



**FP2070 SERIES  
QUICK START GUIDE**

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## **FP2070 SERIES Analog Resistive Touch Screen**

### **Product Code**

FP2070T-V2: 800 x 480, WVGA, 7" color TFT with 4-wire analog resistive touch screen with 2 serial ports, one USB Type C port & 1 USB Host port.

FP2070TN-V2: 800 x 480, WVGA, 7" color TFT with 4-wire analog resistive touch screen with 2 serial ports, one USB Type C port, one USB Host port & 1 Ethernet Port.

FP2070T-E: 800 x 480, WVGA, 7" color TFT with 4-wire analog resistive touch screen with 2 serial ports, one USB Type C port & 1 USB Host port. It supports upto 3 expansions.

FP2070TN-E: 800 x 480, WVGA, 7" color TFT with 4-wire analog resistive touch screen with 2 serial ports, one USB Type C port, one USB Host port & 1 Ethernet Port. It supports upto 3 expansions.

## **GETTING STARTED**

User should follow the given sequence to configure and use any FlexiPanels series unit:

1. Install FlexiSoft Software.
2. Create a PZM application using FlexiSoft software.
3. Connect programming cable.
4. Download Firmware i.e. driver for the HMI.

5. Download application.
6. Now FP unit is ready to use in the system.

## SPECIFICATIONS

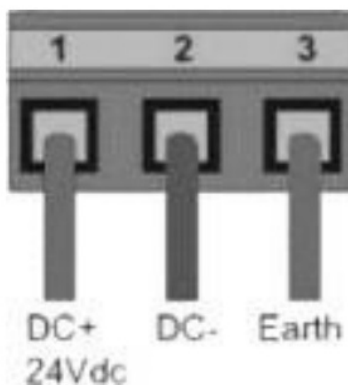
Power (Base)	24VDC (+20%) @200mA, 4.8W (T-V2 module) 24VDC (+20%, -15%) @230mA, 5.52W(TN-V2 module)
Power (With 3 Expansions)	24VDC (+20%) @220mA, 5.28W (T-E type module) 24VDC (+20%) @250mA, 6W (TN-E type module)
Display	7", 800 x 480 pixels, WVGA color TFT with 4-wire analog resistive touch screen
LEDs	1
RAM	32MB max.
User Application	8MB
Ladder Memory	2MB
Alarm Memory	1350 Alarms
Retentive Memory	8000 Words
Data Log	4MB
<b>Keep Memory Registers</b>	1000 Words
Panel Cutout	127.00(H) x 175.00(W)mm
Dimensions	138(H) x 186.0(W) x 31.0(D)mm
Weight	Approx. 400gm
<b>Communication</b>	
Serial Ports	2 x RS232 /RS485

USB Ports	1 USB Type C & 1 USB Host
SD card #	Micro SD card supported (4 to 32 GB)
Ethernet	1 Ethernet Port
Expansions*	Supports 3 Expansion slot
<b>Environment &amp; Approvals</b>	
Operating Temperature	0°C to 50°C
Storage Temperature	-30°C to 85°C
Humidity	10 to 90% (Noncondensing)
Shock	25g, 11ms, 6 shocks per axis, Total 18 shocks (X, Y, Z)
Vibration	5~150Hz, 3g peak, (X, Y, Z)
Protection	Front panel-IP66, Rear panel-IP20
APPROVALS	CE, UL (Class 1 DIV 2) ,UKCA,REACH& RoHS

[\*Note: Applicable only for FP2070Tx-E models.

# Note –Applied for FP2070TN-V2 and FP2070TN-E model] **Earthing**

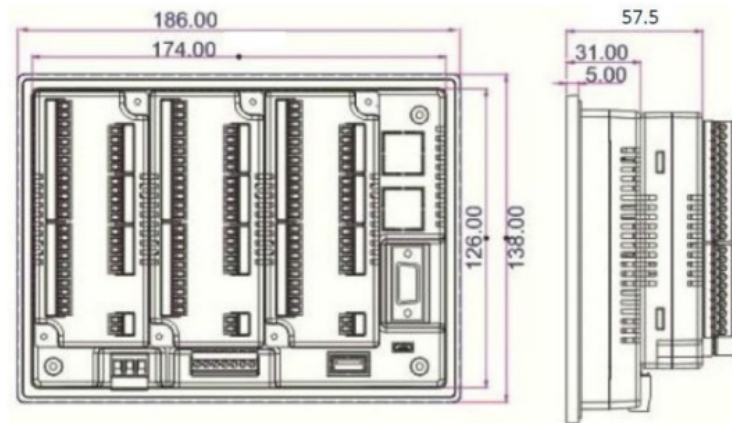
The optimum method for Earthing electronic equipment is to earth it separately from other high-power systems, to earth more than one unit of electronic equipment with a single-point earth. The Earthing marked terminal (see below) is provided on the unit.



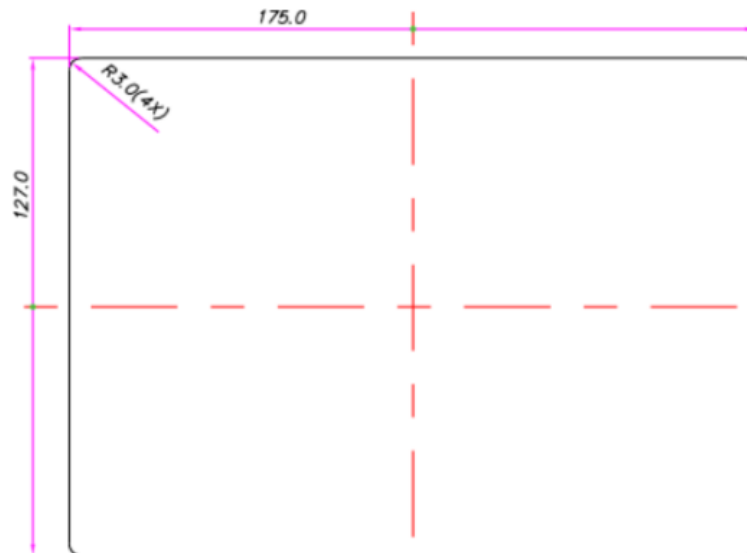
[Note: Do not use an earth that has an unstable impedance, such as painted screws or

earth subject to vibration.]

## PRODUCT DIMENSIONS



## PANEL CUTOUT DIMENSIONS



Panel Cutout Dimensions: 127(H) x 175.00(W)mm

Panel Thickness: Maximum 6mm

Mounting Clamps: 4

Tighten the mounting screws evenly to a torque between 0.4N/m to maintain water and dust resistance.

### WARNINGS:

WARNING: DO NOT REMOVE OR REPLACE WHILE BE FREE OF IGNITIBLE CONCENTRATIONS OF FLAMMABLE SUBSTANCES.

This equipment is suitable for use in Class I, Division 2, Groups A, B, C and D or non-hazardous locations only.

WARNING – EXPLOSION HAZARD –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 for Class I, Division 2.

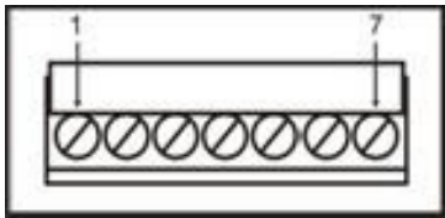
A recommendation for the user to periodically inspect the sealed devices used, for any degradation of properties and replace if degradation is found.

**COMMUNICATION**

This section provides information regarding communication interfaces supported by this product.

**COM1**

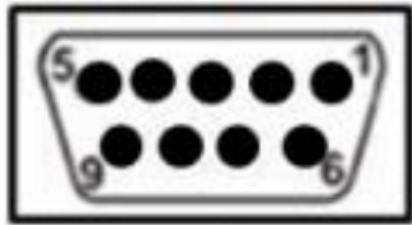
FP2070Tx-E has one terminal block port (COM1) which support RS232 / RS485 signal levels.



Pin number	Signal
1	RX-
2	TX-
3	RX+
4	TX+
5	GND
6	RXD
7	TXD

**COM2**

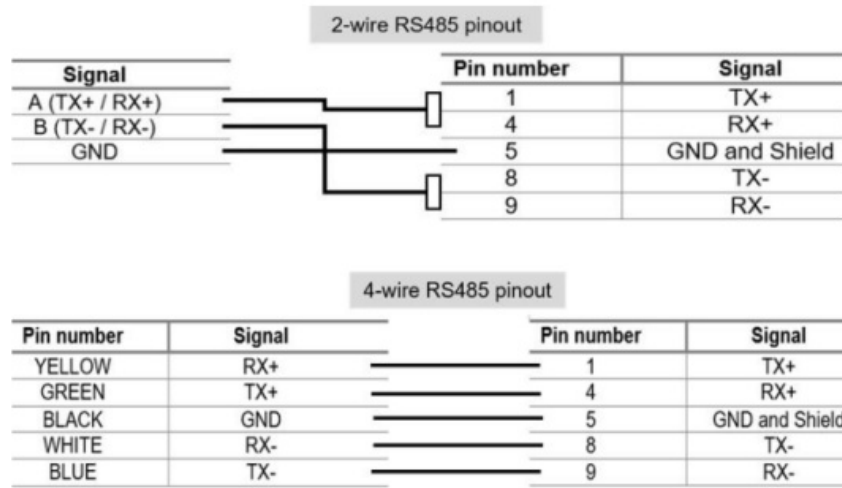
FP2070Tx-E has one DB9 female port (COM2) which support RS232 / RS485 signal levels.



Pin No.	Signal
1	TX+(RS422/RS485)
2	TXD(RS232)
3	RXD(RS232)
4	RX+(RS422/RS485)
5	GND
6	NC
7	NC
8	TX-(RS422/RS485)
9	RX-(RS422/RS485)

## Cables





## USB Type C Port

1. USB Type C, compliant with USB 2.0 specification, self- powered device.
2. Connector used: Micro USB Type C Female connector.

## USB Host Port

1. USB Host, compliant with USB 2.0 specification.
2. USB Host can handle only USB memory stick devices and can source current up to 150mA only.
3. Connector used: Standard USB Type a Female connector.

Pin number	Signal
1	VCC
2	D-
3	D+
4	GND

## Ethernet Port

1. Fully compliant with IEEE 802.3 / 802.3u standards.
2. 10 / 100 Mbps support.
3. Connector used: Standard shielded RJ-45 female jack with in-built speed and link



activity indication LEDs.

Default IP Address: 192.168.0.254

Default Subnet Activity Mask: 255.255.255.0

Pin number	Signal
1	TX+
2	TX-
3	RX+
4	NC
5	NC
6	RX-
7	NC
8	NC

## UL APPROVAL

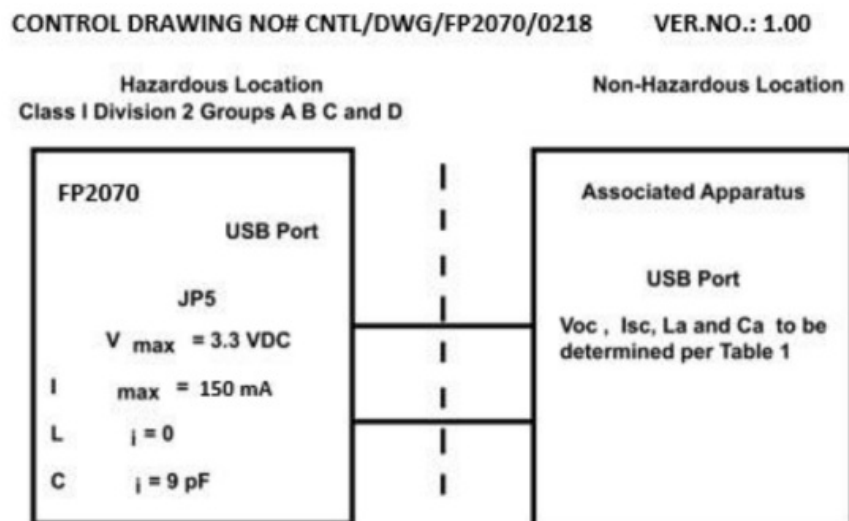


TABLE 1:

Nonincendive. Equipment		Associated Apparatus
V max (or Ui)	≥	Voc or Vt (or Uo)
I max (or Ii)	≥	Isc or It (or Io)
Ci + Ccable	≥	Ca (or Co)
Li + Lcable	≥	La (or Lo)

Capacitance and inductance of the field wiring from the nonincendive equipment to the associated apparatus shall be calculated and must be included in the system calculations as shown in Table 1.

Where the cable capacitance and inductance per foot are not known, the following values shall be used:  $C_{\text{cable}} = 60 \text{ pF/ft.}$ ,  $L_{\text{cable}} = 0.2 \text{ } \mu\text{H/ft.}$  Wiring method must be in accordance with ANSI/NFPA70

## REVISION HISTORY

Rev.	Description	Date
1.0	First Draft	14/08/2020
1.1	Added Website Information	27/08/2020
1.2	Updated Communication Information	7/9/2020
1.3	Updated IP rating	2/6/2021
1.4	Replaced USB type from Micro to Type C	11/10/2021
1.5	Remove Micro USB Pinout dia	8/12/2021
1.6	Logo Updated	20/09/2022
1.7	Specification updated	9/6/2025

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For More Information, Visit

<https://www.renuelectronics.com>

## Documents / Resources



[RENU FP2070 SERIES Analog Resistive Touch Screen \[pdf\]](#) User Guide  
FP2070 SERIES Analog Resistive Touch Screen, FP2070 SERIES, Analog Resistive Touch Screen, Resistive Touch Screen, Touch Screen

## References

- [User Manual](#)

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Analog Resistive Touch Screen, FP2070 SERIES, FP2070 SERIES Analog Resistive Touch Screen, renu, Resistive Touch Screen, Touch Screen

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