



ALMS-Horn RGB Series User Manual

V1.0.0 May 2026



PoE Ethernet, Single Input, Single Output,
User define RGB 3 Color Ultrabright LED, 4
selectable Tone,
Piezo Transducer Alarm Siren.

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1. Introduction

The ALMS-Horn-RGB is a piezo transducer alarm siren designed for use in cyber security applications. This device has a water clear upper cover, RGB 3 color Ultrabright LED, 100dbm Piezo Transducer siren, with PoE Ethernet, Modbus TCP and Modbus UDP protocol & built-in Web Server. It is easy for users to control remotely and is user-friendly.

The ALMS-Horn-RGB is ideal for security, building automation, and factory automation applications. It has one digital input for any dry contact output and one digital output. Each device has 4 kinds of alarm tone, NC/NO input mode selection and user-define RGB alarm LED color. The ALMS-Horn-RGB supports the Modbus protocol, which makes perfect integration for monitoring or control in SCADA software, HMI Modbus & Utility's.

This device delivers high sound pressure output, supports a wide input voltage range, and is rated IP43 waterproof, It is protected against both solid objects larger than 1 mm and water spray with a temperature of less than 60 degrees. This makes it suitable for various industrial environments.

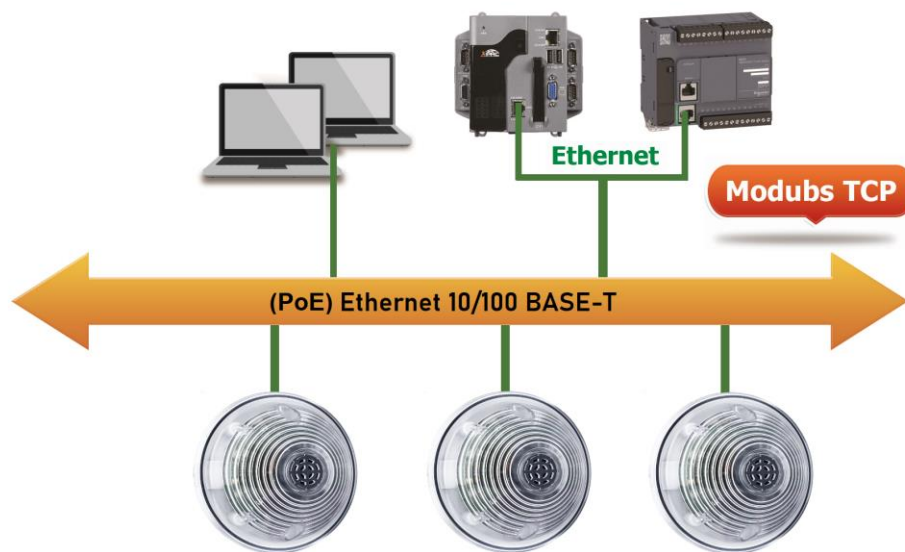


Figure 1-1: Application architecture for the ALMS-Horn-RGB

1.1 Features

✓ **Cyber security**

- Https
- MQTT TLS
- Modbus TLS

✓ **Digital I/O**

- 1 digital input (dry contact: sink)
- 1 digital output (open collector type)
- DI Latch

✓ **Alarm Capabilities**

- 4 selectable alarm tones
- High sound pressure output: 100 ± 5 dB at 10 cm
- RGB LED with 8 user-defined colors for visual alerts

Note: Alarm index = Tone Index + Color Index(x2).

✓ **Connectivity & Protocols**

- Supports Modbus TCP/UDP for seamless integration with SCADA, HMI, and other automation software
- Built-in web server for easy configuration
- PoE Ethernet support for simplified power and data transmission

✓ **Power & Protection**

- Wide input range: 12~48 VDC with reverse polarity protection
- IP43-rated waterproof casing
- ESD and EFT protection for industrial reliability

✓ **Installation & Build**

- Compact dimensions: 119 x 119 x 61 mm
- Panel or wall mount options
- Water-clear upper cover for enhanced LED visibility

ALMS-Horn-RGB have 4 user-defined alarm Index, including with 4 kinds of tone(Tone Index) + 4 kinds of RGB color LED flash light setting(Color Index). The Alarm index not only can trigger by DI alarm, it also can trigger by Modbus command and Http Web server. All the alarm index, RGB Color Index, Tone Index, DI trigger mode NC (Normal Close) or NO (Normal Open), Piezo Transducer volume Hi/Low can be set in both the Http Web Server and the Modbus command.

For communication, the ALMS-Horn-RGB accepts Modbus protocol to monitor the DI status and remote DO output, trigger the alarm index (independent with the DI trigger mode).

1.2 Specifications

EMS Protection	
EFT (IEC 61000-4-4)	±2 kV for Power
ESD (IEC 61000-4-2)	±8 kV Air for Random Point
LED Indicators	
Status	1 x PoE, 1 x Ethernet, 1 x Run, 1 x System status (heartbeat)
Digital Input/Counter	
Channels	1
Type	Dry Contact: Sink
ON Voltage Level	Close to GND
OFF Voltage Level	Open
Isolation	3750 VDC
DI	Latch / Momentary
Digital Output	
Channels	1
Type	Open Collector (Sink)
Load Voltage	+3.5 VDC ~ +30 VDC
Load Current	400 mA
Alarm Output	
LED	Water clear upper cover with 8 RGB Ultrabright 3 color LED
LPiezo Transducer Pressure Level	100 ± 5 dB @10cm/3.0 KHz (W/O waterproof membrane)
Button	
Mode	Restore to default (inside case)
Ethernet	
Ports	RJ-45, 10/100 Base-Tx
PoE	Yes, Class 3
Security	Password and IP Filter
Protocol	Modbus TCP, Modbus UDP, Modbus TLS, MQTT TLS , HTTP/HTTPS
Power	
Reverse Polarity Protection	Yes
Input Range	12 ~ 48 VDC with Reverse Protection (Vin to GND)
Consumption	6.6 W (max)
Mechanical	
Dimensions (mm)	119 x 119 x 61 (W x L x H)
Installation	Panel Mount/Wall Mount
Ingress Protection Rating	IP43
Environment	
Operating Temperature	-20 ~ +75°C

2. Hardware

2.1 Outward Appearance

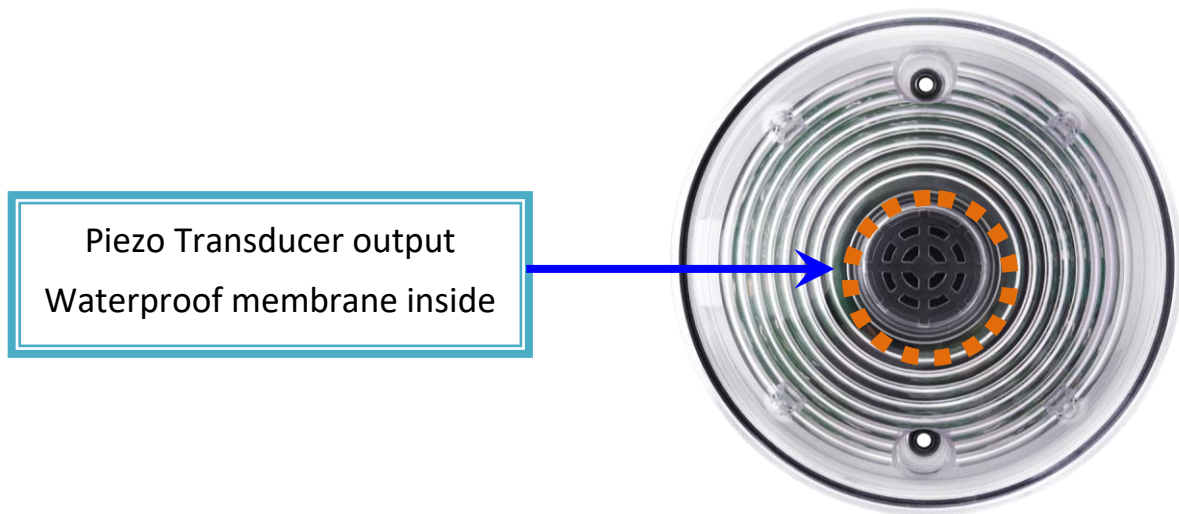


Figure 2-1: Front Panel

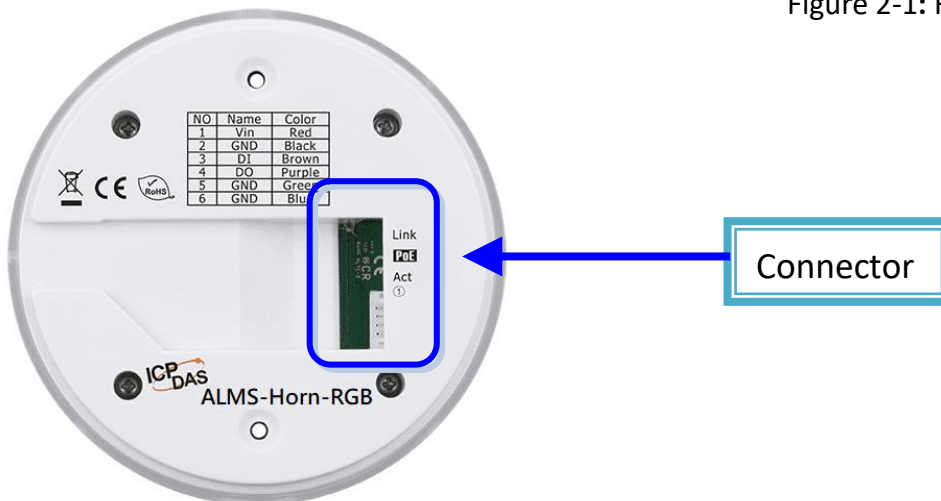


Figure 2-2: Back Panel

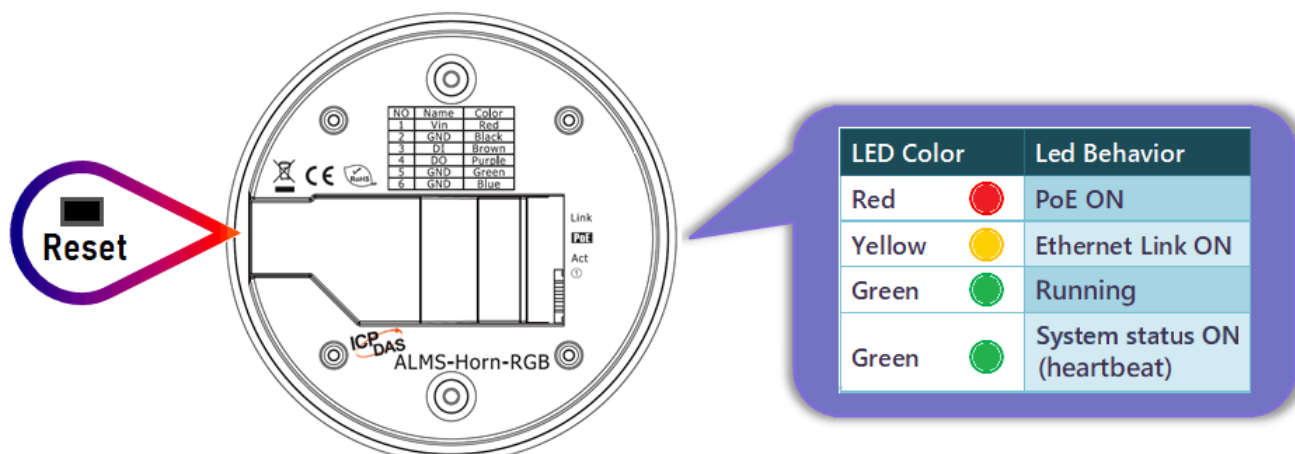
2.1.2 Connector Pin Define

Terminal NO	Pin Name	Wire Color
1	Vin	Red
2	GND	Black
3	DI	Brown
4	DO	Purple
5	GND	Green
6	GND	Blue

Figure 2-3: I/O Connector of ALMS-Horn-RGB

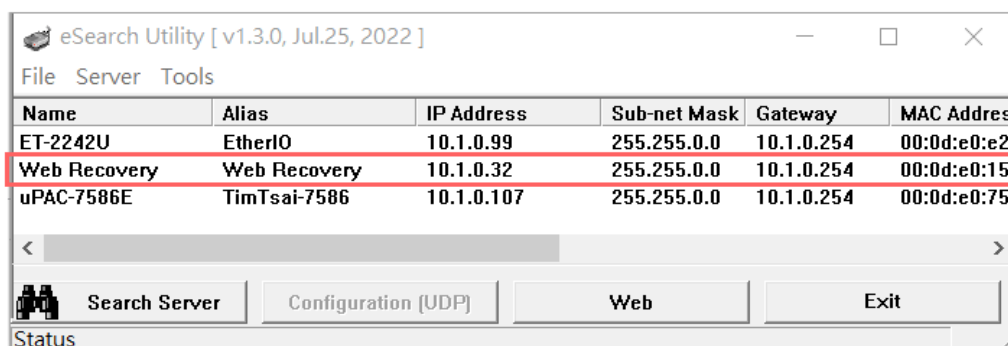
2.2 Restore to default for ALMS-Horn-RGB

It can help you to upload the firmware in rescue mode when your ALMS-Horn-RGB fails to recovery/update firmware in a normal way.



There are 6 recovery processes as shown below:

- 1) Turn off the Power.
- 2) Keep pressing the reset button then turn on the power.
- 3) Hold the reset button for about 5~10 seconds, the CPU LED will flashing.
- 4) Open the **eSearch Utility** and scan devices, you will see that the name is "**Web Recovery**".
- 5) Open the Web browser, such as Google Chrome, enter the IP address of the ALMS-Horn-RGB module in the address bar and then click "Enter", you will see the Recovery menu.
- 6) Click "**Firmware update >>> CHOOSE FILE >>> UPLOAD**" button to begin the restore process.



(Default value: Static IP: 192.168.255.1, Login ID and Password: Admin)

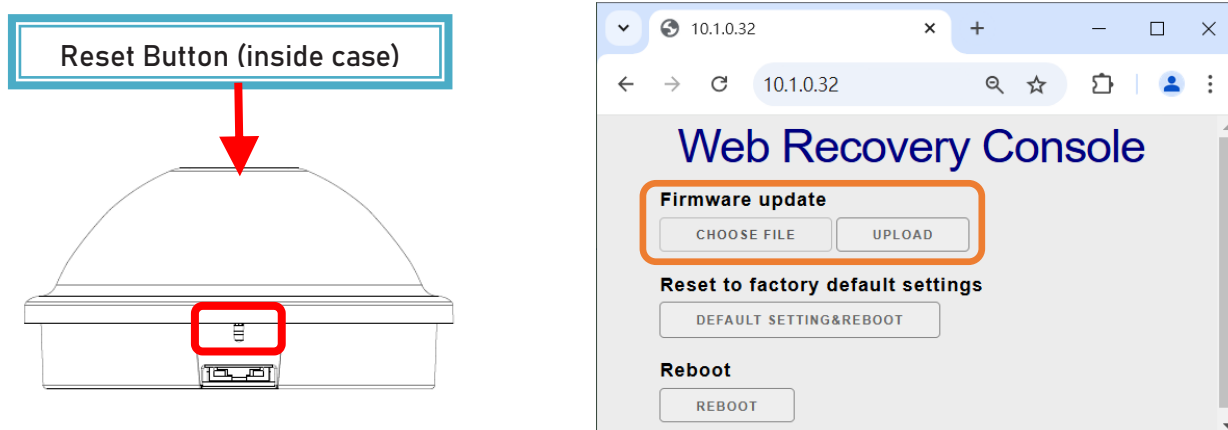


Figure 2-4-1: Recovery Page for Firmware Update

2.3 Dimensions

The diagrams below provide the dimensions of the ALMS-Horn-RGB to use in defining your enclosure specifications. All dimensions are in millimeters.

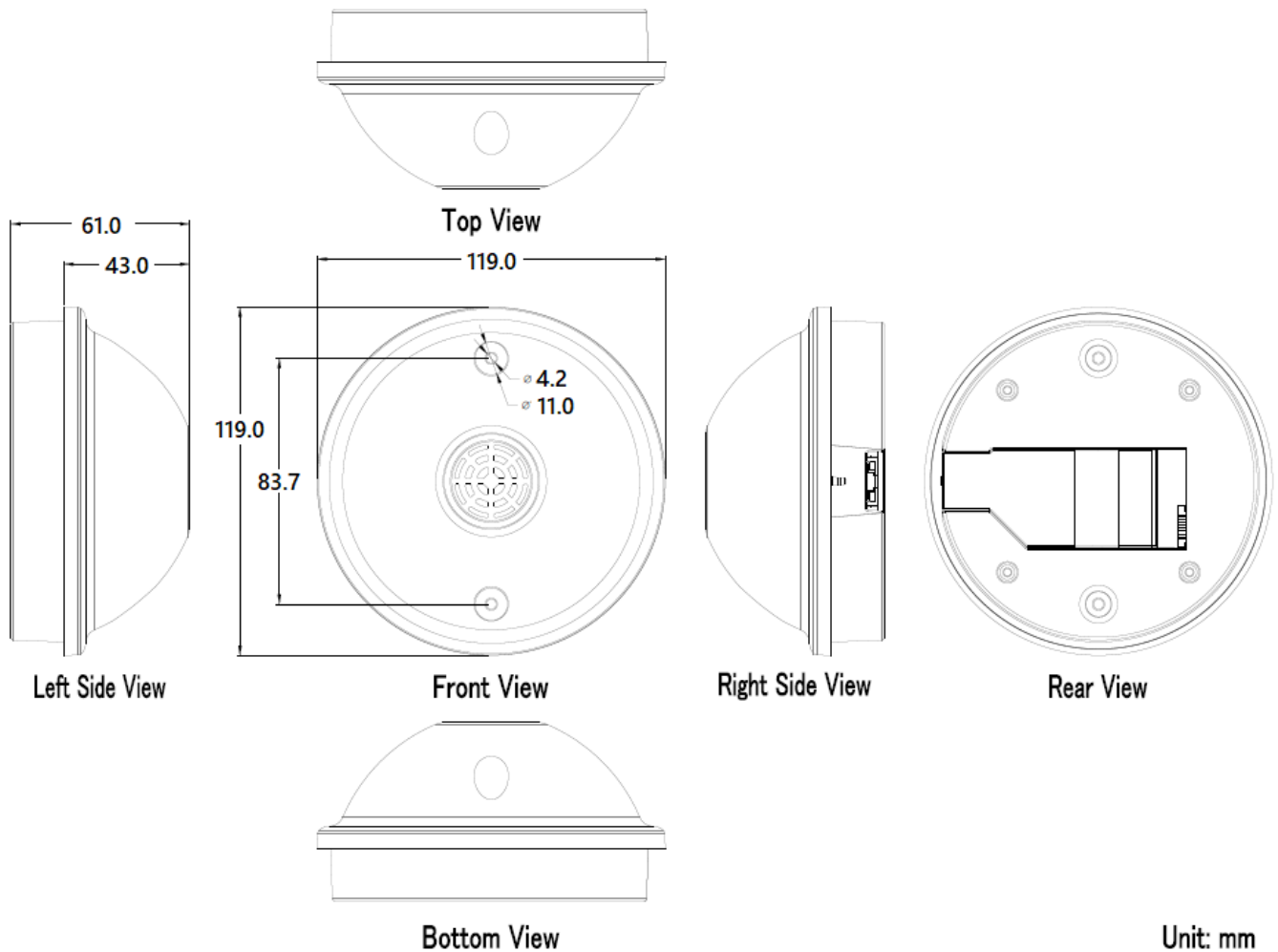


Figure 2-5: Dimension of the ALMS-Horn-RGB

2.4 Wire Connection

2.4.1 Wire connection define

The following describe the wire color.

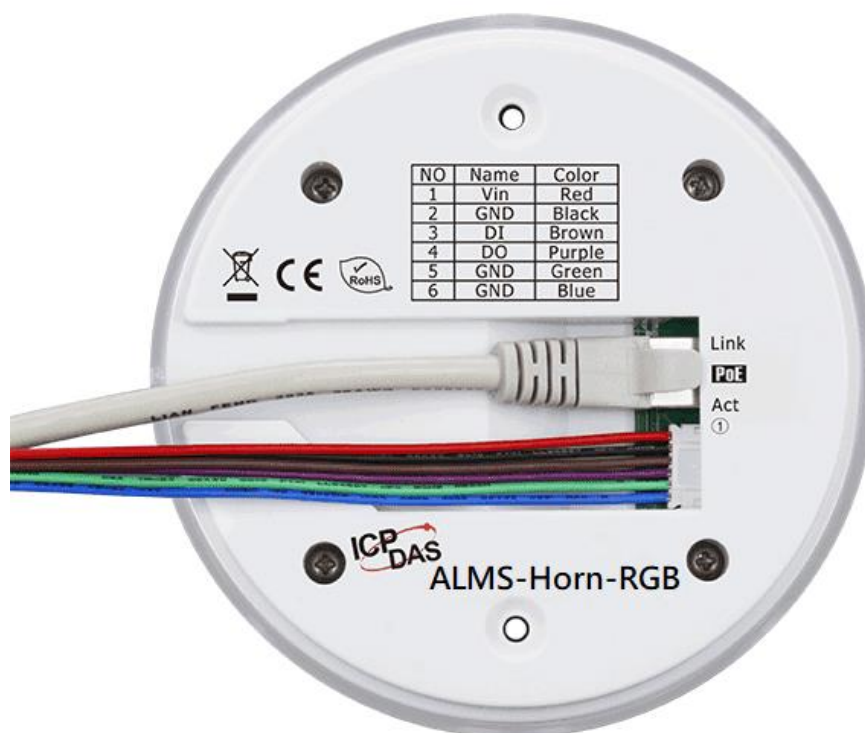


Figure 2-6: Color of Wire

2.4.2 I/O connection

2.4.2.1 Digital Input (DI) wiring

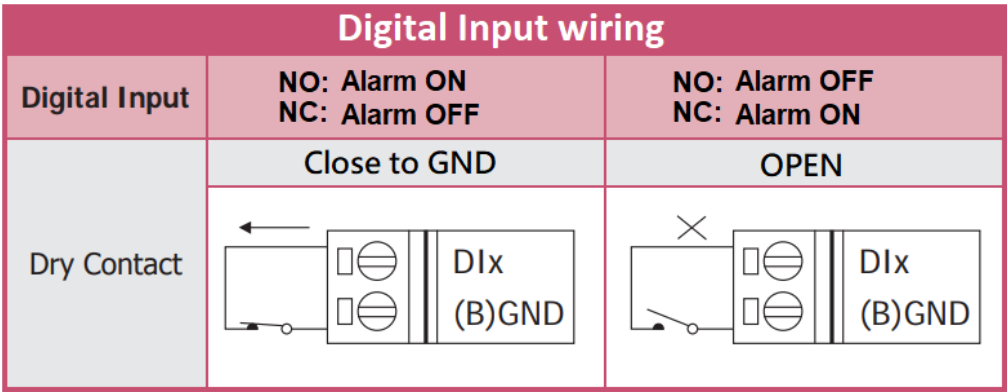


Figure 2-7: DI Dry contact wiring

2.4.2.2 Open Collector Digital Output(DO) wiring

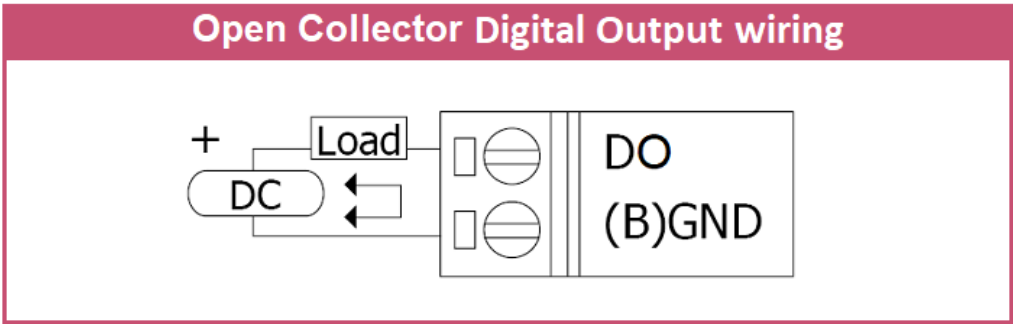


Figure 2-8: Open Collector Output wiring

3. Software

Open the eSearch Utility and click the “Search Server” button, you will see that the name is “ALMS-Horn-
RGB”.

The ALMS-Horn-RGB support Http Web Server, using browser enter the IP address, the login page will
show out, key the correct ID and password (Default: Admin), you will enter the first page. (The default is
set to the static IP address 192.168.255.1.)

★eSearch Utility: http://www.icpdas.com/en/product/guide+Software+Utility_Driver+eSearch_Utility

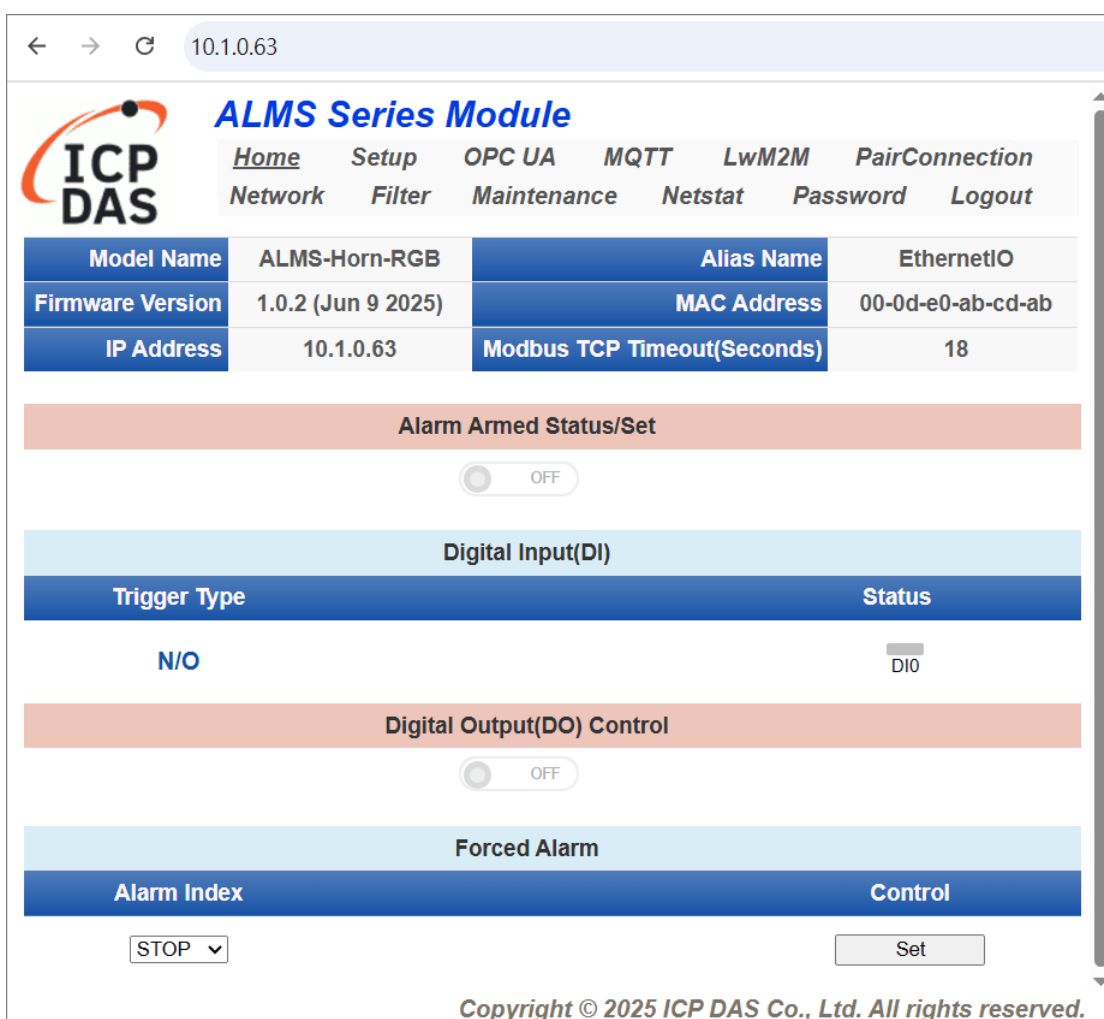
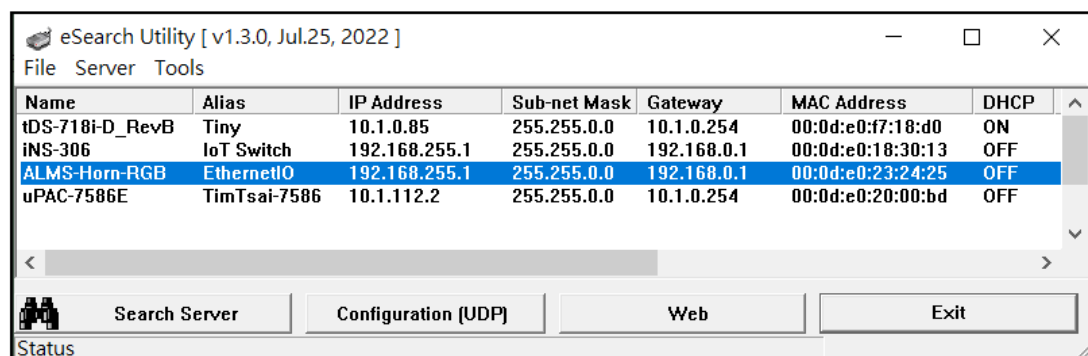


Figure 3-1: Home page

3.1 Status page

The “Home” section is used to configure the setting as below:

The screenshot displays the 'Status page' interface with the following components:

- Alarm Armed Status/Set:** A red header bar with a toggle switch set to 'ON'.
- Digital Input(DI):** A light blue header bar above a table.

Trigger Type	Status
N/O	DIO
- Digital Output(DO) Control:** A red header bar with a toggle switch set to 'OFF'.
- Forced Alarm:** A light blue header bar above a table.

Alarm Index	Control
STOP ▼	Set

Figure 3-2: Status page

Status page show all monitor status and controls,

1. **Alarm Armed:** Control the device global alarm, when it's “ON” all alarm include DI trigger, Forced Alarm will take effect.
2. **DI Trigger Type:** Show the setting status of the DI trigger type.
N/O(Normal Open): The DI input dry contact normal is open circuit, short to GND will trigger the DI alarm.
N/C(Normal Close): The DI input dry contact normal is close to GND, open circuit will trigger the DI alarm.
3. **DI Status:** Show the DI alarm status, turn on when alarm have been triggered, else there will no alarm.
4. **DO output Status/Control:** Show the status of DO output, when it turns ON there will be a DI alarm, it can be change output status by pressing the switch. **DO output is automatic control by DI alarm, when DI been trigger DO will turn on automatic.**
5. **Forced Alarm:** Select the “Alarm Index”, press “Set” button, will forced the alarm trigger.

3.2 Setup page

The “Setup” section is used to configure the setting as below:



ALMS Series Module

Home

Setup

OPC UA

MQTT

LwM2M

PairConnection

Network

Filter

Maintenance

Netstat

Password

Logout

Model Name	ALMS-Horn-RGB	Alias Name	EthernetIO
Firmware Version	1.0.2 (Jun 9 2025)	MAC Address	00-0d-e0-ab-cd-ab
IP Address	10.1.0.108	Modbus TCP Timeout(Seconds)	18

LED Color Settings

Color	Value	Setup
0		59990
Red		0
Green		0
Blue		0

Fill/Get Value to/from Color Index

Index 1-1st

Fill

Get

Color Index	1st Red	1st Green	1st Blue	2nd Red	2nd Green	2nd Blue	Quick Flash
Index 1	59990	0	0	0	0	0	☒
Index 2	59990	0	0	0	59990	59990	☐
Index 3	0	0	0	0	0	0	☒
Index 4	0	0	0	0	0	0	☒

Alarm Index Settings(LED + Tone)

Alarm Index/Tone Volume	Color Index	Tone Index
Index 1	Index 1	Index 0(Tone OFF)
Index 2	Index 2	Index 0(Tone OFF)
Index 3	Index 0(LED OFF)	Index 0(Tone OFF)
Index 4	Index 1	Index 0(Tone OFF)
Tone Volume	Low	

Digital Input(DI) Settings

DI Channel	Trigger Type	Alarm Index
DI 0	N/O (Normal Open)	Index 1

*D/O active depend on D/I, Index 0 Disable D/I Alarm

Apply

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Figure 3-3: Setup page

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Show and Set all the parameter of alarm setting.

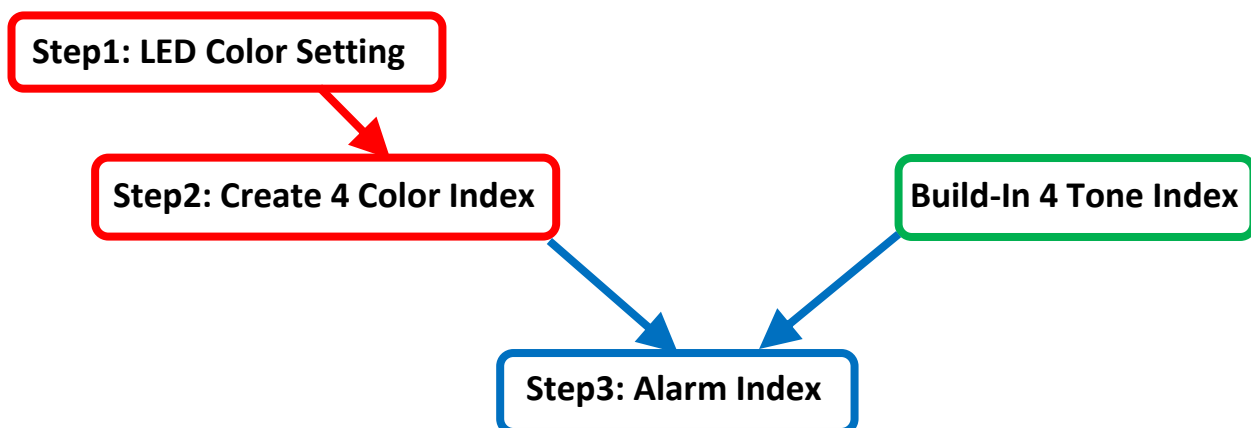
1. LED Color Settings:

The Color Index includes two color space fields. To set the desired color, adjust the R (Red), G (Green), and B (Blue) bars. The selected color will be displayed directly on the device LED. Choose a Color Index (1st or 2nd) from “Fill/Get Value to/From Color Index.” Press the “Fill” button to apply the color value to your selected item below. Press the “Get” button to retrieve the item value back to the bars. When the LED is active, it will toggle between the two colors. If “Quick Flash” is checked, each color will flash rapidly when displayed.

There are 4 Color Index/8 color space field for user define.

2. Alarm Index Settings:

An Alarm Index include 1 Color Index + 1 Tone Index, Tone Volume have 2 level Hi & Low. After finish selected, each Alarm Item have playback test button, it can show the LED & Tone playback about 5 second.



3. Digital Input(DI) Settings: DI0 Trigger Type setting.

4. **N/O(Normal Open):** The DI input dry contact normal is open circuit, short to GND will trigger the DI alarm.

N/C(Normal Close): The DI input dry contact normal is close to GND, open circuit will trigger the DI alarm.

DI0 Alarm Index: Set an Alarm Index to play when alarm been trigger.

3.3 OPC UA page

The “OPC UA” section is used to configure the setting as below:

OPC UA Server Settings

Enable	☒
Port	4840
Server Name	EthernetIO_D31194CF
Anonymous Login	☐
Certificate Login	☐
Security Policy	☒ None ☒ Basic128Rsa15 Sign; Sign and Encry ☒ Basic256 Sign; Sign and Encry ☒ Basic256Sha256 Sign; Sign and Encry ☒ Aes128Sha256RsaOaep Sign; Sign and Encry
Update Settings	

OPC UA Authentication Certificate

Trusted Certificate (Default)	CHOOSE FILE	UPLOAD	REMOVE
Private Key (Default)	CHOOSE FILE	UPLOAD	GENERATION REMOVE
Certificate (Default)	CHOOSE FILE	UPLOAD	SELF-SIGNED REMOVE

Nodes List

URI	opc.tcp://10.1.0.66:4840				
Nodes List		I/O	NodeId	BrowseName	DisplayName
		Local.DiscreteInput 0	Local.DI.ch0	Local.DI.ch0	ch0
		Local.Coil 0	Local.DO.ch0	Local.DO.ch0	ch0
		Local.Holding 0	Local.AO.ch0	Local.AO.ch0	ch0
		Local.Holding 1	Local.AO.ch1	Local.AO.ch1	ch1

3.4 MQTT page

The “MQTT” section is used to configure the setting as below:

MQTT Client
Broker1 Setting
Broker2 Setting

Message Settings
Topic Prefix Maximum of 16 characters (The content cannot include ' or " characters)
Update Settings

Topic Settings

Conditions	Topic Name	I/O	Trigger Type	Publish	Subscribe	
						<button>NEW</button>

MQTT Broker1

Attribute Settings	
Enable	☐
Broker Address	
Port	1883
Anonymous Login	☒
Username	
Password	
Client ID	EthernetIO_D3
Authentication	☒ Plaintext ☐
Last Will	☐ Enable
Will Topic	
Will	
Periodical Publish Interval	0
Connection State	Disable

Edit Topic

Topic	
Topic Alias	Topic0 The maximum length for the alias is 8 characters
Target Type	Local I/O
Condition	Register Type Coil 0 ON
Publish & Subscribe	
Topic	☐ Enable Publish ☐ Enable Subscribe
Publish Topic	
Publish QoS	0 : most once
Subscribe Topic	
Subscribe QoS	0 : most once
JSON Format	☐ Enable
Retain	☐ Enable

Update Settings

MQTT Authentication Certificate

<i>Trusted Certificate</i> (Default)	<button>CHOOSE FILE</button>	<button>UPLOAD</button>	<button>REMOVE</button>
<i>Private Key</i> (Default)	<button>CHOOSE FILE</button>	<button>UPLOAD</button>	<button>REMOVE</button>
<i>Certificate</i> (Default)	<button>CHOOSE FILE</button>	<button>UPLOAD</button>	<button>REMOVE</button>

3.5 LwM2M page

The “LwM2M” section is used to configure the setting as below:

LwM2M Client Settings	
Enable	☐
Endpoint Name	EthernetIO_D31194CF
Bootstrap requested	☐
Server Address	leshan.eclipseprojects.io
Local UDP Port	56830
Server UDP Port	5683
Server ID	38095
Using (D)TLS Security mode : PSK Authentication	☐
PSK identity	
Pre-Shared-Key	
Lifetime	300
Connection State ,	Disable
Update Settings	

3.6 Pair Connection page

The “Pair Connection” section is used to configure the setting as below:

Pair Connection	
Configuration of Communication	
Connection Timeout (ms)	2000
Reconnect Interval (ms)	3000
Remote DI to Local DO	
Enable	☐
Communication Timeout (ms)	1000
Scan Time (ms)	1000
Local DO Base Address	0
I/O Count	0
IP Address of the Remote Device	192.168.255.200
Modbus TCP Port	502
Modbus ID	1
Remote DI Base Address	0
Using TLS (Security mode)	☐
Connection State _-	Disable
Update Settings	

Local DI to Remote DO	
Enable	☐
Communication Timeout (ms)	1000
Scan Time (ms)	1000
Local DI Base Address	0
I/O Count	0
IP Address of the Remote Device	192.168.255.200
Modbus TCP Port	502
Modbus ID	1
Remote DO Base Address	0
Using TLS (Security mode)	☐
Connection State _-	Disable

3.7 Network page

The “**Network**” section is used to configure the setting as below:

Show and Set all the parameter of Network and Modbus.

1. **IP Address:** Setting for IPV4 & IPV6 network parameter, and Modbus at the last.
(Default Modbus port: 502)
2. **General Settings:** Include Ethernet Speed, Timeout, HTTP port, Alias Name...Setting.
3. **Other Operations:**

Restore Defaults: Restore all parameter setting back to factory default.

Reboot: Reboot the device.



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[Network](#) [Filter](#) [Maintenance](#) [Netstat](#) [Password](#) [Logout](#)

Model Name	ALMS-Horn-RGB	Alias Name	EthernetIO
Firmware Version	1.0.2 (Jun 9 2025)	MAC Address	00-0d-e0-ab-cd-ab
IP Address	10.1.0.108	Modbus TCP Timeout(Seconds)	18

IP Address

IPv4 Address

Address Type	DHCP			
Static IPv4 Address	10	1	0	222
Subnet Mask	255	255	0	0
Default Gateway	10	1	0	254
MAC Address	00-0d-e0-ab-cd-ab (Format: FF-FF-FF-FF-FF-FF)			

IPv6 Address

Link Local Address	FE80::20D:E0FF:FEAB:CDAB			
SLAAC Address	0:0:0:0:0:0:0:0			
SLAAC Timeout	0 (30 ~ 65000 seconds, 0 = Default Disabled)			
User-defined Address	fc00::1			

DNS Settings

Auto DNS Configuration	Enable (Auto DNS Server Configuration by IPv4 DHCP, default enabled.)		
Preferred DNS Server IP	8.8.8.8	IPv4 example: 208.67.222.222 , IPv6 example: 2620:119:35::35	
Alternate DNS Server IP	8.8.4.4	IPv4 example: 208.67.220.220 , IPv6 example: 2620:119:53::53	

Update Settings

General Settings

Ethernet Speed	Auto (Auto=10/100 Mbps Auto-negotiation)
HTTP port	80 (Default= 80)
Alias Name	EthernetIO (Max. 18 chars)
UDP Heartbeat	0 (20 ~ 300 seconds, 0 = Default Disabled)
UDP Configuration	Enable (Enable/Disable the UDP Configuration, Enable=default.)

Update Settings



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[Network](#) [Filter](#) [Maintenance](#) [Netstat](#) [Password](#) [Logout](#)

Model Name	ALMS-Horn-RGB	Alias Name	EthernetIO
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IP Address	10.1.0.108	Modbus TCP Timeout(Seconds)	18

Modbus Server Settings

Modbus TCP/UDP

Modbus Net ID	1 (Default: 1)
Enable	☒
Port	502 (Default: 502)

MODBUS/TCP Security

Enable	☒
Port	802 (Default: 802)
Certificate Login	☐ Require

Update Settings

WireGuard VPN Configuration

Interface

Enable	☐ Enable
Private Key	4KG6Q775tuonH3WVglhR Regenerate
Public Key	bkmA0K7BAYtuwSwwiE4foL
IP address	192.168.100.64
Subnet mask	255.255.0.0
Gateway	192.168.100.1
Listen Port	51820
DNS Server (option)	0.0.0.0
MTU (option)	1420

Peer

Public Key	
Preshared Key (option)	
Keep Alive	25
Endpoint IP	
Endpoint Port	60865
Allow IP	0.0.0.0
Allow Subnet Mask	0.0.0.0
Connection State	Disable

Update Settings

Other Operations

Restore all options to their factory default states

Restore Defaults

Reboot the Device

Reboot

Figure 3-4: Network page

3.8 Filter page

The “**Filter**” section is used to configure the setting as below:

Set/Modify IP address Whitelist (Allow access) for the device.



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Model Name	ALMS-Horn-RGB	Alias Name	EthernetIO
Firmware Version	1.0.2 (Jun 9 2025)	MAC Address	00-0d-e0-ab-cd-ab
IP Address	10.1.0.108	Modbus TCP Timeout(Seconds)	18

Filter Setting

Accessible IP	IPv4/v6 Address (example: 10.0.8.123, fe80:0:0:0:a8ee:dc07:1cda:5678)
IP0	
IP1	
IP2	
IP3	
IP4	
Enable IP Filter	☒ Check to enable. (Default disabled)

Update Settings

Note: Remember to include the IP address of your configuration computer.

Figure 3-5: Filter page

3.9 Change Password page

The “**Password**” section is used to configure the setting as below:

1. Open a web browser, such as Google Chrome, Internet Explorer, or Firefox, enter the IP address of the ALMS-Horn-RGB module in the address bar and then click “Enter”, or click the “Web” button in the eSearch Utility.
2. To enhance the security, you are prompted to change the password when you login to the module for the first time.
3. Go to the “Password” setting, user can modify the default password: Admin in the Current password field. Next, input your new password in the Password and Confirm password fields, then click the “Submit” button.



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Model Name	ALMS-Horn-RGB	Alias Name	EthernetIO
Firmware Version	1.0.2 (Jun 9 2025)	MAC Address	00-0d-e0-ab-cd-ab
IP Address	10.1.0.108	Modbus TCP Timeout(Seconds)	18

Privilege Management

Account & Password

No.	Account	Password	Confirm Password	Authority	Enabled
1	Admin			Admin	☒
2	1			Admin	☒
3				Admin	☐
4				Admin	☐
5				Admin	☐

SUBMIT

Figure 3-6: Change Password page

3.10 Forget IP Address

If you forget the IP address of the device, use eSearch utility press “Search Server” button to search it.

http://www.icpdas.com/en/product/guide+Software+Utility_Driver+eSearch_Utility

Double click on the device item can change the IP of the device.

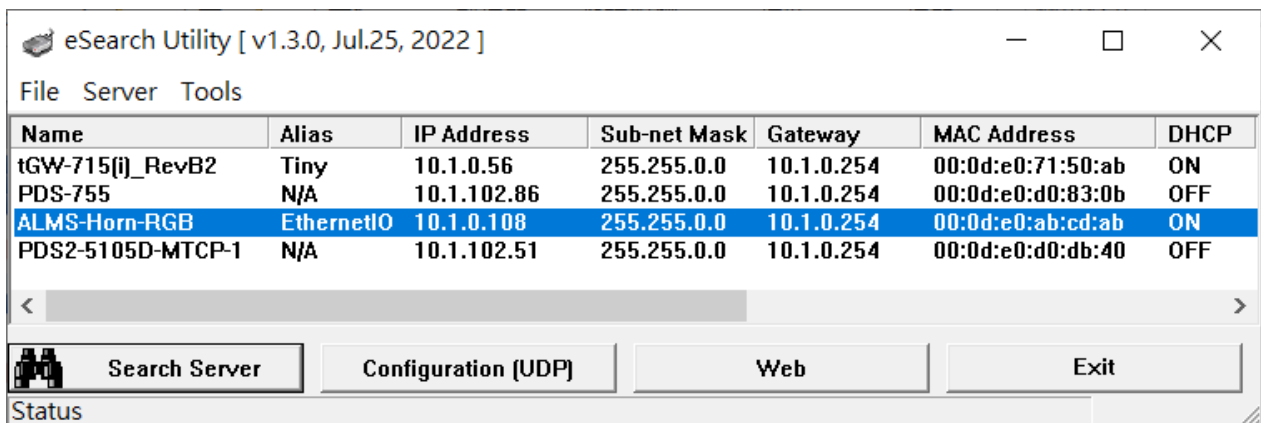


Figure 3-7: eSearch Utility search IP

4. Modbus Protocol

4.1 Function Code

The function code field of a Modbus data unit is coded in one byte. Valid codes are in the range of 1 ... 255 decimal (the range 128 - 255 is reserved and used for exception responses). When a Modbus request is sent from a Modbus Client to a Server device the function code field tells the Server what kind of action to perform.

The Modbus TCP/RTU feature of ALMS-Horn-WF/-MRTU supports 5 function codes, which allows the reading and writing of data contents of registers.

Function Code	Descriptions
01 (0x01)	Read Coil Status
02 (0x02)	Read Input Status
03 (0x03)	Read multiple Analog Output registers
04 (0x04)	Read multiple Analog Input registers
05 (0x05)	Force Single Coil
06 (0x06)	Write single Analog Output registers
15 (0x0F)	Write multiple Coil Output
16 (0x10)	Write multiple Analog Output registers

Table 4-1: Supports Function Codes of ALMS-Horn-RGB

Any other function code request will be returned with an error response indicating the function code is not supported, as well as a request for too much data or data at a register address that not present.

4.2 Error Response

Byte Index	Field Name	Byte count	Description
00	Address	1 Byte	1 to 247
01	Function code	1 Byte	Function code + 0x80
02	Exception code	1 Byte	01

Table 4-2: Error response of Modbus Protocol

If a CRC mismatch occurs, the module will not respond.

4.3 Data Encoding

Modbus uses a “big-endian” representation for address and data items. This means that when a numerical quantity larger than single byte is transmitted, the most significant byte (MSB, also called the high-order byte) is send first. The following sub-topics describe the different byte of encoding and show how the data is encoded as it is within the Modbus packet.

4.3.1 Binary

A binary item is represented as a single bit within a data word. All binary is packed into 16-bits data words, which are accessed using function code 01 and 02. Therefore, a single register contains 16 bits of binary data, each having a specific meaning.

Value	1st	2nd
0xAA55 (1010101001010101)	0xAA (10101010)	0x55 (01010101)

Table 4-3: A single register contains 16 bits of binary data

4.3.2 16-bits Word

A 16-bits word item is transmitted with the most significant byte first. Function code 03 and 04 read 16-bits items at a time; therefore, each of these data items will fit within one register that is read.

Value	1st	2nd
0x1234	0x12	0x34

Table 4-4: A 16-bits word item

4.4 Modbus TCP Protocol Description

The Modbus protocol defines a simple protocol data unit independent of the underlying communication layers. The mapping of Modbus protocol on network can introduce some additional fields on the application data unit.

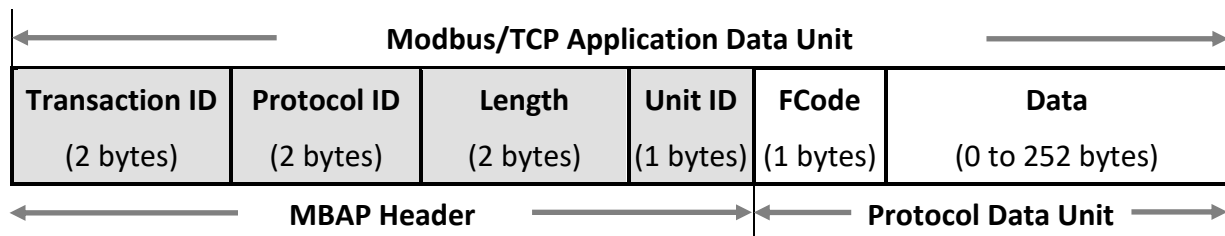


Figure 4-5: Modbus/TCP Application Data Unit

4.4.1 MBAP

The Modbus/TCP extension includes 7 additional bytes to the original Modbus protocol, which allows for transport over the TCP/IP layers.

A dedicated header is used on TCP/IP to identify the Modbus Application Data Unit. It is called the MBAP Header (MODBUS Application Protocol Header). The MBAP Header consists of 7 bytes of information:

Fields	Length	Description
Transaction Identifier	2 bytes	Identification of Request/Response transaction – Copied from request to response
Protocol Identifier	2 bytes	0 = Modbus protocol
Length	2 bytes	Number of following bytes - Includes the Unit Identifier
Unit Identifier	1 byte	Identification of remote slave

Table 4-6: MODBUS/TCP Application Protocol Header

4.5 ALMS-Horn-RGB Address Mapping

Modbus Address Base on 0

Address	Length	Descriptions	Range	Access Type
00000	1	Digital Output	0=OFF, 1=ON	R/W
00016	1	Alarm ARMED	0=OFF, 1=ON	R/W
00024	1	DI Trigger Type	0=N/C, 1=N/O	R/W
00026	1	DI Alarm Latch	0=Momentary, 1=Latch	R/W
00028	1	DI Clear Alarm Latch	1 = Clear	W
00032	1	Alarm Tone Volume	0=Low, 1=Hi	R/W
00064	4	LED Quick-Flash Alarm Index 1~4	0= OFF, 1=ON	R/W
00226	1	Restore all config (Will Reboot)	1 = Action	W
00233	1	Reboot the Module	1 = Action	W

Table 4-7: FC01/FC05/FC15 Read/Write Coil address

Address	Length	Descriptions	Range	Access Type
00000	1	Digital Input	0=OFF, 1=ON	R

Table 4-8: FC02 Read Input Status address

Address	Length	Descriptions	Range/Value	Access Type
00351	1	Firmware Version	0x0102 = V1.02	R

Table 4-9: FC04 Read Input registers address

Address	Length	Descriptions	Range/Value	Access Type
00000	1	Alarm ARMED	0=OFF, 1=ON	R/W
00001	1	Forced Alarm Index	0=STOP 1/2/3/4 Index	R/W
00008	1	DI Alarm Index	0=OFF 1/2/3/4 Index	R/W
00016	4	LED Color Index1~4 of 1st RED Value	0 ~ 59990	R/W
00020	4	LED Color Index1~4 of 1st Green Value	0 ~ 59990	R/W
00024	4	LED Color Index1~4 of 1st Blue Value	0 ~ 59990	R/W
00032	4	LED Color Index1~4 of 2nd RED Value	0 ~ 59990	R/W
00036	4	LED Color Index1~4 of 2nd Green Value	0 ~ 59990	R/W
00040	4	LED Color Index1~4 of 2nd Blue Value	0 ~ 59990	R/W
00048	4	ALARM Index1~4 of LED Color Index	0=OFF 1/2/3/4 Index	R/W
00052	4	ALARM Index1~4 of Tone Index	0=OFF 1/2/3/4 Index	R/W
00263	1	Modbus TCP timeout(sec)	5 ~ 65000	R/W
00271	1	Modbus Device ID	1 ~ 247	R/W
00555	1	Module Reset Status	WR:0 to Clear	R/W
00556	1	Boot Count of Module, Reset Default to clear	1 ~ 32767	R
00559	1	Model ID (0x3502)	0x3502	R

Table 4-10: FC03/FC6/FC16 Read/Write Output registers address

Technical Support

If you have problems about using the ALMS-Horn Series device, please contact ICP DAS Product Support.

Email: service@icpdas.com