M1 Models **M2 Models** **M3 Models**

▣ Features

- Excellent C/P ratio (cost/performance)
- High-resolution color touch screen
- PoE (Power over Ethernet)
- RTC (Real Time Clock)
- GUI design
- Free HMIWorks development tool
- Supports C programming language and Ladder Designer
- Supports the custom communication protocol (C language)
- Modbus TCP/RTU protocol
- ESD Protection: 4 kV
- Operating temperature: -20 ~ 70°C

📁 Introduction

TPD 2.8 inch Mx serires is a series of tiny touch HMI and designed for building and home automation. TPD 2.8 inch Mx series is equipped with high resolution TFT color touch screen and fits in with regular electrical wall-mount outlet. Besides, it is seamlessly integrated with rich I/O modules and presents beautiful, flexible and user-defined picture frame. In short, it is the best choice to upgrade the mechanical switch to intelligent control pads.
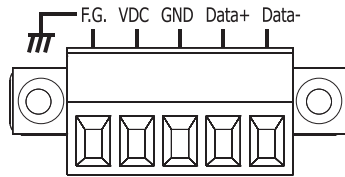
For PLC users, HMIWorks provides Ladder Designer, and for IT users, C language environment is provided. Especially, it only takes no more than 30 minutes to learn how to create an application program of TPD-series devices when using Ladder Designer. Moreover, we provide redundant solutions in our PoE version, TPD-283/283U-Mx of TPD-series HMI devices. With all the features provided, TPD-series touch HMI Devices must be the most cost effective HMI Device ever been in the market.

📁 Specifications

Models		TPD-280-Mx	TPD-283-Mx	TPD-283U-Mx
CPU Module				
CPU		32-bit RISC CPU		
Memory Expansion		-		16 MB SDRAM / 16 MB Flash
Real Time Clock (RTC)		-		Yes
Buzzer		Yes		
Rotary Switch (0 ~ 9)		Yes		
Communication Interface				
Serial Port	COM1	RS-485 (including Self-Tuner)	-	RS-485 (including Self-Tuner)
	COM2	-		
Ethernet		-	RJ-45 x 1, 10/100 Base-TX	
MMI (Main Machine Interface)				
LCD		2.8" TFT (Resolution 240 x 320 , 65535 colors), defective pixels <= 3		
Backlight Life		20,000 hours		
Brightness		160 cd/m2		
Touch Panel		Resistive Touch		
Reset Button		Yes		
Electrical				
Powered from Terminal Block		+12 ~ 48 V$_{DC}$	-	+12 ~ 48 V$_{DC}$
Powered from PoE		-	IEEE 802.3af, Class1 (48 V)	
Power Consumption		1.5 W		
Mechanical				
Dimensions (W x L x H)		127 mm x 92 mm x 21.8 mm	127 mm x 92 mm x 31 mm	
Installation		Wall Mount		
Ingress Protection		Front Panel: IP40		
Environmental				
Operating Temperature		-20 ~ +70°C		
Storage Temperature		-30 ~ +80°C		
Ambient Relative Humidity		10 ~ 90% RH, non-condensing		

■ Pin Assignments

TPD-280/283U-Mx Series

F.G. VDC GND Data+ Data-

■ Appearance

TPD-280/283/283U-Mx Series Front View

2.8″ TFT LCD with Touch Panel

TPD-280-Mx Rear View

RS-485

Rotary Switch

TPD-283-Mx Rear View

Ethernet

Rotary Switch

TPD-283U-Mx Rear View

RS-485 Ethernet

Rotary Switch
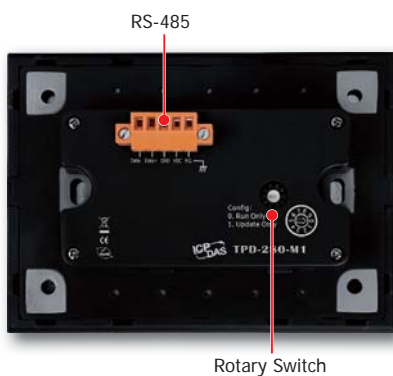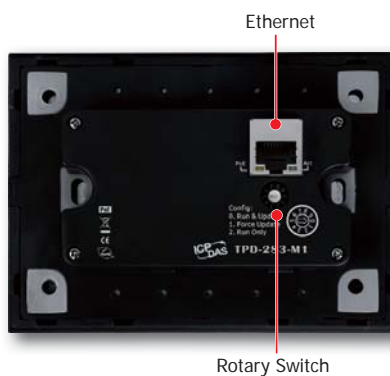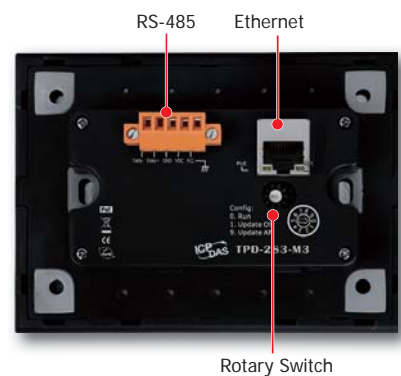
■ Dimensions (Units: mm)

TPD-280/283/283U-Mx Series

31
21.8
8
127
92
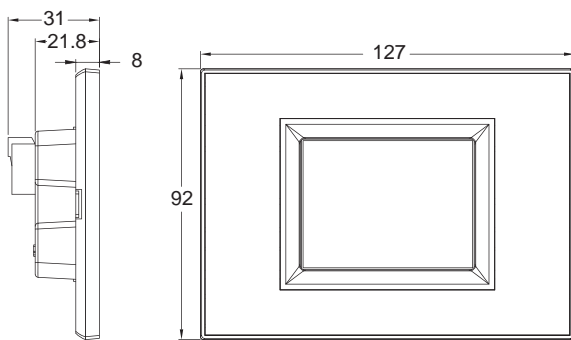
Left View

Front View

Right View

19.5
23.7
99
92
83.7
14
19.7
62 51
4
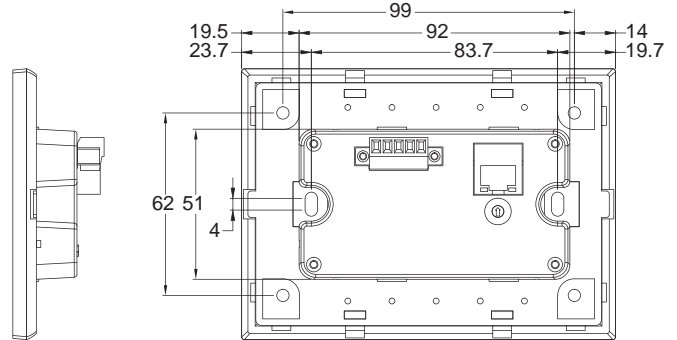
Rear View

Top View

Bottom View

99
95
5.6
83.7
∅3.5
2
62 54 8.5
R4.3
∅3.5
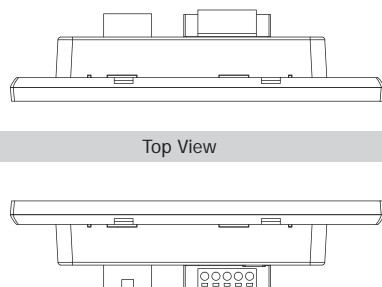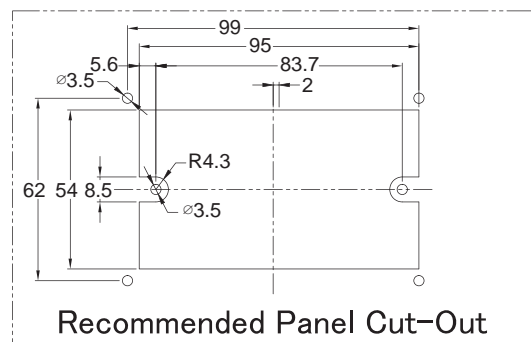
Recommended Panel Cut-Out

Wall Mounting

📁 Ordering Information

TPD-280-M1 CR	2.8″ Touch HMI device with RS-485 (RoHS)
TPD-280-M2 CR	2.8″ Touch HMI device with RS-485 (RoHS)
TPD-280-M3 CR	2.8″ Touch HMI device with RS-485 (RoHS)
TPD-283-M1 CR	2.8″ Touch HMI device with Ethernet, PoE (RoHS)
TPD-283-M2 CR	2.8″ Touch HMI device with Ethernet, PoE (RoHS)
TPD-283-M3 CR	2.8″ Touch HMI device with Ethernet, PoE (RoHS)
TPD-283U-M1 CR	2.8″ Touch HMI device with RS-485 (including Self-Tuner), RTC, Ethernet, PoE (RoHS)
TPD-283U-M2 CR	2.8″ Touch HMI device with RS-485 (including Self-Tuner), RTC, Ethernet, PoE (RoHS)
TPD-283U-M3 CR	2.8″ Touch HMI device with RS-485 (including Self-Tuner), RTC, Ethernet, PoE (RoHS)

📁 Accessories

	1C016	2.4 mm Screw driver
	NS-208PSE CR	Unmanaged Industrial PoE (Power over Ethernet) Ethernet Switch (RoHS)
	MDR-60-24 CR	24 V_{DC}/2.5 A, 60 W Power Supply with DIN-Rail Mounting (RoHS)