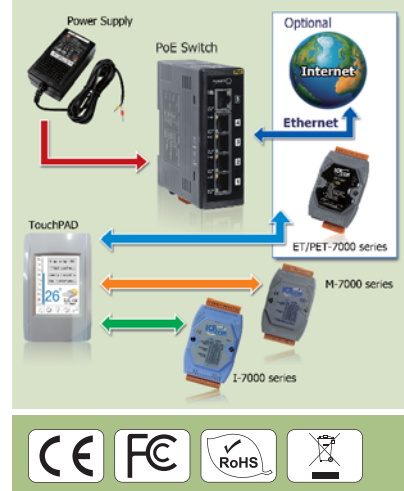**TPD-280**

TPD-280U

TPD-283

TPD-283U

Features

- Excellent C/P ratio (cost/performance)
- High-resolution color touch screen
- PoE (Power over Ethernet)
- RS-485 (including Self-Tuner)
- RTC (Real Time Clock)
- GUI design
- Free HMIWorks development tool
- Suppots C programming language and Ladder Designer
- Supports the custom communication protocol (C language)
- Modbus TCP/RTU protocol
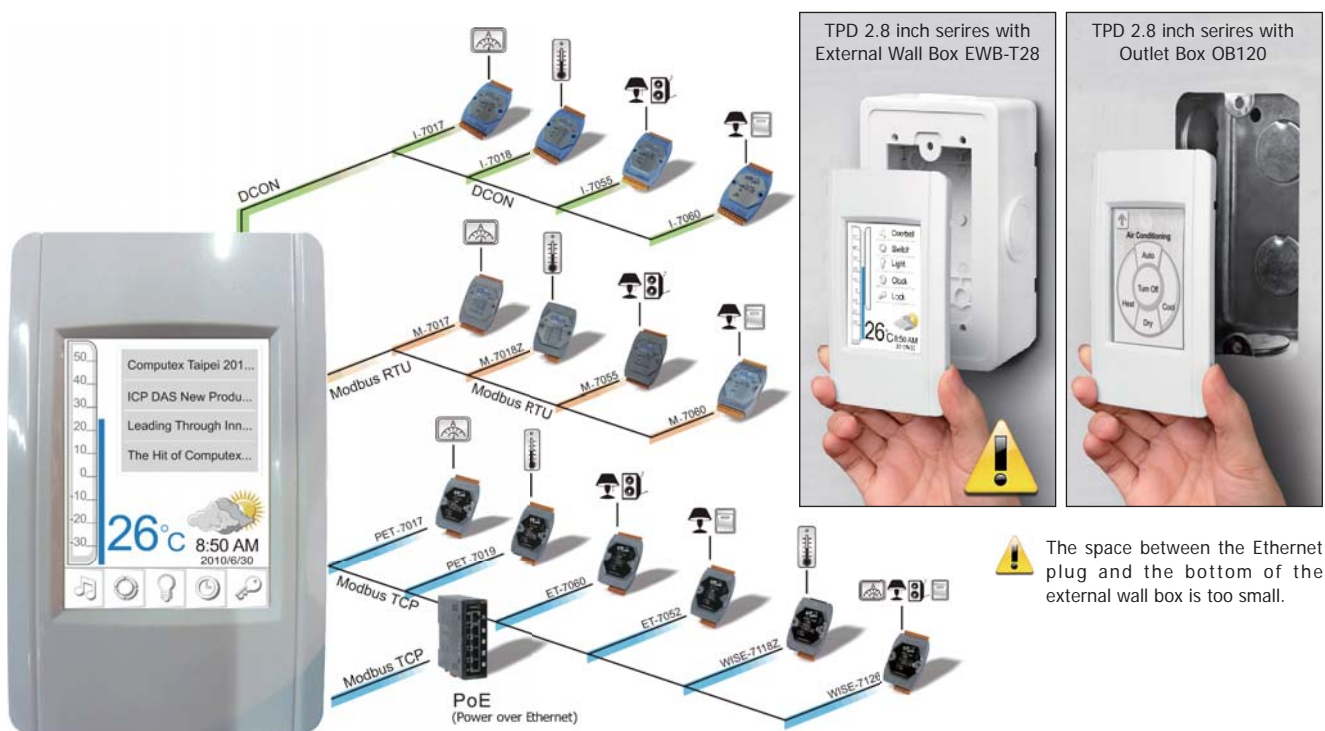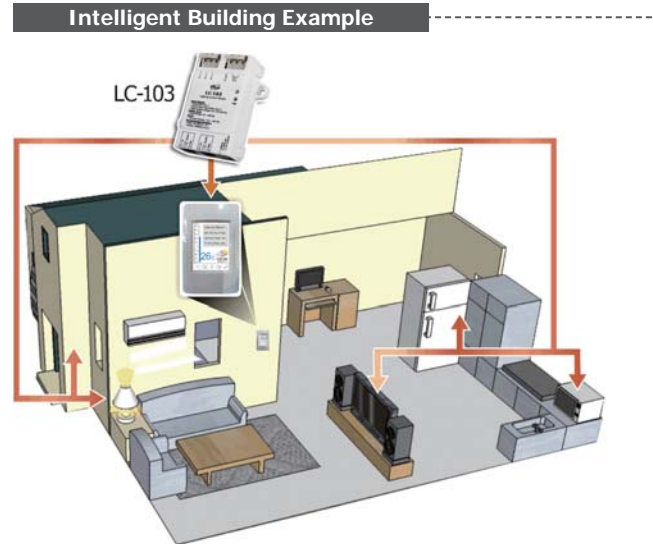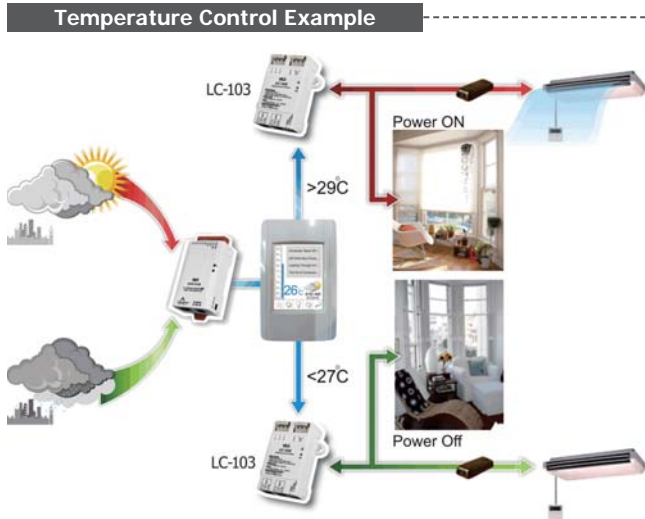- ESD Protection: 4 kV
- Operating temperature: -20 ~ 70°C

Introduction

TPD 2.8 inch serires is a series of tiny touch HMI and designed for building and home automation. TPD 2.8 inch serires 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 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.

Applications

TPD 2.8 inch serires with External Wall Box EWB-T28

TPD 2.8 inch serires with Outlet Box OB120

⚠ The space between the Ethernet plug and the bottom of the external wall box is too small.

Temperature Control Example

Intelligent Building Example

■ Specifications

Models	TPD-280	TPD-280U	TPD-283	TPD-283U
CPU Module				
CPU	32-bit RISC CPU			
Memory Expansion	-	16 MB SDRAM / 8 MB Flash	-	16 MB SDRAM / 8 MB Flash
Real Time Clock (RTC)	-	Yes	-	Yes
Buzzer	Yes			
Rotary Switch (0~9)	Yes			
Communication Interface				
Ethernet	-		RJ-45 x 1, 10/100 Base-TX	
Serial Port	RS-485 (including Self-Tuner)		-	RS-485 (including Self-Tuner)
USB 1.1 Client	-	Firmware updates only	-	Firmware updates only
MMI (Main Machine Interface)				
LCD	2.8″ TFT (Resolution 240 x 320 x 16), defective pixels <= 3			
Backlight Life	20,000 hours			
Brightness	160 cd/m2			
Touch Panel	Yes			
Reset Button	Yes			
Electrical				
Powered from Terminal Block	+10 ~ 30 V_{DC}		-	+10 ~ 30 V_{DC}
Powered from PoE	-		IEEE 802.3af, Class1 (48 V)	IEEE 802.3af, Class1 (48 V)
Power Consumption	1.2 W			
Mechanical				
Dimensions (W x L x H)	76 mm x 119 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/TPD-280U/TPD-283U

F.G. VDC GND Data+ Data-
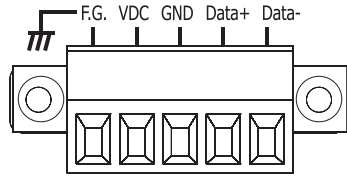
■ Appearance

TPD-280/TPD-280U/TPD-283/TPD-283U Front View
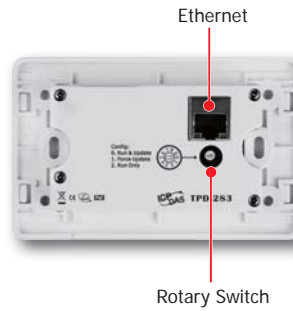
2.8″ TFT LCD with Touch Panel

Alice HMI
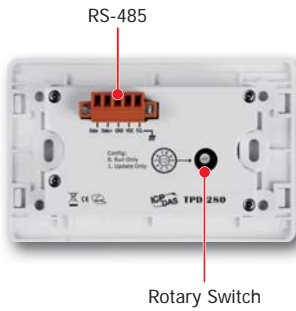
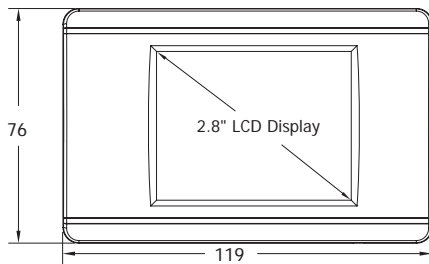| TPD-280 Rear View	TPD-280U Rear View	TPD-283 Rear View	TPD-283U Rear View
RS-485	RS-485	Ethernet	RS-485 Ethernet
Rotary Switch	USB Rotary Switch	Rotary Switch	USB Rotary Switch
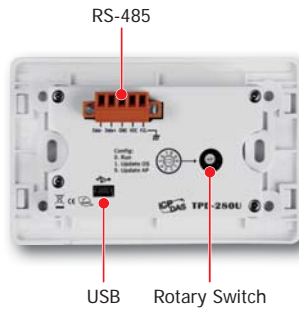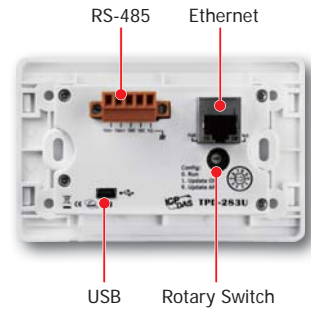
■ Dimensions (Units: mm)

TPD-280/TPD-280U

76

15

7.3

119

2.8" LCD Display

| Left View | Front View | Right View | Rear View |

33 25.7
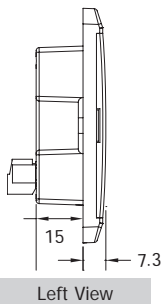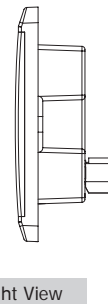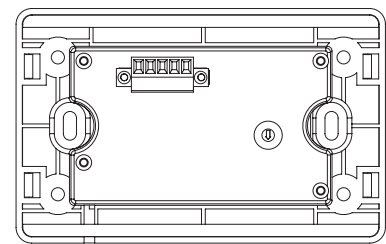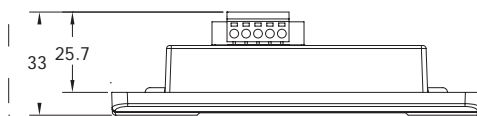
| Top View | | Bottom View |

TPD-283/TPD-283U

76

7.3

119

2.8" LCD Display

| Left View | Front View | Right View | Rear View |

31 23.7
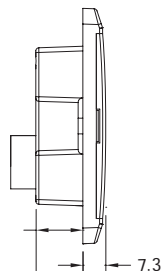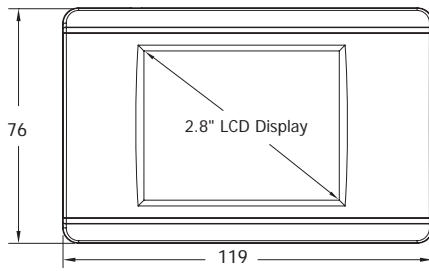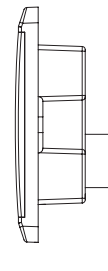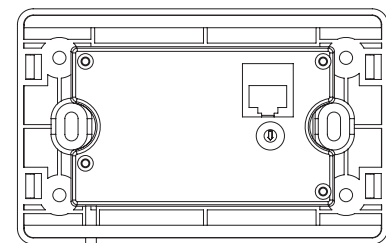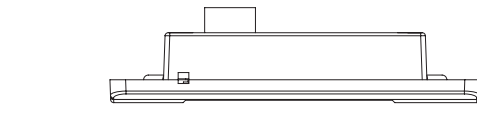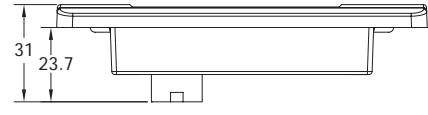
| Top View | | Bottom View |

■ Ordering Information

TPD-280 CR	2.8" Touch HMI device with RS-485 (RoHS)
TPD-280U CR	2.8" Touch HMI device with RS-485, USB download, RTC (RoHS)
TPD-283 CR	2.8" Touch HMI device with Ethernet, PoE (RoHS)
TPD-283U CR	2.8" Touch HMI device with RS-485, USB download, RTC, Ethernet, PoE (RoHS)

■ Accessories

	CA-USB10	USB to 5P Mini-USB, 28AWG, 1.5 m		DIN-KA52F CR	24 V$_{DC}$/1.04 A, 25 W Power Supply with DIN-Rail Mounting (RoHS)
	1C016	2.4 mm Screw driver		EWB-T28	External Wall Box for TPD 2.8 inch series
	NS-208PSE CR	Unmanaged Industrial PoE (Power over Ethernet) Ethernet Switch (RoHS)		OB120	Outlet Box for TPD 2.8 inch series and TPD-430/ TPD-433 Devices
	MDR-60-24 CR	24 V$_{DC}$/2.5 A, 60 W Power Supply with DIN-Rail Mounting (RoHS)			