# DL-10-UL

Temperature and Humidity Sensing Module

# DL-11-UL

Temperature/Humidity/Atmospheric Pressure/Dew Point Sensing Module




Ver. 1.0, Oct. 2026

## WARRANTY

All productsanufactured by ICP DAS are warranted against defective materials for a period of one year from the date of delivery to the original purchaser.

## WARNING

ICP DAS assumes no liability for damages consequent to the use of this product. ICP DAS reserves the right to change this manual at any time without notice. The information furnished by ICP DAS is believed to be accurate and reliable. However, no responsibility is assumed by ICP DAS for its use, nor for any infringements of patents or other rights of third parties resulting from its use.

## COPYRIGHT

Copyright © 2026 by ICP DAS. All rights are reserved.

## TRADEMARK

Names are used for identification only and may be registered trademarks of their respective companies.

## CONTACT US

If you have any questions, please feel free to contact us via email: service@icpdas.com

ICP DAS CO., LTD.
service@icpdas.com
https://www.icpdas.com

# TABLE OF CONTENTS

**SAFETY INSTRUCTIONS** ..... **3**

**1. INTRODUCTION** ..... **7**

1.1 PACKAGE LIST ..... 7

**2. HARDWARE INFORMATION** ..... **8**

2.1 APPEARANCE & PIN ASSIGNMENTS ..... 8

2.2 SPECIFICATION ..... 9

2.3 DIMENSIONS ..... 11

2.4 FACTORY DEFAULT SETTINGS ..... 11

2.5 MOUNTING THE DL MODULE ..... 12

**3. GETTING STARTED** ..... **14**

3.1 CONNECTING THE POWER AND THE HOST PC ..... 14

3.2 INSTALLING SOFTWARE ON YOUR PC ..... 16

3.3 SEARCHING MODULE ..... 16

*What to do if the DL module is not detected?* ..... *20*

3.4 CONFIGURING MODULE ..... 21

*Configuration* ..... *22*

*Data Reading* ..... *23*

**4. MODBUS REGISTER TABLE (BASE 0)** ..... **25**

4.1 DL-10-UL ..... 25

4.2 DL-11-UL ..... 27

**APPENDIX: REVISION HISTORY** ..... **30**

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

# Safety Instructions

This manual uses standard hazard notification statements to alert the user to potential safety risks.
Ensure all personnel read and understand these definitions before installation or operation.
Keep this manual for future reference.

**WARNING** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury, or equipment damage.

**WARNING**

- Installation and servicing shall be performed only by qualified service personnel familiar with industrial control equipment and applicable electrical codes.
- Disconnect all power sources before installing, wiring, servicing, or removing the product.
- Do not disassemble, modify, or repair this product. There are no user-serviceable parts inside.
- This product is not waterproof; keep it away from liquids and humid environments.
- Use this product only as described in this manual.

**CAUTION**

**Power Supply**

- Use only a power supply that provides **SELV or double insulation** and complies with the **Limited Energy (LE) or Limited Power Source (LPS)** requirements evaluated in accordance with UL 61010-1, UL 61010-2-201, or UL 62368-1.
- The power supply shall comply with the electrical ratings specified for the product.
- Ensure proper grounding before connecting a Class 1 adapter to the product.
- When powered by PoE, do not route the network outdoors.
- Disconnect the power supply before installing, removing, or wiring the product.

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

**CAUTION**

**Magnetic Mounting**

This product is equipped with a **Neodymium magnet** (N35/Ni, φ10 mm×3 mm) on the rear panel for magnetic mounting.

**Magnetic Mounting Surface Compatibility**

| Sheet Metal Material | Magnetic Characteristics | N35 Magnet Holding Performance | Suitability |
|---|---|---|---|
| **Pure Iron** | Extremely strong ferromagnetism | Very strong holding force | **Fully Suitable** |
| **SPCC/SECC/ SGCC/SS400** | Strong ferromagnetism (carbon steel) | Strong and stable holding force | **Fully Suitable** |
| **SUS410/ SUS430** | Moderate ferromagnetism (martensitic/ ferritic stainless steel) | Good holding force | **Fully Suitable** |
| **Cold-Worked SUS304** | Weak magnetism induced by cold working | Weak to moderate holding force | Not Suitable |
| **Annealed SUS304/ SUS316** | Austenitic (non-magnetic or very weakly magnetic) | No or very weak magnetic attraction | Not Suitable |

- Ensure the mounting surface is made of ferromagnetic steel with sufficient thickness (e.g., ≥1.5 mm) to achieve maximum holding force.
- Painted, coated, or non-ferromagnetic surfaces will significantly reduce the magnetic holding force.
- Do not install the product in environments subject to continuous high vibration or external mechanical impacts to prevent accidental detachment.

**Mounting Recommendation:**

**Wall mounting is the preferred and recommended method for securely installing the product**. Magnetic mounting may be used only on suitable ferromagnetic surfaces that provide sufficient magnetic holding force to prevent the device from becoming detached or falling.

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

**CAUTION**



**Wiring and Connections**

- Turn off the power before making or changing any wiring connections.
- Use only copper conductors rated for 75 °C (167 °F) or higher.
- Use wiring and connection components with ratings suitable for the specified operating conditions.
- Route signal wiring separately from power wiring whenever possible.
- Verify that all terminal screws are securely tightened before applying power.



**Installation Environment**

Install in a suitable industrial control enclosure that provides protection against:

- Electric shock
- Fire
- Mechanical damage
- Dust and moisture

The enclosure shall be accessible only by the use of a tool.

Provide adequate ventilation around the product. Do not block ventilation openings.



**Operating Conditions**

- Operate the product only within the environmental specifications in this manual.
- Do not install or operate the product in locations subject to excessive dust, moisture, corrosive or explosive gases, or other environmental conditions that exceed the specified ratings.
- Disconnect the power and network cables during thunderstorms to prevent damage.
- Do not mount the product on surfaces exceeding 70°C
- Pollution Degree 2
- Installation Category (Overvoltage Category) I
- Altitude up to 2000 m (6,561 ft.)
- Indoor use only

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

**CAUTION**

**Maintenance and Servicing**

- Disconnect all power sources before performing maintenance or servicing.
- Clean only with a dry, soft cloth.
- Do not use solvents, aerosol cleaners, or abrasive materials.
- Periodically check wiring and hardware for safe operation.
- Do not attempt to disassemble or repair the product.
- Do not use the product if it is damaged or operates incorrectly.

  **Contact service centers**.

**Warranty Limitation**

- Damage caused by failure to follow these instructions is not covered by warranty.
- This product is covered by ICP DAS official warranty.

# Contact Information

Website: https://www.icpdas.com/
Email: service@icpdas.com
Phone: +886-(03)-597 3366
Address: No. 111, Guangfu N. Rd., Hukou Township, Hsinchu County 30351, Taiwan, R.O.C.

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

# 1. Introduction

The **DL-10-UL / DL-11-UL Series** are standalone remote sensing modules intended for **indoor use** in industrial monitoring and control applications. They are designed to monitor multiple temperature, humidity, pressure, and dew point measurement points over an RS-485 network. Supporting the Modbus RTU protocol, the modules enable seamless integration with industrial control systems and can be configured using DCON Utility Pro. Their compact design minimizes installation space, making them suitable for space-constrained applications.

## 1.1 Package List

**The shipping package includes the following items:**



DL-10-UL/
DL-11-UL



Quick Start

**NOTE**

If any of these items is missing or damaged, please contact your local distributor for more information.
Keep the shipping materials and overall package in case you want to ship the module back in the future.

**More Information**

- Product Page:

  https://www.icpdas.com/en/product/DL-10-UL series
  https://www.icpdas.com/en/product/DL-11-UL series

  Documentation:
  https://www.icpdas.com/en/download/index.php?model=DL-10-UL series

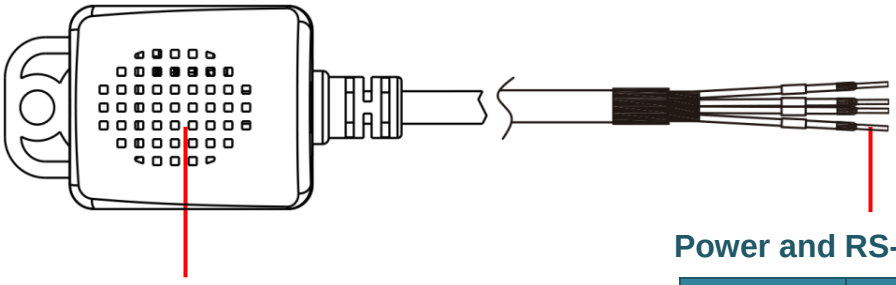
- Free Development Software – DCON Utility Pro:
  https://www.icpdas.com/en/product/guide+Software+Utility Driver+DCON Utility Pro

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

# 2. Hardware Information

## 2.1 Appearance & Pin Assignments

### Front Panel

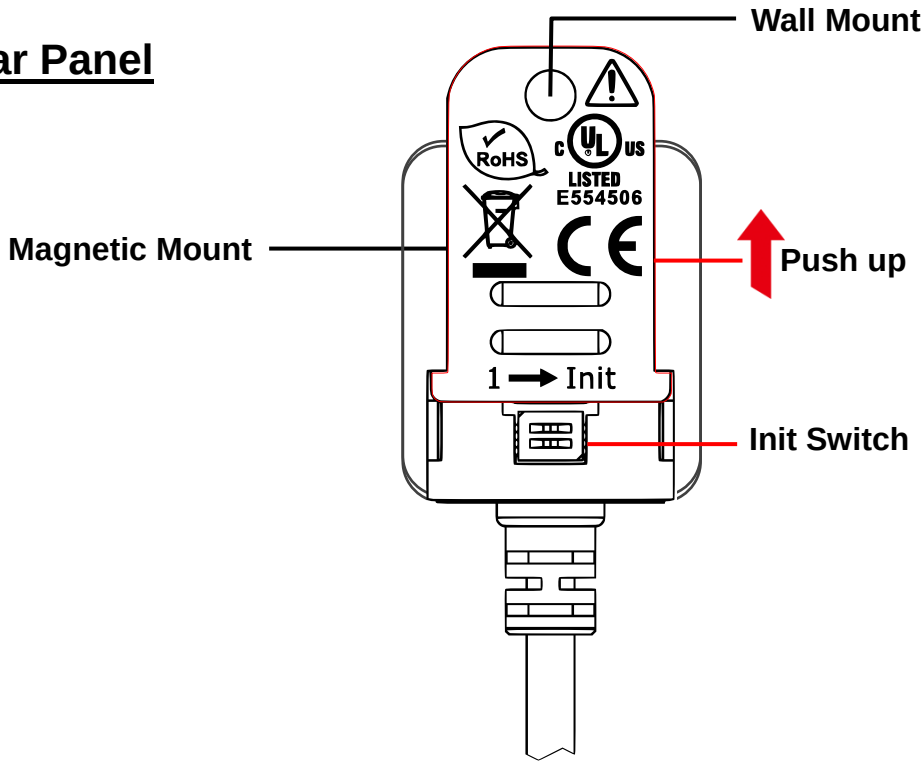


**DL-10-UL: Temperature / Humidity Sensor**
**DL-11-UL: Temperature / Humidity**
**Atmospheric Pressure Sensor**

**Power and RS-485 Connector**

| CONN | Color | Pin Assignment |
|---|---|---|
| 1 | White | D- |
| 2 | Red | Vcc |
| 3 | Black | GND |
| 4 | Green | D+ |

### Rear Panel




Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

# 2.2 Specification

| Model | DL-10-UL | DL-10-BK-UL | DL-11-UL | DL-11-BK-UL |
|---|---|---|---|---|
| **Temperature** | | | | |
| Measuring Range | -25 ~ +70 °C (-13 ~ +158 °F) | | | |
| Resolution | 0.1 °C | | | |
| Accuracy | Typical: ± 0.4 °C @ 0 ~ 60 °C; refer to Figure 2 | | | |
| Precision | ± 0.1 °C | | | |
| **Humidity** | | | | |
| Measuring Range | 0 ~ 95% RH | | | |
| Resolution | 0.1% RH | | | |
| Accuracy | Typical: ± 3% RH @ 20 ~ 80 % RH; refer to Figure 1 | | | |
| Precision | ± 0.1% RH | | | |

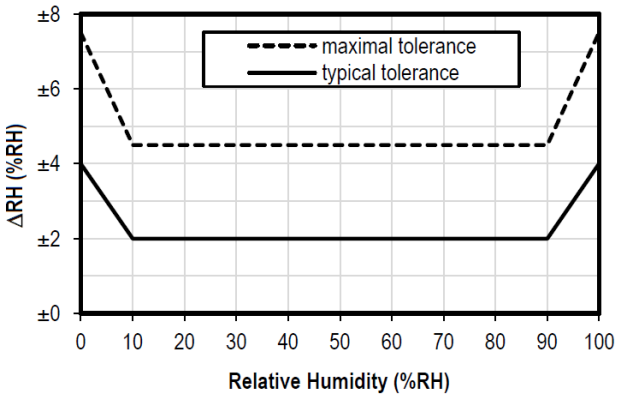



**Figure 1** Tolerance of RH at 25°C for sensor.

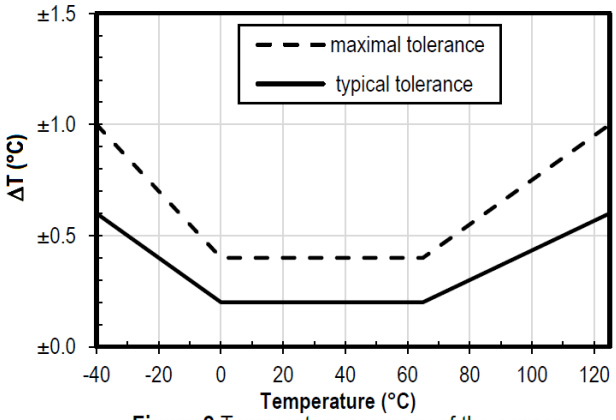



**Figure 2** Temperature accuracy of the sensor.

| | | |
|---|---|---|
| **Dew Point** | | |
| Range | Calculated using temperature and relative humidity | |
| Resolution | 0.1 °C | |
| **Atmospheric Pressure** | | |
| Range | - | 300 ~ 1200 hPa |
| Accuracy | - | 1 hPa |
| Resolution | - | 0.1 hPa |
| **Communication** | | |
| Interface | 1 x RS-485; Non-isolated | |
| Baudrate | 1200 ~ 115200 bps | |
| Data Format | N, 8, 1 | |
| Protocol | Modbus RTU | |
| Max. Modules on same bus | 32 | |

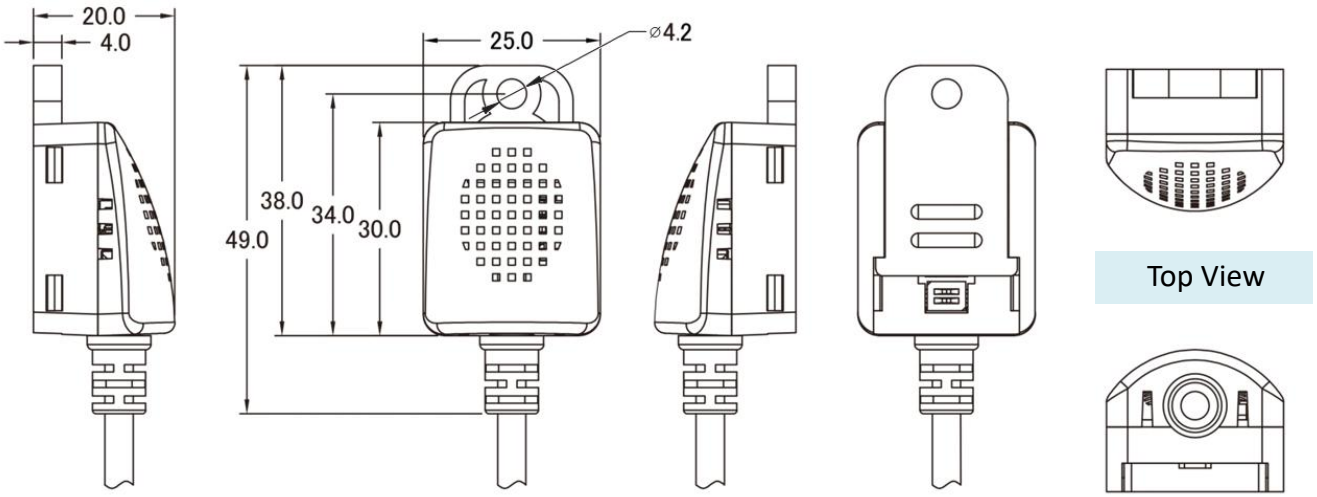
Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

| Model | DL-10-UL | DL-10-BK-UL | DL-11-UL | DL-11-BK-UL |
|---|---|---|---|---|
| **Power** | | | | |
| Input Range | +10 ~ +30 $V_{DC}$ | | | |
| Consumption | 0.05 W | | | |
| Requirement | SELV or double-insulated power supply complying with the applicable LE or LPS requirements | | | |
| **Mechanical** | | | | |
| Dimensions (W x L x H) | 25 mm x 20.2 mm x 30 mm | | | |
| Weight | 51g ± 3 g | | | |
| Installation | Magnetic mount; Wall mount | | | |
| Cable Length | 3 m | | | |
| Color | White | Black | White | Black |
| **Environment** | | | | |
| Operating Temperature | -25 ~ +70 °C | | | |
| Storage Temperature | -30 ~ +80 °C | | | |
| Humidity | 0 ~ 95% RH, Non-condensing | | | |
| Operating Location | Indoor use only | | | |
| Pollution Degree | Pollution Degree 2 | | | |
| Altitude | Up to 2,000 meters (6,561 ft.) | | | |
| Overvoltage Category | Category I (OVC I) | | | |

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

# 2.3 Dimensions

**Unit: mm**




Left Side View | Front View | Right Side View | Rear View | Top View | Bottom View

# 2.4 Factory Default Settings

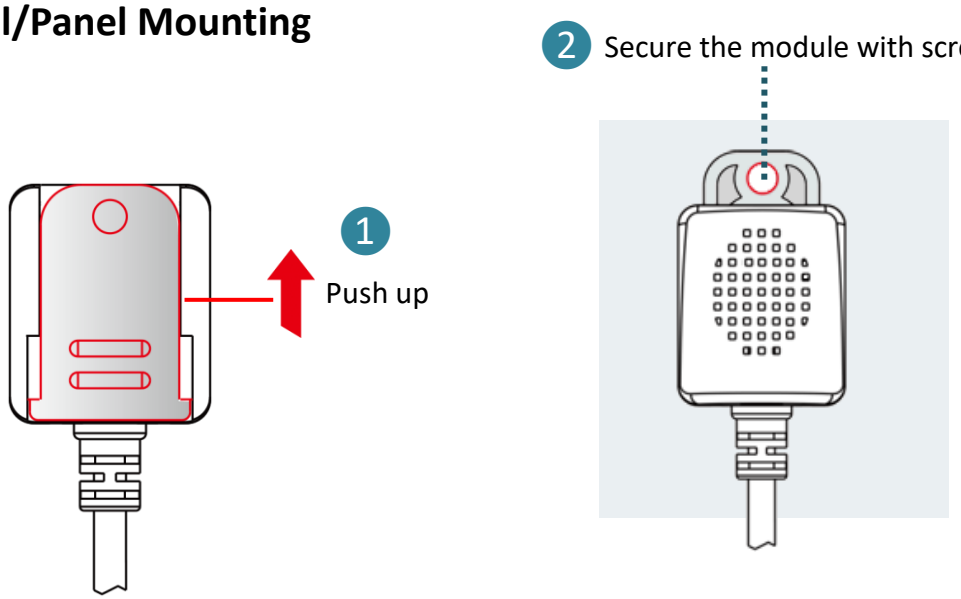
| Item | Default | Item | Default |
|---|---|---|---|
| **Device ID** | 1 | **Data Format** | N, 8, 1<br>Parity: None<br>Data Size: 8<br>Stop Bits: 1 |
| **Baud Rate** | 115200 bps | | |
| **Protocol** | Modbus RTU | | |

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

# 2.5 Mounting the DL Module

**Wall mounting is the preferred and recommended method** for securely installing the DL Module. Magnetic mounting may be used only on suitable ferromagnetic surfaces that provide sufficient magnetic holding force to prevent the device from becoming detached or falling.

## Wall/Panel Mounting




When the module is mounted on a wall, ensure that the mounting surface and mounting hardware are suitable for securely supporting the module.

- For concrete or masonry walls, use appropriate anchors and screws suitable for the wall material.
- For wooden walls or other wood-based surfaces, use appropriate screws or mounting hardware suitable for the material and thickness of the mounting surface.

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

## Magnetic Mounting

Magnetic backing enables the DL module to be easy mounting on ferromagnetic surfaces.




**NOTE**

When using magnetic mounting:

- Install the module only on a suitable ferromagnetic surface, such as iron or steel, that provides sufficient magnetic holding force.
- Paint, coatings, plating, plastic film, or other non-magnetic coverings may reduce magnetic holding force. Ensure that the module remains securely attached.- Not subject to vibration or movement
- Do not use magnetic mounting in locations subject to excessive vibration, shock, or impact that may cause the module to detach.

**Magnetic Mounting Surface Compatibility**

| Sheet Metal Material | Magnetic Characteristics | N35 Magnet Holding Performance | Suitability |
|---|---|---|---|
| **Pure Iron** | Extremely strong ferromagnetism | Very strong holding force | **Fully Suitable** |
| **SPCC/SECC/ SGCC/SS400** | Strong ferromagnetism (carbon steel) | Strong and stable holding force | **Fully Suitable** |
| **SUS410/ SUS430** | Moderate ferromagnetism (martensitic/ ferritic stainless steel) | Good holding force | **Fully Suitable** |
| **Cold-Worked SUS304** | Weak magnetism induced by cold working | Weak to moderate holding force | Not Suitable |
| **Annealed SUS304/ SUS316** | Austenitic (non-magnetic or very weakly magnetic) | No or very weak magnetic attraction | Not Suitable |

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

# 3. Getting Started

This chapter provides a basic overview of how to configure and operate your DL module.

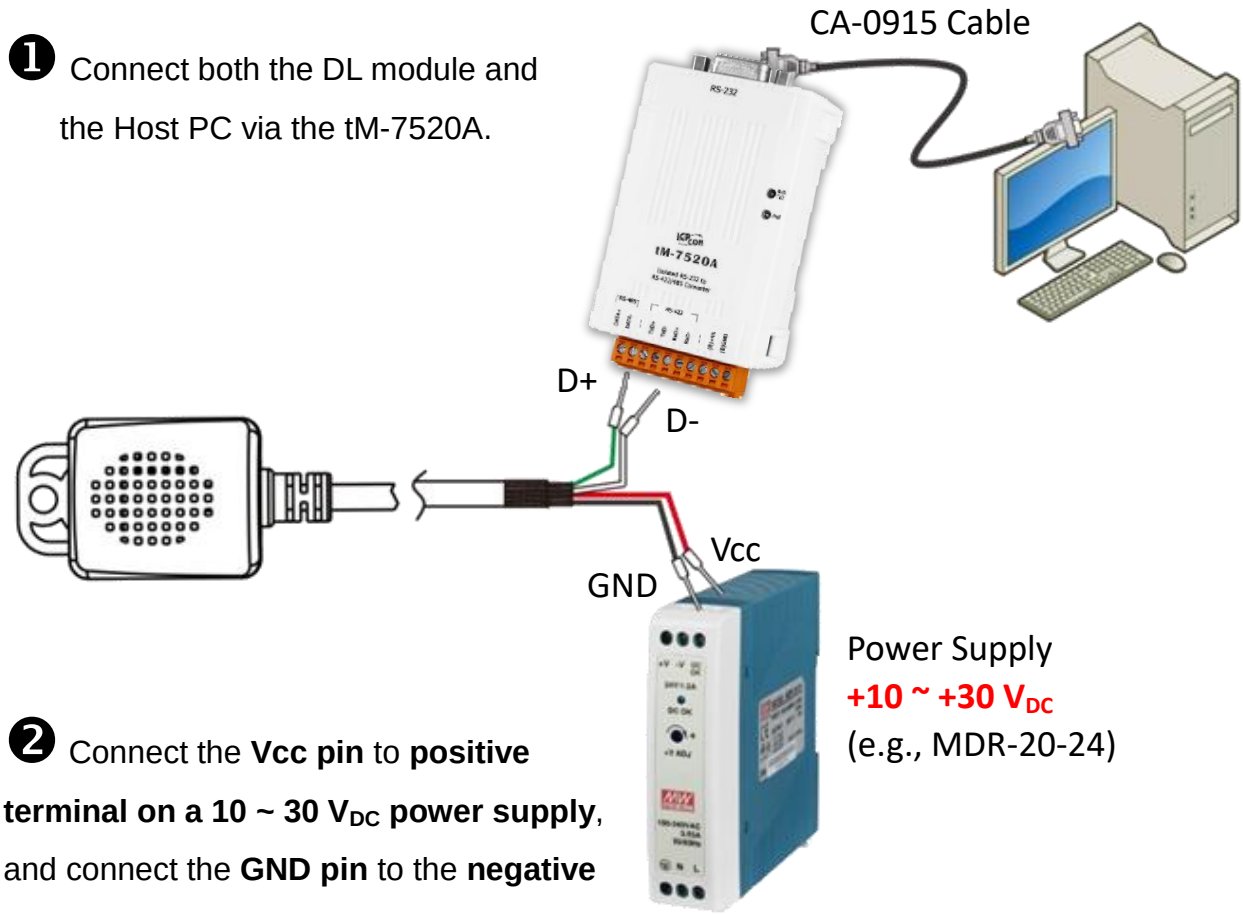
## 3.1 Connecting the Power and the Host PC

**Prepare for device**

☑ RS-232 to RS-485 Converter: tM-7520A (optional)
☑ Exterior power supply device: MDR-20-24 (optional)

**Wiring**

❶ Connect both the DL module and the Host PC via the tM-7520A.




❷ Connect the **Vcc pin** to **positive terminal on a 10 ~ 30 $V_{DC}$ power supply**, and connect the **GND pin** to the **negative terminal**.

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

## Cable and Wiring Specifications

When connecting the device to the power supply and the tM-7520A RS-485 converter, use the specified cable assembly complying with UL requirements:

| Item / Parameter | Specification / Requirement | Details & UL Compliance |
|---|---|---|
| **Cable Style** | UL2725 (1P + 2C Shielded Cable) | UL Listed / Recognized Cable |
| **Wire Gauge** | 28 AWG | Conductor Size |
| **Conductor Material** | Copper (Cu) | Pure Copper Conductor |
| **Temperature Rating** | 75 °C | Standard Rating for UL2725 |
| **Voltage Rating** | 30 V | Low Voltage DC Operation |
| **Terminal Type** | E0308 Cord End Ferrules | Insulated Pin Terminals |
| **Wire Identification** | D+, D-, $V_{CC}$, GND | Color/Shrink Tube Labeled |
| **Cable Length** | 3000 ± 50 mm | Outer Diameter: 3.0 mm |

**CAUTION**

- Ensure the UL2725 cable (28 AWG, 75 °C rating) with pre-installed **E0308 ferrules** is properly inserted into the terminal blocks of the tM-7520A converter and power module.
- Verify that all pin signals (**D+, D-, $V_{CC}$, GND**) are correctly matched to the corresponding screw terminals before tightening to prevent damage to the module and system.

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

# 3.2 Installing Software on Your PC

Download **DCON Utility Pro.zip** from the ICP DAS web site and decompress it

https://www.icpdas.com/en/download/show.php?num=1046

# 3.3 Searching Module

**Step 1**

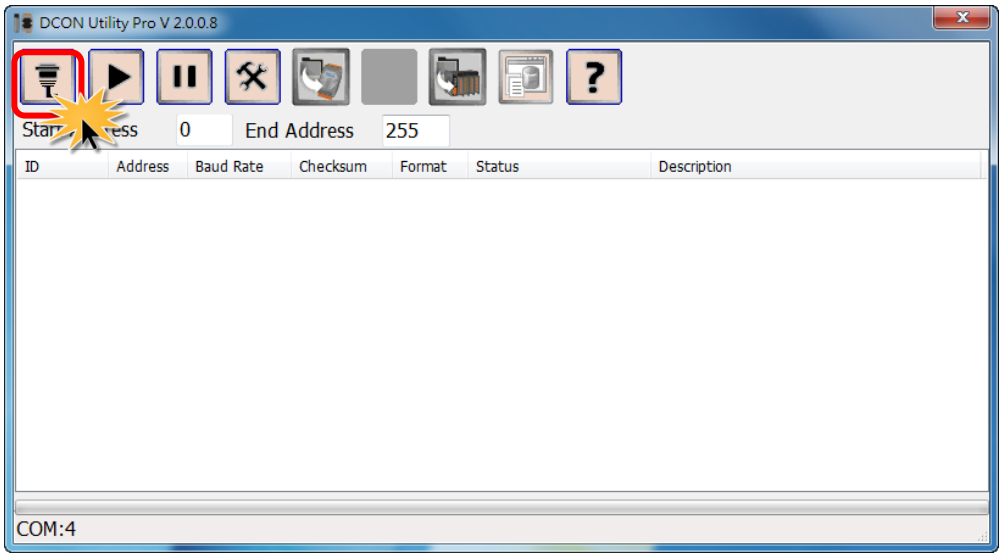
Run the DCON Utility Pro software




Double click the DCON_Utility_Pro.exe.

**Step 2**

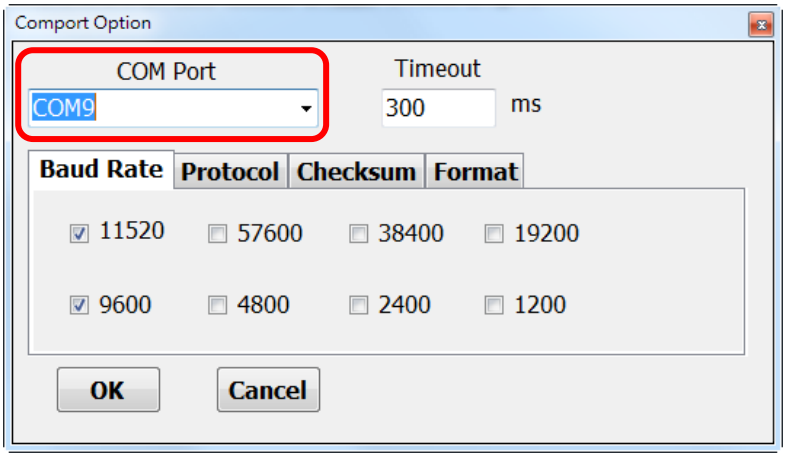
Click the  button to open the "**Comport Option**"dialog box.




Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

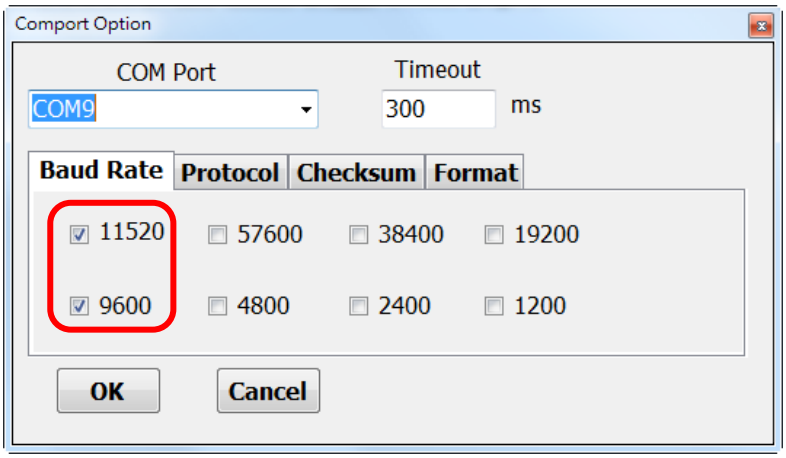
## Step 3

Select COM Port (e.g., COM9) on the Host PC to which the DL module is connected.




## Step 4

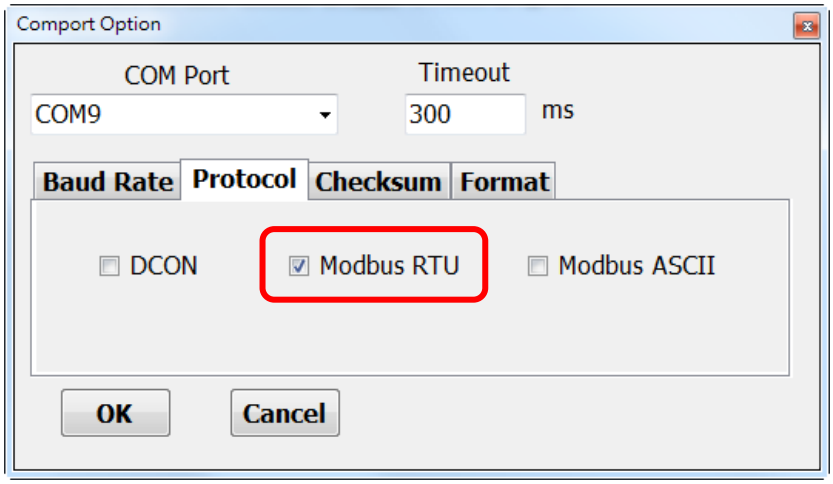
Select the Baud Rate (e.g., 9600 and 115200) depends on DL module in the Baud Rate page.




Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

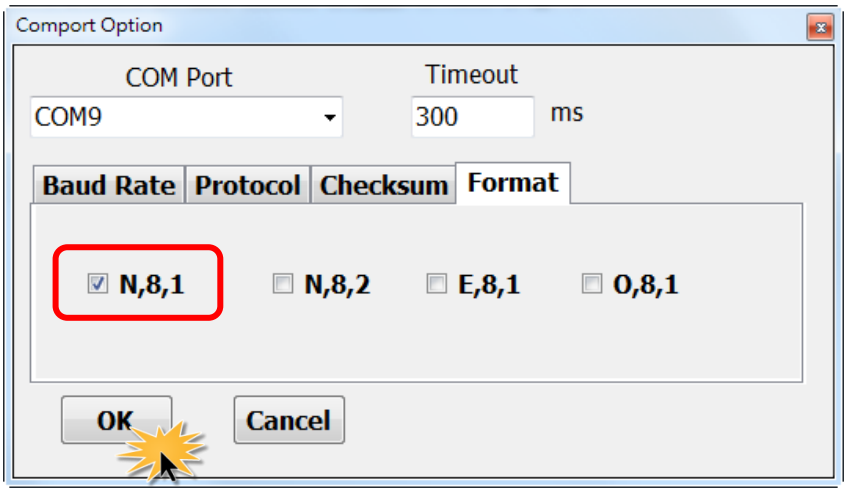
## Step 5

Select the protocol that the DL module is using in the Protocol page.




## Step 6

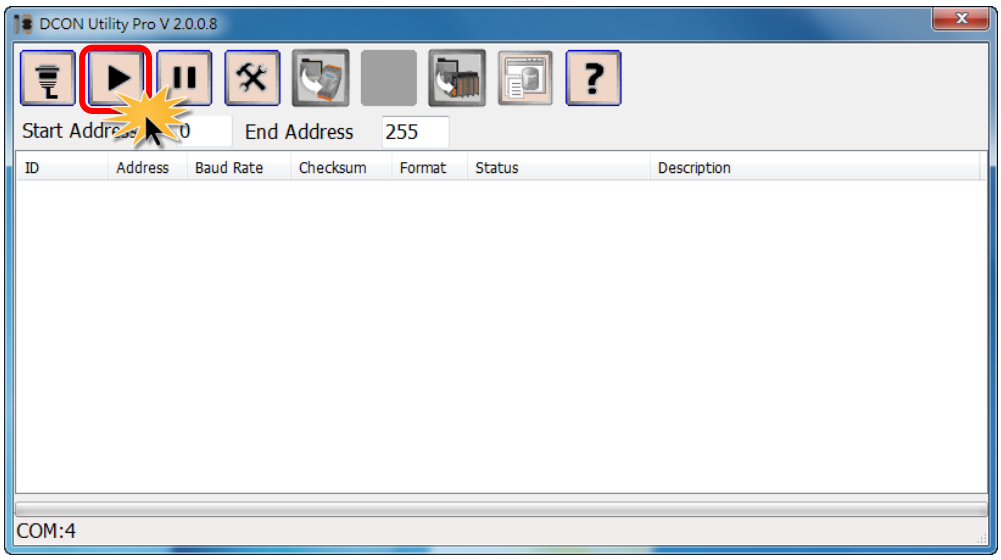
Select the Data Format that the DL module is using in the Format page and click “OK”.




Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

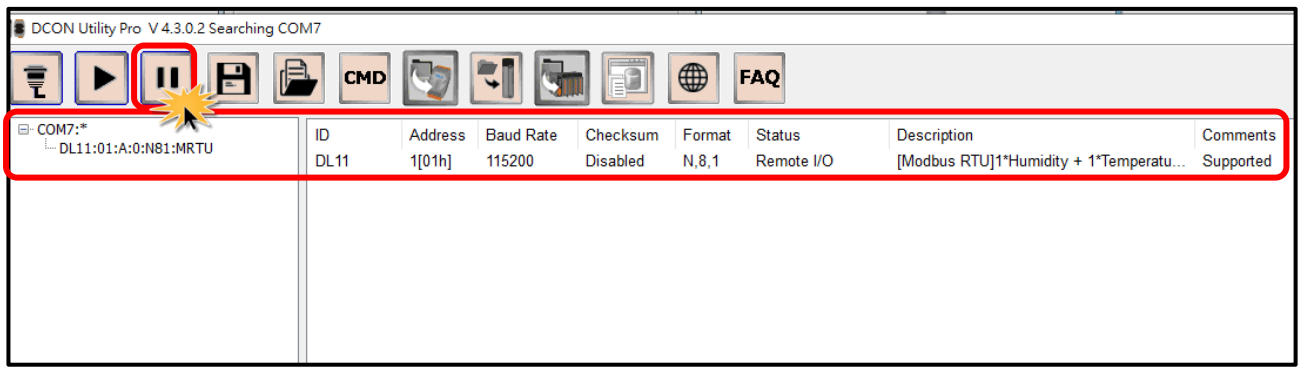
## Step 7

Click the  button to search DL module.




## Step 8

After the DL module name is displayed in search list , click the  button.

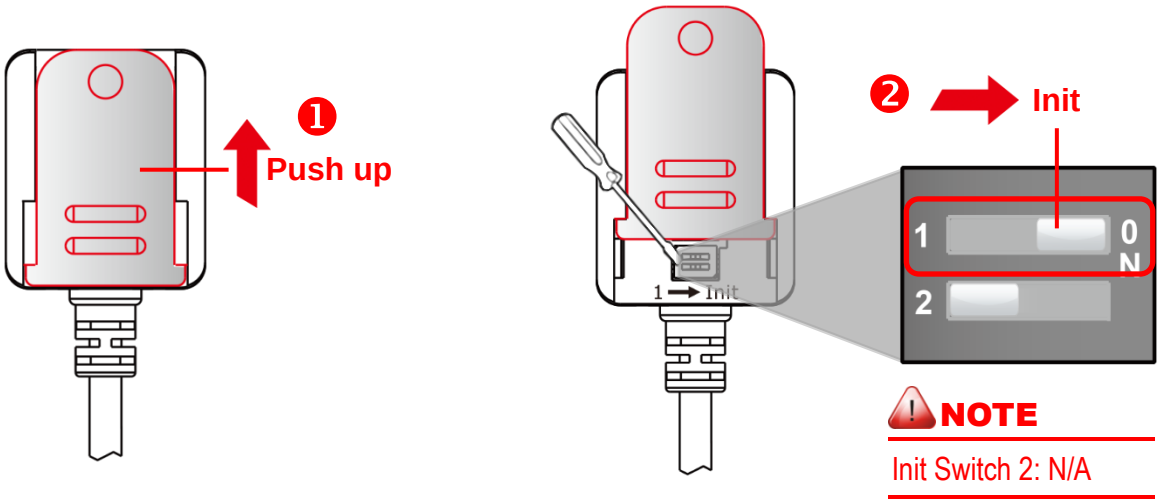



Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

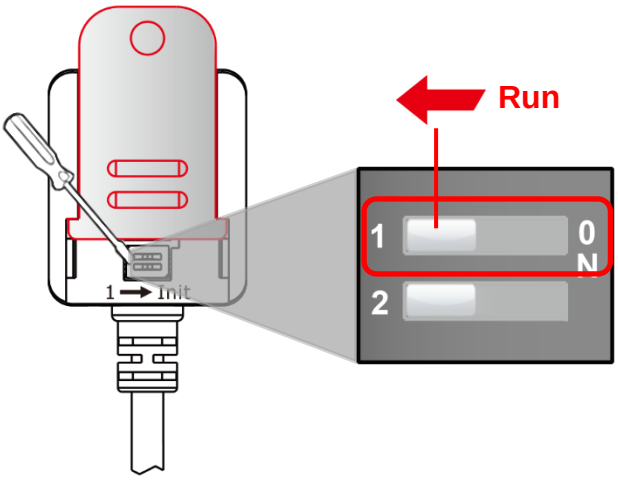
# What to do if the DL module is not detected?

Ensure that the power supply and the RS-485 wiring for the DL module are configured correctly, refer to the Section 3.1 Connecting the Power and the Host PC. If the DCON Utility Pro still cannot find the DL module when normal wiring and power up, please follow the procedures described below to solve the situation:

1. Use the blade of a flat-head screwdriver to set the **"Init Switch 1"** on the DL module to the **"ON" (Init Mode)** position, and **reboot** the module.



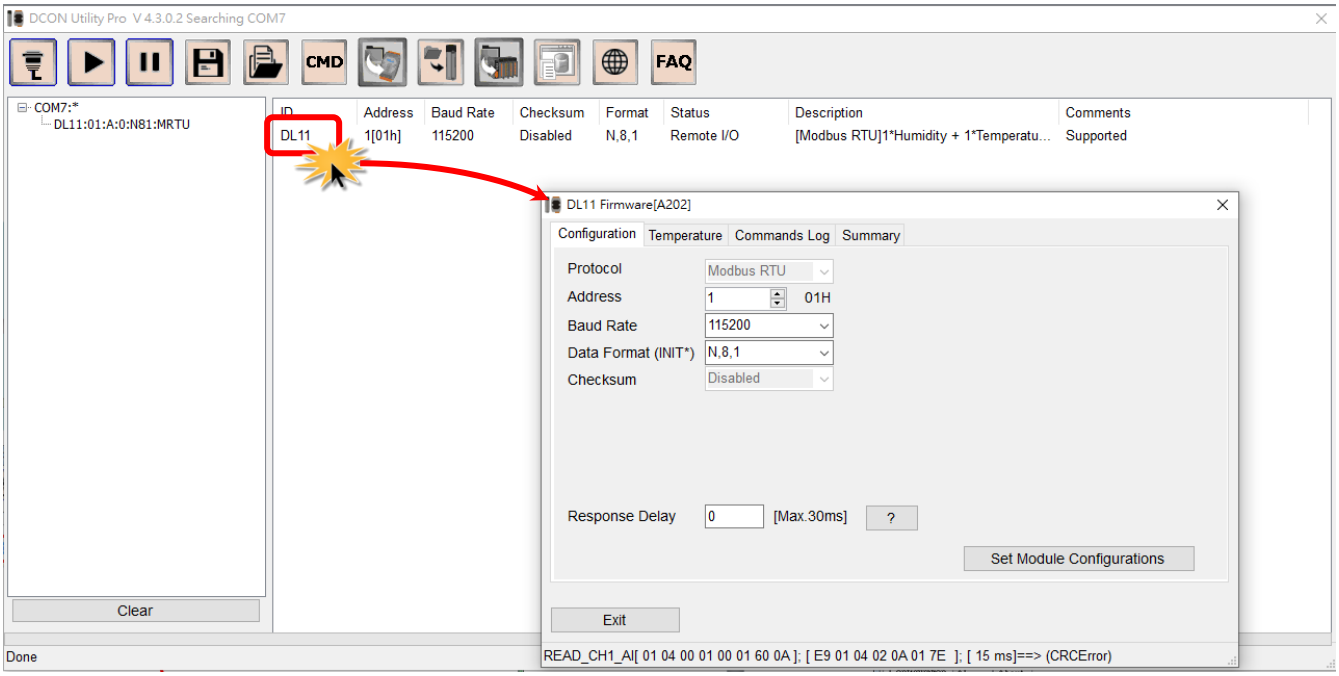

2. In the **Init mode**, refer to **Steps 2 to 8** in "Section 3.3 Search Module" to execute the search process again.
3. Confirm that the DCON Utility Pro has found the DL module, use the blade of a flat-head screwdriver to set the **"Init Switch 1"** to the **"1" (Run Mode)** position, and **repower cycle** the module.




Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

# 3.4 Configuring Module

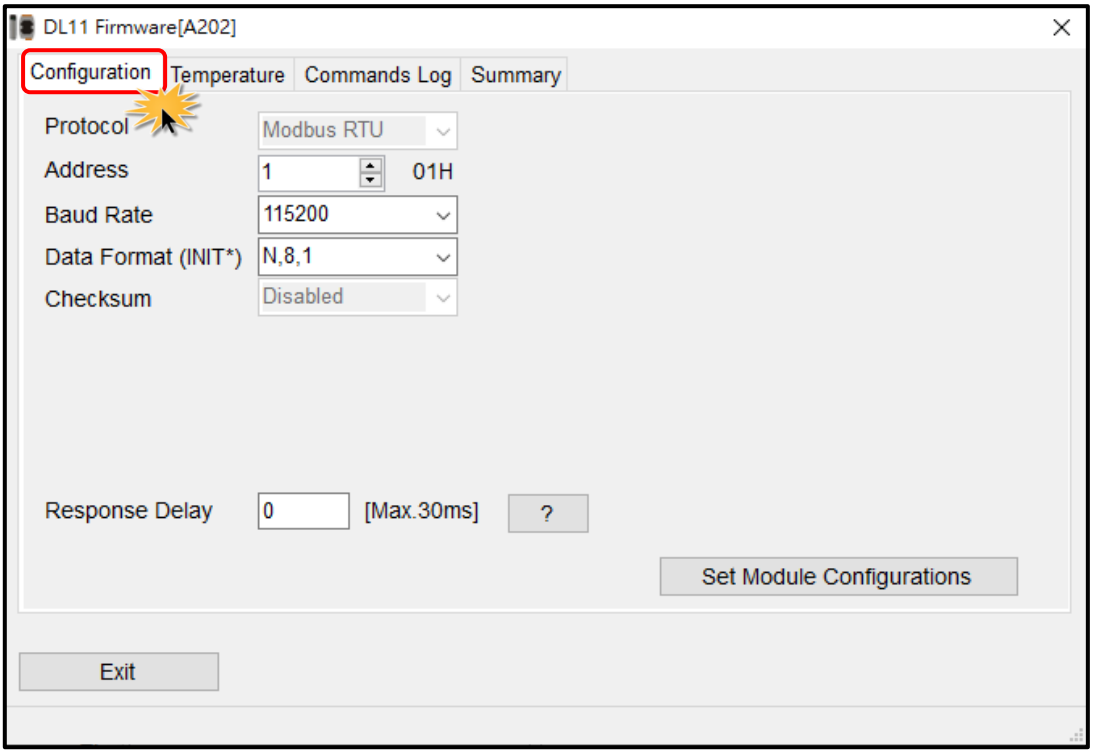
In the DCON Utility Pro software, click the module name to open the configuration window, allowing you to configure and verify the readings on the module, each of which will be described in more detail below.




Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

# Configuration

You can view and configure the settings of the DL module, including the Address, Baud Rate and Data Format on the "**Configuration**" page.




The following is an overview of the parameters:

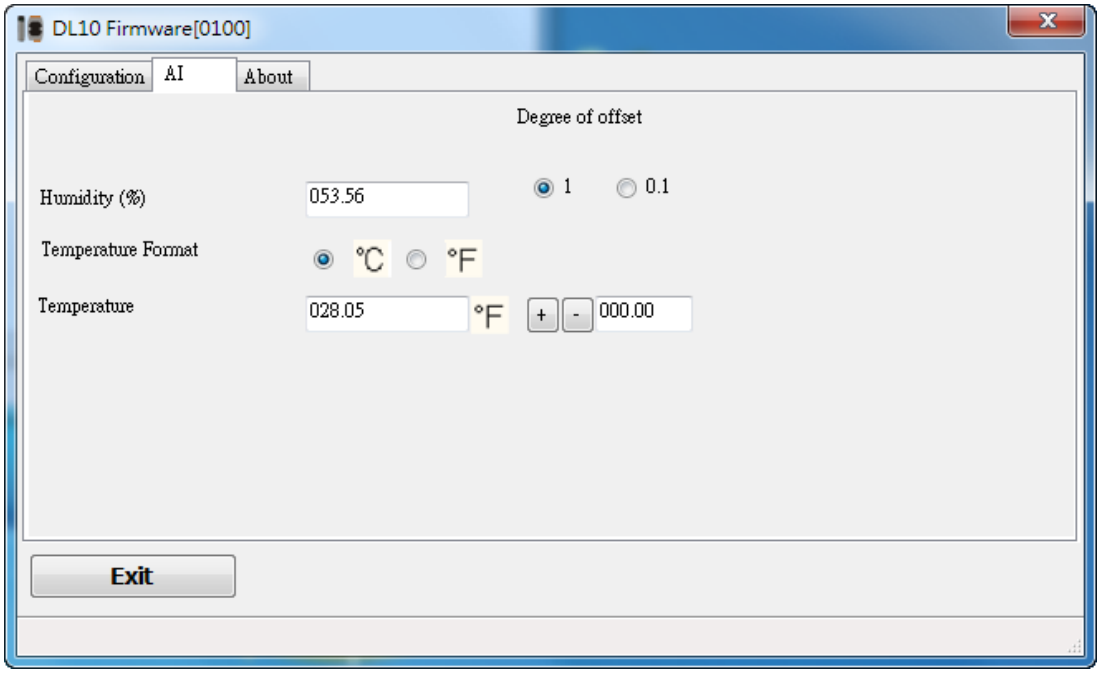
| Item | Description |
|---|---|
| **Address** | Sets the device ID for the module. |
| **Baud Rate** | Sets the Baud Rate for the module. |
| **Data Format** | Reads the Data Format on the module. (N, 8, 1 fixed) |
| **Set Module Configurations** | Click this button to save the new settings to the module. |

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

# Data Reading

## DL-10-UL

Click the "AI" tab to see the measured humidity and temperature values.



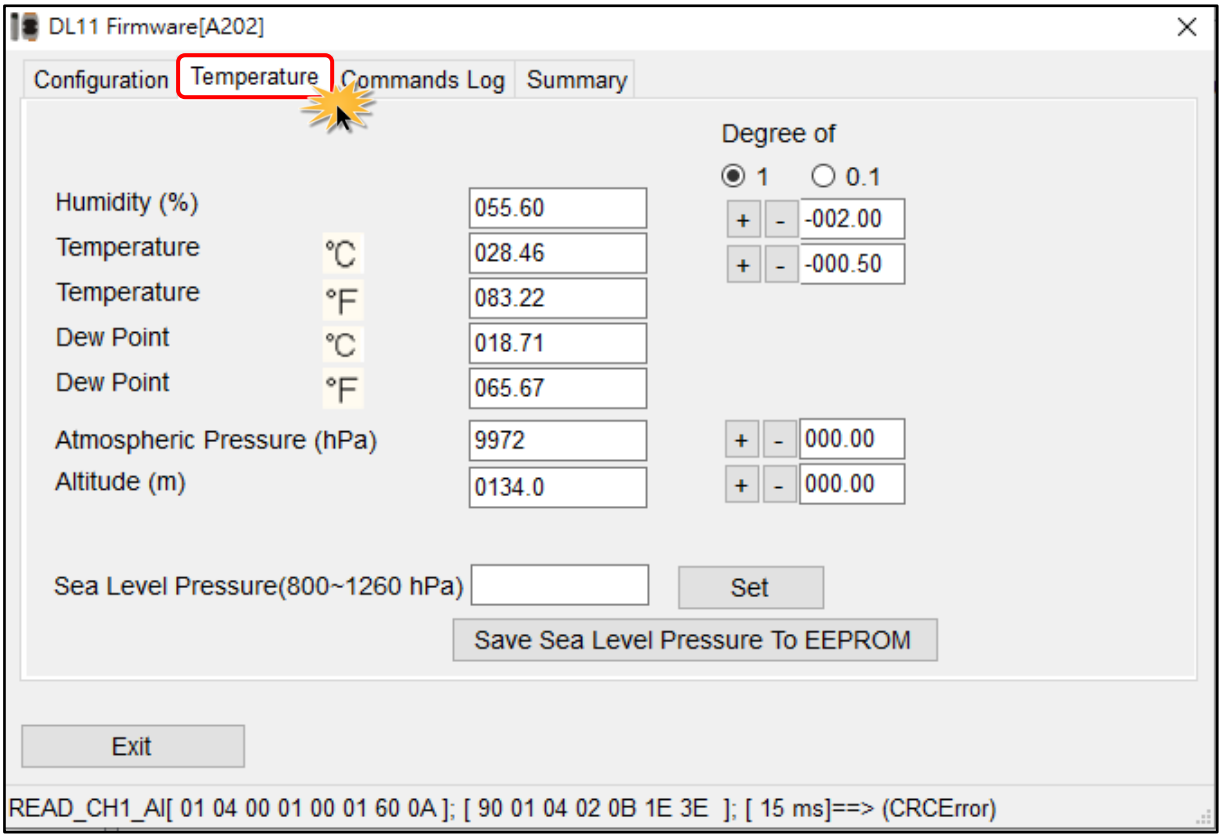

The following is an overview of the parameters:

| Item | Description |
|---|---|
| **Humidity(%)** | Display humidity value |
| **Temperature Format** | Set the temperature to Degrees Celsius(°C) or Fahrenheit(°F) |
| **Temperature** | Display temperature value |
| **Degree of offset** | Set the temperature offset value.<br>If the offset is 1 degree, pressing"+" or "-" button once will increase or decrease set temperature by 1 degree.<br><br>If the offset is 0.1 degree, pressing"+" or "-" button once will increase or decrease set temperature by 0.1 degree. |

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

## DL-11-UL

On the "**Temperature**" page, you can view the measured values and set the offset for each item.




The following is an overview of the parameters:

| Item | Description |
|---|---|
| **Humidity(%)** | Displays humidity value |
| **Temperature** | Displays temperature value |
| **Dew Point** | Displays dew point temperature value |
| **Atmospheric Pressure** | Displays pressure value |
| **Altitude** | Displays altitude value calculated from atmospheric pressure |
| **Sea Level Pressure** | Enter the sea level pressure value and clicke the "**Save Sea Level Pressure To EEPROM**"to save it if needed. |
| **Degree of offset** | Sets the scale of offset to 1 or 0.1 unit of measurement item |
| **Set** | Click this button to save new offset settings. |

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

# 4. Modbus Register Table (Base 0)

## 4.1 DL-10-UL

### Discrete Inputs (1xxxx)

| Register | | Points | Description | Data Format | Attribute |
|---|---|---|---|---|---|
| DEC | HEX | | | | |
| 10272 | 0110 | 1 | Read the reset status of a module.<br>**0:** The module has not been reset since the last read.<br>**1:** The module has been reset, and this is the first time to read the value. | 0: Not Reset<br>1: Resetted | R |

### Input Register (3xxxx)

| Register | | Points | Description | Data Format | Attribute |
|---|---|---|---|---|---|
| DEC | HEX | | | | |
| 30000 | 0000 | 1 | Read the humidity value (unit: 0.01 %) | 0 ~ 10000 | R |
| 30001 | 0001 | 1 | Read the temperature value in degrees Celsius (unit: 0.01 °C) | -32768 ~ 32767 | R |
| 30002 | 0002 | 1 | Read the temperature value in degrees Fahrenheit (unit: 0.01 °F) | -32768 ~ 32767 | R |
| 30003 | 0003 | 1 | Read the dew point temperature value in degrees Celsius (unit: 0.01 °C) | -32768 ~ 32767 | R |
| 30004 | 0004 | 1 | Read the dew point temperature value in degrees Fahrenheit (unit: 0.01 °F) | -32768 ~ 32767 | R |
| 30480 | 01E0 | 1 | Read the firmware version (Minor number) Hexadecimal Representation | - | R |
| 30481 | 01E1 | 1 | Read the firmware version (Major number) Hexadecimal Representation | - | R |
| 30482 | 01E2 | 1 | Read the module name<br>High byte = 0x00<br>Low byte = 0x10 | 0x0010 | R |
| 30483 | 01E3 | 1 | Read the module name<br>High byte = 0x52(ASCII: D)<br>Low byte = 0x48(ASCII: L) | 0x444c | R |

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

## Holding Register (4xxxx)

| Register | | Points | Description | Data Format | Attribute | Factory Value |
|---|---|---|---|---|---|---|
| DEC | HEX | | | | | |
| 40448 | 01C0 | 1 | Read/Write the temperature offset value (unit: 0.01 °C) | -32768 ~ 32767 | R/W | 0 |
| 40449 | 01C1 | 1 | Read/Write the humidity offset value (unit: 0.01%) | -32768 ~ 32767 | R/W | 0 |
| 40484 | 01E4 | 1 | Read/Write the Device ID | 1 ~ 247 | R/W | 1 |
| 40485 | 01E5 | 1 | Read/Write the Baud Rate (bps) and Data Format<br>**Bit-5:Bit-0 (Baud Rate)**<br>**03:** 1200<br>**04:** 2400<br>**05:**4800<br>**06:** 9600<br>**07:** 19200<br>**08:** 38400<br>**09:** 57600<br>**0A:**115200<br><br>**Bit-7:Bit-6 (Data Format)**<br>**00:** no parity, 1 Stop bit<br>**01:** no parity, 2 Stop bits<br>**10:** even parity, 1 Stop bit<br>**11:** odd parity, 1 stop bit | 0x03 ~ 0xCA | R/W | 0x0A |

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

# 4.2 DL-11-UL

## Coils (0xxxx)

| Register | | Points | Description | Data Format | Attribute |
|---|---|---|---|---|---|
| DEC | HEX | | | | |
| 00283 | 011B | | Write1 to save sea level pressure to non-volatile memory | 1 | W |

## Discrete Inputs (1xxxx)

| Register | | Points | Description | Data Format | Attribute |
|---|---|---|---|---|---|
| DEC | HEX | | | | |
| 10272 | 0110 | 1 | Read the reset status of a module.<br>**0:** The module has not been reset since the last read.<br>**1:** The module has been reset, and this is the first time to read the value. | 0: Not Reset<br>1: Resetted | R |

## Input Register (3xxxx)

| Register | | Points | Description | Data Format | Attribute |
|---|---|---|---|---|---|
| DEC | HEX | | | | |
| 30000 | 0000 | 1 | Read the humidity value (unit: 0.01 %) | 0 ~ 10000 | R |
| 30001 | 0001 | 1 | Read the temperature value in degrees Celsius (unit: 0.01 °C) | -32768 ~ 32767 | R |
| 30002 | 0002 | 1 | Read the temperature value in degrees Fahrenheit (unit: 0.01 °F) | -32768 ~ 32767 | R |
| 30003 | 0003 | 1 | Read the dew point temperature value in degrees Celsius (unit: 0.01 °C) | -32768 ~ 32767 | R |
| 30004 | 0004 | 1 | Read the dew point temperature value in degrees Fahrenheit (unit: 0.01 °F) | -32768 ~ 32767 | R |
| 30005 | 0005 | 1 | Read the air pressure in 0.1 hPa | 2600 ~ 12600 | R |
| 30006 | 0006 | 1 | Read the low word of altitude in 0.1 m | -32768 ~ 32767 | R |

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

| | | | | | |
|---|---|---|---|---|---|
| 30007 | 0007 | 1 | Read the high word of altitude in 0.1 m | -32768 ~ 32767 | R |
| 30480 | 01E0 | 1 | Read the firmware version (Minor number) Hexadecimal Representation | 0x0000 | R |
| 30481 | 01E1 | 1 | Read the firmware version (Major number) Hexadecimal Representation | 0xA202 | R |
| 30482 | 01E2 | 1 | Read the module name<br>High byte = 0x00<br>Low byte = 0x11 | 0x0011 | R |
| 30483 | 01E3 | 1 | Read the module name<br>High byte = 0x44(ASCII: D)<br>Low byte = 0x4C(ASCII: L) | 0x444c | R |

## Holding Register (4xxxx)

| Register | | Points | Description | Data Format | Attribute | Factory Value |
|---|---|---|---|---|---|---|
| DEC | HEX | | | | | |
| 40448 | 01C0 | 1 | Read/Write the temperature offset value (unit: 0.01 °C) | -32768 ~ 32767 | R/W | 0 |
| 40449 | 01C1 | 1 | Read/Write the humidity offset value (unit: 0.01%) | -32768 ~ 32767 | R/W | 0 |
| 40450 | 01C2 | 1 | Read/Write the pressure offset value (unit:0.1 hPa) | -32768 ~ 32767 | R/W | 0 |
| 40451 | 01C3 | 1 | Read/Write the altitude offset value (unit:0.1 m) | -32768 ~ 32767 | R/W | 0 |
| 40484 | 01E4 | 1 | Read/Write the Device ID | 1 ~ 247 | R/W | 01 |
| 40485 | 01E5 | 1 | Read/Write the Baud Rate (bps) and Data Format<br>**Bit-5:Bit-0 (Baud Rate)**<br>**03:** 1200<br>**04:** 2400<br>**05:**4800<br>**06:** 9600<br>**07:** 19200<br>**08:** 38400<br>**09:** 57600<br>**0A:**115200 | 0x03 ~ 0xCA | R/W | 0x0A |

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | **Bit-7:Bit-6 (Data Format)**<br>**00:** no parity, 1 Stop bit<br>**01:** no parity, 2 Stop bits<br>**10:** even parity, 1 Stop bit<br>**11:** odd parity, 1 stop bit | | | |
| 40487 | 01E7 | 1 | Read/Write the response delay time in ms | 0 ~ 30 | R/W | 0 |
| 40498 | 01F2 | 1 | Read/Write the low word of sea level pressure in 0.01 hPa<br>Default:1013.25 hPa | 0x0 ~ 0xFFFF | R/W | 0x8BCD |
| 40499 | 01F3 | 1 | Read/Write the high word of sea level pressure in 0.01 hPa | 0x0 ~ 0xFFFF | R/W | 0x1 |

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.

# Appendix: Revision History

This chapter provides revision history information to this document.

The table below shows the revision history.

| Revision | Date | Description |
|---|---|---|
| 1.0 | Oct. 2026 | Initial issue |

Copyright © 2026 ICP DAS CO., Ltd. All Rights Reserved.