GE
Intelligent Platforms

Operator Interface Products

QuickPanel+ Operator Interface

IC755CxW07CDx (7" Display)
IC755CxS10CDx (10" Display)
IC755CxS12CDx (12" Display)
IC755CxS15CDx (15" Display)

Quick Start Guide, GFK-2893F
September 2014

Safety Symbol Legend

Warning

Indicates a procedure, condition, or statement that, if not strictly observed, could result in personal injury or death.

Caution

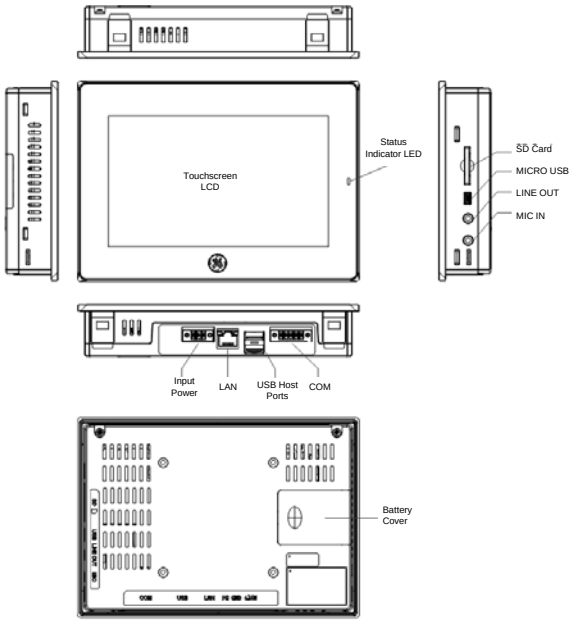
Indicates a procedure, condition, or statement that, if not strictly observed, could result in damage to or destruction of equipment.

Attention

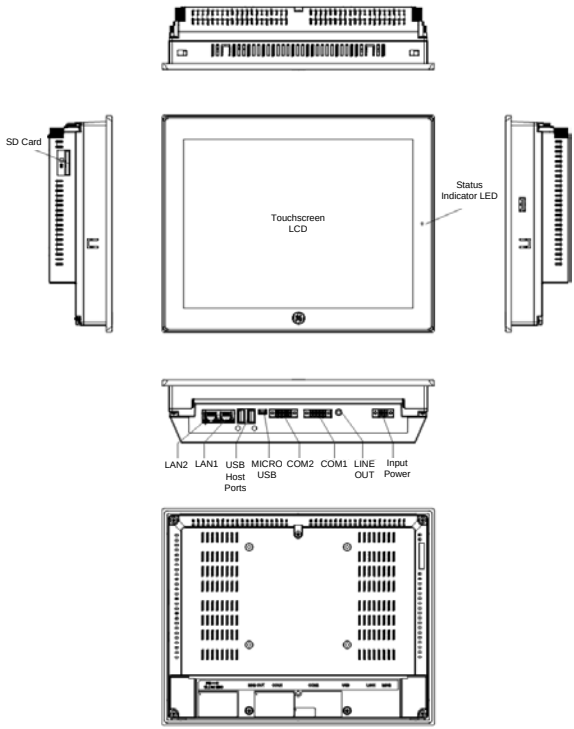
Indicates a procedure, condition, or statement that should be strictly followed to optimize these applications.

1. Physical Overview

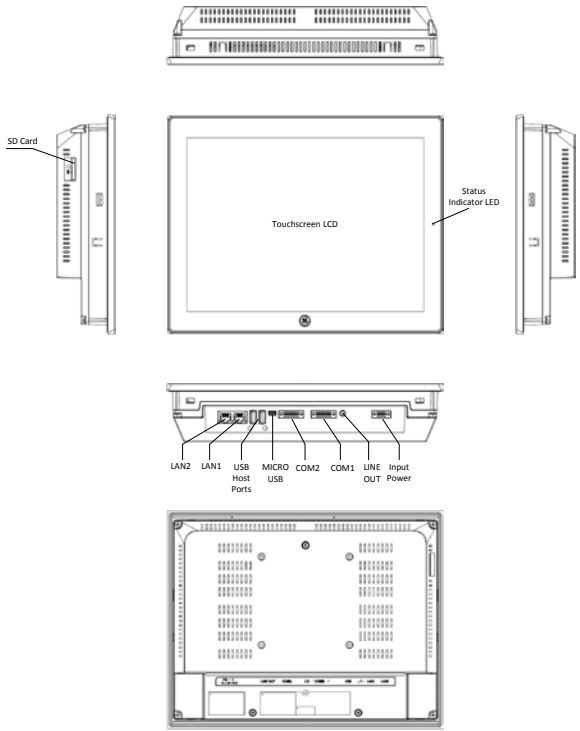
The following diagrams display the physical layout of the QuickPanel+ Operator Interface, including locations of status LEDs, communications ports, and connectors.



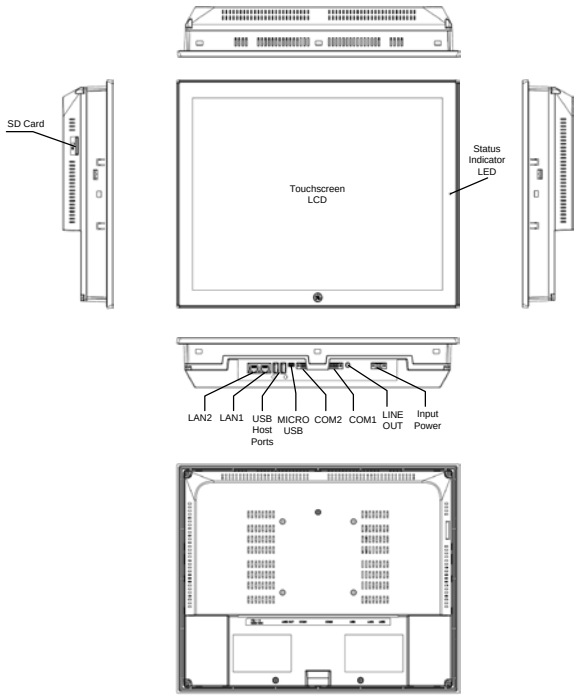
IC755CxW07CDx Profile and Hardware Features



IC755CxS10CDx Profile and Hardware Features



IC755CxS12CDx Profile and Hardware Features



IC755CxS15CDx Profile and Hardware Features

2. Specifications

2.1 General Specifications

Item		Specification
Processor		Freescale i.MX535 (1 GHz ARM Cortex A8)
Memory	RAM	**IC755CxW07CDx:** DDR2 SDRAM 512 MB **IC755CxSxxCDx:** DDR3 SDRAM 1 GB
	ROM	**IC755CxW07CDx:** SLC NAND 256 MB **IC755CxSxxCDx:** SLC NAND 512 MB
	SRAM	512 KB (with battery backup)
Operating System		Microsoft Windows Embedded Compact 7
Display	Type	**IC755CxW07CDx:** 7" Widescreen TFT LCD **IC755CxS10CDx:** 10.4" Standard TFT LCD **IC755CxS12CDx:** 12.1" Standard TFT LCD **IC755CxS15CDx:** 15" Standard TFT LCD
	Resolution	**IC755CxW07CDx:** 800(W) x 480(H) pixels WVGA **IC755CxS10CDx:** 800(W) x 600(H) pixels SVGA **IC755CxS12CDx:** 800(W) x 600(H) pixels SVGA **IC755CxS15CDx:** 1024(W) x 768(H) pixels XGA
	Color	65,536
	Brightness	**IC755CxW07CDx:** 310 cd/m^2 **IC755CxS10CDx:** 400 cd/m^2 **IC755CxS12CDx:** 450 cd/m^2 **IC755CxS15CDx:** 310 cd/m^2
	Backlight	LED
Touch screen	Touch Panel Type	Projected capacitive
	Multi-touch	Two-point
Communi-cations	Ethernet Port	**IC755CxW07CDx:** 1x 10/100BaseT (RJ-45) **IC755CxSxxCDx:** 2x 10/100BaseT (RJ-45) **IC755CxS12CDA:** 1x 10/100BaseT (RJ-45)
	Serial Port	**IC755CxW07CDx:** 1x RS-232 UART port (5-pin connector) **IC755CxSxxCDx:** 1x RS-232 UART port, 1x RS-232/485 port (2x 5-pin connector) (1x 10-pin connector for IC755CxS12CDA)
	USB, Host	2x USB 2.0 (Type-A) Max power (5 V at 0.5 A)
	USB, Device	1x USB 2.0 (Mini Type-B)
Storage		1x SD/SDHC card slot
Audio		**IC755CxW07CDx:** 1x Mic In (Mono) (3.5 mm jack) 1x Line Out (Stereo) (3.5 mm jack) **IC755CxSxxCDx:** 1x Line Out (Stereo) (3.5 mm jack)

Noise Immunity		Noise voltage: 1500 V p-p, Pulse duration: 1µs, Rise time: 1ns
Input power	Rated Voltage	**IC755CxW07CDx:** +24 V dc ±20% (3-pin connector) **IC755CxSxxCDx:** +12/24 V dc ±20% (3-pin connector)
	Power Consumption	**IC755CxW07CDx:** 15 W (max), 0.625 A **IC755CxS10CDx:** 18 W (max), 1.5 / 0.75 A **IC755CxS12CDx:** 30 W (max), 2.5 / 1.25 A **IC755CxS15CDx:** 30 W (max), 2.5 / 1.25 A
	Frame Ground (FG)	Frame GND is connected to Signal GND internally

2.2 Physical Specifications and Mounting Options

Item		Specification
Dimensions (L x W x D)		**IC755CxW07CDx :** 192 x 137 x 36 mm (7.56 x 5.39 x 1.42 in) **IC755CxS10CDx:** 278 × 222 × 65 mm (10.95 × 8.74 × 2.56 in) **IC755CxS12CDx:** 314 x 248 x 65 mm (12.36 x 9.76 x 2.56 in) **IC755CxS15CDx:** 399 x 323 x 70 mm (15.71 x 12.72 x 2.76 in)
Weight		**IC755CxW07CDx :** 0.80 kg (1.76 lbs) **IC755CxS10CDx:** 2.40 kg (5.29 lbs) **IC755CxS12CDx:** 3 kg (6.61 lbs) **IC755CxS15CDx:** 4.46 kg (9.83 lbs)
Mounting Options	Panel Cutout Dimensions	**IC755CxW07CDx:** 183.50 x 128.50 mm (7.22 x 5.06 in) **IC755CxS10CDx:** 266 x 210 mm (10.47 x 8.27 in **IC755CxS12CDx:** 302 x 228 mm (11.89 x 8.98 in) **IC755CxS15CDx:** 379 x 305 mm (14.92 x 12.01 in)
	VESA Mount	**IC755CxW07CDx:** 75 x 75 mm (2.95 x 2.95 in) **IC755CxSxxCDx:** 100 x 100 mm (3.94 x 3.94 in)

2.3 Environmental Specifications

Note: Install the QuickPanel+ in a well-ventilated location that is not exposed to dust, corrosive gases or liquids, rain, strong ultraviolet light or direct sunlight, and meets the specifications listed in the following table.

Item	IC755Cx W07CDx	IC755Cx S10CDx	IC755Cx S12CDx	IC755Cx S15CDx
Cooling	Natural convection			
Ambient Operating Temperature	0 to +55°C (32 to 131 °F)			
Ambient Storage Temperature	-10 to +60°C (14 to 140 °F)			
Ambient Humidity (Operating and Storage)	85% RH Non-condensing, wet-bulb temperature: 30°C (86 °F) or less			
Environment	Pollution Degree 2, Indoor use only			
Vibration Resistance	5 to 9 Hz single-amplitude 3.5 mm 9 to 150 Hz constant-accelerated velocity 9.8 m/s^2 X, Y, Z directions 10 time (100 minutes) (Compliance 3502, IEC61131-2 JIS B)			
Altitude	800~1114 hPa, altitude up to 2000 m (6561.68 ft)			
ROHS	Compliant with EU RoHS Directive 2011/65/EU			
Enclosure Rating	IP65 in panel mount only	UL Type 4X; IP65 in panel mount only	IP65 in panel mount only	UL Type 4X; IP65 in panel mount only

Note: For additional product standards and agency approvals, refer the section, *Product Certifications and Installation Guidelines*.

3. Initial Startup

Note: For installation requirements, complete installation procedures, and operating information, refer to *GFK-2847, QuickPanel+ Operator Interface User Manual*.

You will need the following:

- A Safety Extra Low Voltage (SELV) and Limited Energy Circuit or SELV and Class 2 dc power supply.
- The power terminal block is supplied with the product. For voltage and requirements, refer to the *Input Power* specifications in the table, *General Specifications*.
- The mating power terminal block supports stranded 30 – 14 AWG (0.05 – 2.00 mm^2) wires. The user calculates proper gauge wiring for current carrying capacity and loss according to local regulations.
- At a minimum, the cable must be rated for 75°C (167 °F) or more.

Warning

ELECTRICAL SHOCK HAZARD - To avoid personal injury or damage to equipment, ensure that the dc supply is disconnected from power and the leads are not energized before attaching them to the unit's power supply plug.

Warning

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

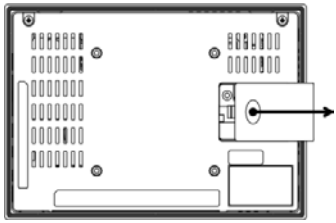
3.1 Installing the Battery for IC755CxW07CDx

Caution

1) **Installing the battery should only be performed by trained personnel and in a non-hazardous location.**
2) **If the QuickPanel+ is VESA mounted, detach from the VESA arm when replacing the battery. Refer to the section, *Mounting on a VESA arm*.**
3) **The battery should only be installed when the unit is powered off.**
4) **Care should be taken to protect and insert the battery with correct polarity.**
5) **Do not use any metallic item to remove the battery (such as screwdrivers, knives, pliers, and so forth).**
6) **Be careful to not drop the battery or any associated screws into the unit.**
7) **Be careful of edges on internal sides of the enclosure and frame.**

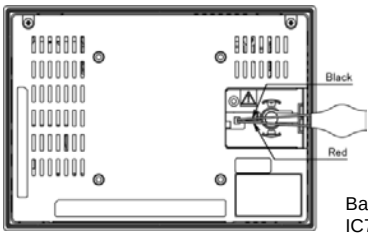
➢ **To install the battery**

1. Remove the battery cover by pressing down while sliding outward.



IC755CxW07CDx Battery Cover Removal

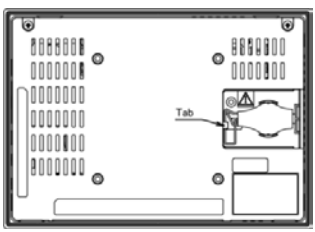
2. Connect the battery harness connector to the header, noting keyed orientation.



Battery P/N
IC755ACCBATT

Battery Harness Connection

3. Verify that positive (red) is down and negative (black) is up.
4. Wrap the harness connector around to match the following figure. Do not let the harness connector go above the tab.



Harness Connector Orientation

5. Slide the battery cover into place, taking care not to pinch the harness connector.

3.2 Battery Replacement

Warning

Batteries may present a risk of fire, explosion, or chemical burn if mistreated. Do not crush, disassemble, short-circuit, or dispose of in fire.

Warning

Use of batteries not specified for use with the QuickPanel+ product may present a risk of fire or explosion.

Caution

Replace the battery for the IC755CxW07CDx only with battery part number IC755ACCBATT.

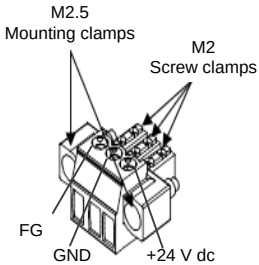
Caution

Replace the battery for the IC755CxSxxCDx only with battery part number IC755ACCBATTNL.

3.3 Connecting Input Power

➢ **To connect input power**

1. Verify that the power cable is not energized.
2. Loosen the screw clamps on the mating power connector.
3. Strip the insulation from the power cables.



Power Connector

4. Secure the power cable to the mating connector, noting polarity, and tighten the screw clamps. The torque for the attaching screws is 0.3 Nm (2.26 in-lb).
5. Apply dc power to the unit. During normal startup and operation, the QuickPanel$^+$ status LED indicator displays as follows:
   - *Solid amber* while the QuickPanel$^+$ unit is starting up
   - *Solid green* during normal operation
6. Once power is applied, the QuickPanel$^+$ begins initializing. The first thing to display is the splash screen.

   To skip running any programs included in the StartUp folder, tap **Don't run StartUp programs**. The Microsoft Windows Embedded Compact 7 operating system starts automatically.

3.4 Status Indicators

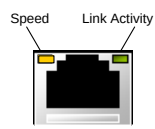
The QuickPanel+ has a tri-color LED that provides visual status indications for IC755CxW07CDx and IC755CxSxxCDx units.

3.4.1 Status LED Operation

LED State	QuickPanel+ State
Amber, solid	Operating system starting
Green, solid	Normal operating state
Green, blinking	Backlight off
Red, blinking	Backlight failure
Off	Power not applied to the unit

3.4.2 Ethernet Port LED Operation

The Ethernet port has two LED indicators: Speed and Link Activity.



LED	LED State	Operating State
Speed	On, Yellow	10/100
Link Activity	On, Green	Link status

4. Installation

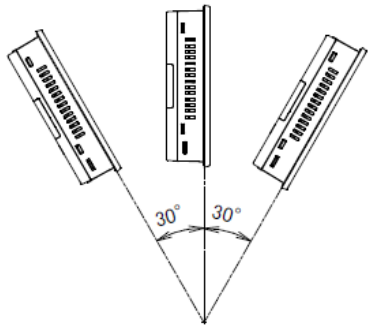
4.1 Installing the Protective Sheet

➢ **To install the protective sheet**

1. Remove the protective film on the screen of the QuickPanel+.
2. Wipe the display of any dust or fingerprints.
3. Peel a corner of the clear side of the protective sheet.
4. Begin applying the corner to the display.
5. Slowly apply the rest of the protective sheet, smoothing out as you go.
6. Peel the green curing film from the protective sheet.

4.2 Choosing a Mounting Location

When mounting the QuickPanel+, make sure the mounting area allows room to insert and remove the SD card, cables, and mounting brackets. Choose a location that will allow natural convection air flow from bottom to top of the QuickPanel+ enclosure. Do not mount the QuickPanel+ at an angle more than 30° from the vertical, as illustrated in the following figure. Refer to the section, *Environmental Specifications*.



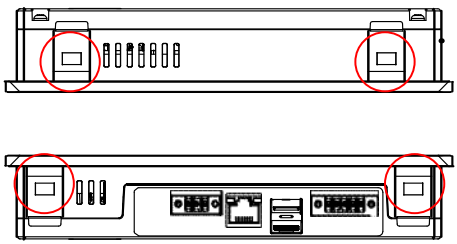
Mounting Angle

4.3 Panel Mounting

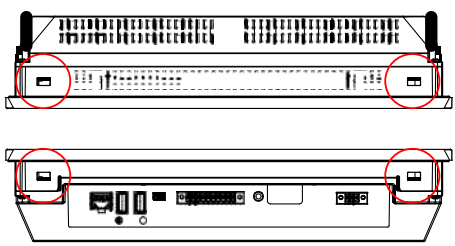
To mount the QuickPanel+ in an enclosure, you will need:

- One #2 Phillips head screwdriver
- Mounting brackets (supplied)

The IC755CxW07CDx, IC755CxS10CDx, and IC755CxS12CDx mounting holes are located on the top and bottom sides of the unit.

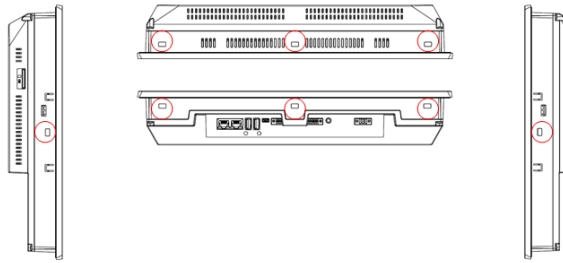


IC755CxW07CDx Mounting Holes



IC755CxS10CDx and IC755CxS12CDx Mounting Holes

The IC755CxS15CDx mounting holes are located on the top, bottom, and sides of the unit.



IC755CxS15CDx Mounting Holes

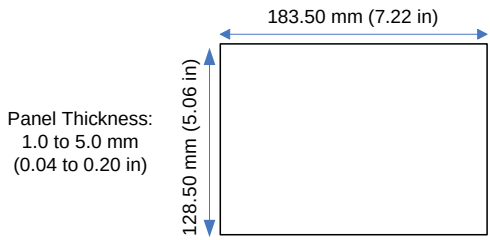
Caution

When installing the QuickPanel+ into the panel, pay careful attention while handling the unit so that it does not drop and damage the unit.

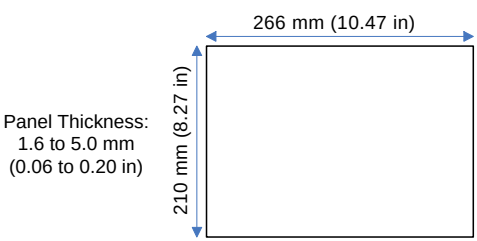
➢ **To install the QuickPanel+**

1. Cut an opening in the panel according to the specifications in the following figures.

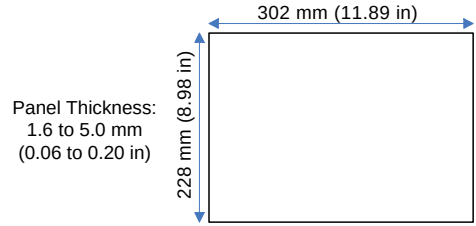
Note: Panel cutout tolerances are +0.50, -0.00 mm (+0.02, -0.00 in).



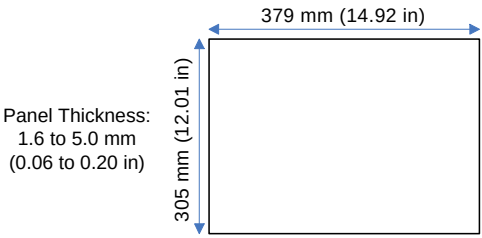
IC755CxW07CDx Panel Cutout Dimensions



IC755CxS10CDx Panel Cutout Dimensions

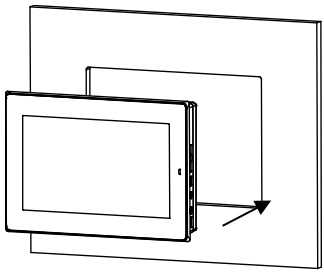


IC755CxS12CDx Panel Cutout Dimensions

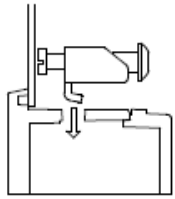


IC755CxS15CDx Panel Cutout Dimensions

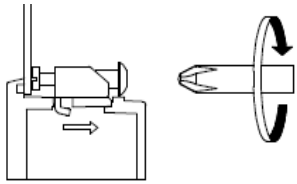
2. Verify that the gasket is present and properly seated in the bezel channel located on the sides of the unit.
3. Insert the QuickPanel^{+} into the mounting panel cutout.



4. Insert the hook of the mounting bracket into the mounting hole as displayed in the following figure.



5. Tighten the screws on the mounting bracket in a clock-wise direction.



Torque Range for Mounting Clamp Screws

Unit	Torque Range
IC755CxW07CDx	0.3 Nm (2.66 in-lb)
IC755CxS10CDx	0.7 Nm (6 in-lb)
IC755CxS12CDx	1.0 to 1.2 Nm (8.9 to 10.6 in-lb)
IC755CxS15CDx	1.0 to 1.2 Nm (8.9 to 10.6 in-lb)

4.5 Mounting on a VESA Arm

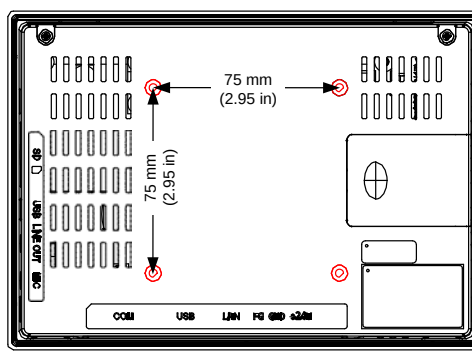
The QuickPanel+ can be installed on a commercially available Video Electronics Standards Association (VESA) MIS-D arm, stand, or apparatus that is listed to comply with the UL1678 standard.

- **To mount the QuickPanel+:** use the mounting holes located on the back of the unit, as displayed in the following figures.

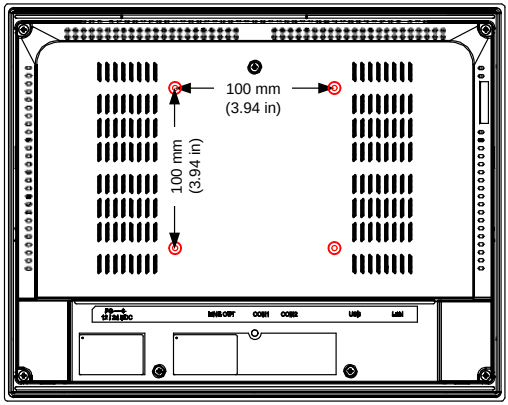
  The IC755CxW07CDx mounting holes attach with M4 screws that are 6 mm (0.24 in) or less in length.
  The IC755CxSxxCDx mounting holes attach with M4 screws that are 8 mm (0.32 in) or less in length.

Torque Range for Mounting M4 Screws

Unit	Torque Range
IC755CxW07CDx	0.7 to 0.8 Nm (6.2 to 7.1 in-lb)
IC755CxSxxCDx	1.0 to 1.2 Nm (8.9 to 10.6 in-lb)



IC755CxW07CDx VESA Mounting Holes



IC755CxSxxCDx VESA Mounting Holes

Note: For user manuals, product updates, and other information, go to the Support website, *http://www.ge-ip.com/support* and refer to *Operator Interfaces and PC.*

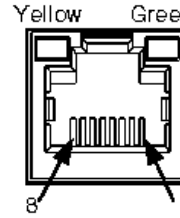
4.6 Connectors

4.6.1 Power Connector Details

Pin #	Signal Name	Pin-out
1	+24 V dc[†]	
2	GND	
3	FG	
[†] IC755CxSxxCDA supports both +12 V dc or +24 V dc IN		

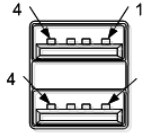
4.6.2 Ethernet Port Details

Interface: Ethernet 10BASE-T/100BASE-TX

Pin #	Signal Name	Pin-out
1	TX+	
2	TX-	
3	RX+	
4	NC	
5	NC	
6	RX-	
7	NC	
8	NC	

4.6.3 USB Host Port Details

Interface: 2x USB 2.0

Pin #	Signal Name	Pin-out
1	USB_VCC	
2	USB_D-	
3	USB_D+	
4	USB_GND	

4.6.4 Serial Port Details

4.6.4.1 IC755CxW07CDx Serial Port Details

Interface: x1 RS-232

Pin #	Signal Name	Pin-out
1	TXD	
2	RXD	
3	RTS	
4	CTS	
5	SGND	

4.6.4.2 IC755CxSxxCDx Serial Port Details

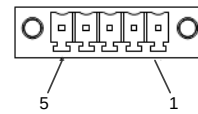
4.6.4.2.1 Serial Port COM1

Interface: RS-232

Pin #	Signal Name	Pin-out
1	TXD	
2	RXD	
3	RTS	
4	CTS	
5	SGND	

4.6.4.2.2 Serial Port COM2

Interface: RS-232C/485 (default is RS-485 Half-duplex)

Pin #	RS-232	RS-485		Pin-out
	Signal Name	Signal Name (Full-duplex†)	Signal Name (Half-duplex†)	
1	TXD	TXD+	DATA+‡	
2	RXD	TXD-	DATA-‡	
3	RTS	RXD+	DATA+‡	
4	CTS	RXD-	DATA-‡	
5	SGND	SG	SG	

† Full-duplex RS–485 is backwards compatible to RS–422 mode.

‡ Pins 1-3 and 2-4 are connected internally.

5. Product Certifications and Installation Guidelines for Conformance

The QuickPanel+ Operator Interface is intended for use in industrial environments and, when properly installed, shall comply with the following agency approvals.

5.1 Agency Approvals

Note: The agency approvals listed in the following table and on the Declaration of Conformities are believed to be accurate; however, the product's agency approvals should be verified by the marking on the unit itself.

Description	Agency Marking	Comments
N.A. Safety for Programmable Controller for use in Hazardous locations Class I Division 2 Groups A,B,C,D	c UL us LISTED	Certification by Underwriter's Laboratories (UL) to UL 61010-1; UL 61010-2-201; CSA C22.2 No 142–M1987; CSA 61010-1; CSA 61010-2-201 ISA 12.12.01 standard and CSA C22.2 No 213-M1987
Electromagnetic Compatibility Directive European Electromagnetic Compatibility (EMC) for Industrial Control Equipment	CE	Self-declaration in accordance with European Directives EN61000-6-2, EN61000-6-4

5.2 Conditions of Safe Use for Installation in Hazardous Locations

The following information applies to products bearing the UL marking for Hazardous areas for explosive atmospheres:

Suitable for use in Class I Division 2 Groups A, B, C, D.

EXPLOSION HAZARD -

Class I Division 2 Groups A, B, C, D; do not disconnect equipment unless power has been removed or the area is known to be non-hazardous.

Warning

EXPLOSION HAZARD -

Substitution of components may impair suitability.

EXPLOSION HAZARD -

DO NOT VESA MOUNT. Panel mount only with enclosures that shall only be able to be opened with the use of a tool.

5.3 Government Regulations

The FCC requires the following note to be published according to FCC guidelines:

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user is required to correct the interference at his own expense.

Changes or modifications to this unit that are not expressly approved by GE Intelligent Platforms could void the user's authority to operate the equipment.

Industry Canada requires the following note to be published:

Note: This Class A digital apparatus complies with Canadian CAN ICES-3 (A)/NMB-3 (A).

5.4 EMC Installation and Operation Considerations

This equipment has been tested and found to comply with a minimum level of EMC performance as defined by EN 61000-6-2 and EN 61000-6-4 standards. To meet these requirements, the following installation and operation considerations were taken into account:

- Shielding USB cables
- Limiting RS-232 cables to 15 m (49.2 ft) in length
- Using Audio ports only during operational maintenance

Although these considerations were deliberated during testing, actual EMC environments vary greatly. Therefore, these considerations may not be necessary. Likewise, additional measures, such as filtering, wire separation, and cable routing, may need to be considered to ensure intended operation of the overall system.

GE Intelligent Platforms Contact Information

If you purchased this product through an Authorized Channel Partner, contact the seller directly.

General Contact Information

Online technical support and GlobalCare	http://support.ge-ip.com
Additional information	http://www.ge-ip.com/
Solution Provider	solutionprovider.ip@ge.com

Technical Support

If you have technical problems that cannot be resolved with the information in this manual, contact us by telephone or email, or on the web at http://support.ge-ip.com

Americas

Online Technical Support	http://support.ge-ip.com
Phone	1-800-433-2682
International Americas Direct Dial	1-780-420-2010 (if toll free 800 option is unavailable)
Technical Support Email	support.ip@ge.com
Customer Care Email	customercare.ip@ge.com
Primary language of support	English

Europe, the Middle East, and Africa

Online Technical Support	http://support.ge-ip.com
Phone	+ 800-1-433-2682
EMEA Direct Dial	+ 420-23-901-5850 (if toll free 800 option is unavailable or dialing from a mobile telephone)
Technical Support Email	support.emea.ip@ge.com
Customer Care Email	customercare.emea.ip@ge.com
Primary language of support	English, French, German, Italian, Czech, Spanish

Asia Pacific

Online Technical Support	http://support.ge-ip.com
Phone	+ 86-400-820-8208 + 86-21-3217-4826 (India, Indonesia, and Pakistan)
Technical Support Email	Support.cn.ip@ge.com (China) support.jp.ip@ge.com (Japan) support.in.ip@ge.com (remaining Asia customers)
Customer Care Email	customercare.apo.ip@ge.com customercare.cn.ip@ge.com (China)

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