

LEAK DETECTION MASTER CONTROLLER

PRODUCT DATA SHEET

Model: AT-MNC-001

Connects multiple Sensor Interface modules in daisy chain
Works independently with Sensor Interface modules
Supports Water and Conductive liquids
Easily integrable with existing Main Panel



Description

The AT-MNC-001 is a microprocessor-based master controller for water / liquid leak detection. A single detection channel supervises multiple locating and non-locating Sensor Interface Modules, giving the exact leak position along the cable when locating modules are used.

Alarms are signalled locally through the display, LEDs and built-in buzzer, through four potential-free relays, and to the BMS over Modbus RTU (RS485). The controller can be networked with the Atysen Intelli Panel for graphical representation and detailed location mapping.

Key Features & Advantages

- **Precision Leak Detection:** Instantly detects the presence of water or conductive liquids along the sensing network through Sensor Interface Modules and leak sensing cables.
- **Accurate identification:** Accurate identification of cable break faults
- **Sensor Module connectivity:** Can connect up to **50** Sensor Interface modules in daisy chain, covering **1500** meters sensing network
- **Visual Display:** OLED display along with status LEDs are provided for Leak/break
- **Audible buzzer:** In-built audible buzzer alarm for Leak/break and provision to silence
- **External Hooter:** Internal buzzer can be switched off and external hooter can be wired through the relay outputs
- **Digital System Integration:** Fully compatible with ATYSEN digital panel and controllers.
- **Strong , Reusable and Low Maintenance:** Flame retardant ABS enclosure, designed for repeated use without performance degradation
- **BMS Connectivity:** Sends real-time alarms and status reports to Building Management Systems
- **High Sensitivity and reset:** Immediate response upon contact with water or conductive liquids. Reset within seconds after leak removal.

Typical Applications

- Drip trays
- Floors
- Flat containment areas
- Pump Skids

Mounting Options

- Direct attachment to surfaces
- Screw Mounting option available

Technical Specifications

Parameter	Specification
Brand	ATYSEN
Model	AT-MNC-001
Power Supply	24 V DC, polarity safe
OLED Display	OLED display for Leak, Break, communication status along with status LEDs
Buzzer	In-built buzzer with silence button
Sensor Module and Cable Connectivity	up to 50 Sensor Interface Modules ; covering total 1500 meters length
Relay Output	4 × potential-free changeover contacts (NO / NC / COM)
Relay Contact rating	2 A @ 30 V DC / 2 A @ 230 V AC
Communication	2 × RS485 ports, Modbus RTU; Modbus ID by DIP switch or over RS485
Modbus ID setting	Internal DIP switch or configurable over RS485
Panel Compatibility	Atysen AT-MTP-SA-107 / AT-MTP-SA-110
Material	Industrial grade ABS plastic , flame retardant
Overload indication	Indicates overload if Sensor Interface Module count exceeds 50 count
Remote functions	Alarm / fault status, leak location, connected interface module count, buzzer silence / reset, internal buzzer enable / disable
Operating Environment	Industrial / commercial

System Capabilities

Fault Identification

- Leak Detection
- Cable Break Detection
- Communication Fault
- Common System Fault
- Sensor Overload



Product Identification Codes

Product Identification Codes	Description
AT-MNC-001	Leak Detection Master Controller
AT-ATR-24V-CTR	Locating Sensor Interface Module (SIM)
AT-WLD-24V-CTR	Non Locating Sensor Interface Module (SIM)
AT-MTP-SA-107 / AT-MTP-SA-110	Intelli Panel — graphical representation and location mapping (optional)

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