Product summary

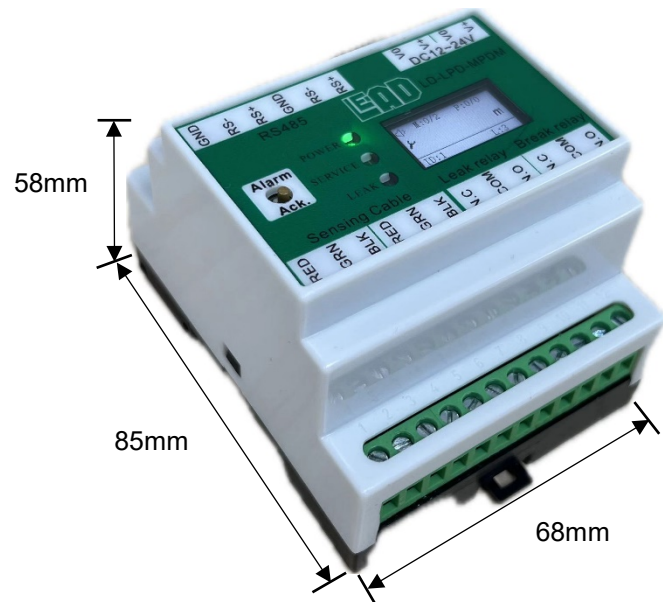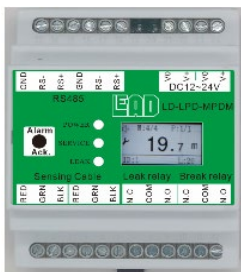The LD-LPD-MPDM multi-point lead Locating Panel, LP-SM lead Sensor Module, Sensing line and related accessories together form a multi-point leak detection system.

Easy to 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.

Multipurpose 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.
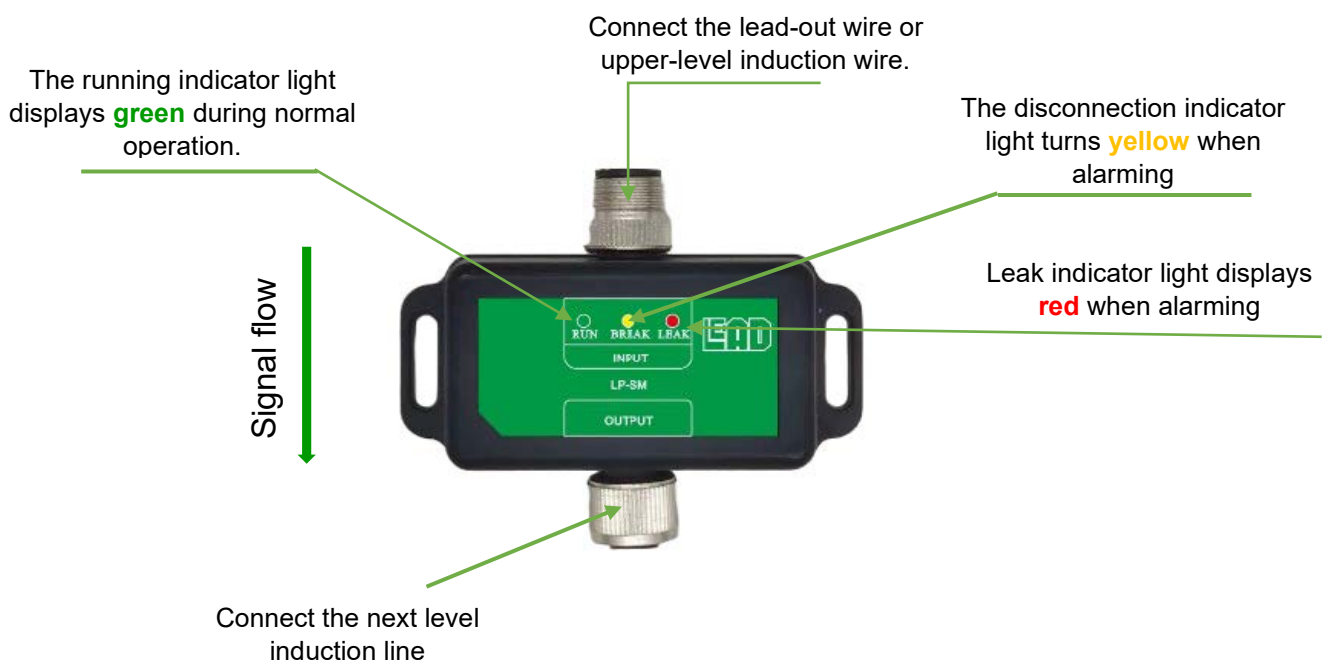
Product certification

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.
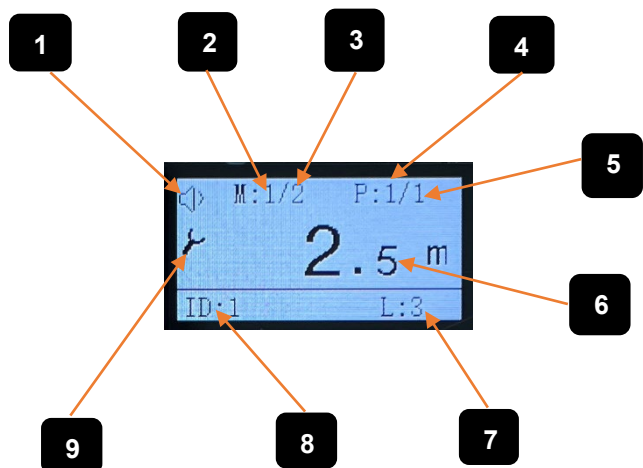
LD-LPD-MPDM parameters

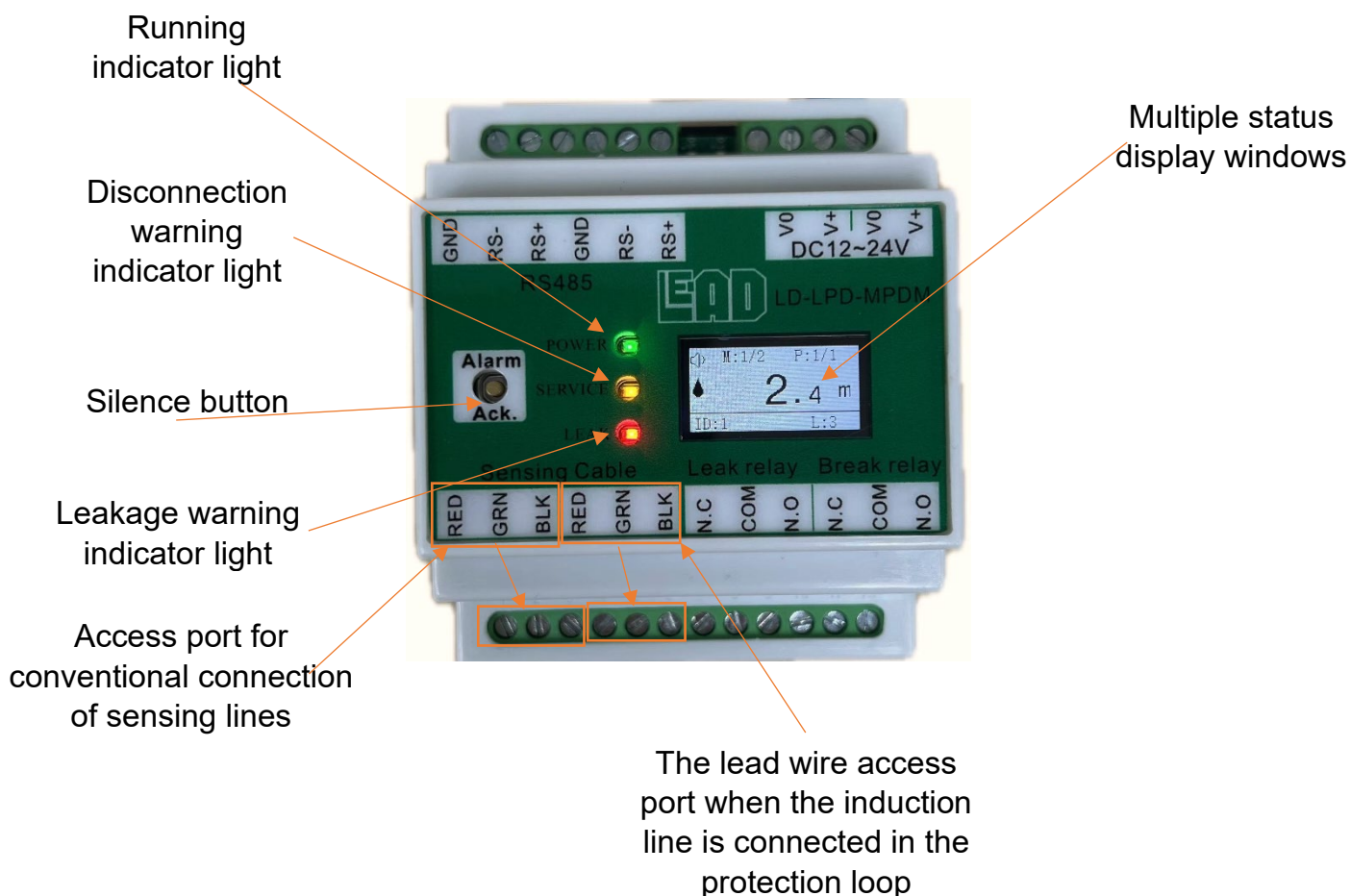| power supply	Voltage: DC12 ~ 24V, power <5W.
SM sensing line module quantity	Up to 16.
Single length of SM module sensing line	Up to 50 meters.
Total length of sensing wire	Up to 800 meters.
Number of simultaneous alarms at leak locations	Up to 16.
Loop connection	1. Conventional connection method. 2. Protection circuit connection method.
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: 220V AC/1A, 30VDC/1A).
Buzzer	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.
Size	L85mm*W68mm*H58mm.
Install card	35mm DIN.

LP-SM lead 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

Signal flow

Connect the next level induction line

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

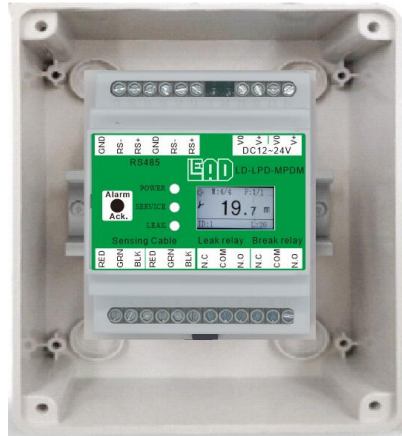|	
1	Buzzer sound sign
2	Current SM module quantity
3	The number of SM modules searched
4	Currently displayed location
5	Number of water leakage alarm points
6	Water leakage alarm location
7	Total length of access sensing line
8	MPDM location
9	Water leakage/disconnection warning sign

LD-LPD-MPDM liquid leakage detection module panel notes

Running indicator light

Disconnection warning indicator light

Silence button

Leakage warning indicator light

Access port for conventional connection of sensing lines

Multiple status display windows

The lead wire access port when the induction line is connected in the protection loop

Other RS485, power supply and relays can be connected according to the port instructions.

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.
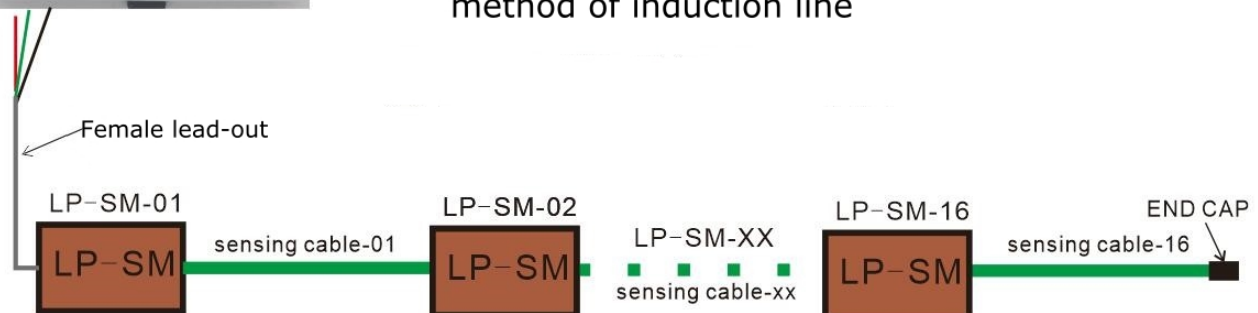

- The LD-LPD-MPDM liquid leakage detection module is not waterproof. If the controller is used in a humid environment for a long time, it is recommended to purchase an additional waterproof box for installation in order to achieve a safe use environment and extend the service life.

- 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.

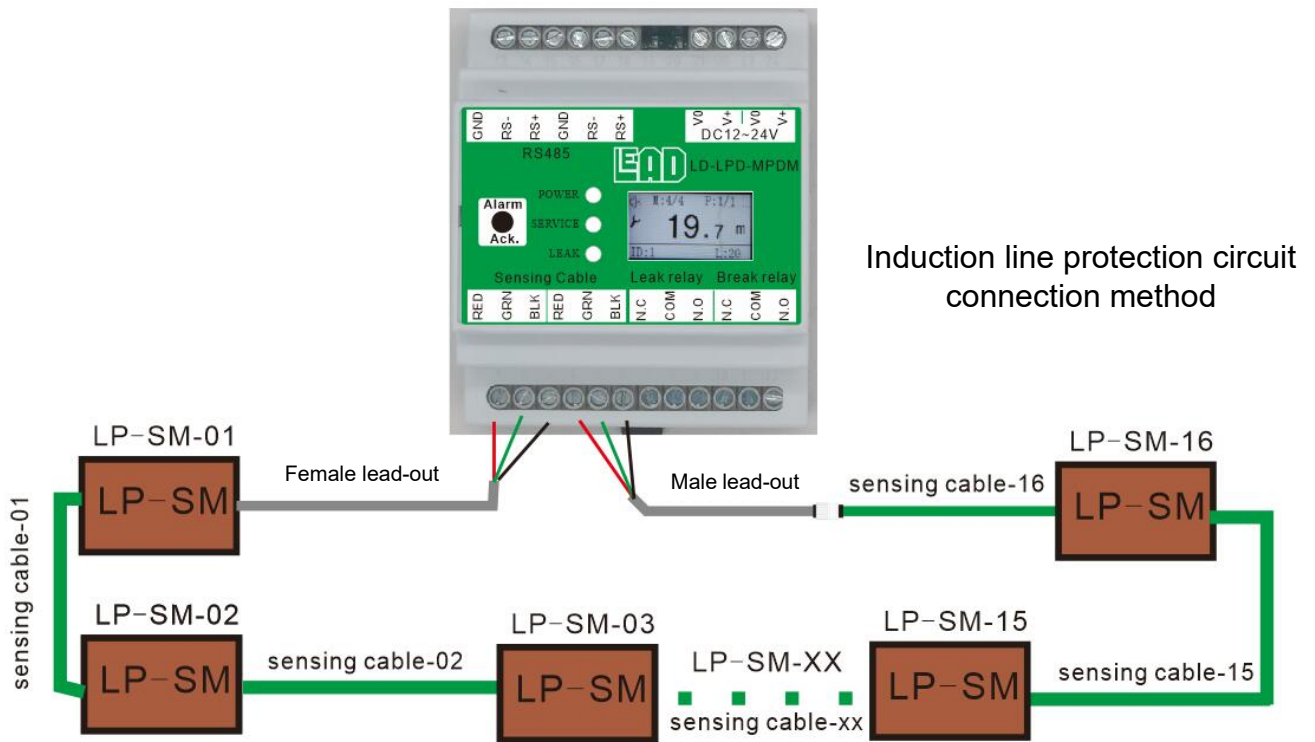## Multi-point leakage detection system composition

① Conventional connection method of induction wire

Conventional circuit connection method of induction line

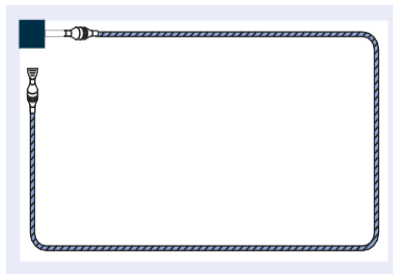## ② Induction line protection circuit connection method

Induction line protection circuit connection method

LP-SM-01 — Female lead-out — Male lead-out — sensing cable-16 — LP-SM-16

sensing cable-01

LP-SM-02 — sensing cable-02 — LP-SM-03 — LP-SM-XX — sensing cable-xx — LP-SM-15 — sensing cable-15
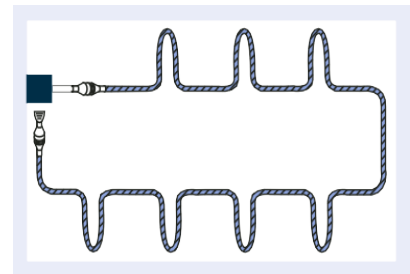
Schematic diagram of sensing cable layout

Covering the whole area

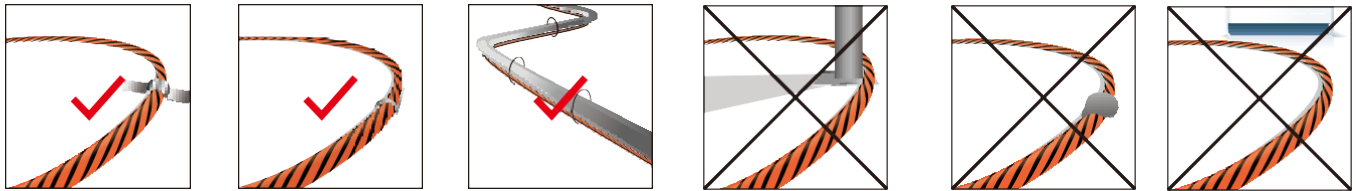Comprehensive protection for critical areas

Cover edge area

Prevent leakage from immersing or spreading

Cover air-conditioned area

Key protection for major leakage sources such as air conditioners

Detection cable installation and fixation

Cable Clip	Cable holder with Sitck-on	Overhead Piping	Bundled with Floor Pedestal	Fixed with glue	Under HAVC 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 sheath with sharp objects.