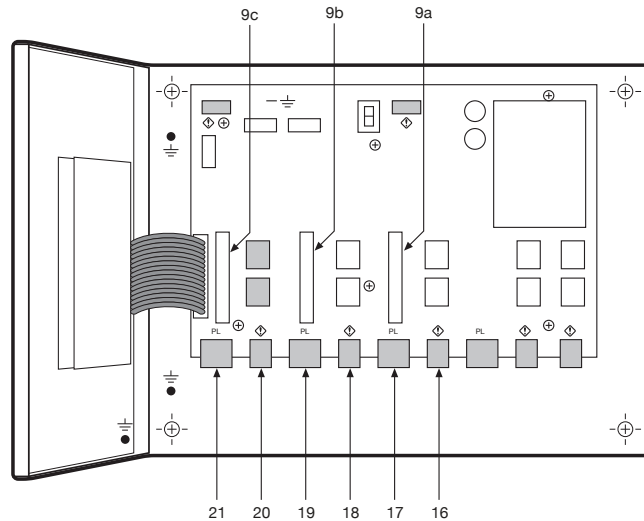
- TraceTek sensing cable in Class I, Division 2, Groups A, B, C, D =Hazardous Locations.
- If protected by agency-approved zener barrier TraceTek sensing cable in Class I, Division 1, Groups A, B, C, D Hazardous Locations (Zone 0 or Zone 1 in Europe). Contact your TraceTek distributor/agent to select proper zener barrier.

MAXIMUM CIRCUIT LENGTH

100m (328ft) TraceTek sensing cable or 10 water or optical oil probes per zone. Leader and jumper cable lengths are not included in this limitation.

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Figure 1



WARNING: Shock hazard. Shut off power before opening enclosure door.

PL Indicates power limited circuits.

- | | |
|---|---|
| 9. AT-MZA-EXP zone expansion card slot | 15. Z3/4 Sensing cable plug and socket |
| 9a. connector for zones Z3 + Z4 | 18. Z5/6 Leak relay cable plug and socket |
| 9b. connector for zones Z5 + Z6 | 19. Z5/6 Sensing cable plug and socket |
| 9c. connector for zones Z7 + Z8 | 20. Z7/8 Leak relay cable plug and socket |
| 16. Z3/4 Leak relay cable plug and socket | 21. Z7/8 Sensing cable plug and socket |

C. FITTING THE ZONE EXPANSION CARDS

Important: The MZA-EXP is an electronic unit. During installation, take the following precautions to avoid damage to its electronic components:

- The MZA panel should not be powered when installing the MZA-EXP card.
- **Anti static precautions should be taken before touching the boards inside.**
- Handle with care, avoid mechanical damage.
- Keep the electronics dry.
- If handling circuit boards, hold them by their edges to avoid physical contact with electronic components.
- Avoid exposure to static electricity.
- Avoid contamination with metal filings, liquids, or other foreign matter.
- A maximum of three MZA-EXP cards can be added to a MZA panel.
- Each MZA-EXP provides two additional zones of sensing.
- Remove the card from its static free packaging.
- Insert the first card on vertical connector marked zones 3-4 and the following cards on zones 5-6 and zones 7-8. The card will only fit in one direction.
- Push the card securely to the base connector.
- Once the card has been securely installed the MZA panel can be powered.

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D. ISOLATE SPARE SENSING ZONES

If the second zone in any of the two zone blocks is not to be used it must be terminated with loops of cable between red-green and yellow-black. (See figure 2). This will prevent the system identifying this zone as having a cable break.

However, should there be a requirement for all three-expansion cards to be installed, but not used, then these must be terminated in a similar fashion.

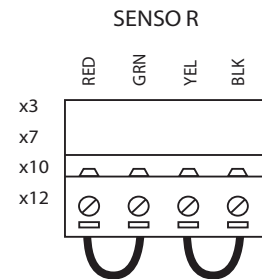


FIGURE 2

E. START-UP AND SYSTEM TESTING

POWER UP THE SYSTEM

After connections are complete supply power to the unit. If the sensing circuit is complete and free of leaks or other problems, the green Monitoring LED only will illuminate.

If this is not the case, you can find additional information in the MZA Operation and Maintenance Manual supplied with the module.

COMMISSIONING

Your system should be commissioned by an authorised AquiTron or TraceTek representative. The system map is a crucial part of the system and should be located adjacent to the unit and within the O&M documents.

Important: Store hardware and documentation supplied with the MZA in a secure place for later use (commissioning, connecting interfaces, operating).

F. TESTING THE MODULE

TEST AFTER SUPPLYING POWER

- Close and latch the enclosure door.
- Supply power to the unit. When power is supplied, the green LED illuminates for mains power (red for battery supply). After the start-up sequence is complete, the module should report a fault alarm (this is normal: there is no sensing cable attached). Press the red Silence key to silence the audible alarm. Verify that the red Alarm plus yellow Cable Break LED's appear. If anything other than the above occurs, check all connections. If the unit still does not appear to operate properly contact your supplier for assistance.

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