

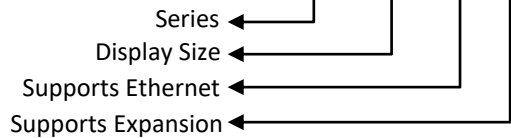
FP4043TN-E

QUICK START GUIDE



Product Code:

FP4 043 TN- E



GETTING STARTED

User should follow the given sequence to configure and use any Flexi Panel 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.

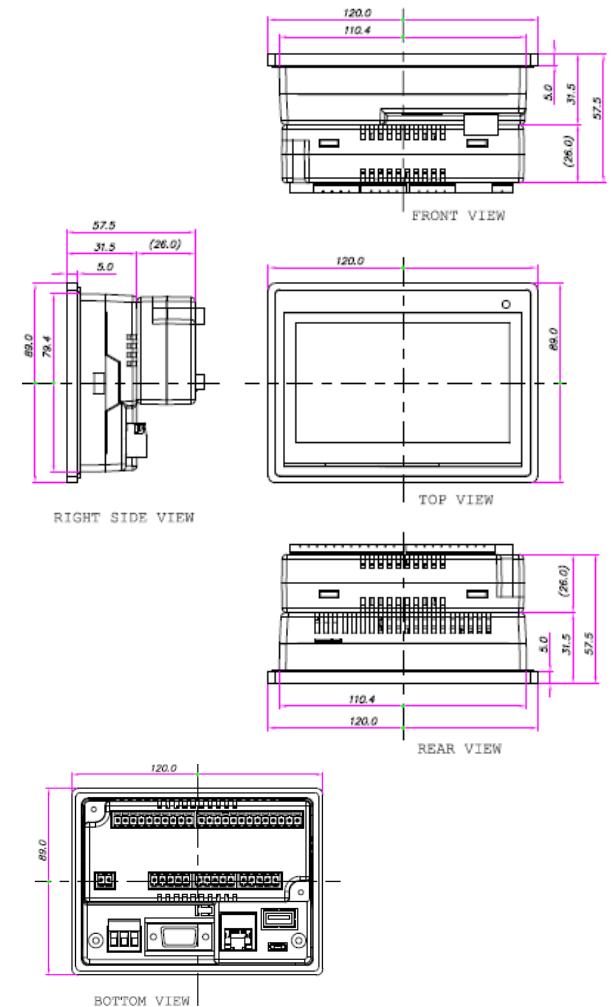
SPECIFICATIONS

Power	24VDC (+/- 20%, -15%), 140mA, 3.36W (without Expansion) 250mA, 9.36W (with 1 Expansion)
Display	4.3" WQVGA 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
Expansion	It support 1 expansion slot
Weight	Approx. 400gm
Panel Cutout (mm)	111.00(W) x 80.00mm(H)
Product Dimensions (mm)	120.00(W) x 89.0mm(H) x 31.5mm(D)
Communication	
COM1/COM2*	RS232/RS485
USB Ports	1 USB Device and 1 USB Host
Ethernet	1 Ethernet Port
SD Card	Micro SD [High Capacity (4GB to 32GB)] Speed Class: [While inserting and removing SD card, please make sure to TURN OFF the power to the unit.]
Environment & Approvals	
Operating Temperature	-10° to 60°C*
Storage Temperature	-20° 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	IP66 for front panel mounting
APPROVALS	CE, UL & RoHS

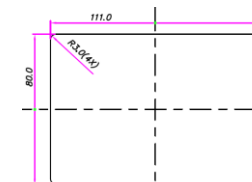
[*COM1 / COM2: This unit has one DB9 COM port that can be used as COM1 (RS232) and / or COM2 (RS485/RS422). Special "Y" cable can be provided, if both the ports are to be used simultaneously.]
(Part No.: REPL Part# EC-Y-FP)

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

PRODUCT DIMENSIONS



PANEL CUTOUT DIMENSIONS



[Panel Cutout Dimensions: 111.00 x 80.00mm,
Panel Thickness: Maximum 6mm, Tolerance: +/-0.2mm]



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

COMMUNICATION

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

USB Slave Port:

1. USB Slave, compliant with USB 2.0 specification, self-powered device.
2. Connector used: Micro USB Type B 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.

Connector used: Standard USB Type a Female connector.

COM1/COM2: RS232/ RS5485



DB9 Female (COM2)

Pin No.	Signal
1	TX+
2	TXD
3	RXD
4	RX+
5	SG
6	NC
7	NC
8	TX-
9	RX-

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 No.	Signal
1	TX+
2	TX-
3	RX+
4	NC
5	NC
6	RX-
7	NC
8	NC

Cable Diagrams:

PC to unit programming cable: RS232 Pinout

Pin number	Signal	Pin number	Signal
2	TXD	2	RXD
3	RXD	3	TXD
5	GND	5	GND

2 Wire RS485 connections:

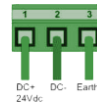
Signal	Pin number	Signal
A (TX+ / RX+)	1	TX+
B (TX- / RX-)	4	RX+
GND	5	GND and Shield
	8	TX-
	9	RX-

4 Wire RS485 connections:

Pin number	Signal	Pin number	Signal
YELLOW	RX+	1	TX+
GREEN	TX+	4	RX+
BLACK	GND	5	GND and Shield
WHITE	RX-	8	TX-
BLUE	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.]

SUPPORTING EXPANSIONS

Models	Description
FPEM-1616P	16 Digital Inputs, 16 Digital Outputs (14 PNP, 2 outputs can be configured for PWM)
FPEM-1614RP	16 Digital Inputs, 14 Digital Outputs (12 Relay, 2 outputs can be configured for PWM)
FPEM-1212P-A0200L	12 Digital Inputs, 12 Digital Outputs (10 PNP, 2 outputs can be configured for PWM),
FPEM-1212RP-A0200L	12 Digital Inputs, 12 Digital Outputs (10 Relay, 2 outputs can be configured for PWM), 2 Analog Inputs (Voltage / Current)
FPEM-1210P-A0201L	12 Digital Inputs, 10 Digital Outputs (8 PNP, 2 outputs can be configured for PWM), 2 Analog Inputs (Voltage / Current), 1 Analog Output (Voltage / Current)
FPEM-1210RP-A0201L	12 Digital Inputs, 10 Digital Outputs (8 Relay, 2 outputs can be configured for PWM), 2 Analog Inputs (Voltage / Current), 1 Analog Output (Voltage / Current)
FPEM-0808P-A0401U	8 Digital Inputs, 8 Digital Outputs (6 PNP, 2 outputs can be configured for PWM), 4 Analog Inputs (Universal), 1 Analog Output (Voltage / Current)
FPEM-0808RP-A0401U	8 Digital Inputs, 8 Digital Outputs (6 Relay, 2 outputs can be configured for PWM), 4 Analog Inputs (Universal), 1 Analog Output (Voltage / Current)

UL APPROVAL

CONTROL DRAWING NO# CNTL/DWG/FP4043/0318

VER.NO.:1.00

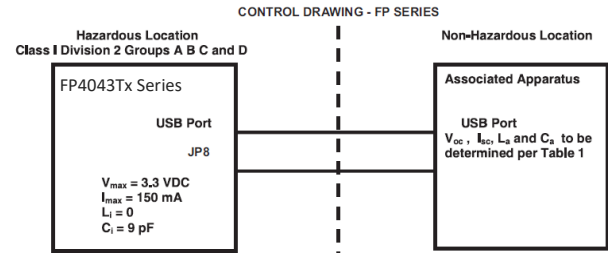


TABLE 1:

Nonincendive Equipment	Associated Apparatus
V max (or Ui)	Voc or Vt (or Uo)
I max (or Ii)	Isc or It (or Io)
Ca + 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: Ccable = 60 pF/ft., Lcable = 0.2 µH/ft. Wiring method must be in accordance with ANSI/NFPA70

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
1.0	First Draft	24/03/2020

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