FP4151TN-V2
QUICK START GUIDE

Product Code:

FP4151TN-V2:

15", 1024 x 768, XGA Color TFT with 4-wire analog resistive touch screen with 2 communication port, one USB Device port, one USB Host port & 1 Ethernet Port.

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.


For more Information, visit

www.renuelectronics.com

SPECIFICATIONS

Power (Base)	24VDC (+20%), 600mA, 14.4W
Display	15", 1024 x 768pixels, XGA color TFT with 4-wire analog resistive touch screen
LEDs	1
RAM Memory	512MB
User Application	Up to 1GB that includes user application, data log, alarms, retentive memory and logic memory
eMMC	4GB
RTC	Built-in, date and time function
Weight	Approx. 3Kg
Product Dimensions	402.3(W) x 287.0(H) x 67.5(D)mm
Panel Cut-out	388.0(W) x 287.0(H)mm
LCD	Backlight life: Module Typical 70,000 h LED life time: Minimum 50,000h Luminance: Minimum 320 cd/m2 Typical 400 cd/m2
Communication	
COM1 and COM2	RS232/RS485
USB Ports	1 USB Type C Port and 1 USB Host Port
Ethernet	1 Ethernet Port Default IP Address & Subnet Mask : Auto
SD Card	Micro SD [High Capacity (4GB to 32GB)] Speed Class: ⓒⓒⓒⓤ *[While inserting and removing SD card, please make sure to TURNOFF the power to the unit.]*
Environment & Approvals	
Operating Temperature	0° to 60°C*
Storage Temperature	-30° to 85°C
Humidity	10 to 90% (Non-Condensing)
Shock	IEC 60068-2-27 25g, 11ms, 6 shocks per axis, total 18 shocks (X, Y, Z)
Vibration	IEC 60068-2-6 5 to 150Hz, 3g peak (X, Y, Z)
EMC	EN 55011 : 2009/A1 : 2010 EN 61131-2 : 2007 EN 61000-6-2 : 2005/AC : 2005 EN 61000-6-4 : 2007/A1 : 2011
Protection	Front panel-IP66, Rare panel-IP20
APPROVALS	CE, UL(Class1 Div2) ,UKCA, REACH & RoHS

[***Note:** For UL, operating temperature range is 0° to 50°C.]

PRODUCT DIMENSIONS
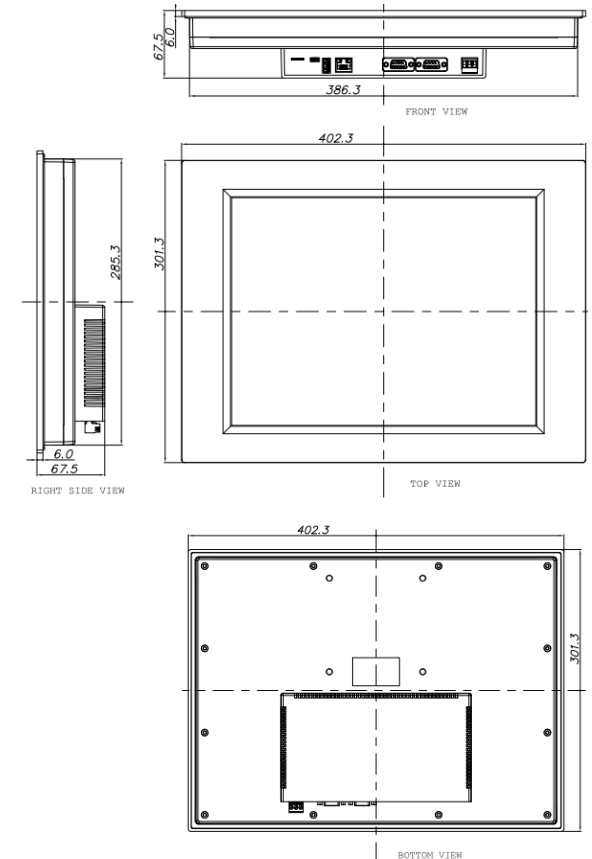
WARNINGS:

-> 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.

-> WARNING - CAUTION, Battery May Explode If Mistreated. Do Not Recharge, Disassemble or Dispose of in Fire.

-> The list of materials used in the construction of these devices with name of sealed device - generic name of the material and the supplier's name and type designation.

-> It is recommended that the user periodically inspect the sealed devices used, for any degradation of properties and Replace the device if any degradation is found.

COMMUNICATION INTERFACES

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

COM1 & COM2: RS485/RS232

DB9 female
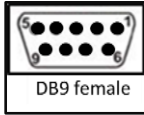
Pin number	Signal
1	TX+(RS422/RS485)
2	TXD(RS232)
3	RXD(RS232)
4	RX+(RS422/RS485)
5	GND
6	NC
7	NC
8	TX-(RS422/RS485)
9	RX-(RS422/RS485)

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.

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

USB Device Port

1. USB Device port, compliant with USB2.0 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 be used to transfer logged data and historical alarm to USB memory stick.
3. USB Host can handle only USB memory stick devices and can source current up to 150mA only.
4. Connector used: Standard USB Type a Female connector.

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

Cable Diagrams

PC to unit programming cable (RS232):

	Driver end			FP Unit side (COM2)
Pin number	Signal		Pin number	Signal
2	TXD		2	RXD
3	RXD		3	TXD
5	GND		5	GND

2 Wire RS485 connections:

Driver end
(PLC side or 2 wire network side)

FP Unit side (COM2)

Signal		Pin number	Signal
A (TX+ / RX+)		1	TX+
B (TX- / RX-)		4	RX+
GND		5	GND and Shield
		8	TX-
		9	RX-

4 Wire RS485 connections:

Driver end
(PLC side or 2 wire network side)

FP Unit side (COM2)

Signal		Pin number	Signal
RX+		1	TX+
TX+		4	RX+
GND		5	GND and Shield
RX-		8	TX-
TX-		9	RX-

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.
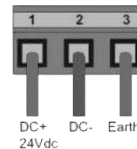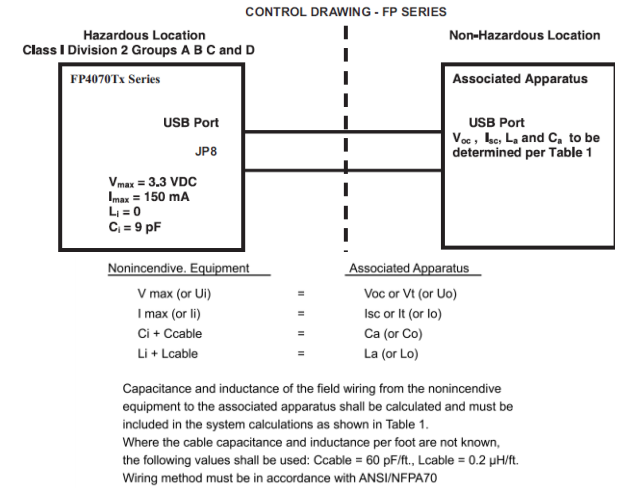

[Note: Do not use an earth that has an unstable impedance, such as painted screws or earth subject to vibration.]

UL APPROVAL

CONTROL DRAWING NO# CNTL/DWG/FP4150/1018   VER.NO.:1.00

CONTROL DRAWING - FP SERIES

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: Ccable = 60 pF/ft., Lcable = 0.2 μH/ft.
Wiring method must be in accordance with ANSI/NFPA70

REVISION HISTORY

Rev.	Description	Date
1.2	Specification updated	09/06/2025
1.1	B conn Details removed, Renu logo updated	06/06/2022
1.0	First Draft	21/10/2021

RENU Electronics Pvt. Ltd® reserves the right to change or discontinue specifications and features without prior notice.

To view the latest and updated datasheets/manuals please visit *www.renuelectronics.com*.