Innovative Embedology

AWLD 2400-TS

Digital Unit for Leak Detection and Location

Product Datasheet

- **Digital, Fully Addressable**
- **Monitoring Up to 32 slave modules**
- **10.1 " TFT Touch Screen Interface**
- **Instant messages of Fault & Alarm**
- **MODBUS RTU communication**

Description

The AWLD 2400-TS digital unit is designed to be used with C Systems AWLD M32 slave modules & sense cables, for water leak detection.

In the event of a fault on the sense cables (leak or cable break):
Primary responses from the AWLD2400-TS:
An internal buzzer is activated when a cable break is detected. When a leak is detected, the audible alarm is triggered and also the programmed relay gets activated. The dedicated Fire relay & Hooter gets activated.
The touch screen of the panel displays the location of the leak and details of the fault (communication fault or cable break), including the time and date the fault / alarm is registered.
Optional – integrated maps of the leak detection installation, highlighting the location of the fault, available on the touch screen display of AWLD240-TS
Secondary advanced responses :
Report to the BMS via a MODBUS protocol. The AWLD 2400-TS can drive dynamic information on the host BMS.

Features & Benefits

FEATURES

- 10.1" (255 mm) TFT colour touch-screen gives a clear and detailed indication of the system status.
- User-friendly system - Users can customize the system with sub menus accessible from home screen, to set up the panel.
- Up to 32 lengths of sense cables can be managed independently.
- All the menus can be easily access through touch screen.
- Up to 1000 events stored in the history log.
- Types of interface for communication with a BMS available.
- MODBUS RS485 serial links.
- 12 relay contacts: 8 configurable relays + relay for alarm, fire integration, fault & sounder.
- Relay positions are defined by a LED indicator.
- Different security levels to provide maximum security.

BENEFITS

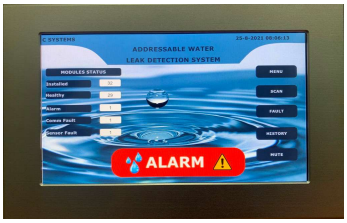
- Precise location of a leak to the nearest meter for water leak detection.
- Each slave module connected to the sense cable are addressable and can be assigned a specific name.
- Multiple simultaneous leaks can be detected (32 cables = 32 alarms).
- Different length of sense cables can be connected on the same panel through addressable slave modules.
- Cable break faults can be detected with the module name.
- When a cable break / module failure occurs, the system maintains its integrity by continuing to monitor all preceding modules & cables for faults and alarm.
- Compatible with existing monitoring systems.
- Extension and upgrade of the system is easy.

Touch Screen Menus

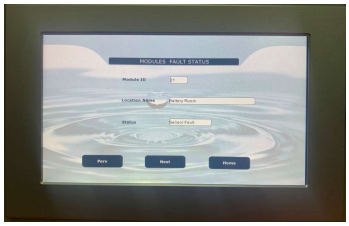
Four menus available for configuration of the AWLD 2400-TS :

MENU	Main page for viewing up the system parameters, Module configuration, user access, relay configuration, Date & time setting, serial links etc. An administrator level password is required to edit and save parameters.
SCAN	Scan Menu communicates with all the addressable slave modules installed in the critical rooms and displays the sense cable length.
FAULT	Fault Menu reports the faulty addressable slave modules and sense cables connected to the main panel.
HISTORY	History Menu reports the alarm & fault history of the connected modules and sense cables with date & time

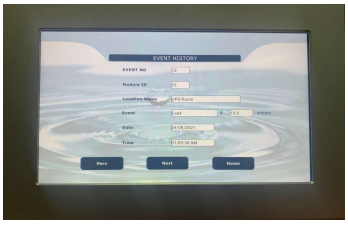
Screen Shots



Main Screen



Fault Screen



History Screen

Map Screen (optional)

AWLD2400-TS Specifications

Power	100-240VAC@ 250mA max
Included Accessories	230V AC 5A Power Cord 2 meters
Inputs	
Module	Compatible with Drop Sense Slave modules AWLDM32
Connection	2 core 1.5 sq.mm shielded twisted cable (for communication)
Maximum Length	800 m from Master panel to last slave module
Maximum Response time	maximum 7 ~14 sec for Alarm, 4 sec for cable break
Accuracy	+/- 1.0 m accuracy - minimum (+/- 3% of cable length maximum)
Outputs	
Relays	Common Alarm, Fault & fire relay, 12V output for sounder 8 Programmable relays
Communication Ports	
Port 01	EIA485 Optically Isolated
Protocols	
EIA-485 (Port 1)	proprietary protocol communicates with AWLDM32 modules
EIA-485 (Port 2)	MODBUS RTU protocol communicates with BMS gateway
EIA-232 (port3)	proprietary protocol communicates with TFT Display
Alarm Notification	
Audible Alarm	Inbuilt buzzer 80dBA @ 1m (3.3ft); External sounder (not included)
Visible Alarm	Alarm indicated on 10.1" TFT display & through BMS for integration
Logging Capabilities	
Event Log	Last 500 alarm & fault events with date & time stamp
Login Security	No password required to view AWLD2400-TS status and data. Administrator password limits configure & Log events clear.
Front Panel Interface	10.1 inch 65535 colours TFT display with resistive touch screen
Operating Environment	
Temperature	5 °C to 50 °C
Humidity	5% to 80% RH, non-condensing
Storage Environment	20 Deg to 70 Deg C (-4 Deg to 158 Deg F)
Dimensions	380mm x 280mm x 100mm
Weight	5.0kgs
Mounting	Type 1 wall mount enclosure
Certifications	**CE** (EN IEC 61010-1:2010 + A1:2019, EN ISO 12100:2010)

Drop Sense

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Drop Sense AWLDM32

ADDRESSABLE WATER LEAK DETECTION MODULE

Features

Addressable water leak detection module AWLDM32 is a micro controller based intelligent system. The modules are addressable and can be connected as daisy chain. The module can be powered using SMPS power supply provided in the enclosure. 2x1.5 Sq.mm shielded cable is recommended between Master panel to all modules in Daisy Chain topology. The sensor cable is connected to the module and to be placed any where under false floor.

When the sensor cable detects leak, AWLDM32 Module estimates the distance at which the leak occurred and transport the information to AWLD2400A panel.

Specification

Input voltage:	12V DC, 200 mA (+/- 2%) (SMPS provided in Enclosure)
Communication:	RS485 proprietary protocol. Use 1.5 Sq.mm Shielded braid copper cable
Response time	minimum 7 sec from leak sense to generate alarm in module
Indication:	Audible buzzer during alarm condition, LED indication
Sensor cable:	All Drop sense 2400 sensor cable
Maximum length:	100m per module
Mounting:	DIN RAIL mountable
Module Dimension:	120mm (H) x 70mm (W) x 75mm (D)
Enclosure Dimension:	255mm (W) x 205mm (H) x 82mm (D)
Module Weight:	600 g
Enclosure Weight:	1.6 Kgs

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Drop Sense

AWLD sensor cable

Features

C Systems Drop Sense sensing cable is used to reliably sense the presence of water . The sensing cable is durable, easy to clean, fast drying, and able to resist damage from most contaminants. The cable' s abrasion-resistant polymer core increases its strength and durability. The cable is constructed from nonconductive materials to help eliminate false alarms
When connected to a AWLD2400 panel, the sensing cable detects the presence of water and also pinpoints the exact location of the fluid along the cable route. Sensing cable is available in standard and custom lengths. Each end of the cable is factory constructed end of line circuit to make installation of leak detection systems quick and easy. Drop Sense sensing cable offers a reliable leak detection solution that mitigates potential water damage, costly business outages, and downtime.

AWLD Sensor Cable Specifications

Sheer Strength	>81.65kg. (>180 lbs)
Cut Through Resistance	>18.14kg. (>40 lbs) with 0.127mm (0.005in) blade
Dimension:	5.5mm dia.
Maximum sensor cable run:	100m
Weight:	28 g /m
Panel:	Drop Sense AWLD 2400
Country of origin:	INDIA

Models Avaliable:

Sensing Cable Length (add type to above code)

-10M 10 meters (32.81ft)
-15M 15 meters (49.21ft)
-20M 20meters (65.62ft)
-25M 25 meters (82.02ft)

Custom lengths available on request *

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