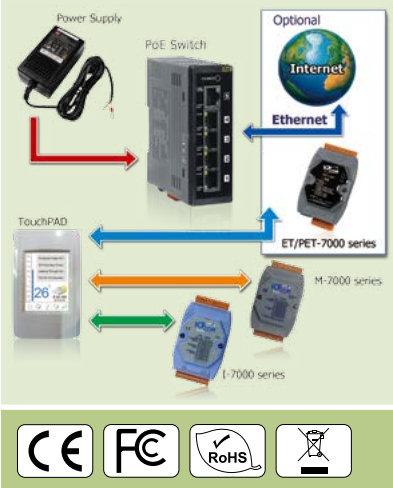


### Features

- 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
- 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

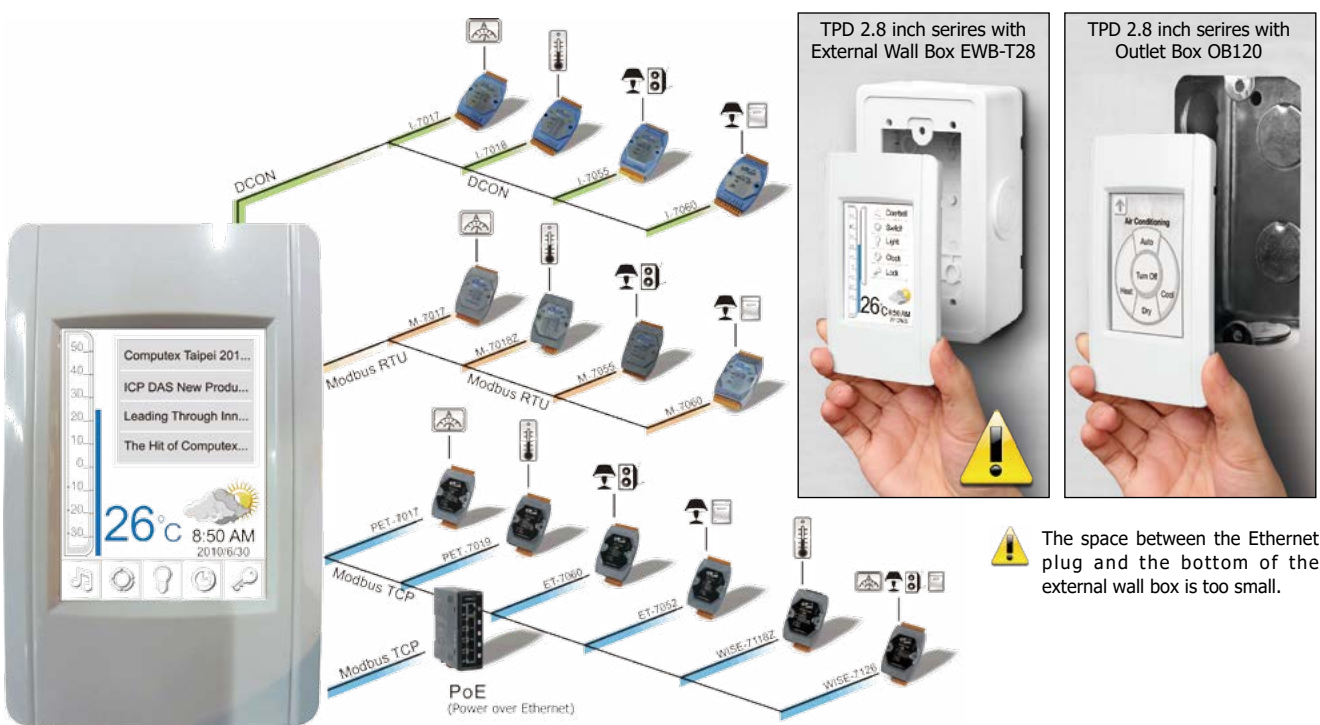


### Introduction

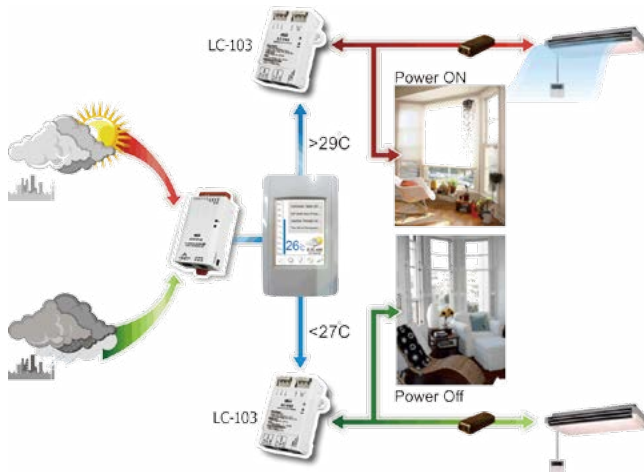
TPD 2.8 inch series is a series of tiny touch HMI and designed for building and home automation. TPD 2.8 inch series is equipped with high resolution TFT color touch screen and fits in with regular electrical wall-mount outlet. Besides, it is seamlessly integrated with rich I/O modules and presents beautiful, 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-H 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



## Temperature Control Example



## Intelligent Building Example

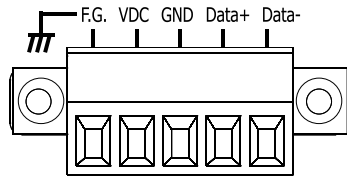


## Specifications

| Models                              | TPD-280-H   | TPD-280U-H                | TPD-283-H                   | TPD-283U-H                    |
|-------------------------------------|---|---------------------------|-----------------------------|-------------------------------|
| <b>CPU Module</b>                   |   |                           |                             |                               |
| CPU                                 | 32-bit RISC CPU   |                           |                             |                               |
| Memory Expansion                    | -   | 16 MB SDRAM / 16 MB Flash | -                           | 16 MB SDRAM / 16 MB Flash     |
| Real Time Clock (RTC)               | -   | Yes                       | -                           | Yes                           |
| Buzzer                              | Yes   |                           |                             |                               |
| Rotary Switch (0~9)                 | Yes   |                           |                             |                               |
| <b>Communication Interface</b>      |   |                           |                             |                               |
| Serial Port                         | RS-485 (including Self-Tuner)   |                           | -                           | RS-485 (including Self-Tuner) |
| Ethernet                            | -   |                           | RJ-45 x 1, 10/100 Base-TX   |                               |
| USB 1.1 Clnet                       | -   | Firmware update only      | -                           | Firmware update only          |
| <b>MMI (Main Machine Interface)</b> |   |                           |                             |                               |
| 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   |                           |                             |                               |
| <b>Electrical</b>                   |   |                           |                             |                               |
| Powered from Terminal Block         | +12 ~ 48 VDC  |                           | -                           | +12 ~ 48 Vdc                  |
| Powered from PoE                    | -   |                           | IEEE 802.3af, Class1 (48 V) |                               |
| Power Consumption                   | 1.5 W   |                           |                             |                               |
| <b>Mechanical</b>                   |   |                           |                             |                               |
| Dimensions (W x L x H)              | 119 mm x 76 mm x 33 mm  | 119 mm x 76 mm x 33 mm    | 119 mm x 76 mm x 32 mm      | 119 mm x 76 mm x 33 mm        |
| Installation                        | Wall Mount  |                           |                             |                               |
| Ingress Protection                  | Front Panel: IP40   |                           |                             |                               |
| <b>Environmental</b>                |   |                           |                             |                               |
| Operating Temperature               | -20 ~ +70°C   |                           |                             |                               |
| Storage Temperature                 | -30 ~ +80°C   |                           |                             |                               |
| Ambient Relative Humidity           | 10 ~ 90% RH, non-condensing   |                           |                             |                               |

## Pin Assignments

TPD-280-H/TPD-280U-H/TPD-283U-H

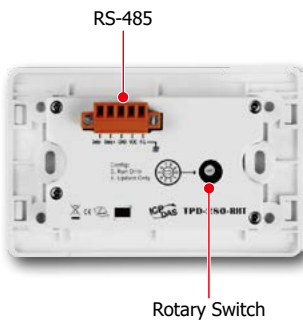


## Appearance

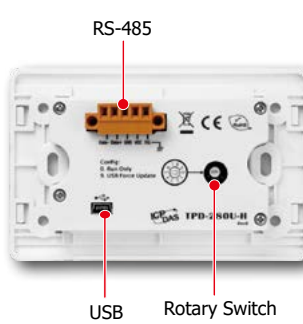
Front View



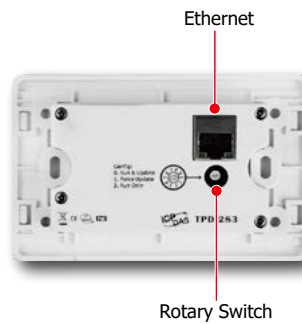
TPD-280-H Rear View



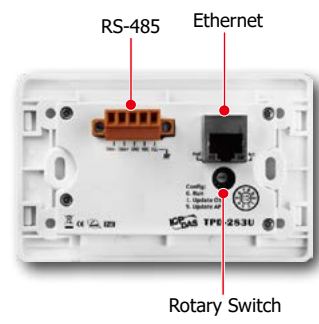
TPD-280U-H Rear View



TPD-283-H Rear View

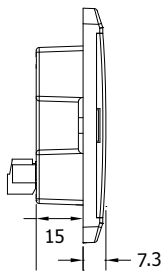


TPD-283U-H Rear View

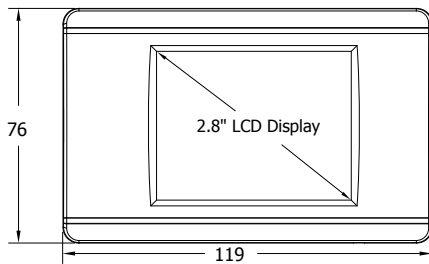


## Dimensions (Units: mm)

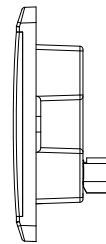
TPD-280-H/TPD-280U-H



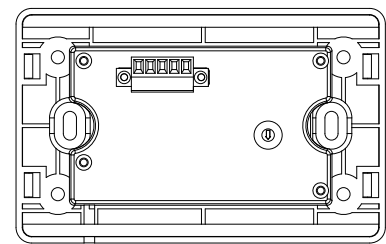
Left View



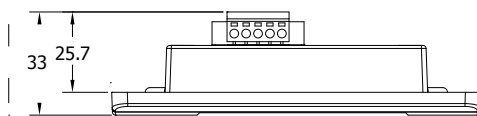
Front View



Right View



Rear View

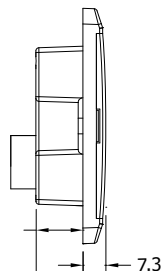


Top View

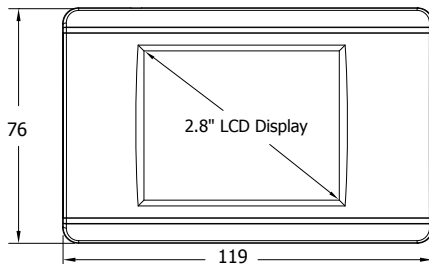


Bottom View

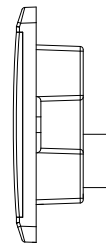
TPD-283-H/TPD-283U-H



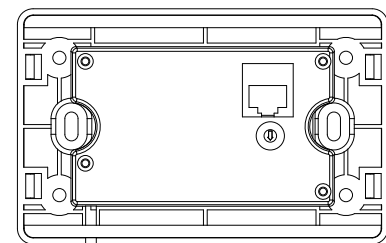
Left View



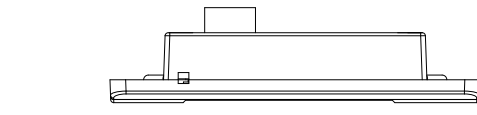
Front View



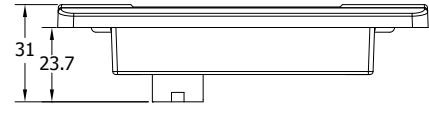
Right View



Rear View



Top View



Bottom View

## Ordering Information

|               |  |
|---------------|--|
| TPD-280-H CR  | 2.8" Touch HMI device with RS-485 (RoHS)                     |
| TPD-280U-H CR | 2.8" Touch HMI device with RS-485, USB download, RTC (RoHS)  |
| TPD-283-H CR  | 2.8" Touch HMI device with Ethernet, PoE (RoHS)              |
| TPD-283U-H CR | 2.8" Touch HMI device with RS-485, 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 Vdc/2.5 A, 60 W Power Supply with DIN-Rail Mounting (RoHS)         |
|    | DIN-KA52F CR | 24 Vdc/1.04 A, 25 W Power Supply with DIN-Rail Mounting (RoHS)        |
|   | EWB-T28      | External Wall Box for TPD 2.8 inch series                             |
|  | EWB-T28-BK   | External Wall Box for TPD 2.8 inch series (Black)                     |
|  | OB120        | Outlet Box for TPD 2.8 inch series and TPD-430/ TPD-433 Devices       |