

# FP4101 Series

## QUICK START GUIDE



### Product Code:

**FP4101T:** 1024 x 600, WVGA, 10.1" color TFT with 4-wire analog resistive touch screen with 2 comm port, one USB Type C port & Host port.

**FP4101TN:** 1024 x 600, WVGA, 10.1" color TFT with 4-wire analog resistive touch screen with 2 comm port, one USB Type C port, one USB Host port & 1 Ethernet Port.

**FP4101T-E:** 1024 x 600, WVGA, 10.1" color TFT with 4-wire analog resistive touch screen with 2 comm port, one USB Type C port & Host port. It supports upto 5 expansions.

**FP4101TN-E:** 1024 x 600, WVGA, 10.1" color TFT with 4-wire analog resistive touch screen with 2 comm port, one USB Type C port, one USB Host port & 1 Ethernet Port. It supports upto 5 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.



For More Information, Visit  
<https://www.renuelectronics.com>

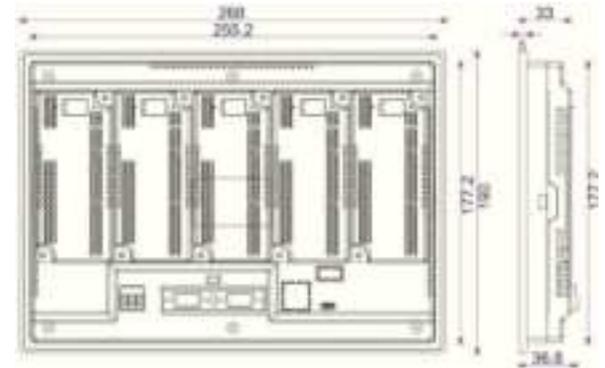
### SPECIFICATIONS

<b>Power (Base)</b>	24VDC(+20%), 250mA, 6W (for T-E module)
	24VDC (+20%), 270mA, 6.48W (for TN-E module)
<b>Power (with 5 Expansions)</b>	24VDC(+20%), 500mA, 12W (for T-E module)
	24VDC(+20%), 520mA, 12.48W (for TN-E module)
<b>Display</b>	10.1", 1024 x 600pixels, WVGA color TFT with 4-wire analog resistive touch screen
<b>LEDs</b>	1
<b>RAM Memory</b>	512MB
<b>User Application</b>	Up to 1GB that includes user application, data log, alarms, retentive memory and logic memory
<b>eMMC</b>	4GB
<b>RTC</b>	Built-in, date and time function
<b>Expansion</b>	It support 5 expansion slots*
<b>Weight</b>	Approx. 900gm
<b>Product Dimensions</b>	268.0(W) x 190.0(H) x 36.8(D)mm
<b>Panel Cut-out</b>	256.00(W) x 178.00(H)mm
<b>Communication</b>	
<b>COM1 and COM2</b>	RS232/RS485
<b>USB Ports</b>	1 USB Type C Port and 1 USB Host Port
<b>Ethernet</b>	1 Ethernet Port
<b>SD Card</b>	Micro SD [High Capacity (4GB to 32GB)] Speed Class:  <i>[While inserting and removing SD card, please make sure to TURN OFF the power to the unit.]</i>
<b>Environment &amp; Approvals</b>	
<b>Operating Temperature</b>	-10° to 60°C**
<b>Storage Temperature</b>	-30° to 85°C
<b>Humidity</b>	10 to 90% (Non-Condensing)
<b>Shock</b>	IEC 60068-2-27 25g, 11ms, 6 shocks per axis, total 18 shocks (X, Y, Z)
<b>Vibration</b>	IEC 60068-2-6 5 to 150Hz, 3g peak (X, Y, Z)
<b>EMC</b>	EN 55011 : 2009/A1 : 2010 EN 61131-2 : 2007 EN 61000-6-2 : 2005/AC : 2005 EN 61000-6-4 : 2007/A1 : 2011
<b>Protection</b>	Front panel-IP66, Rear panel-IP20
<b>APPROVALS</b>	CE, UL(Class1 Div2), UKCA, REACH & RoHS

[\*Note: Applicable only for FP4101Tx-E models.]

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

### PRODUCT DIMENSIONS



### PANEL CUTOUT DIMENSIONS

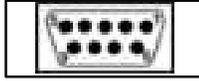


[Panel Cutout Dimensions: 256.00(W) x 178.00(H)mm, Panel Thickness: Maximum 6mm and Mounting Clamps: 6] Tighten the mounting screws evenly to a torque between 0.4N/m to maintain water and dust resistance.

## 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	GN
6	NC
7	NC
8	TX-(RS422/RS485)
9	RX-(RS422/RS485)

### Ethernet Port

- Fully compliant with IEEE 802.3 / 802.3u standards.
- 10/100 Mbps support.
- 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 Type C

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

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

### USB Host Port

- USB Host, compliant with USB 2.0 specification
- USB Host can be used to transfer logged data and historical alarm to USB memory stick.
- USB Host can handle only USB memory stick devices and can source current up to 150mA only.
- Connector used: Standard USB Type A Female connector.

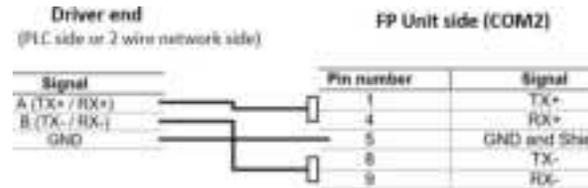
Pin number	Signal
1	VCC
2	D-
3	D+
4	GND

### Cable Diagrams

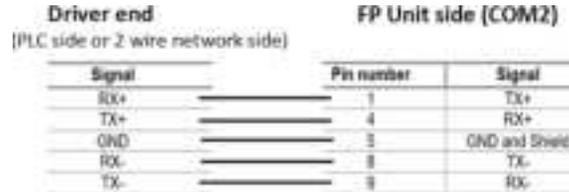
#### PC to unit programming cable (RS232):



#### 2 Wire RS485 connections:

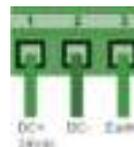


#### 4 Wire RS485 connections:



### 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/FP4101/0218

VER.NO.:1.00

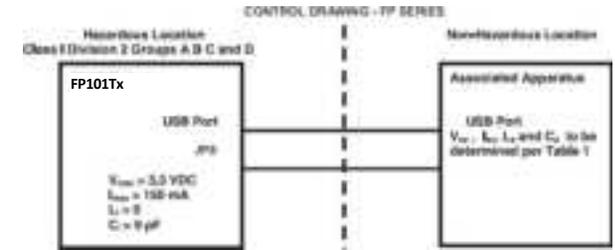


TABLE 1:

Non-Hazardous Equipment		Associated Apparatus
V rms (or DC)	V	Volt (or DC)
I rms (or I)	A	Am (or I) (or I <sub>sc</sub> )
C = Capacitance	µF	Ca (or C <sub>a</sub> )
L = Inductance	µH	La (or L <sub>a</sub> )

Capacitance and inductance of the field wiring from the non-hazardous equipment to the associated apparatus shall be calculated and must be included in the system calculation as shown in Table 1.  
Where the cable capacitance and inductance per foot are not known, the following values shall be used: Capacitance = 80 pF/ft, Inductance = 0.2 µH/ft.  
Wiring method must be in accordance with ABSINTPAT.

### WARNING:

- > 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.

## REVISION HISTORY

Rev.	Description	Date
1.3	Specification updated	09/06/2025
1.2	Logo Updated	20/09/2022
1.1	Replaced USB type from Micro to Type C	21/07/2021
1.0	First Draft	23/03/2020

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