#### Quick Start Guide GFK-2893P Sep 2019

# **Operator Interface Products**

IC755CxS06RDx (6" Display) IC755CxW07CDx (7" Display) IC755CxS10CDx (10" Display) IC755CxS12CDx (12" Display) IC755CxS15CDx (15" Display)





GFK-2893P Sep 2019 Caution & Warnings Notes as Used in this Publication

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Warning	Warning notices are used in this publication to emphasize that hazardous voltages, currents, temperatures, or other conditions that could cause personal injury to exist in this equipment or may be associated with its use. In situations where inattention could cause either personal injury or damage to equipment, a Warning notice is used.
Caution	Caution Notices are used where equipment might be damaged if care in not taken.

**Notes:** Notes merely call attention to information that is especially significant to understanding and operating the equipment.

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# 1. Physical Characteristics

The following diagrams illustrate the physical layout of the Quick Panel<sup>+</sup> Operator Interface, including locations of status LEDs, communications ports, and connectors.

# Figure 1.1: IC755CxS06RDx Profile and Hardware Features



*Note:* Refer to the table <u>IC755CxW06CDx Specifications</u> for drawing dimensions.

#### **Physical Characteristics**

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#### Figure 1.2: IC755CxW07CDx Profile and Hardware Features



Note: Refer to the table <u>IC755CxW07CDx Specifications</u> for drawing dimensions.

# Figure 1.3: IC755CxS10CDx Profile and Hardware Features



**Note:** Refer to the table <u>IC755CxS10CDx Specifications</u> for drawing dimensions.

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### Figure 1.4: IC755CxS12CDx Profile and Hardware Features



**Note:** Refer to the table IC755CxS12CDx Specifications for drawing dimensions.

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#### Figure 1.5: IC755CxS15CDx Profile and Hardware Features



# **Note:** Refer to the table IC755CxS15CDx Specifications for drawing dimensions.

# 2. Specifications

### 2.1 Physical Specifications and Mounting Options IC755CxS06RDx Specifications

ltem		Specification			
Processor		Freescale i.MX535			
PIOCESSOI		(1 GHz ARM Cortex A8)			
	RAM	DDR3 SDRAM 512 MB			
		NAND FLASH 256 MB			
Mamani	POM	(IC755CxS06RDx-Ax)			
Wentory	KOW	NAND FLASH 512 MB			
		(IC755CxS06RDx-Bx, -Cx)			
	SRAM	512 KB (with battery backup)			
Operating System		Microsoft Windows			
operating system		Embedded Compact 7			
	Туре	5.7" TFT LCD			
	Resolution	320(W) x 240(H) pixels QVGA			
Display	Color	65,536			
	Brightness	375 cd/m <sup>2</sup>			
	Backlight	LED			
	Touch Panel	Applog Registive			
Touchscreen	Туре	Analog Resistive			
	Multi-touch	Single-touch			
	Ethernet Port	1x10 Base-T / 100 Base-TX			
	Sorial Port	1x RS-232C (COM1)			
Communications	Selial Polt	(5-pin connector)			
Communications		2x USB 2.0 (Type-A)			
	030, 11050	Maximum power (5 V at 0.5 A)			
	USB, Device	1x USB 2.0 (mini Type-B)			
Storage		1x SD/SDHC card slot			
		1x Mic In (Mono)			
Audio		(3.5 mm jack),			
Addio		1x Line Out (Stereo)			
		(3.5 mm jack)			
	Noise Voltage	1500 V р-р			
Noise Immunity	Pulse Duration	1μs			
	Rise Time	1 ns			
	Rated Voltage	24 V dc ±20%			
		(3-pin connector)			
Input power	Power	15 W maximum			
	Consumption				
	Frame Ground	Frame GND connected internally to			
	(FG)				
Dimensions (L×W×D)		$192 \times 137 \times 36 \text{ mm}$			
Waight		(7.50 ^ 3.39 ^ 1.42 III) 0.7 Ka (1.54 lb)			
weight	Den al Cutaut	0.7 Kg (1.34 ID)			
Mounting Ontica-	Pariel Cutout	128.50 MM (7.22 x 5.06 in)			
woulding Options		7.22 × 3.00 m)			
	VESA WOULL	/ J X / J IIIIII (2.95 X 2.95 III)			



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ltem		Specification		
D==		Freescale i.MX535		
Processor		(1 GHz ARM Cortex A8)		
		DDR2 SDRAM 512 MB		
	PAM	(IC755CxW07CDx-Ax, -Bx, -Cx)		
	IN THE	DDR3 SDRAM 512 MB		
		(IC755CxW07CDx-Dx, -Ex)		
Memory		SLC NAND 256 MB		
	ROM	(IC755CxW07CDx-Ax, -Bx, -Cx)		
		SLC NAND 512 MB		
		(IC/55CxW0/CDx-Dx, -Ex)		
	SRAM	512 KB (with battery backup)		
Operating System		Microsoft Windows		
		Embedded Compact 7		
	Туре	7" Widescreen TFT LCD		
	Resolution	800(W) x 480(H) pixels WVGA		
Display	Color	65,536		
	Brightness	310 cd/m <sup>2</sup>		
	Backlight	LED		
Tauahaaaaa	Touch Panel	Projected Capacitive		
rouchscreen	Multi-touch	Two-point		
	Ethernet Port	1x 10/100Base-T (RI-45)		
		1x RS-232 UART port		
c	Serial Port	(5-pin connector)		
Communications		2x USB 2.0 (Type-A)		
	USB, HOST	Maximum power (5 V at 0.5 A)		
	USB, Device	1x USB 2.0 (mini Type-B)		
Storage		1x SD/SDHC card slot		
		1x Mic In (Mono)		
Audio		(3.5 mm jack),		
Audio		1x Line Out (Stereo)		
		(3.5 mm jack)		
	Noise Voltage	1500 V р-р		
Noise Immunity	Pulse Duration	1µs		
	Rise Time	1 ns		
	Rated Voltage	24 V dc ±20%		
	Rated Voltage	(3-pin connector)		
Input power	Power Consumption	15 W maximum, 0.625 A		
	Frame Ground (FG)	Frame GND connected internally to Signal GND		
Dimensions (L×W×D	)	192 × 137 × 36 mm		
		(7.56 × 5.39 × 1.42 in)		
Weight		U.8U Kg (1./6 lb)		
	Panel Cutout	183.50 × 128.50 mm		
wounting Options		(7.22 × 5.00 III)		
	VESA Mount	/5 x /5 mm (2.95 x 2.95 in)		

### IC755CxW07CDx Specifications

Specification

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ŀ	C7	55	iCxS	10	CD	)x (	Spe	eci	fi	ca	tio	on	IS
ľ	C/	55	CXS	10	CL	X.	spe	eci	τŀ	ca	tic	on	15

ltem		Specification		
D=======		Freescale i.MX535		
Processor		(1 GHz ARM Cortex A8)		
	RAM	DDR3 SDRAM 1 GB		
Memory	ROM	SLC NAND 512 MB		
	SRAM	512 KB (with battery backup)		
On anotic a Sustain		Microsoft Windows		
Operating system		Embedded Compact 7		
	Туре	10.4" Standard TFT LCD		
	Resolution	800(W) x 600(H) pixels SVGA		
Display	Color	65,536		
	Brightness	400 cd/m <sup>2</sup>		
	Backlight	LED		
Touchscreen	Touch Panel Type	Projected Capacitive		
	Multi-touch	Two-point		
	Ethernet Port	2x 10/100Base-T (RJ-45)		
		1x RS-232 UART port		
	Serial Port	1x RS-232/485 port		
Communications		(2x 5-pin connector)		
	LISP Host	2x USB 2.0 (Type-A)		
	036, 11050	Maximum power (5 V at 0.5 A)		
	USB, Device	1x USB 2.0 (mini Type-B)		
Storage		1x SD/SDHC card slot		
Audio		1x Line Out (Stereo)		
Audio		(3.5 mm jack)		
	Noise Voltage	1500 V р-р		
Noise Immunity	Pulse Duration	1 μs		
	Rise Time	1 ns		
	Pated Voltage	12/24 V dc ±20%		
	Rated Voltage	(3-pin connector)		
Input power	Power Consumption	18 W maximum, 1.5 / 0.75 A		
	Frame Ground	Frame GND connected internally to		
	(FG)	Signal GND		
Dimensions (LXWXD)		278 × 222 × 65 mm		
		(10.95 × 8.74 × 2.56 in)		
Weight		2.40 kg (5.29 lbs)		
Mounting Options	Panel Cutout Dimensions	266 × 210 mm (10.47 × 8.27 in)		
	VESA Mount	100 x 100 mm (3.94 x 3.94 in)		



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ltem		Specification		
Deserves		Freescale i.MX535		
Processor		(1 GHz ARM Cortex A8)		
	RAM	DDR3 SDRAM 1 GB		
Memory	ROM	SLC NAND 512 MB		
	SRAM	512 KB (with battery backup)		
Operating System		Microsoft Windows		
Operating system		Embedded Compact 7		
	Туре	12.1" Standard TFT LCD		
	Resolution	800(W) x 600(H) pixels SVGA		
Display	Color	65,536		
	Brightness	450 cd/m <sup>2</sup>		
	Backlight	LED		
Touchscreen	Touch Panel Type	Projected Capacitive		
	Multi-touch	Two-point		
		2x 10/100Base-T (RJ-45)		
	Ethernet Port	1x 10/100Base-T (RJ-45) for		
		IC755CxS12CDA		
		1x RS-232 UART port		
	Serial Port	1x RS-232/485 port		
Communications		(2x 5-pin connector)		
		(1x 10-pin connector for		
	USB, Host	2x USB 2.0 (Type-A Maximum power (5 \/ at 0 5 A)		
	LISB Device	1xLISB 2.0 (mini Type-B)		
Storago	050, DEVICE	1x SD/SDHC card slot		
Storage		1x Line Out (Storee)		
Audio		(3.5 mm jack)		
	Noise Voltage	1500 V p-p		
Noise Immunity	Pulse Duration	1.05		
Noise initiatity	Rise Time	1 ps		
	Rise filline	12/24 V dc + 20%		
	Rated Voltage	(3-pin connector)		
	Power	(5 pin connector)		
Input power	Consumption	30 W maximum, 2.5 / 1.25 A		
	Frame Ground	Frame GND connected internally to		
	(FG)	Signal GND		
D'		314 × 248 × 65 mm		
Dimensions (L×W×D)	)	(12.36 × 9.76 × 2.56 in)		
Weight		3 kg (6.61 lbs)		
Mounting Options	Panel Cutout Dimensions	302 × 228 mm (11.89 × 8.98 in)		
5, 1	VESA Mount	100 x 100 mm (3.94 x 3.94 in)		

#### IC755CxS12CDx Specifications

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## IC755CxS15CDx Specifications

lte	m	Specification
D		Freescale i.MX535
Processor		(1 GHz ARM Cortex A8)
	RAM	DDR3 SDRAM 1 GB
Memory	ROM	SLC NAND 512 MB
	SRAM	512 KB (with battery backup)
Operating System		Microsoft Windows
Operating system		Embedded Compact 7
	Туре	15" Standard TFT LCD
	Resolution	1024(W) x 768(H) pixels XGA
Display	Color	65,536
	Brightness	310 cd/m <sup>2</sup>
	Backlight	LED
Touchscreen	Touch Panel Type	Projected Capacitive
	Multi-touch	Two-point
	Ethernet Port	2x 10/100Base-T (RJ-45)
		1x RS-232 UART port
	Serial Port	1x RS-232/485 port
Communications		(2x 5-pin connector)
	LISB Host	2x USB 2.0 (Type-A
	050,11030	Maximum power (5 V at 0.5 A)
	USB, Device	1x USB 2.0 (mini Type-B)
Storage		1x SD/SDHC card slot
Audio		1x Line Out (Stereo)
Addio		(3.5 mm jack)
	Noise Voltage	1500 V р-р
Noise Immunity	Pulse Duration	1 μs
	Rise Time	1 ns
	Rated Voltage	12/24 V dc ±20% (3-pin connector)
Input power	Power Consumption	30 W maximum, 2.5 / 1.25 A
	France Craver d	
	(EG)	Signal GND
(13)		399 x 323 x 70 mm
Dimensions (L×W×D)		(15.71 × 12.72 × 2.76 in)
Weight		4.46 kg (9.83 lbs)
	Panel Cutout	379 × 305 mm
Mounting Options	Dimensions	(14.92 × 12.01 in)
5,	VESA Mount	100 x 100 mm (3.94 x 3.94 in)



#### Quick Start Guide GFK-2893P 2.2 Environmental Specifications

#### Note: Install the Quick Panel<sup>+</sup> in a well-ventilated location that is not exposed to dust, corrosive gases or liquids, rain, strong ultra-violet light or direct sunlight, and meets the following specifications.

ltem	Specification (All Display Units)
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/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 <sup>2</sup> ; X, Y, Z directions 10 time (100 minutes) (Compliance IEC61181-2, JIS B 3502)
Altitude	800~1114 hPa, altitude up to 2000 m (6561.68 ft)
RoHS	Compliant with EU RoHS Directive 2011/65/EU
Enclosure Rating	UL Type 4X; IP65 in panel mount only
Note: For additional	product standards and agency approvals

**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 the QuickPanel+ Operator Interface User Manual (GFK-2847).

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, <u>General</u> <u>Specifications</u>.
- The mating power terminal block supports stranded 30 to 14 AWG (0.05 to 2.00 mm<sup>2</sup>) 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.

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# 3.1 Quick Panel+ Battery Installation

## **A**CAUTION

- Installing the battery should only be performed by trained personnel and in a non-hazardous location.
- If the QuickPanel<sup>+</sup> is VESA mounted, detach from the VESA arm when replacing the battery. Refer to the section, <u>Mounting on a VESA arm</u>.
- The battery should only be installed when the unit is powered off.
- Care should be taken to protect and insert the battery with correct polarity.
- Do not use <u>any</u> metallic item to remove the battery (such as screwdrivers, knives, pliers, and so forth).
- Be careful to not drop the battery or any associated screws into the unit.
- 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.

# Figure 3.1: IC755CxS06RDx/ IC755CxW07CDx Battery Cover Removal



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

Figure 3.2: IC755CxS06RDx /IC755CxW07CDx 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.





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

# 3.2 Battery Replacement

#### 

- Batteries may present a risk of fire, explosion, or chemical burn if mistreated. Do not crush, disassemble, short-circuit, or dispose of in fire.
- Use of batteries not specified for use with the Quick Panel+ product may present a risk of fire or explosion.

#### **A** Caution

- Replace the battery for the IC755CxS06RDx only with Emerson battery part number IC755ACCBATT.
- Replace the battery for the IC755CxW07CDx only with Emerson battery part number IC755ACCBATT.
- Replace the battery for the IC755CxSxxCDx only with Emerson 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.
- Strip the insulation from the power cables.



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- 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).
- Apply dc power to the unit. During normal startup and operation, the Quick Panel<sup>+</sup> status LED indicator displays as follows:
  - Solid amber while the Quick Panel<sup>+</sup> unit is starting up
  - Solid green during normal operation
- 6. Once power is applied, the Quick Panel<sup>+</sup> 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 LED Indicators

## 3.4.1 Operation Status LEDs

The Quick Panel<sup>+</sup> has one tri-color LED that provides visual operation status indication for the IC755CxS06RDx, IC755CxW07CDx, and IC755CxSxxCDx units.

LED State	Quick Panel⁺ State
Amber, solid	Operating system starting
Green, solid	Normal operating state
Green, blinking	Backlight off
Red, blinking	Backlight failure

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Off	Power not applied to unit	

## 3.4.2 Ethernet Port Operation LEDs

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

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

# 4. Mounting and Installation

## 4.1 Protective Sheet Installation

## > To install the protective sheet

- Remove the protective film from the QuickPanel<sup>+</sup> display screen.
- 2. Wipe the display unit of any dust or fingerprints.
- 3. Peel back a corner of the clear side of the protective sheet.
- 4. Begin applying the corner to the display screen.
- 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 Mounting Location

When mounting the Quick Panel<sup>+</sup> Operator Interface, make sure the mounting area allows room to insert and remove the SD card, cables, and mounting brackets. Select a location that allows natural convection air flow from bottom to top of the Quick Panel<sup>+</sup> enclosure. Do not mount the Quick Panel<sup>+</sup> at an angle more than 30° from the vertical, as illustrated in the following figure. Refer to the section, <u>Environmental Specifications</u>. Figure 4.1: Mounting Angle



# 4.3 Panel Mounting

To mount the Quick Panel<sup>+</sup> in an enclosure, you will need the following equipment:

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

The mounting holes for the IC755CxS06RDx, IC755CxW07CDx, and IC755CxS10CDx are located on the top and bottom sides of the unit.

#### Figure 4.2: IC755CxS06RDx Mounting Holes





#### Figure 4.3: IC755CxW07CDx Mounting Holes





#### Figure 4.4: IC755CxS10CDx Mounting Holes



The IC755CxS12CDx and IC755CxS15CDx mounting holes are located on the top, bottom, and sides of the unit.

### Figure 4.5: IC755CxS12CDx Mounting Holes



## Figure 4.6: IC755CxS15CDx Mounting Holes



# 4.4 Mounting and Installation Procedure

#### **A** CAUTION

 When installing the Quick Panel<sup>+</sup> into the panel, pay careful attention while handling the unit so it does not drop and damage the unit.

## ➤ To install the Quick Panel<sup>+</sup>

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

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

#### Figure 4.7: IC755CxS06RDx Panel Cutout Dimensions



Figure 4.8: IC755CxW07CDx Panel Cutout Dimensions



#### Figure 4.9: IC755CxS10CDx Panel Cutout Dimensions



#### Figure 4.10: IC755CxS12CDx Panel Cutout Dimensions



Figure 4.11: IC755CxS15CDx Panel Cutout Dimensions



- Verify that the gasket is present and properly seated in the bezel channel located on the sides of the unit.
- Insert the Quick Panel<sup>+</sup> into the mounting panel cutout.



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

#### Figure 4.13: Hook of Mounting Bracket



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

#### Figure 4.14: Mounting bracket screw turning



#### Torque Range for Mounting Clamp Screws

Display Unit	Torque Range	
IC755CxS06RDx	0.3 Nm (2.66 in-lb)	
IC755CxW07CDx	0.3 Nm (2.66 in-lb)	
IC755CxS10CDx	0.7 Nm (6 in-lb)	
IC755CxS12CDx	1.0 to 1.2 Nm (8.5 to 10.6 in-lb)	
IC755CxS15CDx	1.0 to 1.2 Nm (8.5 to 10.6 in-lb)	

#### Quick Start Guide GFK-2893P 4.5 VESA Arm Mounting

The Quick Panel<sup>+</sup> can be installed on a commercially available Video Electronics Standards Association (VESA) MIS-D arm, stand, or apparatus that complies with the UL1678 standard.

## > To VESA mount the Quick Panel<sup>+</sup> unit:

use the mounting holes located on the back of the unit (displayed in the following figures).

The mounting holes for IC755CxS06RDx and IC755CxW07CDx attach with M4 screws that are 6 mm (0.24 in) or less in length.

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

Torque Rang	e for Mounting	M4 Screws
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Display Unit	Torque Range	
IC755CxS06RDx	0.7 to 0.8 Nm (6.2 to 7.1 in-lb)	
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)	

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Figure 4.15: IC755CxW07CDx/IC755CxS06RDx VESA Mounting Holes



#### Figure 4.16: IC755CxSxxCDx VESA Mounting Holes



**Note:** For user manuals, product updates, and other information, go to the Support website, <u>https://www.emerson.com/Industrial-Automation-Controls/support</u> and refer to Operator Interfaces and PC.

## 4.6 Connectors

#### 4.6.1 Power Connector Details

Pin #	Signal Name	Pin-out
1	$+24 \text{ V} dc^{\dagger}$	
2	GND	ON THE
3	FG	1 <b>3</b>
<sup>†</sup> 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+	Yellow Green
4	NC	
5	NC	
6	RX-	Ľ∕—Ę́Į
7	NC	5
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
4	USB_GND	5.

#### IC755CxS06RDx Serial Port COM1

Interface: RS-232

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

Figure 4.2: IC755CxS06RDx Serial Port COM1 Pin-out



## IC755CxW07CDx

Interface: x1 RS-232

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

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Figure 4.3: IC755CxW07CDx Serial Port COM1 Pin-out



#### IC755CxSxxCDx Serial Port COM1

Interface: RS-232

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

#### Figure 4.4: C755CxSxxCDx Serial Port COM1 Pin-out



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#### 4.6.4.3.2 Serial Port COM2

Interface: RS-232C/485 (default is

RS-485 Half-duplex)

	RS-232 RS		485
Pin #	Signal Name	Signal Name (Full- duplex <sup>†</sup> )	Signal Name (Half- duplex <sup>†</sup> )
1	TXD	TXD+	DATA+ <sup>‡</sup>
2	RXD	TXD-	DATA- <sup>‡</sup>
3	RTS	RXD+	DATA+ <sup>‡</sup>
4	CTS	RXD-	DATA- <sup>‡</sup>
5	SGND	SG	SG
<sup>†</sup> Full-duplex RS-485 is backwards compatible to			

RS-422 mode.

<sup>‡</sup> Pins 1-3 and 2-4 are connected internally.

## Figure 4.5: C755CxSxxCDx Serial Port COM2 Pin-out



# 5. Product Certifications and Installation Guidelines for Conformance

The Quick Panel<sup>+</sup> 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 (applicable to 7",10",12", 15" Display units) Class I Division 2 Groups A, B, C, D; Class 2 Division 2 Groups F, G; Class 3 Division 1 and Division 2 (applicable only to 6" Display unit)	C US LISTED	Certification by Underwriter's Laboratories (UL) to UL 61010-1; UL 61010-2-201; CSA C22.2 No 142– 1987; CSA 61010-1; CSA 61010-2-201 ISA 12.12.01 standard and CSA C22.2 No 213-M1987

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Description	Agency Marking	Comments
Explosive Atmospheres Directive European Safety for Hazardous Areas	€x>	Certification in accordance with the ATEX Directive 14/34/EU with an Independent 3rd Party Assessment Certificate only applies to the 12" and 15" Display units: EN 60079-0/A11, EN 60079-15, and EN 60079-31;
Equipment Group II, Category 3, Gas Groups IIC, Dust Group IIIC		Part numbers: IC755CSW07CDACA, IC755CSS10CDACA, IC755CSS12CDBCA, IC755CSS15CDACA
Electromagnetic Compatibility Directive		Self-declaration in
European Electromagnetic Compatibility (EMC) for Industrial Control Equipment	CE	accordance with European Directives EN61000-6-2, EN61000-6-4
Maritime Society Certification	Product not marked, verified by certificat e	American Bureau of Shipping (ABS), Det Nortske Veritas /Germanischer Lloyds (DNV-GL), and Bureau Veritas (BV) certification on conformal coated 6, 7, 10, 12, 15" units only.

# 5.2 Conditions of Safe Use for Installation in Hazardous Locations

The following information applies to products bearing the UL marking for Hazardous areas and the ATEX marking for Zone 2 explosive atmospheres:

- Suitable for use in Class I Division 2 Groups A, B, C, D; Class 2 Division 2 Groups F, G; Class 3 Division 1 and Division 2.
- Suitable for Group II, Category 3, Gas Groups IIC, Dust Group IIIC (applicable only to the IC755CSW07CDACA, IC755CSS10CDACA, IC755CSS12CDBCA, and IC755CSS15CDACA Display units):
  - 1. The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.

**Note:** Pollution degree 2 can be achieved when the installation is in a controlled environment with suitably controlled condensation or airborne pollution.

- 2. The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with IEC 60079-0.
- 3. Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.
- USB retaining clamp for IC755CxS12CDBCA and IC755CxS15CDACA must be used in hazardous location installations as follows:

1. Connect the USB cable.



2. Insert the retaining clamp in the port above the USB connector.



3. Adjust the position of the retaining clamp by pushing the lever of the retaining clamp. Then close the retaining clamp to fit the cable size.

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Figure 5.3: Adjusting position of retaining clamp



- USB retaining clamp for IC755CSW07CDACA must be used in hazardous location installations as follows:
  - 1. Connect the USB retaining clamp plate.

Figure 5.4: USB retaining Clamp Plate



 Connect the USB cable and insert the retaining clamp into the retaining clamp plate. Figure 5.5: USB cable retaining clamp



3. Adjust the position of the retaining clamp by pushing the lever of the retaining clamp. Then close the retaining clamp to fit the cable size.

## Figure 5.6: Inserting retaining clamp





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- EXPLOSION HAZARD Do not connect or disconnect equipment power, communication, audio, or battery unless power has been removed or the area is known to be non-hazardous.
- **EXPLOSION HAZARD** Substitution of components may impair suitability.
- **EXPLOSION HAZARD** -DO NOT VESA-MOUNT. Panel-mount only with enclosures that shall only be opened with the use of a tool in an area where the risk of impact is low.
- DO NOT MAKE ANY CONNECTIONS TO THE MINI-USB/MIC TERMINAL AS IT WILL INVALIDATE THE ATEX APPROVAL.

## **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 their own expense. Changes or modifications to this unit that are not

expressly approved by Emerson could void the user's authority to operate the equipment.

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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 is intended for industrial use only and complies 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 to be considered:

- 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.

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#### Technical Support & Contact Information:

Home link: <u>http://www.Emerson.com/Industrial-Automation-</u> Controls

Knowledge Base: <u>https://www.emerson.com/Industrial-</u> Automation-Controls/support

**Note:** If the product is purchased through an Authorized Channel Partner, please contact the seller directly for any support.

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