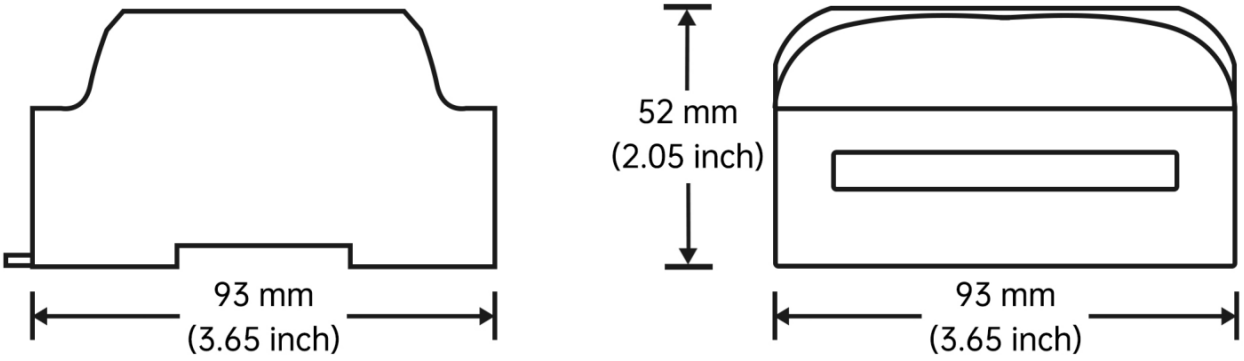
LEAD Locating Panel
LD-LPD-2RLB

Product Datasheet

Product overview

LEAD leak detection system uses Locating Panel to detectthe liquid leak and communicates to BMS system. The alarm, fault and power LEDs display the curren system status while the built-in leakage locating feature can identify where the leak occurs.

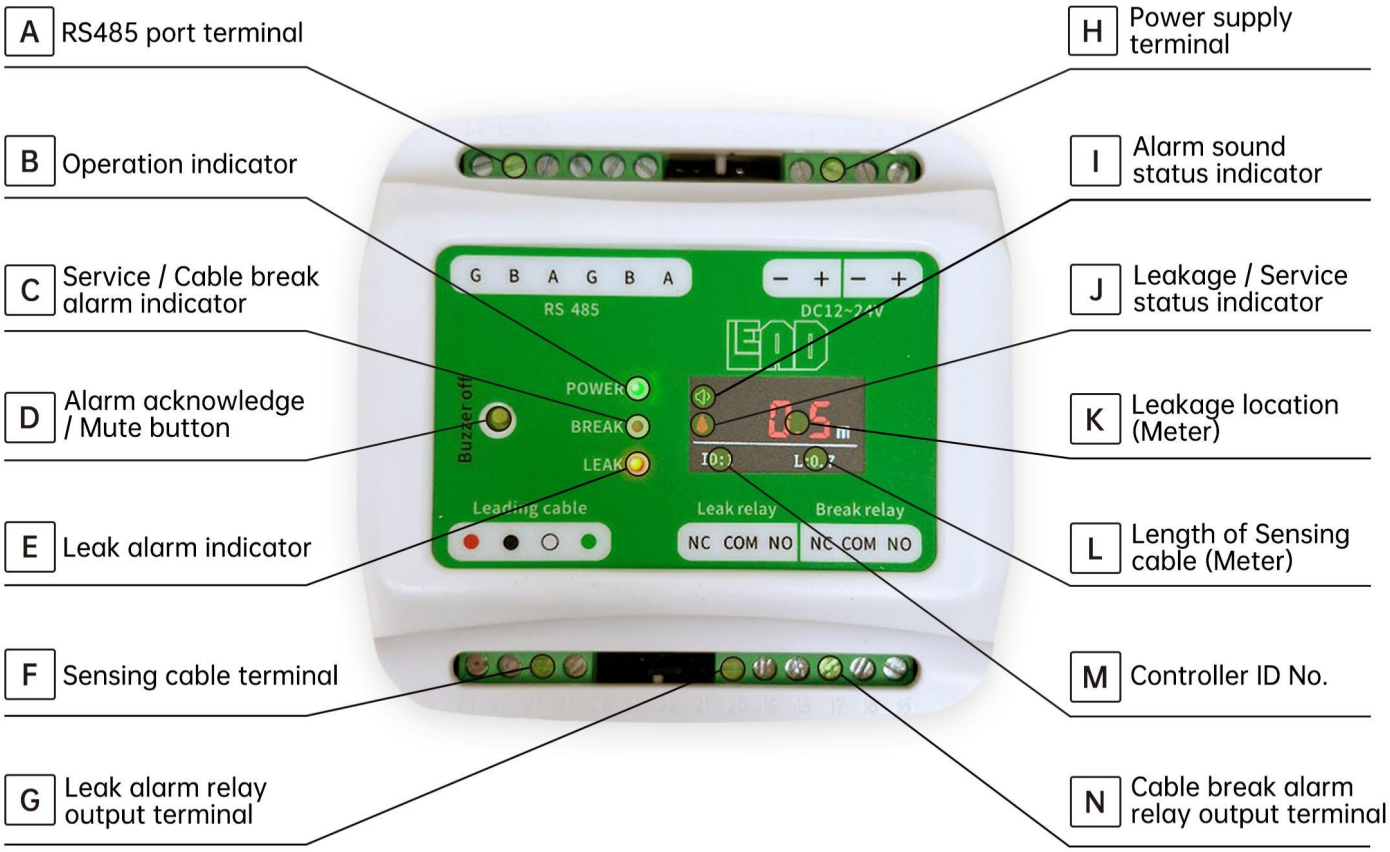
Note: *The panel needs to be used in conjunction with the water sensing cable, model No. WS-LXXX. XXX is the length of water sensing cable in meter.*



Features

- OLED display unit and LED indicators show the operation and alarm status.
- Alarm acknowledges button / Alarm sound mute function included.
- Power supply terminals.
- Sensitivity of leakage detection and cable resistivity can be configured for different environment and application.
- Fail-safe loop back connection is supported.
- Real-time detection of the cable length and leakage status of the sensing cable.
- When the controller is powered on, it will automatically enter the self-checking state without manual intervention.

Function map



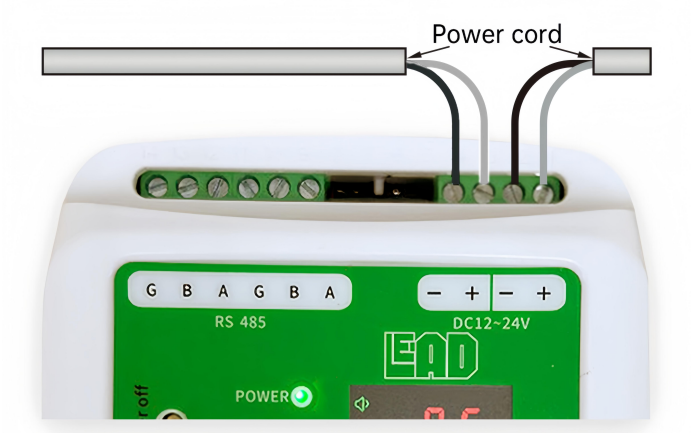
Technical data

Power supply	DC12-24V150mA 5W
Length of sensing cable	Up to 800m
Accuracy	0.5% of length of sensing cable or ± 0.5m
Relay output	2xSPDT 1NO +1NC (Contact Rating 220V AC/1A 30VDC/1A)
Sensitivity	<3s
Communication port	RS485
Communication	Modbus RTU
Sound alarm	80dB minimum (Mute function included)90dB maximum
Operating environment	Temperature:-20°C-60'C Humidity: 95% non-condensing
Altitude	1000m max.
Dimension	L93mm x W93 mm xH52(mm)
Mounting	35mm DIN Rail
Degree of protection	NEMA 1.Standard IP00 (option P56)

Wire connection

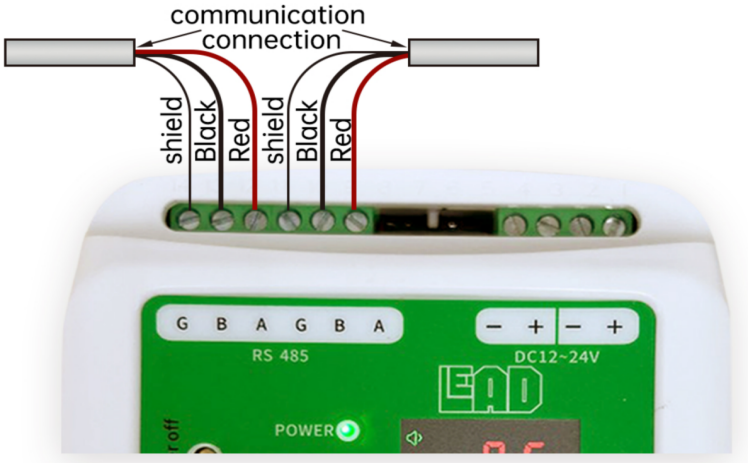
* Power supply connection

LD-LPD-2RLB has a variety of power supply options. Wiring requirements will vary depending on the type of equipment installed and local regulations. In all cases, it should be ensured that the power supply voltage retrieved by each LD-LPD-2RLB came from the same power source. Besides, the supply voltage must be limited to the range specified on the LD-LPD-2RLB label.



* Serial port connection

Strip the insulation coat and shielding layer on the part of the power cable andexpose the four core wires about 25mm in length. Peel the insulation layer of the core wire to expose a conductor about 6mm in length, which will be connected according to figure as shown.
Network configuration RS-485 serial port, different baud rates are available, and the default is 9600 bps, the address is 1 through to 255, and the factory default address is 1.

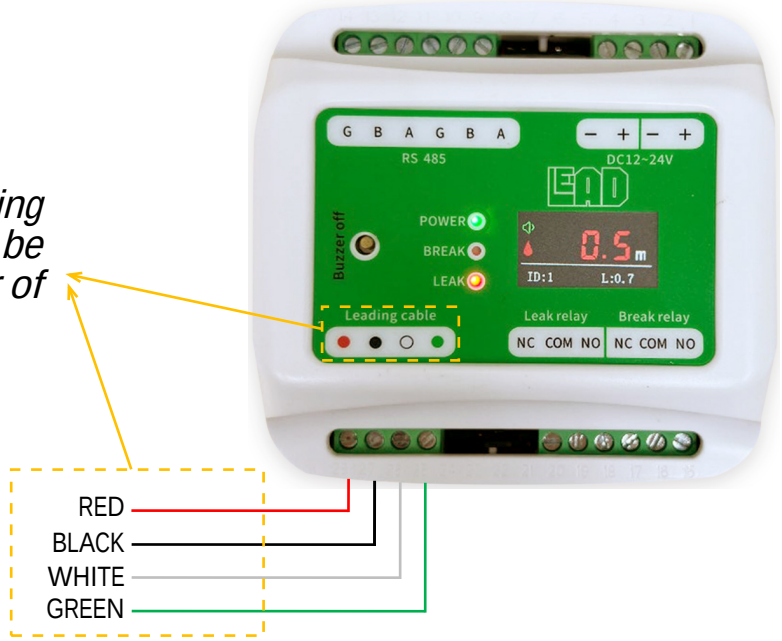


Note: *The two figures in this page shows the wiring situation when multiple panels are connected in series. If only one panel is needed, just connect one of the two sets of wires.*

* Sensing cable connection

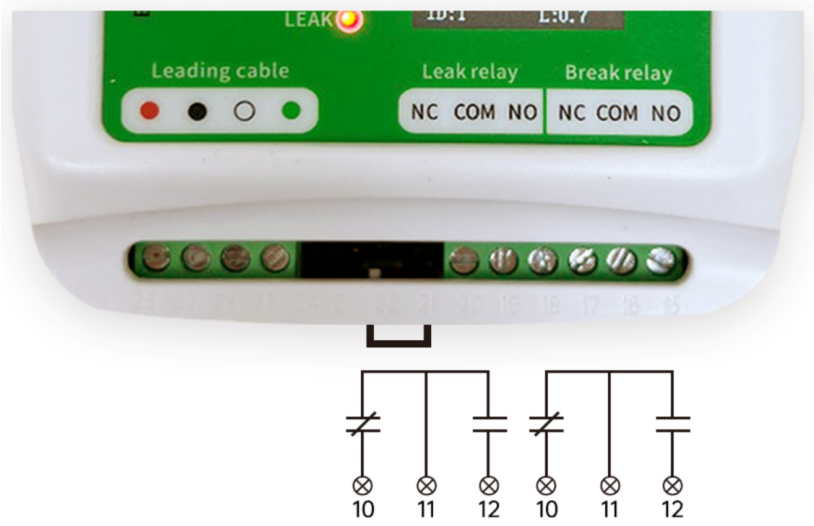
The LD-LPD-2RLB location leakage controller can be used with LEAD water sensing cable. As shown in the figure, LEAD leading cable is connected to the locating panel LD-LPD-2RLB as below:

Note: *The color of sensing cables need to be aligned with color of terminal.*



* Alarm relay connection

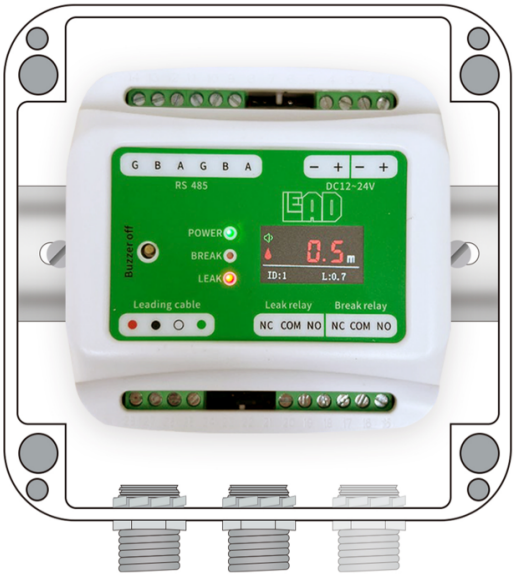
Programmable LD-LPD-2RLB relay output can be used for local or remote alarm, control valves or other devices, and can also be connected to the control automation system contact input. The relay can be programmed to alarm only for leakage or sensor failure. The two alarm modes of the relay, normally open and normally closed, coexist. Users can select according to the project requirement.



Note: *Relay contact capacity should strictly comply with the requirements of the manual, otherwise it will cause safety hazards or accidents.*

Installation details

* LD-LPD-2RLB mounting with external enclosure



Typical outdoor or harsh environment installation requires the enclosure to have three mounting holes: one for power supply and telemetry communication cable inlet, one for power source and telemetry communication cable outlet, one for sensing cable outlet as shown as left. Make use of the mounting holes in the four corners and matching hardware to firm the shell to a suitable vertical plane. Roughly install the conduit according to the requirements and draw in the power supply and telemetry communication cable. Reserve about 20 cm for terminals connected to LD-LPD-2RLB.
Puncture leakage sensing cable. In order to ensure maximum electrostatic discharge protection and meet relevant standards, DIN guide rail must be grounded.

Note: *Simple installation and final wiring are not necessary to complete at the same time, but if the installation of the enclosure is not completed, the outer cover should be covered, and tighten the screws of the outer cover, and then open the enclosure when the restart to do the unfinished work.*

* LD-LPD-2RLB without enclosure installation

Fix suitable length of DIN guide rail to meet the requirements on the plane, or find enough position on the existing DIN guide rail to instal LEAD LD-LPD-2RLB. When installing, be careful to release the latch downward.

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

2025.11