



**Diamond
Controls®**

Leak Detection & Trace Heating Systems

Datasheet

WATER LEAK DETECTION



AT-ZAP

Multi Zone Alarm Panel

The AT-ZAP zone alarm panel has been designed specifically for use with all Aquitrone and TraceTek liquid sensors. The AT-ZAP can monitor up to 100 m of sensing cable, 10 water detection probes or a combination of sensors per zone (12 zones). The AT-ZAP can directly control up to 12 valves. It is designed for use in ordinary areas with temperatures of 0°C to 50°C

Diamond Controls Ltd
21a Bessemer Road
Norwich, Norfolk
NR4 6DQ

Contact
01603 745000
sales@diamondcontrols.co.uk
www.diamondcontrols.co.uk

VAT Number: 797 771 750
Registered Company: 4113848



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Simple Operation

The AT-ZAP features a touch screen interface with intuitive controls and visual indicators for seamless operation. The touchscreen display provides information and control options for all functions, including alarm resets, zone status information and panel customisation. The AT-ZAP is equipped with 12 separate zones able to represent specific areas that are all constantly monitored separately. The simple to use interface allows the user to interact with the individual zones, view their status and access or change control options. In case of a leak or a fault alarm the system will give both a visual and audible notification. The AT-ZAP is equipped with 12 user programmable volt free relays and 12 dedicated solenoid valve control outputs. The panel is also equipped with common leak and fault relays that will be triggered if any of the zones are in leak or fault alarms.

Versatile Design

The AT-ZAP metal enclosure is designed for easy wall or surface mounting, providing a practical solution for equipment installation. With its steel construction, the enclosure offers enhanced security and protection against damage. Equipped with a high-output audible alarm, the AT-ZAP unit ensures effective alerting in the event of leak or fault detection. It facilitates seamless integration with external systems, such as Building Management Systems (BMS) or isolation valves, through volt-free relay connections. Furthermore, the system supports optional auxiliary remote alarms (AT-RAP) for remote locations, enabling alarm notification in reception areas and security rooms. Operating within a voltage range of 80-275Vac at 50/60 Hz and accepting 12Vdc $\pm 20\%$, the AT-ZAP unit accommodates diverse electrical configurations.

For uninterrupted operation, a separate power supply unit (AT-PSU-12-3 + AT-BAT) is available, providing up to 24 hours of battery back-up in the event of a power outage. Additionally, the panel features a 12/24Vdc power out accessories' connection for external device supply if required.

Applications

The AT-ZAP system is optimally suited for extensive integration into centralized monitoring systems, enabling seamless connectivity with computer rooms or large-scale facilities. It offers advanced interfacing capabilities with control systems controlling air conditioning units, fan coil units, pumps, booster systems, and generator sets. To enhance monitoring and control capabilities, the AT-ZAP system leverage the advanced functionality of a touch screen panel. Typical applications for the AT-ZAP system include monitoring and detecting leaks around individual air-handling units, water-cooled machinery, tanks, pumps, sumps, and other critical locations. By integrating with centralized monitoring systems and offering touch screen control, the AT-ZAP system ensures efficient and comprehensive monitoring and control of potential leaks and system integrity in various industrial and commercial settings.



Technical Information

Catalogue Number	Product Description
Sensing Cable Compatibility	All TraceTek sensing cable (TT1000, TT1100, TT3000, TT5000, TT5001, TT7000)
Detection Probes	Water detection probes (AT-PROBE-TS/M), optical sensors AT-OPSEN/RS immersion sensors (AT-350A, AT-600A), Tundish Probe (AT-TDP), Drip Tray Probe (AT-DTP). Refrigerant gas sensor (AT-SRG).
Maximum Sensing Circuit	300 meters of Jumper cable (per zone), 100 meters of TraceTek sensing cable (4 wire sensing) or 10 Aquitron Probes
Enclosure	Powder coated steel, colour RAL 9016 Matt White, lockable, IP54 (Indoor use only)
Humidity	5% to 95% non-condensing
Power Supply	80 - 275Vac @ 50/60 Hz 12Vdc $\pm 20\%$, 7 watt
Accessory Power Output	12/24 Vdc not exceeding 3A
Relay Output	12 x volt free relay, 3A 250Vac / 24Vdc. Type of SPST Configurable in software
Solenoid Valve Outputs	12 x 6Vdc Solenoid Valve Outputs (configurable in software) Only for use with Aquitron AT-V-P-XX or AT-V-B-XX 6Vdc Latching Valves
Touch Screen	7" 800x480 Resolution, Colour
Cable Entry	10 x 20mm, 4 x 25mm (Bottom) 2 x 20mm, 2 x 25mm (Top) 1 x 25mm, 1 x 20mm (R Side) 2x 20mm, 2 x 25mm (Back)
Dimensions and Weight	264mm x 270mm x 100mm Weight: 3.6kg
Audible Alarm	90db @ 10cm

Approvals

Electromagnetic compatibility (EMC)		
	Compliant with standards for emissions	BS EN IEC 61000-6-3:2021
	Compliant with standards for immunity	BS EN IEC 61000-6-1:2019

Ordering Information

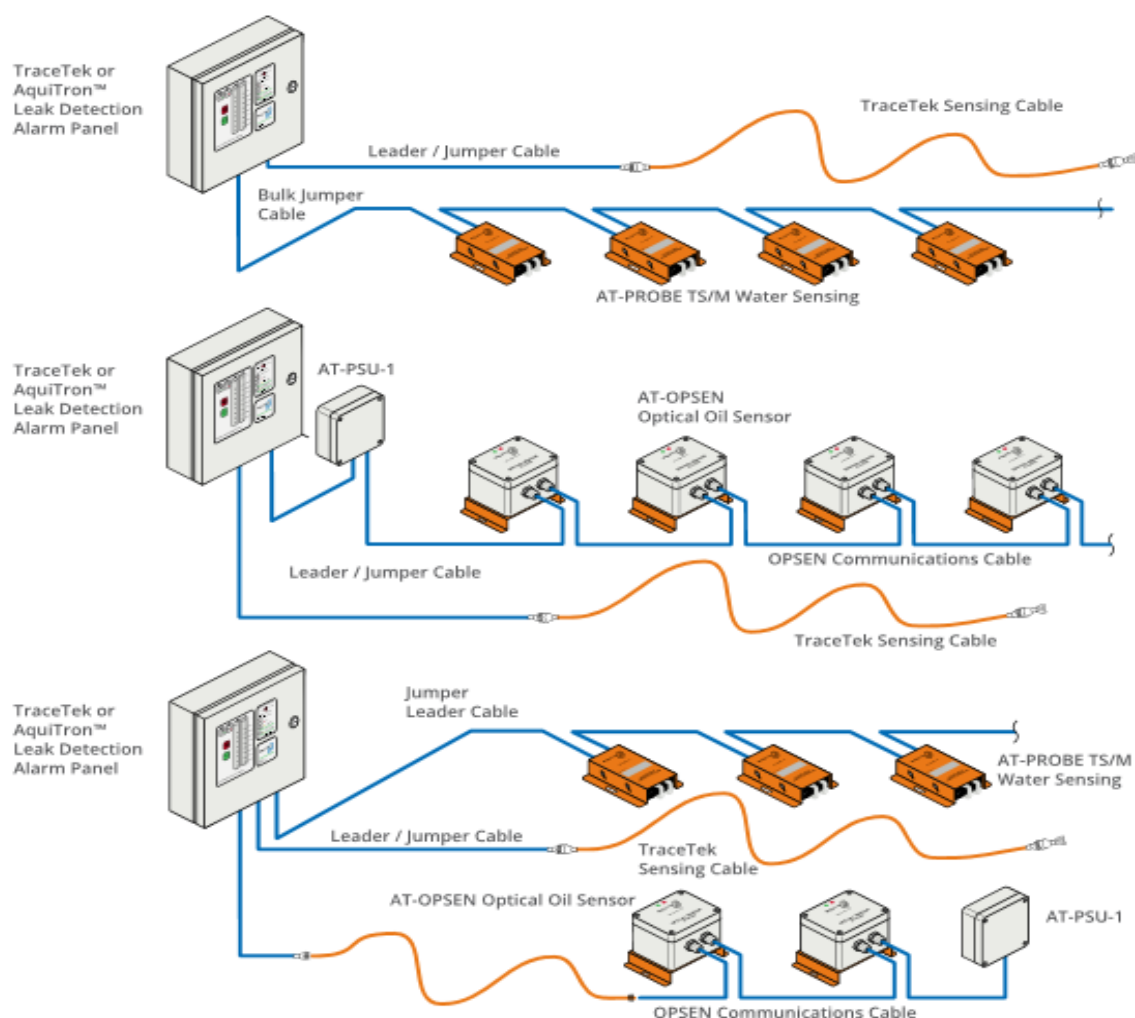
Catalogue Number	Product Description
3905	3905 AT-ZAP 12 Zone Touch Screen Alarm Panel



Ancillary Products

Catalogue Number	Product Description
3676	AT-PSU12-3 12Vdc Power supply Unit
2335	AT-RAP Remote alarm panel (230Vac)
3700	AT-BAT Replacement battery, 7Ah
3493	AT-SD-LTE Speech Dialler (12Vdc)

Configuration Examples



Important: All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their application.