HORYZON-C
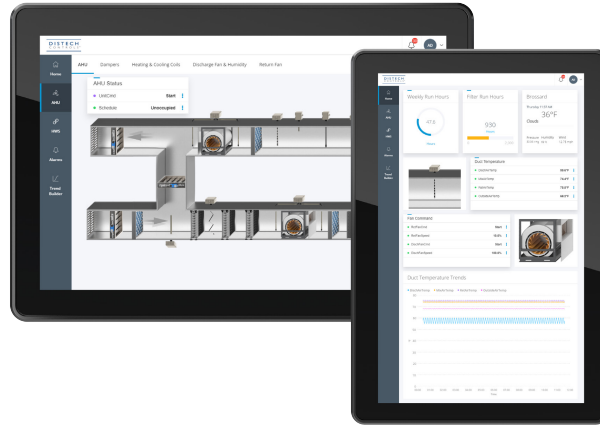

Overview

The HORYZON-C IP-based capacitive multi-touch color display is an ideal user interface for a wide range of HVAC, lighting, and sunblind applications.

Easily manage operating parameters of an HVAC system: monitor values, equipment and system status, and view active system alarms to perform diagnostics and take corrective actions such as overriding a sensor, pump, fan, or changing a setpoint.

HORYZON Series displays provide easy and intuitive access to the internal data of ECLYPSE™ ECY series controllers, and of ECB series BACnet® and ECL series LONWORKS® controllers when they are operating under EC-Net™.

General Installation Requirements

For proper installation and subsequent operation of this product, pay special attention to the following recommendations:

☐ Upon unpacking the product, inspect the contents of the carton for shipping damages. **Do not install damaged modules**.

☐ The product's datasheet specifies the power consumption (amount of heat generated), the operating temperature range, and other environmental conditions the product is designed to operate under.

☐ Ensure proper ventilation of the product.

☐ Avoid areas where corroding, deteriorating, or explosive vapors, fumes or gases may be present.

☐ If the product is used and/or installed in a manner not specified by Distech Controls, the functionality and the protection provided by the product may be impaired.

⚠️ Any type of modification to any Distech Controls product will void the product's warranty.

⚠️ WARNING: Battery may explode if mistreated. Do not recharge, disassemble or dispose of in fire.

♻️ Take reasonable precautions to prevent electrostatic discharges to the product when installing, servicing, or operating it. Discharge any accumulated static electricity by touching a grounded object with your hand before handling the product.

DISTECH CONTROLS™

General Wiring Recommendations

⚠️ **Risk of Electric Shock:** Turn off power before any kind of servicing to avoid electric shock.

☐ All wiring must comply with electrical wiring diagrams, as well as national and local electrical codes.

Cleaning

Clean this product by polishing with a soft dry cloth.
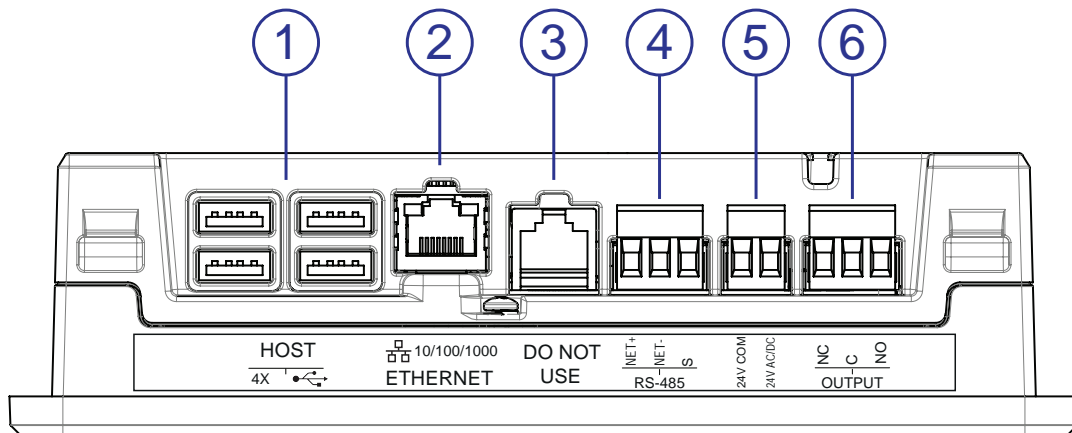
Connection Identification

Figure 1: HORYZON-C - Connector identification

1	USB ports
2	Ethernet port
3	RJ-45 – NOT USED
4	RS-485 – NOT USED
5	Power supply – 24VAC/DC
6	Relay output

Device dimensions

☐ HORYZON-C7 ── 190 x 126 x 44 mm
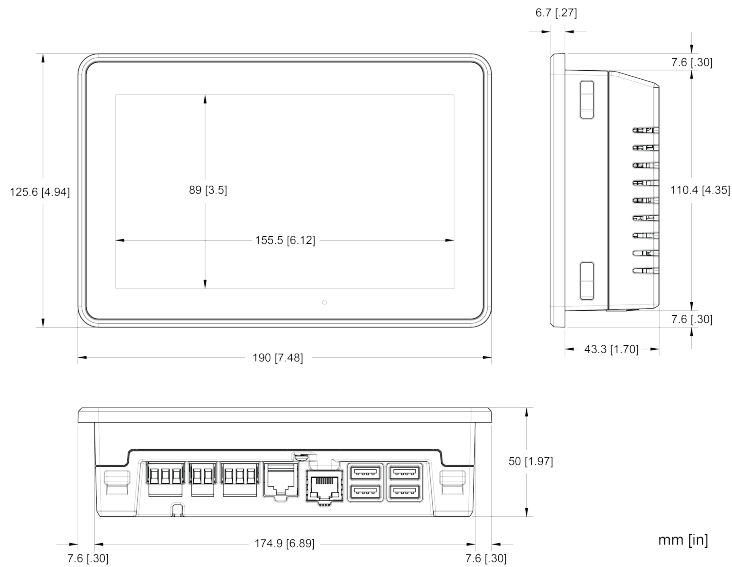
Figure 2:   HORYZON-C7 dimensions

☐ HORYZON-C10 ─────────────────────────────────────── 254 x 175 x 44 mm
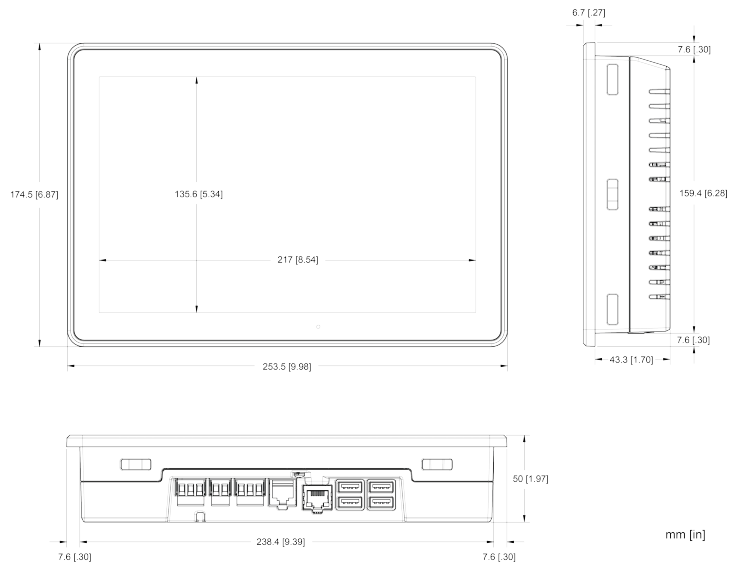
Figure 3:   HORYZON-C10 dimensions

Mounting Instructions

This product has been specifically designed for easy installation. However, certain conditions apply when choosing a suitable location for the device:

☐ The device should not be installed on an exterior wall.
☐ The device should not be installed near a heat source.
☐ Install the device in an area that provides proper device ventilation. Nothing must restrain air circulation to the device.
☐ The device should be installed vertically, either in landscape or portrait orientation.

Electrical Panel Mounting Installation Procedure

This product can be mounted on electrical panels using the supplied mounting brackets.

The panel thickness shall not exceed 4.8 mm (0.19").

This mounting method provides an IP65 environmental rating.

1. Using the cutout sheet provided at the end of this document, trace and cut an opening in the panel door.
   IMPORTANT: The cutout sheet must be printed in "actual size" to preserve the scale of the template.
2. Pull all cable (power supply, Ethernet, etc.) through the panel cavity.
3. Connect all wiring to the HORYZON display, power supply last.
4. Insert the HORYZON display into the cavity.
5. Mount the supplied fixing brackets on the back of the HORYZON display.
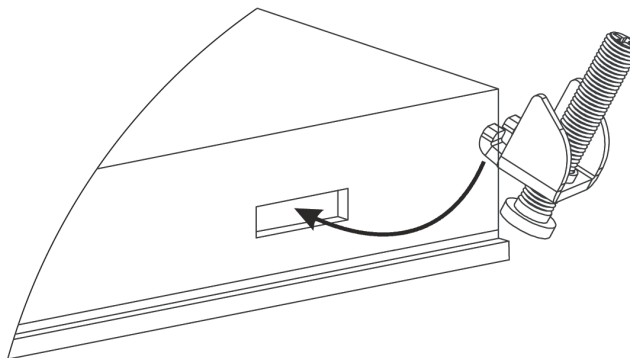6. Tighten the fixing brackets (recommended torque 0.7 N m)

Figure 4:   HORYZON Panel Mounting

Wall Mounting Installation Procedure

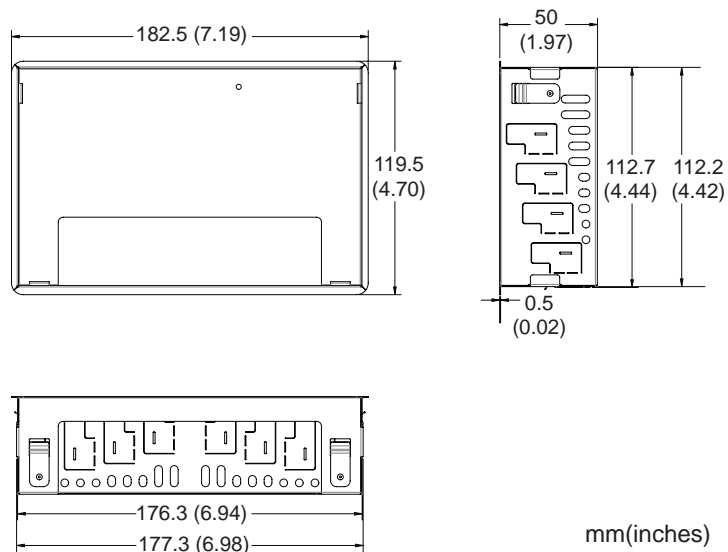This product can be mounted on a dry wall using the optional wall-mounting kit.

This mounting method provides an IP20 environmental rating.

7. Position the in-wall mounting box on the wall and trace the outline.
8. Make a cavity in the dry wall according to this tracing.
9. Fasten the anti-theft cable lock to the wall-mounting box using the provided Torx screw.
10. Pull all cables (power supply, Ethernet, etc) out of the wall cavity and through the mounting box.
11. Insert the wall mounting box into the cavity
12. Push out the appropriate pre-punched zones to ensure a tight fastening of the box.
13. Connect all wiring to the HORYZON display, power supply last.
14. Fasten the anti-theft cable lock to the HORYZON display using the provided Torx screw.
15. Insert the display into the in-wall mounting box, starting with the bottom side to fit the drawings
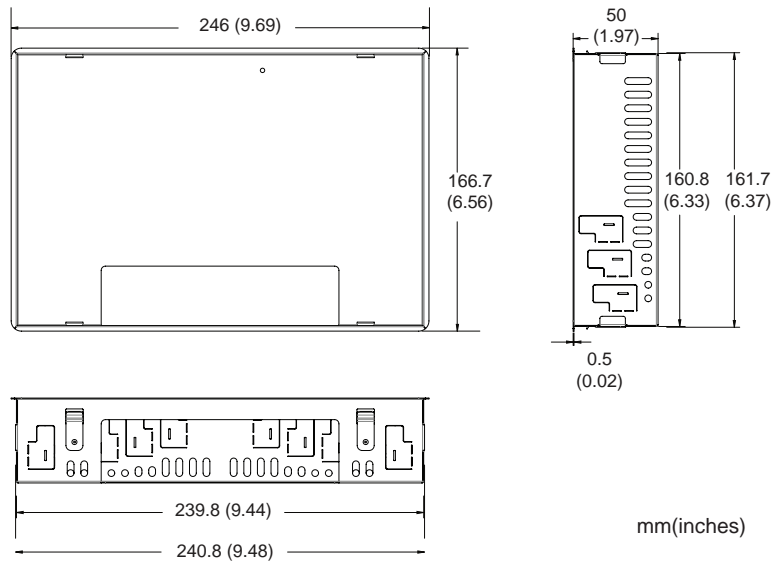16. Push the display into the in-wall mounting box and make sure it clips tightly into place.

In-wall mounting box dimensions

☐   HORYZON-C7 In-Wall Mounting Kit ──────────────────────────────── 182.5 x 119.5 x 50 mm

mm(inches)

☐ HORYZON-C10 In-Wall Mounting Kit ————————————————————————— 246 x 166.7 x 50 mm

246 (9.69)

166.7 (6.56)

50 (1.97)

160.8 (6.33) 161.7 (6.37)

0.5 (0.02)

239.8 (9.44)

240.8 (9.48)

mm(inches)

Power Wiring

Voltage —— 24 VAC/DC; ±15%; Class 2

⚠ **This is a Class 2 Product. Use a Class 2 power supply only to power the device.**

Power consumption —— HORYZON-C10: 15W

—— HORYZON-C7: 13W

HORYZON-C7
☐ DC power supply ——— 16 W
☐ AC power supply ——— 21 VA

HORYZON-C10
☐ DC power supply ——— 18 W
☐ AC power supply ——— 24 VA

HORYZON-C displays can be powered from a 24 VAC or 24 VDC power supply, or directly from the mains with the optional HORYZON Power Adapter.

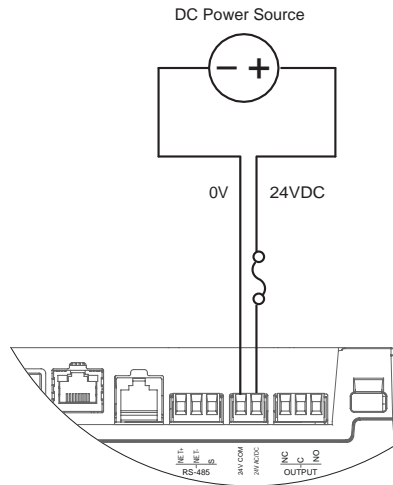# Power wiring using an external 24 VDC power supply

Figure 5:   Powering HORYZON-C displays with an external 24 VDC power supply

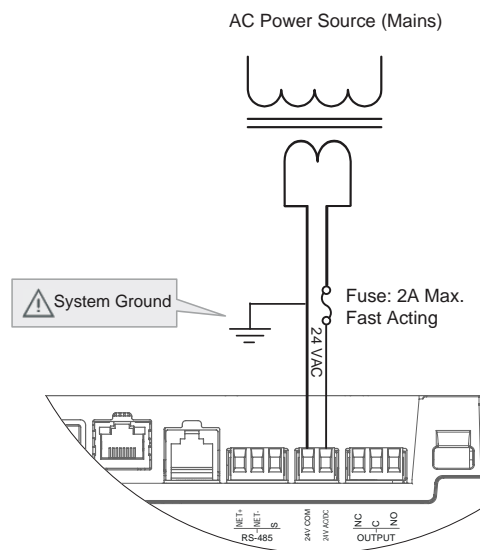# Power wiring using an external 24 VAC power supply

Figure 6:   Powering HORYZON-C displays with an external 24 VAC power supply

Power wiring using the HORYZON Power Adapter

1. Swap the 3-point connector of the HORYZON power adapter with the 2-point connector supplied with the display.

Wire	2-point connector pin	Display marking
Black solid	Pin 1	-
Black / white stripe	Pin 2	+

1. Connect the HORYZON Power Adapter to the HORYZON power supply input.
2. Plug the HORYZON Power Adapter into the mains.
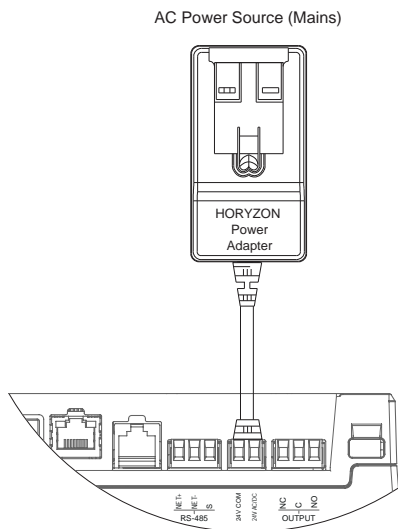
AC Power Source (Mains)

Figure 7:   Powering HORYZON-C displays with the HORYZON Power Adapter

Output Wiring

HORYZON-C displays feature a relay output for optional control of external visual and/or acoustic alarm management devices.

Normally Open (NO) and Normally Closed (NC) are available, and both can be wired simultaneously (green light / red light).

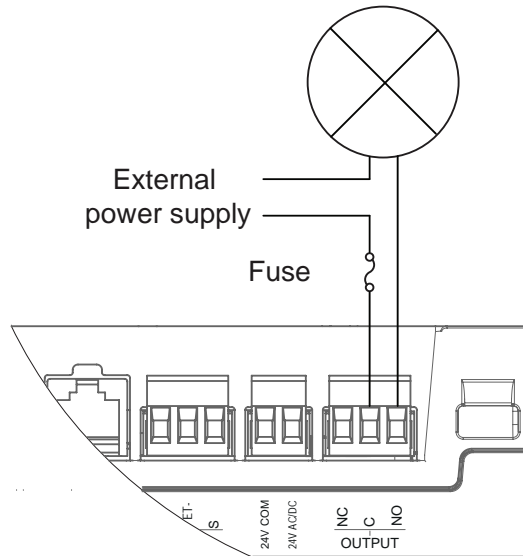|	
Type	Dry contact
Rating	24 VAC/DC Class 2; 2.5A max

External
power supply

Fuse

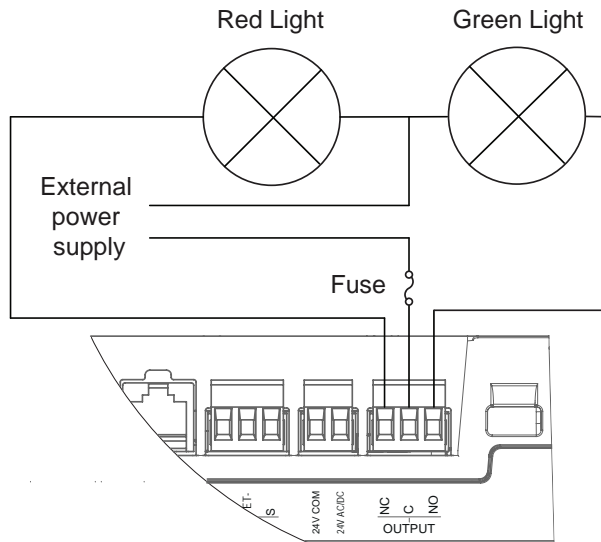*Figure 8:   HORYZON-C Normally Open output*

Figure 9: HORYZON-C Normally Open and Normally Closed outputs used simultaneously

Communications Wiring

HORYZON-C displays are uniquely identified on the network by their MAC address. This identifier is printed on a label located on the back of the display and on its shipping box. This MAC address is used as part of the display's factory-default network hostname.

Configuring the Device

Any of the following methods can be used to connect to the device's interface in order to configure it:

☐ Using the Xpress*Network* Utility
☐ Using the device's factory-default Hostname in the Web browser
☐ Using the device's IP address in the Web browser

Using the Xpress*Network* Utility

The Xpress*Network* Utility is a software application that runs on a PC that allows you to discover all Distech Controls IP devices connected to an IP network's subnetwork or Wi-Fi network and to perform a range of operations on many devices at once, such as setting the device's Hostname and IP address, launching EC-*gfx*Program to program the device, or accessing the device's configuration Web interface. See the Xpress*Network* Utility User Guide for more information.

Xpress*Network* Companion mobile app can be installed on your smartphone and it works with the QR code marked on the device and/or on the device's packaging which encodes the device's MAC address and host ID. By scanning the QR code, the app records this information to which you assign a hostname. Once the QR codes for all devices have been read in, the app's information is transferred to the Xpress*Network* Utility where it is used to populate the relevant data fields. See the Xpress*Network* Companion User Guide for more information.

Figure 10: Typical QR Code

Using the device's factory-default Hostname in a Web browser

IP devices have a factory-default hostname that you can use instead of an IP address to connect to it. The hostname can be used in a Web browser's address bar or in the EC-*gfx*Program's **Connect to** screen. When installing the latest version of EC-*gfx*Program and your PC does not have the Bonjour service installed, a link to install the Bonjour service is provided. The Bonjour service must be installed on your PC to allow your PC to discover devices by their hostname.

If your PC is unable to resolve the device's hostname, you must connect your PC to the device through Ethernet or Wi-Fi so that your PC only sees the IP devices network. For example, in this case, your PC must be disconnected from all other networks such as a corporate network or the Internet. If necessary, temporarily disconnect your PC's network cable from its Ethernet port.

The device's factory-default hostname is **horyzonc-xxxxxx.local** where **xxxxxx** is the last 6 characters of the MAC address. See above.

For example, if the MAC address is 76:a5:04:<u>cd</u>:<u>4a</u>:<u>d1</u>, connect to the device's Web interface as follows:

1. Open your Web browser.
2. In the Web browser's address bar, type **https:// horyzonc-cd4ad1.local** and click go.
3. Login to the device. Then set the device's configuration parameters in the device's configuration Web interface. See Connecting to the Device's Configuration Web Interface.

Using the Device's IP Address in a Web Browser

You must know the device's current IP address (from the DHCP server for example)vto connect to the device:

1. Open your Web browser.
2. In the Web browser's address bar, enter the device's IP address and click go.
3. Login to the device. Then set the device's configuration parameters in the device's configuration Web interface. See Connecting to the Device's Configuration Web Interface.

## Connecting to the Device's Configuration Web Interface

At the first connection to a Distech Controls' IP device you will be forced to change the password to a strong password for the admin account to protect access to the device.

In Network Settings, configure the device's network parameters so that they are compatible with your network. It is important to create new user accounts with strong passwords to protect the device from unauthorized access. Remove the factory default admin account as this is a commonly known security breach (only the password for this user account needs to be compromized).

Using the Setup Assistant

At first start-up and after a 20 second reset, the Setup Assistant is launched. The Setup Assistant can also be run from the Settings / Launcher Settings menu.
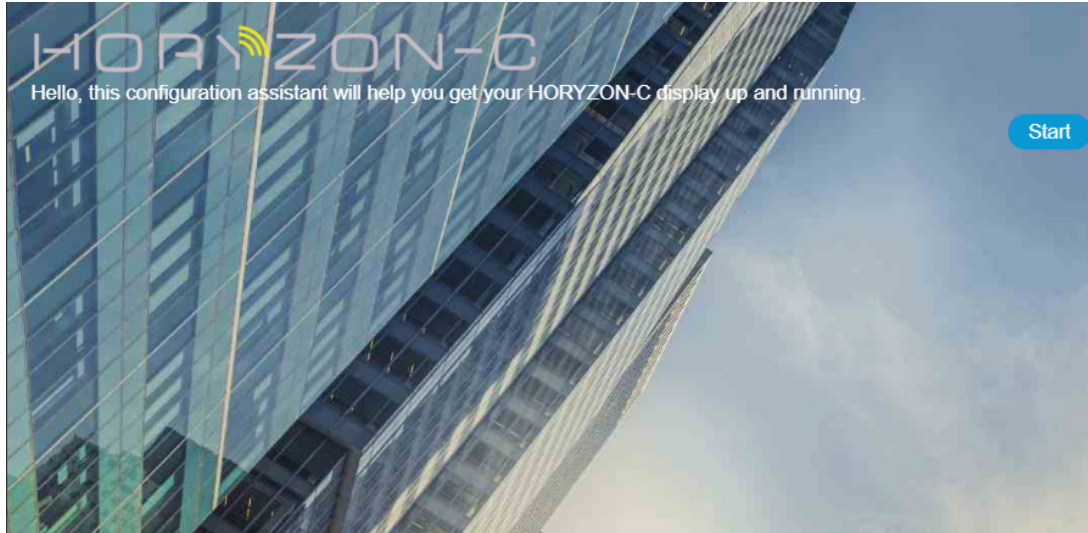
The Setup Assistant will guide you through the main installation steps to get your HORYZON-C up and running:

☐ Regional Settings, to manage how information looks on the device, including keyboard layout, time, and units. This also defines the language of applications supporting regional settings.

☐ Administrator credentials

☐ Screen-lock parameters

☐ IP configuration

☐ Applications behavior and auto-launch activation.

Please refer to the Getting Started Guide for further information.

Using the Reset Buttons

There are two reset buttons located on the backplate of the display: Factory reset and Standard reset.

Standard Reset

Depending on the amount of time the reset button is held down, different actions are taken. The STATUS LED will turn off after each time interval.

Hold Reset for	To
5 seconds	Restart / reboot
10 seconds	Reset Ethernet IP address back to factory default settings.
20 seconds	Reset to factory default settings. User accounts (usernames and passwords) will also be reset to the factory default settings and the license will be cleared.

⚠ After you hold the reset button for 20 seconds, the HTTPS security certificates will be regenerated. If you use HTTPS to connect, you will no longer be able to connect from any PC that was used in the past unless you delete the old HTTPS security certificate from these PCs.

Factory Reset

Use the main board Factory Reset button if the HORYZON-C display is powered on but does not display anything on the screen and is otherwise inoperable.

While the unit is powered on, hold Factory Reset for	To
20 seconds	Reboot the HORYZON-C display. If the unit still does not boot up correctly, please contact Distech Controls Technical Support

Ethernet Port Status Indicators

The Ethernet port has a green LED to indicate the connection status, and an orange LED to indicate the connection speed, as indicated in the table below.
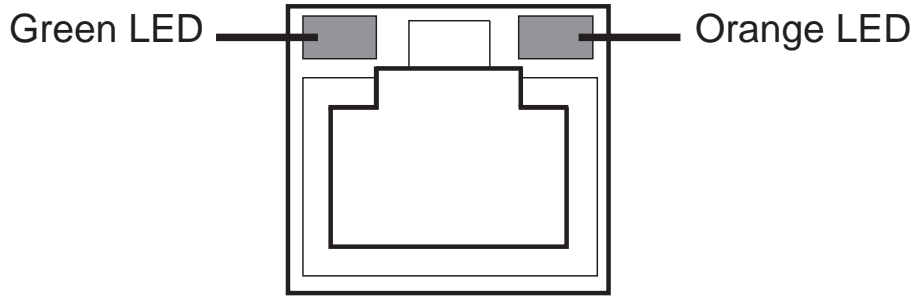
Green LED —— Orange LED

Figure 11:   Ethernet port LED indicators

Green LED behavior	Orange LED behavior	Connection status
ON	Any	Connection is not detected
Blink	ON	Active connection – 100 Mps
Blink	OFF	Active connection – 10 Mps

Disposal

The Waste Electrical and Electronic Equipment (WEEE) Directive sets out regulations for the recycling and disposal of products. The WEEE2002/96/EG Directive applies to standalone products, for example, products that can function entirely on their own and are not a part of another system or piece of equipment.

For this reason Distech Controls products are exempt from the WEEE Directive. Nevertheless, Distech Controls products are marked with the WEEE symbol, indicating devices are not to be thrown away in municipal waste.

Products must be disposed of at the end of their useful life according to local regulations and the WEEE Directive.

FCC Statement

Changes or modifications not expressly approved by Distech Controls could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to prov ide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
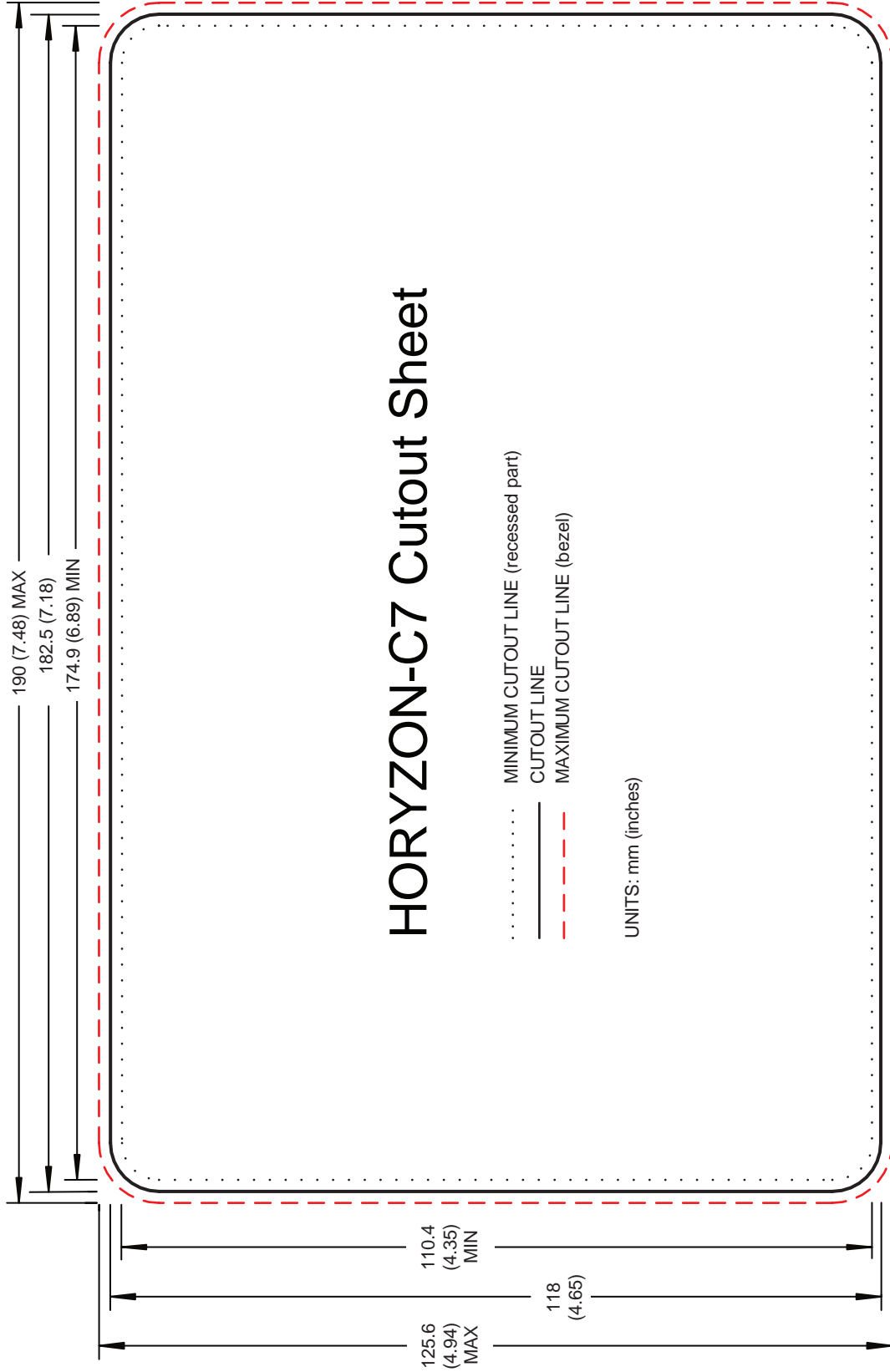
- ☐ Reorient or relocate the receiving antenna.
- ☐ Increase the separation between the equipment and receiver.
- ☐ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ☐ Consult the dealer or an experienced radio/TV technician for help.

HORYZON-C_IG_14_EN

HORYZON-C7 Cutout Sheet

190 (7.48) MAX

182.5 (7.18)

174.9 (6.89) MIN

110.4 (4.35) MIN

118 (4.65)

125.6 (4.94) MAX

.... MINIMUM CUTOUT LINE (recessed part)

———— CUTOUT LINE

– – – – MAXIMUM CUTOUT LINE (bezel)

UNITS: mm (inches)

.... MINIMUM CUTOUT LINE (recessed part)

———— CUTOUT LINE

– – – – MAXIMUM CUTOUT LINE (bezel)

UNITS: mm (inches)
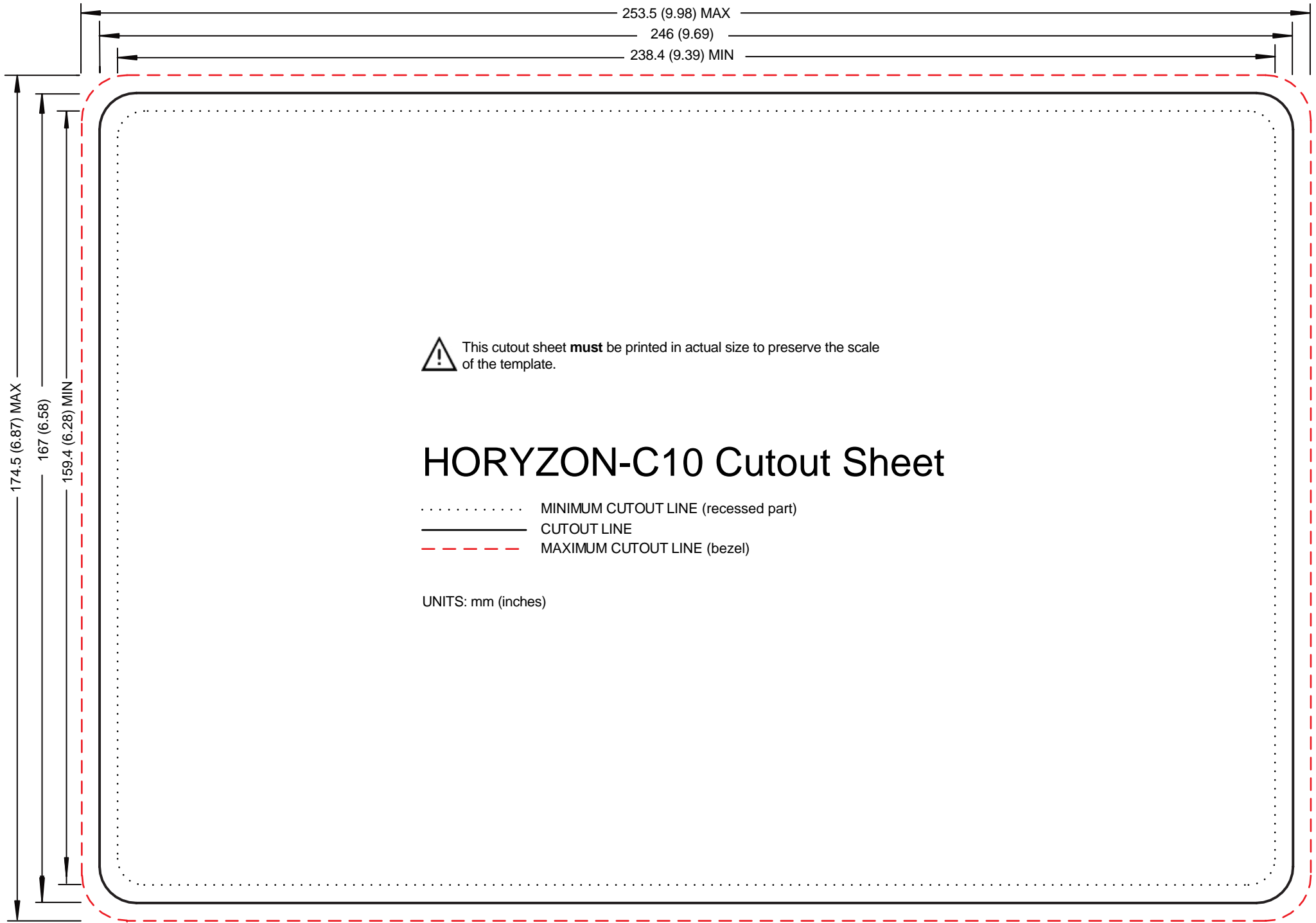
253.5 (9.98) MAX

246 (9.69)

238.4 (9.39) MIN

174.5 (6.87) MAX

167 (6.58)

159.4 (6.28) MIN

⚠ This cutout sheet **must** be printed in actual size to preserve the scale of the template.

HORYZON-C10 Cutout Sheet

· · · · · · · · · · · MINIMUM CUTOUT LINE (recessed part)

———————— CUTOUT LINE

— — — — — MAXIMUM CUTOUT LINE (bezel)

UNITS: mm (inches)