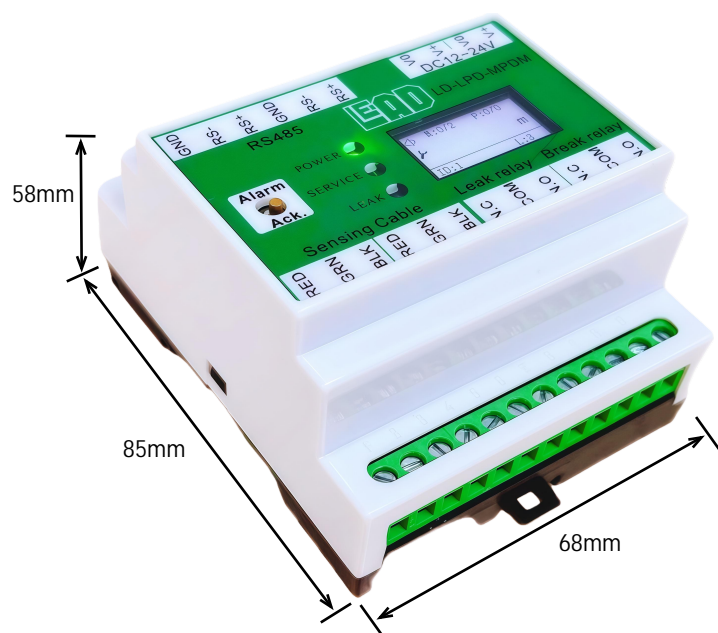# Multi-point Panel
LD-LPD-MPDM

Product Datasheet

Product overview

The LD-LPD-MPDM multi-point lead locating panel, LP-SM lead sensor module, sensing line and related accessories together form a multi-point leak detection system.
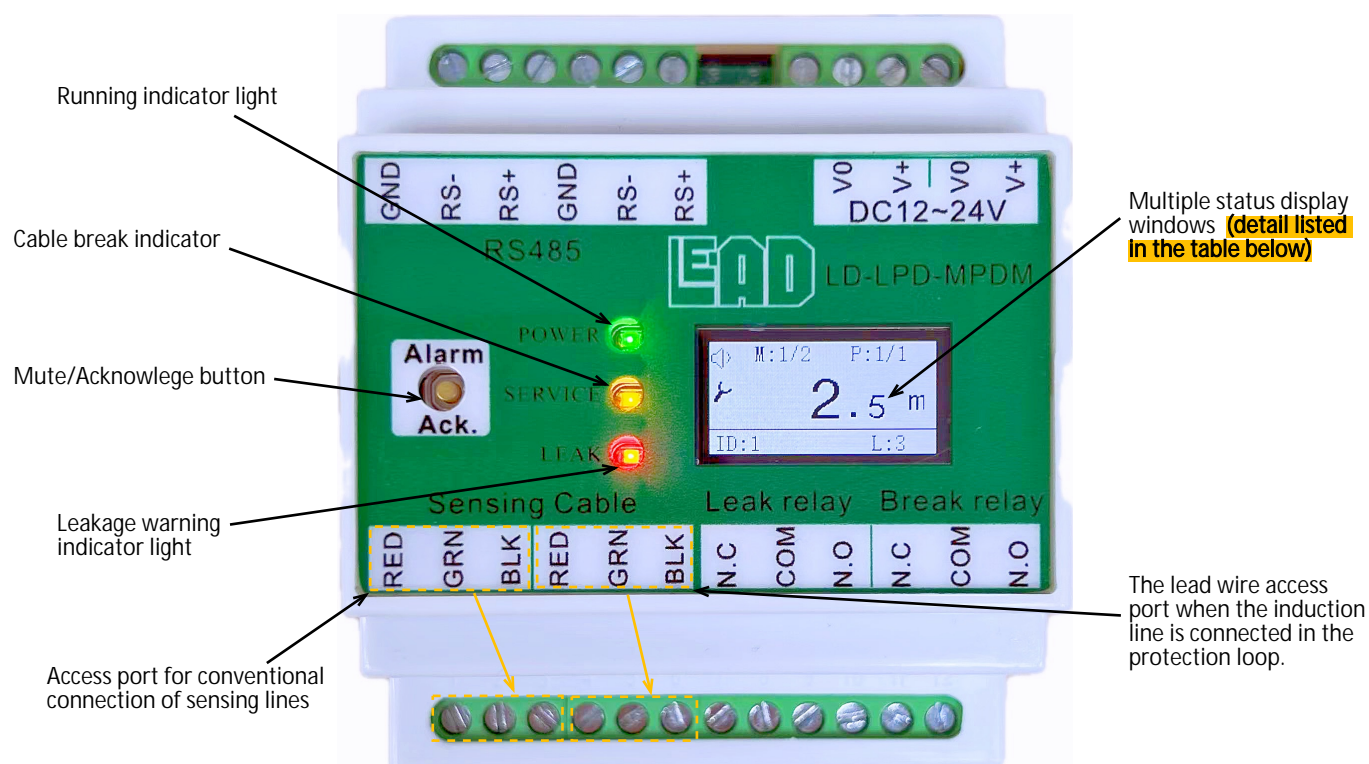

LD-LPD-MPDM panel

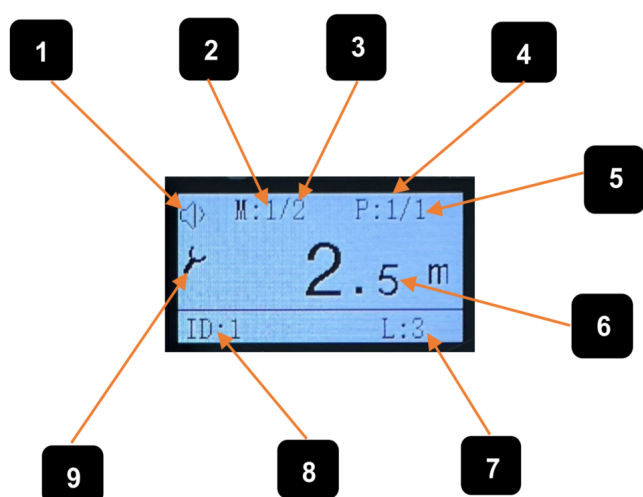LP-SM sensor module

Sensing cable

Jumper cable

Function map

LD-LPD-MPDM operation panel introduction

- Running indicator light
- Cable break indicator
- Mute/Acknowlege button
- Leakage warning indicator light
- Access port for conventional connection of sensing lines
- Multiple status display windows **(detail listed in the table below)**
- The lead wire access port when the induction line is connected in the protection loop.

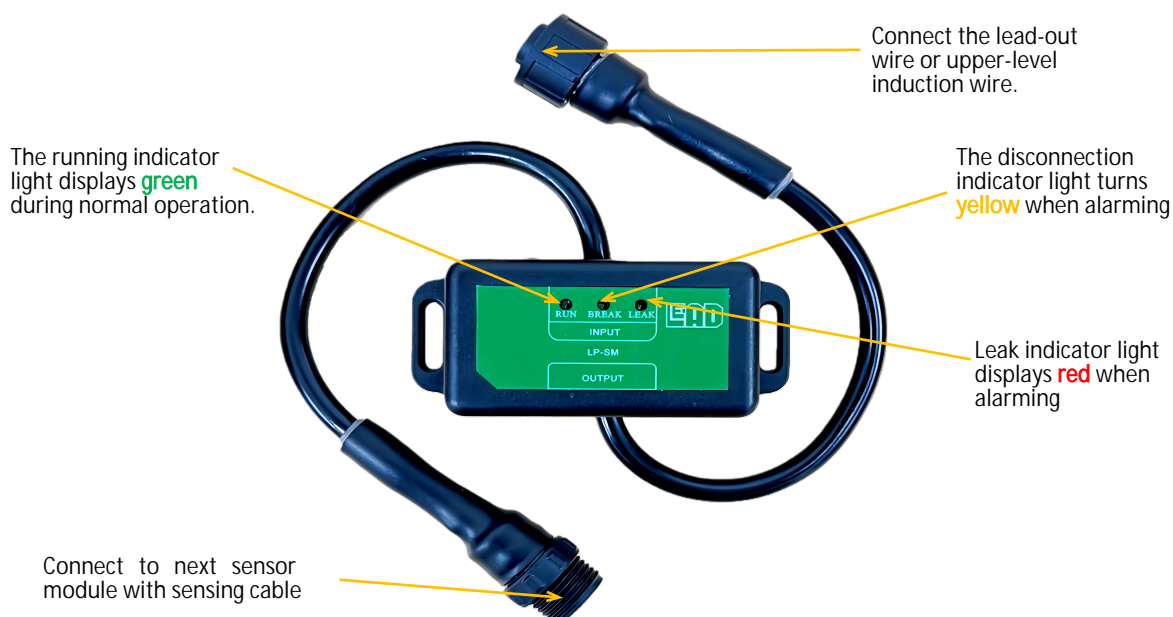| 1	Buzzer sound sign
2	Current SM module quantity
3	The number of SM modules searched
4	Currently displayed location
5	Number of water leakage alarm points
6	Water leakage alarm location
7	Total length of sensing cable
8	Device address
9	Service/cable break warning

LD-LPD-MPDM liquid leakage detection module LCD display notes

Technical data

Power supply	Voltage: DC 12 ~ 24V Power <5W
SM sensing line module quantity	Up to 16
Single length of SM module sensing line	Up to 50 meters
Total length of sensing wire	Up to 800 meters
Number of simultaneous alarms at leak locations	Up to 16
Loop connection	1. Conventional connection method. 2. Fail safe loop back.
Measurement parameters	SM module online quantity, sensing line length, sensing line breakage, leakage position and quantity.
Measurement accuracy	± 0.5m
Alarm response time	< 3 s
Relay	1 channel SPDT disconnection alarm output, 1 channel SPDT water leakage alarm output. Capacity: 220VAC/1A, 30VDC/1A.
Buzzer	Minimum 80 dB
Communication interface	RS485, the maximum communication distance can reach 1200 meters, and the maximum number of nodes can reach 256.
Programming protocol	Standard Modbus RTU
Working environment	Temperature: -20~60℃ Humidity: up to 95%RH, no condensation.
Install card	35mm DIN
Dimension	68mm x 85mm x 58mm (L x W x H)

LP-SM sensor module display notes

Connect the lead-out wire or upper-level induction wire.

The running indicator light displays green during normal operation.

The disconnection indicator light turns yellow when alarming

Leak indicator light displays red when alarming

Connect to next sensor module with sensing cable

Set up and operate

The system uses LD-LPD-MPDM module and LP-SM sensing line, which can detect liquids such as water, acid, alkali, oil and so on. Up to 16 modules can be connected, each supporting 50-meter sensing line, capable of detecting and displaying 16 water leakage locations at the same time, and providing RS485 and relay alarm signals.

The LD-LPD-MPDM module uses patented circuits and algorithms to accurately locate the leakage position of any loop in the four-core detection line, and can correctly detect and alarm even if two loops are broken.

The module circuit system uses highly sensitive components, which can not only ensure high sensitivity during detection, but also avoid false alarms caused by various external factors. Designed with unique anti-surge protection.

Multi-purpose design

The LD-LPD-MPDM multi-point liquid leakage detection module and the LP-SM Lead senor module are small in size, and all installation and operations can be easily completed without opening the modules.

The multi-point leakage detection system has an alarm mode that automatically resets after the leakage/disconnection alarm is eliminated. The alarm indicator,buzzer, and relay output are also reset accordingly.
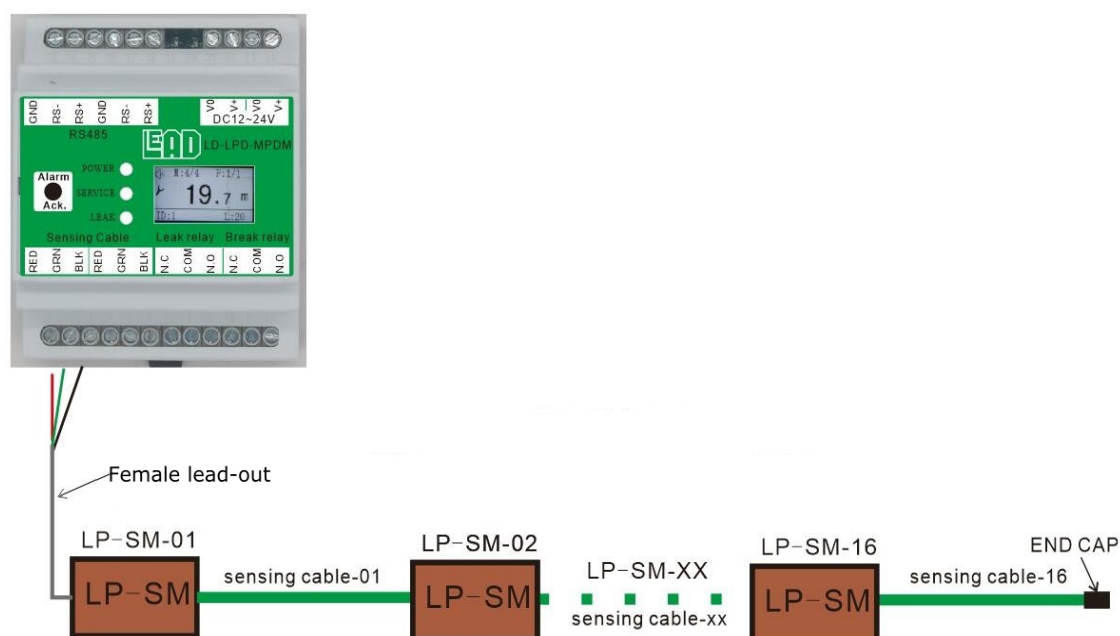
Stepless detection sensitivity adjustment; button silencer function.

This multi-point liquid leakage detection module is suitable for air conditioning processing equipment, data centres, archives, museums, base stations, semiconductor factories, computer rooms, liquid containers, pump tanks, water pumps, pipelines, pools and other occasions that require leakage monitoring and alarming.
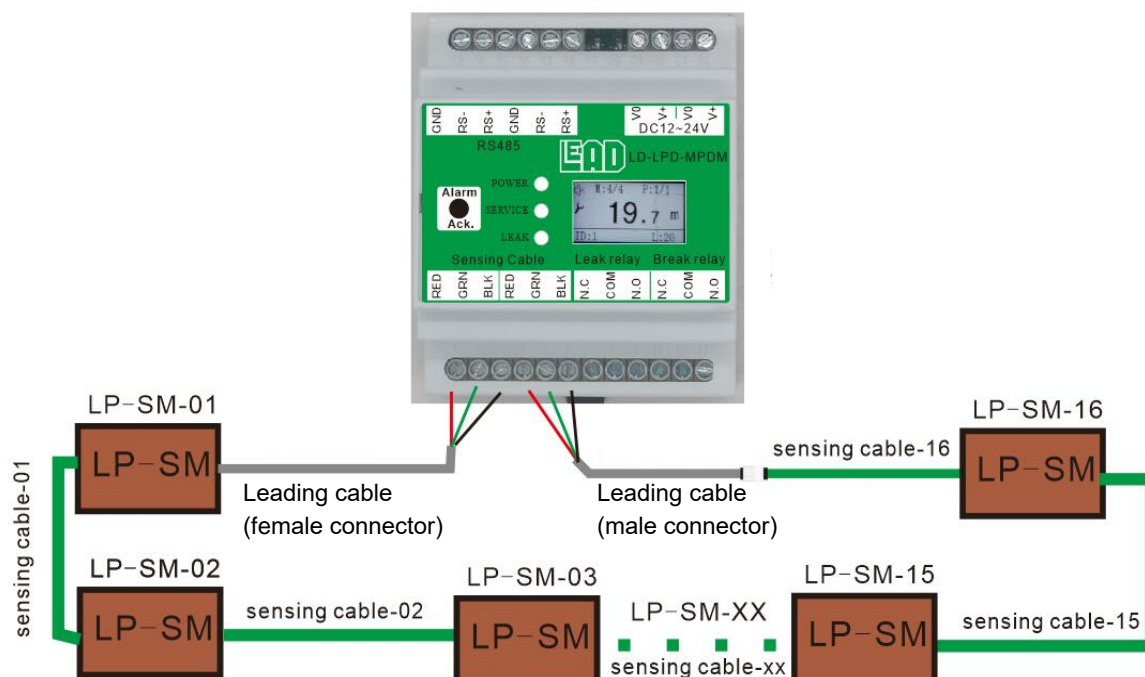
Notes: Other RS485, power supply and relays can be connected according to the port instructions.

Multi-point leakage detection system composition

* Conventional connection method of sensing cable

Female lead-out

LP-SM-01   sensing cable-01   LP-SM-02   LP-SM-XX   sensing cable-xx   LP-SM-16   sensing cable-16   END CAP

* Fail safe loop back connection method

LP-SM-01

Leading cable (female connector)

Leading cable (male connector)

LP-SM-16   sensing cable-16

LP-SM-02   sensing cable-02   LP-SM-03   LP-SM-XX   sensing cable-xx   LP-SM-15   sensing cable-15

sensing cable-01

Installation details

* The water leakage detection module is installed on the guide rail

The LD-LPD-MPDM liquid leakage detection module is a small and compact leakage detection equipment. It comes with a 35DIN release valve that is easily stuck on the guide rail and is very convenient to install in a waterproof box or control electrical box.
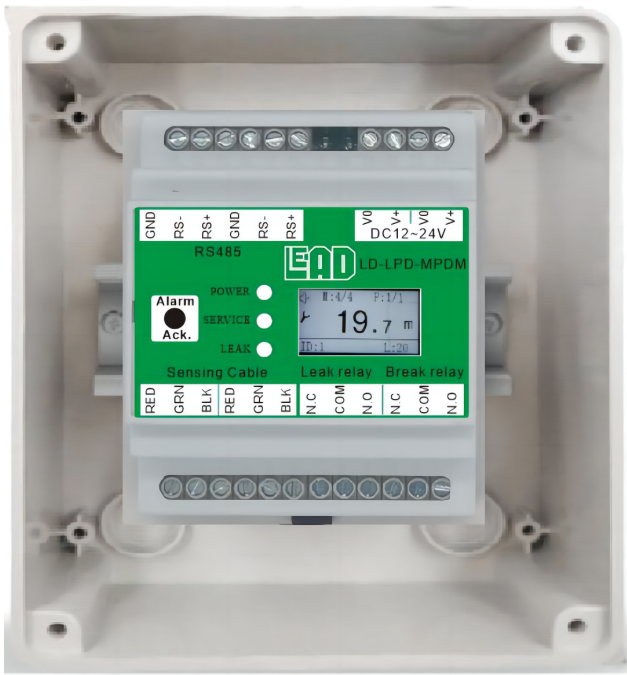
The LD-LPD-MPDM liquid leakage detection module is not waterproof. If the controller is used in a humid environment for a long time, it is recommended to purchase an additional waterproof box for installation in order to achieve a safe use environment and extend the service life.

When installing the LD-LPD-MPDM liquid leakage detection module, be sure to turn off the power, wire it correctly according to the instructions, and check that it is correct before powering on.

* Schematic diagram of sensing cable layout

Covering the whole area

Comprehensive protection for critical areas
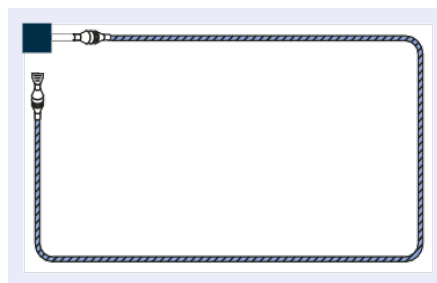
Cover edge area

Prevent leakage from immersing or spreading
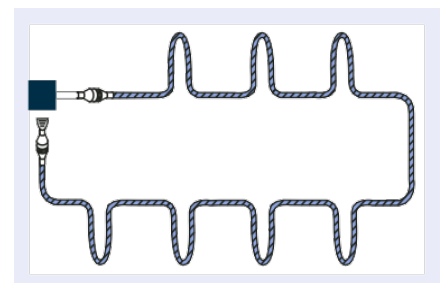
Cover air-conditioned area

Key protection for major leakage sources such as air conditioners

* Schematic diagram of sensing cable layout

Cable clip	Cable holder with sitck-on	Overhead piping	Bundled with floor pedestal	Fixed with glue	Under HVAC downdraft
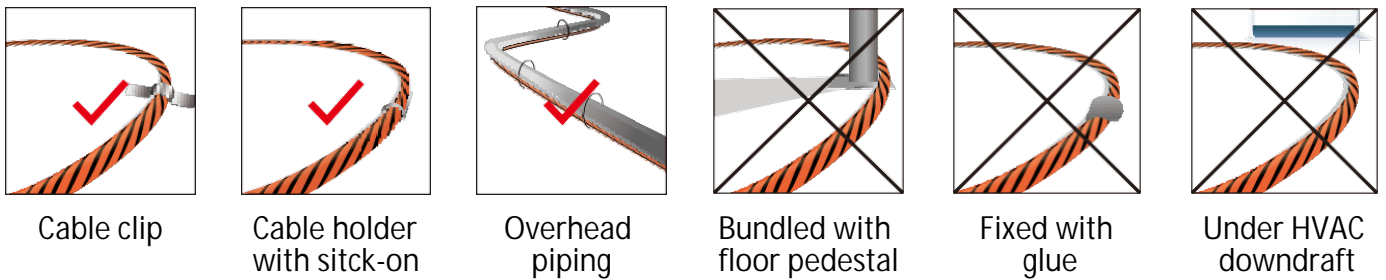
Cables should be installed away from high-temperature fire sources, strong magnetic fields, and humid and dusty environments. Be careful to avoid scratching the cable sheathwith sharp objects.

Certified product

CE

LD-LPD-MPDM multi-point liquid leakage detection module has been calibrated by CE and CSA and is suitable for non-hazardous areas.

LD-LPD-MPDM multi-point liquid leakage detection module has a free warranty commitment of three years after installation and use.

LEAD product list

Product		Features	Product code
Master panel		Can connect 500m sensor cable, 100 units of slave panels (LP-LPM, LD-LPD-2RLB, point type sensor). Set the **address and sensitivity** of the locating panel	LP-LPM
Detection panel		**Detect the leak location** Acceptable sensing cable length: **up to 800m**	LD-LPD-2RLB
		Collect **point type sensor** leakage signals Quantity of point type sensors connected: **up to 12**	LM-D12
		Panel: Detect the **multiple leak location** with LP-SM Acceptable sensing cable length: **up to 800m Senor module**: Maximum **50m** sensing cable per each module. Maximum **16 sensor modules** LP-SM for each LD-LPD-MPDM	LD-LPD-MPDM & LP-SM
		Detect **liquid leak** and display the current system status	LP-NP
Sensing cable		**Water** sensing cable	WS-LXXX
		Oil sensing cable	LD-LLW5000-LXXX
		Chemical sensing cable	CS-LXXX
		Organic solvent sensing cable	LD-LLW5001-LXXX
		Cotton base water sensing cable	LD-LLW1002-LXXX
Point type sensor		Protection class: **IP65**	LP-LGM
		Fully sealed and waterproof structure More **flexible**. Protection class: **IP65**	LD-SDS-RO/485

Note: In the interest of product improvement, specifications are subject to change without notice.

2025.11