

DL-110S-E



DL-110S-E-W



DL-120-E



DL-120-E-W

Features

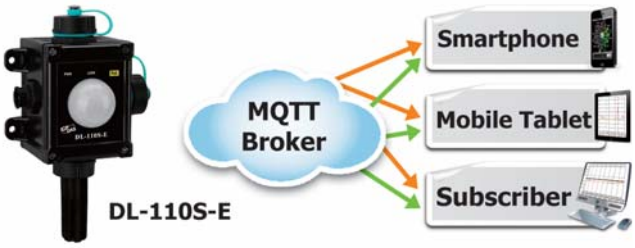
- Illumination Measurement Range: 0 to 100,000 Lux
- Temperature Measurement Range: -20 to +60°C (DL-110S-E Series)
- Humidity Measurement Range: 0 to 100% RH (DL-110S-E Series)
- Able to store up to 600,000 records with date and time stamps Free Software Utility, iOS APP and Android App Included
- Supports the DCON, Modbus RTU, Modbus TCP and MQTT Protocols
- Includes RS-485/Ethernet Communication Interfaces
- Includes redundant power inputs: PoE (IEEE 802.3af, Class 1) and DC input
- Supports Web Configuration and Firmware Update via Ethernet
- IP67 Protection Approval

Introduction

The DL-110S-E / DL-120-E are Data Logger devices that can be used to record illumination, temperature, humidity and dew point data, together with date and time stamp information. Up to 600,000 downloadable records can be stored. Real-time data can be accessed from the DL-110S-E / DL-120-E device from anywhere and at any time using the free Windows software, the iOS App or the Android App, as long as they are connected to the same local network as the Data Logger. The DL-110S-E / DL-120-E supports popular industrial protocols such as DCON, Modbus RTU, Modbus TCP, as well as the emerging machine-to-machine (M2M)/IoT (Internet of Things) connectivity protocol – MQTT. The DL-110S-E / DL-120-E Data Logger can be connected using a variety of communication interfaces, including Ethernet and RS-485, meaning that the device can be easily integrated into existing HMI or SCADA systems, and are easy to maintain in a distributed control system.

● Support the MQTT protocol for IoT Applications

The MQTT protocol is designed for the efficient exchange of real-time data between a sensor and a mobile device. It operates via TCP/IP and is in widest use today in "machine-to-machine" (M2M) and "Internet of Things" applications.



● Get Real-time Data Anywhere and Anytime

The iAir App is a free and easy to install application for iOS or Android Phones or Tablets, and can be used to obtain real-time data from DL-110S-E / DL-120-E modules over a Wi-Fi network anytime and anywhere. The iAir App can access a DL-110S-E / DL-120-E module either by specifying a specific IP address or by searching for all modules connected to the same Ethernet segment.

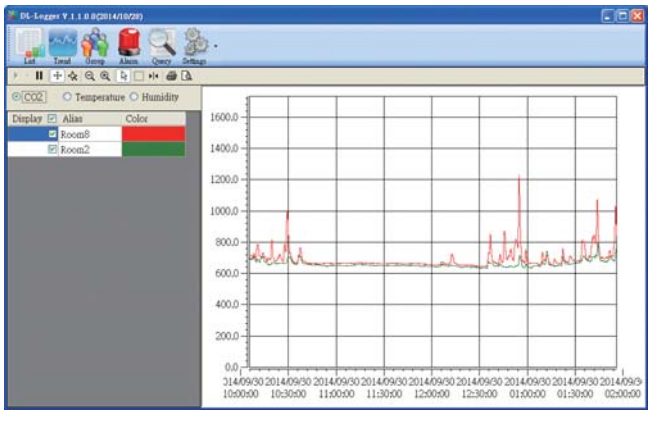


● Built-in Web Server

The built-in web server provides the ability to easily log in to the DL-110S-E / DL-120-E module via a standard web browser, allowing users to monitor the data and configure the settings without the need to install any software on the terminal.

● Free and Powerful DL300 Utility

The DL-300 Utility can be used to configure a module and monitor real-time data, as well as display the run chart, log alarm events, or group DL-110S-E / DL-120-E modules so that the status of distribution groups can be viewed and managed. The utility also allows the log data to be downloaded and exported to a .CSV file that can then be imported into any industry-standard software or spreadsheet for analysis.



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Specifications

Model	DL-110S-E	DL-110S-E-W	DL-120-E	DL-120-E-W
Software				
Built-in Web Server	Yes			
CPU Module				
Real Time Clock	Yes			
Watchdog Timer	Yes, Module (2.3 seconds), Communication			
LED Indicators				
PWR	System indicator (Green)			
Link	Link/Act indicator (Green)			
PoE	PoE indicator (Red)			
Temperature Measurement				
Range	-20 to +60°C (-4 to +140°F)		-	
Resolution	0.1°C		-	
Accuracy	Typical: ±0.4°C		-	
Humidity Measurement				
Range	0 to 100% RH		-	
Resolution	0.1% RH		-	
Accuracy	Typical: ±3% RH @ 20 ~ 80% RH; refer to figure 1		-	
Illuminance Measurement				
Range	0 to 100,000 Lux			
Resolution	1 Lux			
Accuracy	±5%			
System				
Security	IP filter (whitelist) and Password (web)			
Data Logger	Yes, 600,000 Records			
Electrical				
Ports	10/100 Base-TX, 8-Pin RJ-45 x1(Auto-negotiating, Auto-MDI/MDIX, LED indicators)			
PoE	IEEE 802.3af, Class 1 (require a PoE switch or injector)			
Protocol	Modbus/RTU(RS-485), Modbus TCP(Ethernet) and MQTT(Ethernet)			
Power				
Consumption	PoE: 1.2 W Max. Non-PoE: 1.1 W Max.			
Powered from PoE	IEEE 802.3af, Class 1 (require a PoE switch or injector)			
Powered from Terminal Block	+12 ~ +48 VDC			
Mechanical				
Dimensions (W x L x H)	100 mm x 156 mm x 67 mm		100 mm x 112 mm x 67 mm	
Waterproof Level	IP67			
Installation	DIN-Rail or Wall mounted			
Module Housing	Black Cover	White Cover	Black Cover	White Cover
Environment				
Operating Temperature	-20 to +60°C			
Storage Temperature	-30 to +80°C			
Humidity	10 to 95% RH, Non-condensing			

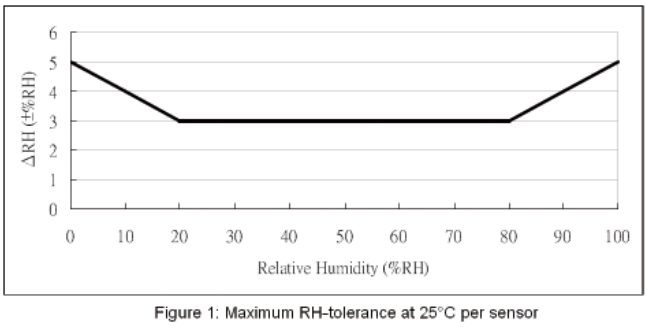


Figure 1: Maximum RH-tolerance at 25°C per sensor

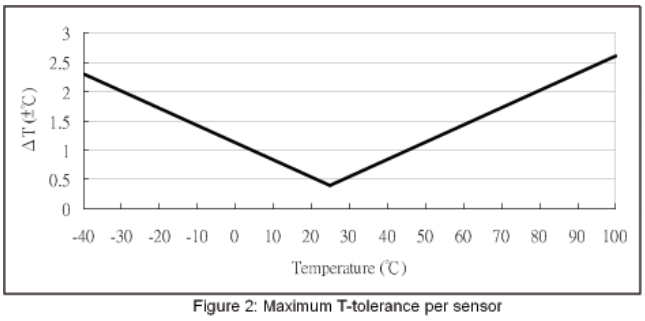
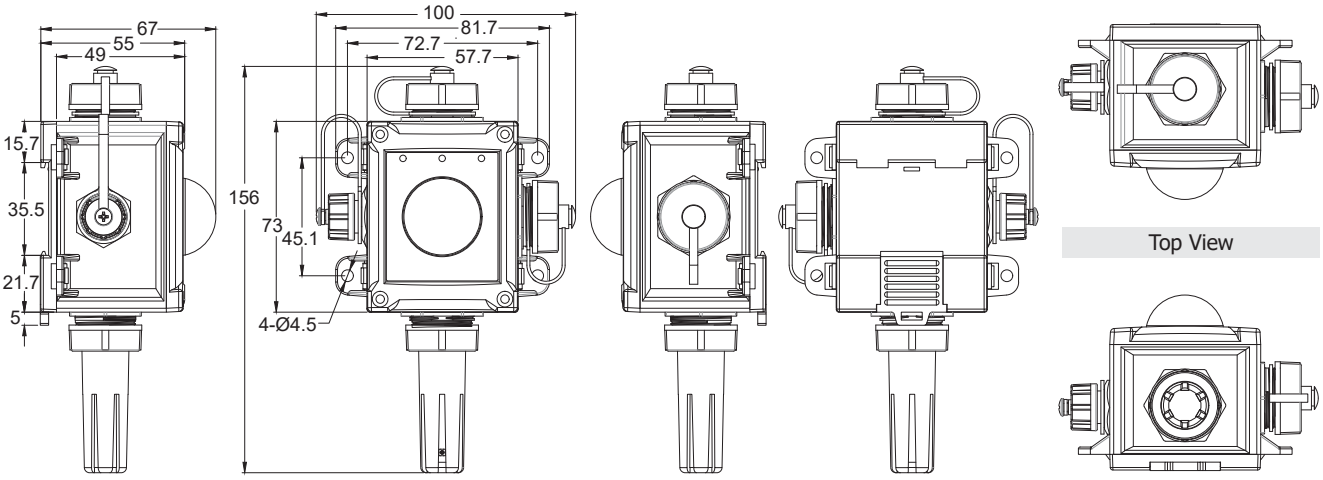


Figure 2: Maximum T-tolerance per sensor

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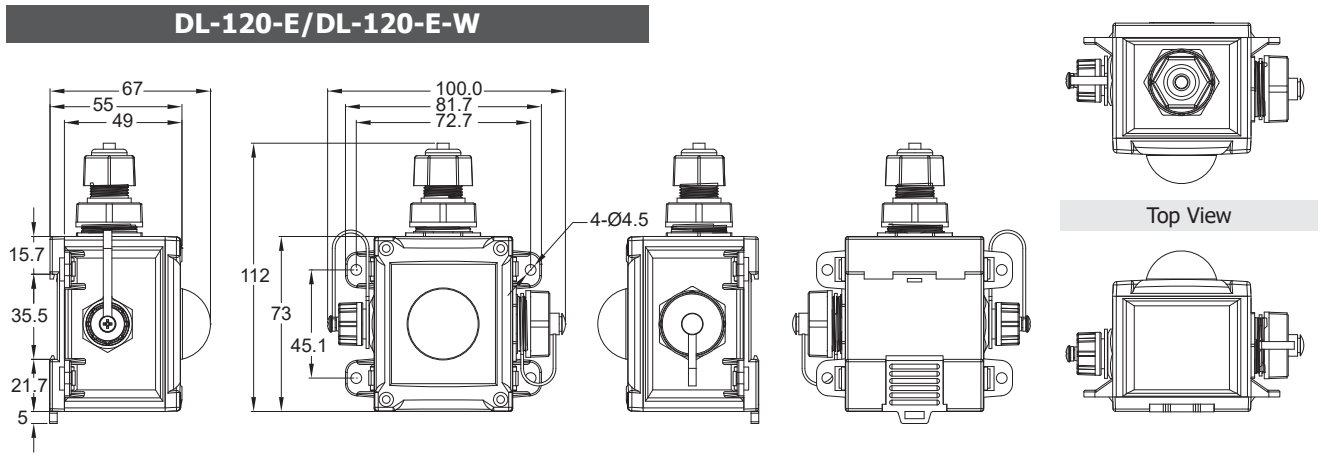
Dimensions (Units: mm)

DL-110S-E/DL-110S-E-W



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

DL-120-E/DL-120-E-W



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

Installation

DIN-Rail



Wall mounted

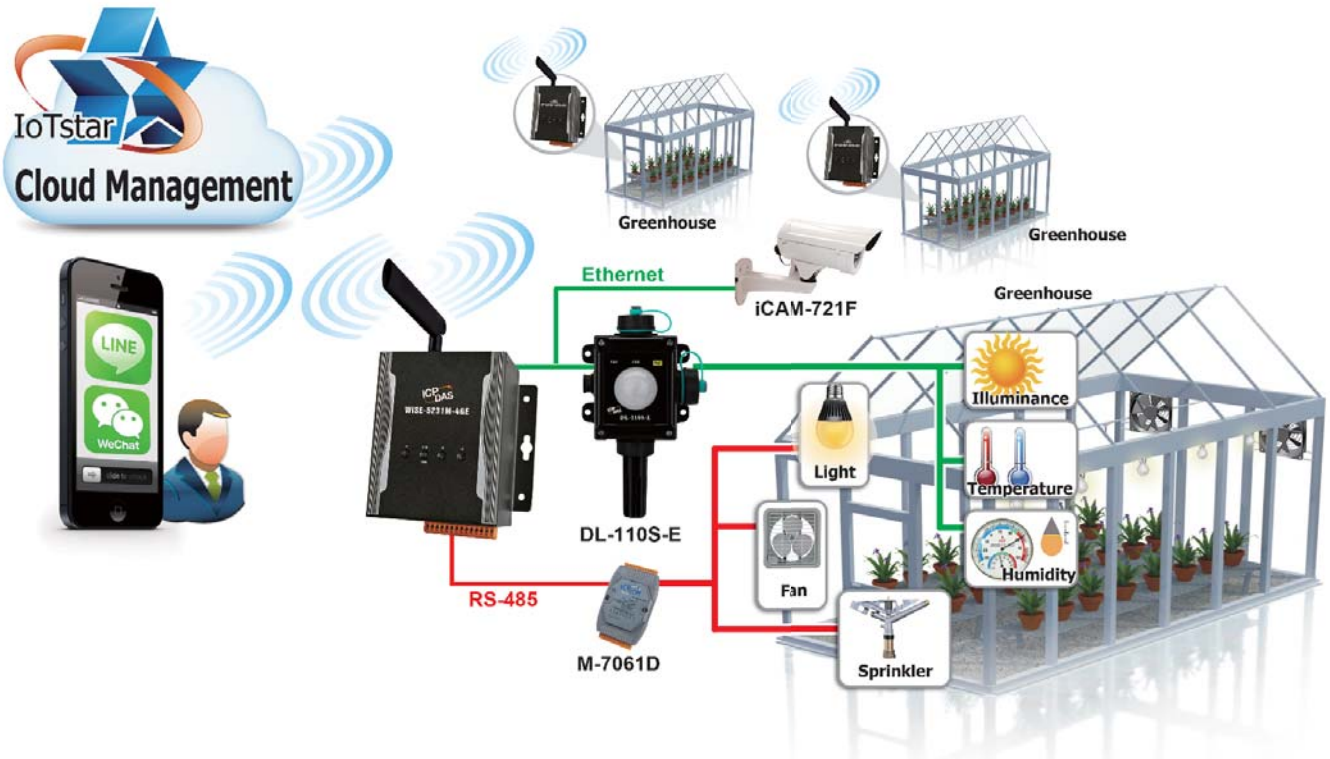


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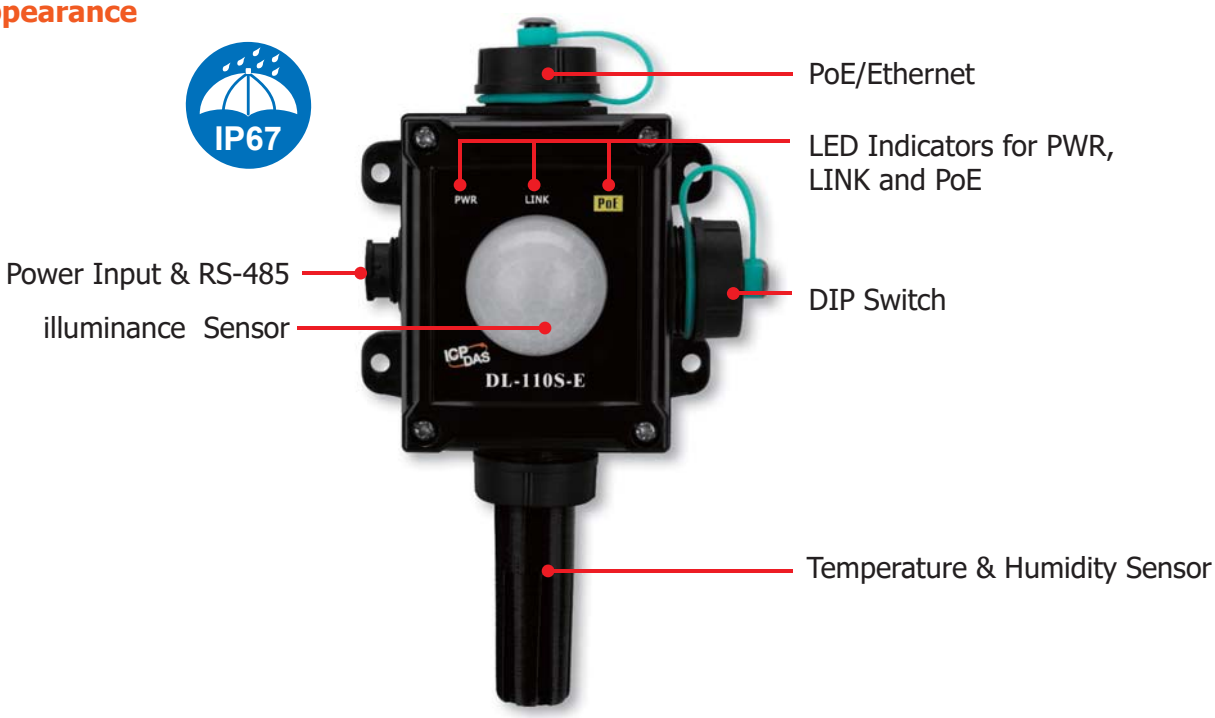
Applications

Greenhouse Automation Cloud Management Solution

The greenhouse automation system can use the DL series to provide environmental monitoring such as illuminance (DL-110S-E / DL-120-E), temperature and humidity (DL-300/DL-100 series), etc., to make plants grow well, increase crop yield, improve quality, provide product traceability record, and control of sunshine and sprinkler systems. Install WISE-523xM-4GE IIoT smart host with iCAM series network camera can carry out greenhouse monitoring and management, provide further personnel access and thief intrusion monitoring. When fi nds someone intrusion, it will automatically send SMS, LINE/WeChat to the owner, security and related personnel, to quickly protect property and safety. WISE supports cloud management software IoTstar, so owners can easily build cloud management system solutions and keep with the latest situation in the greenhouse.



Appearance



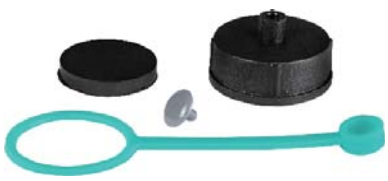
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Ordering Information

DL-110S-E CR	Remote Illuminance/Temperature/Humidity/Dew Point Data Logger Module with Ethernet/RS-485 Inter face and PoE (Black Cover) (RoHS)
DL-110S-E-W CR	DL-110S-E with White Cover (RoHS)
DL-120-E CR	Remote Illuminance Data Logger Module with Ethernet/RS-485 Inter face and PoE (Black Cover) (RoHS)
DL-120-E-W CR	DL-120-E with White Cover (RoHS)

Accessories

Mode Name	NS-205-IP67	NS-208PSE-IP67	NS-208-IP67
Picture			
PoE	–	802.3af x 8	–
Input Voltage Range	+10 V_{DC} ~ +30 V_{DC} (1 kV Isolated)	+46 V_{DC} ~ +53 V_{DC}	+12 V_{DC} ~ +53 V_{DC}
Installation	Wall Mounting	Wall Mounting	
Dimensions (W x L x H)(Unit: mm)	85 x 76 x 137	190 x 155 x 104	

IP67 RJ-45 Plug	Cap with Tether	IP67 Waterproof Cable, 1M
		
4SASO-0001	4SASO-0004	CA-05BFFM-LL7A01

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DL-110S-E



DL-110S-E-W



DL-120-E



DL-120-E-W

特色

- 照度測量範圍：0 至 100,000 Lux
- 溫度測量範圍：-20 至 + 60°C (DL-110S-E 系列)
- 濕度測量範圍：0 至 100% RH (DL-110S-E 系列)
- 最高可儲存 600,000 組資料，日期與時間標記，包含免費軟體工具， iOS 應用程式和 Android 應用程式
- 支援 DCON, Modbus RTU, Modbus TCP 與 MQTT 通信協定
- 提供 RS-485/Ethernet/PoE 通信介面
- 電源輸入包含：（IEEE 802.3af 標準，類別 Class 1）PoE 功能和 DC 輸入
- 可透過網路進行網頁配置和更新 firmware
- IP67 防護認證

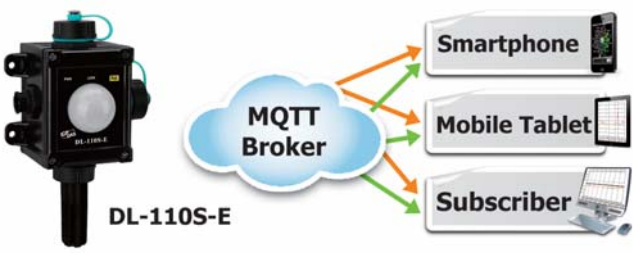
介紹

DL-110S-E 資料記錄器記錄照度，溫度，濕度和露點溫度，紀錄器可儲存高達 600,000 組資料，包含時間與日期標記。可從網頁瀏覽器遠端登入設定 DL-110S-E 模組組態、記錄模式等功能。透過簡單易用的監控軟體，以及免費的行動裝置 App，隨時隨地都能方便的讀取紀錄器的資料。

DL-110S-E 模組支援工業界廣泛使用的通信協定 DCON，Modbus RTU，Modbus TCP，也支援新興的 M2M/IoT(物聯網) 的通信協定 – MQTT。加上佈線簡單、容易維護的 Ethernet/PoE 通信界面，使用者可以很快的將 DL-110S-E 整合到 HMI/SCADA 控制系統，並能降低配線與後續的維護成本。

● 支援 MQTT 通信協定，結合物聯網應用

支援工業界廣泛使用的 DCON、Modbus TCP/RTU 通信協定及新的 M2M/IoT(物聯網) 通信協定 -MQTT。



● 多平台行動 App 隨時遠端讀取即時資料

DL-110S-E 資料記錄器可以經由廣泛使用的介面所連接，包括 RS-485、乙太網路、PoE，意味著硬體可以很容易地和 SCADA 系統或 HMI 裝置整合在一起，在分散式系統中確保可靠的維護。

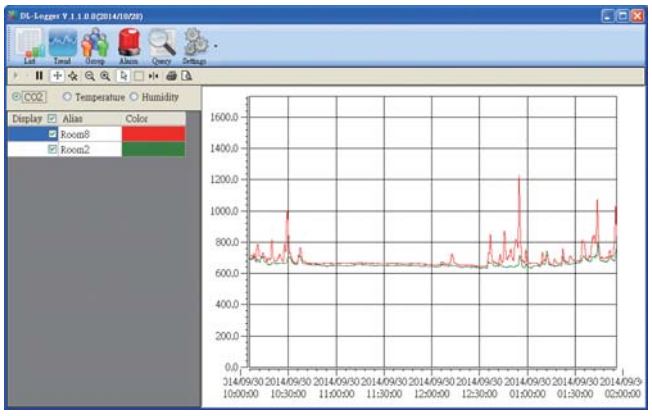


● 透過網路進行網頁配置

透過網路的 Web 服務器提供了輕鬆登錄到 DL-110S-E 模組通過標準網路瀏覽器，允許用戶監控數據和配置設置，而無需要在終端上安裝任何軟件免費的下載軟體

● 免費強大的 DL-300 應用軟體

DL-300 應用軟體是一個強大的工具軟體，它可用來設定模組、監控即時資料、及可將 DL-110S-E 模組編組查看和管理群組狀態、下載資料或可將資料匯出成可以輸入到任何工業標準軟體或試算表軟體作為分析用的試算表 CSV 格式。



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規格

型號		DL-110S-E	DL-110S-E-W	DL-120-E	DL-120-E-W
軟體					
內建 Web Server		Yes			
CPU 模組					
實時時鐘		Yes			
看門狗計時器		Yes, Module (2.3 seconds), Communication			
LED 燈					
PWR		System indicator (Green)			
Link		Link/Act indicator (Green)			
PoE		PoE indicator (Red)			
溫度量測					
範圍		-20 to +60°C (-4 to +140°F)		-	
解析度		0.1°C		-	
精度		Typical: ±0.4°C		-	
濕度量測					
範圍		0 to 100% RH		-	
解析度		0.1% RH		-	
精度		Typical: ±3% RH @ 20 ~ 80% RH; refer to figure 1		-	
照度量測					
範圍		0 to 100,000 Lux			
解析度		1 Lux			
精度		±5%			
系統					
加密		IP filter (whitelist) and Password (web)			
資料儲存		Yes, 600,000 Records			
乙太網路					
Ports		10/100 Base-TX, 8-Pin RJ-45 x1(Auto-negotiating, Auto-MDI/MDIX, LED indicators)			
PoE		IP filter (whitelist) and Password (web)			
通訊協定		Modbus/RTU(RS-485), Modbus TCP(Ethernet) and MQTT(Ethernet)			
電源					
端子供電		+12 to +48 VDC			
PoE 供電		IEEE 802.3af, Class 1 (require a PoE switch or injector)			
功耗	PoE	1.2 W (Max.)			
	Non-PoE	1.1 W (Max.)			
機構					
尺寸 (mm)		100 x 156 x 67 (W x L x H)		100 x 112 x 67 (W x L x H)	
防水防塵等級		IP67			
安裝		DIN-Rail or Wall mounted			
模組外殼		黑色外殼外殼	白色外殼	黑色外殼	白色外殼
環境					
工作溫度		-20 to +60°C			
儲存溫度		-30 to +80°C			
濕度		10 to 95% RH, Non-condensing			

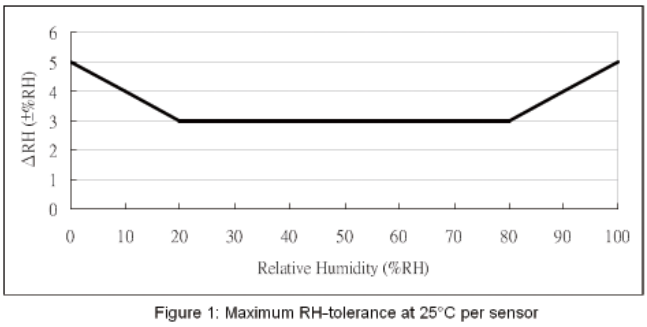


Figure 1: Maximum RH-tolerance at 25°C per sensor

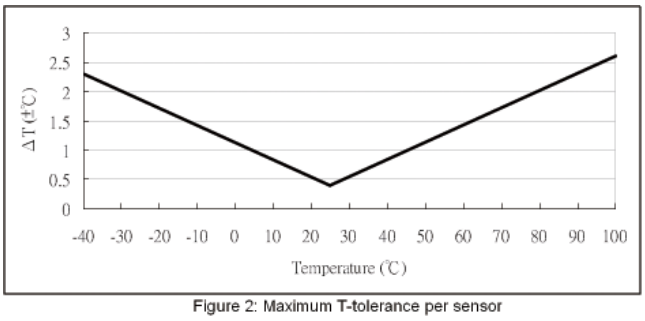
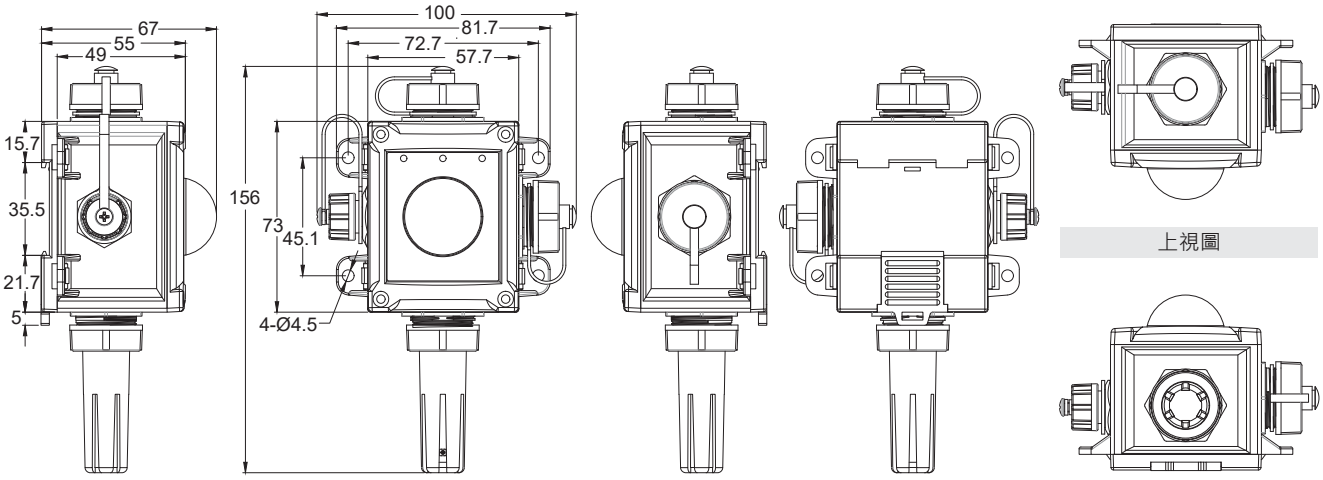


Figure 2: Maximum T-tolerance per sensor

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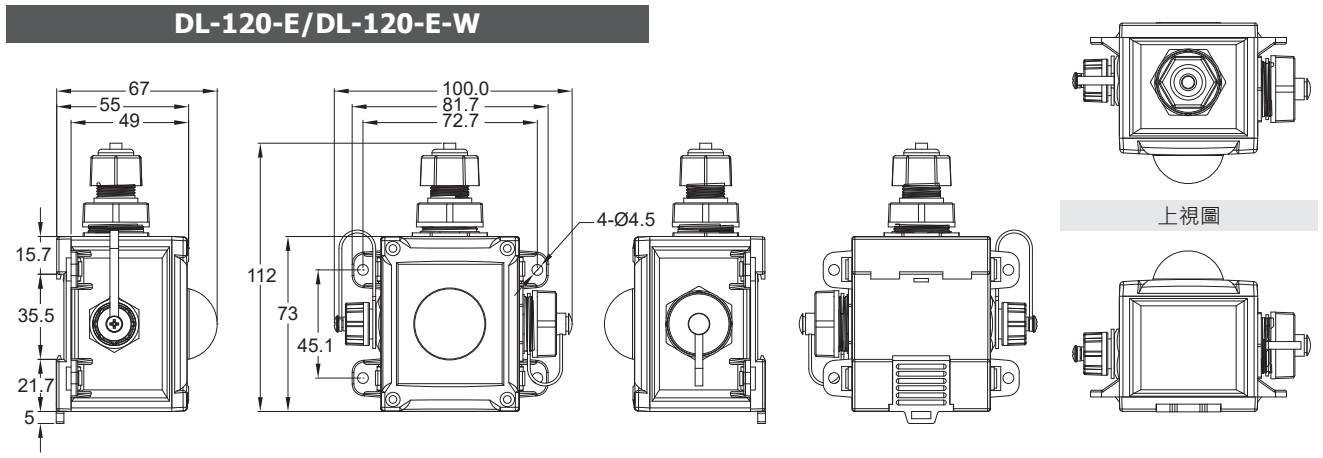
尺寸圖 (單位 : mm)

DL-110S-E/DL-110S-E-W



左視圖 | 前視圖 | 右視圖 | 後視圖 | 上視圖 | 下視圖

DL-120-E/DL-120-E-W



左視圖 | 前視圖 | 右視圖 | 後視圖 | 上視圖 | 下視圖

安裝方式

導軌安裝 (DIN-Rail Mounting)



牆壁安裝 (Wall mount)

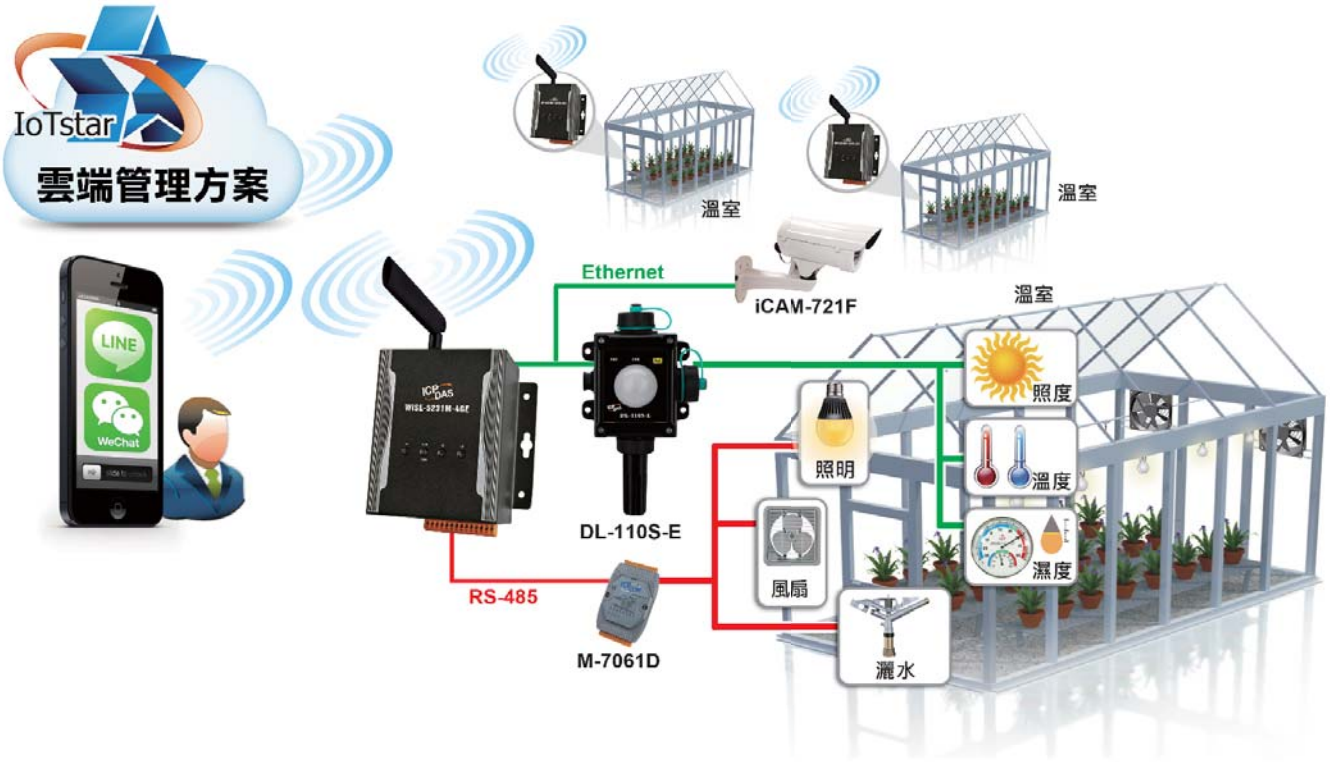


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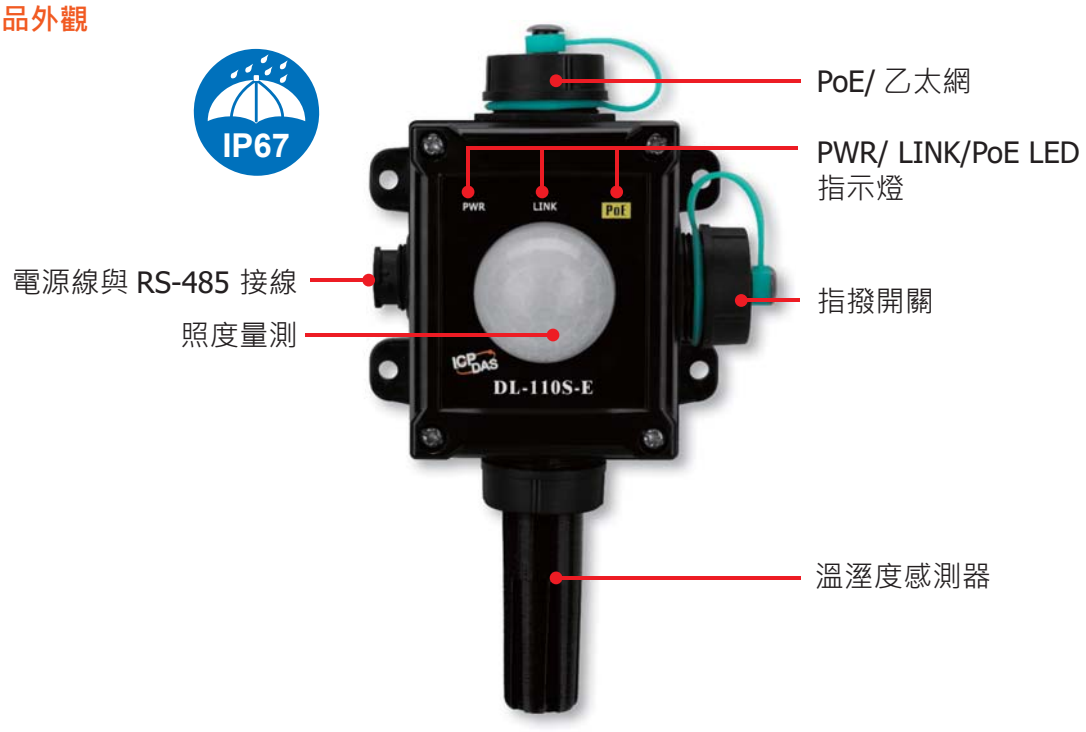
應用

溫室植栽場自動化監控應用

溫室植栽農場的自動化系統可使用 DL 系列提供照度 (DL-110S-E/DL-120-E)、溫溼度 (DL-300/DL-100 系列)... 等環境監控，讓植物生長良好，增加農作物產量及提高品質，提供產品履歷，以及控制日照及灑水系統。安裝 iCAM 系列網路攝影機搭配 WISE-523xM-4GE 物聯網智能主機，可進行溫室監控管理，提供進一步溫室人員進出及小偷入侵監控，當發現有人入侵，則自動發送簡訊、LINE/WeChat 給業主、保全及相關人員，快速保護溫室財產與安全，WISE 物聯網智能主機支援雲端管理軟體 IoTstar，業主可輕鬆建置雲端管理系統方案，隨時隨地皆可掌握溫室最新狀況。



產品外觀



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訂購資訊

DL-110S-E CR	遠程照度 / 溫度 / 濕度 / 露點數據記錄模組，具有乙太網 /RS-485 和 PoE（黑殼）（RoHS）
DL-110S-E-W CR	DL-110S-E 白殼 (RoHS)
DL-120-E CR	遠程照度數據記錄模組，具有乙太網 /RS-485 和 PoE（黑殼）（RoHS）
DL-120-E-W CR	DL-120-E 白殼 (RoHS)

選配件

Mode Name	**NS-205-IP67**	**NS-208PSE-IP67**	**NS-208-IP67**
Picture			
PoE	–	802.3af x 8	–
Input Voltage Range	+10 VDC ~ +30 VDC (1 kV Isolated)	+46 VDC ~ +53 VDC	+12 VDC ~ +53 VDC
Installation	Wall Mounting	Wall Mounting	
Dimensions (W x L x H)(Unit: mm)	85 x 76 x 137	190 x 155 x 104	

IP67 RJ-45 Plug	Cap with Tether	IP67 Waterproof Cable, 1M
		
4SASO-0001	4SASO-0004	CA-05BFFM-LL7A01

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