

TC040C14U04 TC040C14W04

4.0 Inches, 480*RGB*480, 16.7M Colors, IPS screen, Thermostat with Speech recognition, Proximity sensor, RTC.



- **Display**

| Item | Parameter | Description |
|-------------------|---------------------------|--|
| Color | 16.7M(16777216)colors | 24 bit color 8R8G8B |
| Panel Type | IPS | IPS TFT LCM ,wide viewing angle |
| Viewing Angle | 85/85/85/85 (L/R/U/D) | Best View: symmetrical |
| Active Area(A.A.) | 71.86mm (W) * 67.96mm (H) | 480*480 |
| Resolution | 480 * 480 | Support 0°/90°/180°/270°rotated display |
| Backlight | LED | ≥10000H(Continuous working with maximum brightness, time of brightness halves) |
| Brightness | 250nit | TA system:64 levels adjustment; DGUS II system:100 levels adjustment (It's not recommend to set brightness to 1%~30% of the maximum, which may lead a flicker) |

Note: You can use dynamic screen saver wallpapers to avoid afterimages caused by fixed page display for a long time.

- **Voltage & Current**

| Item | Condition | Min | Typ. | Max | Unit |
|---------------|-----------|-----|------|-----|------|
| Power Voltage | - | 110 | 220 | 230 | VAC |

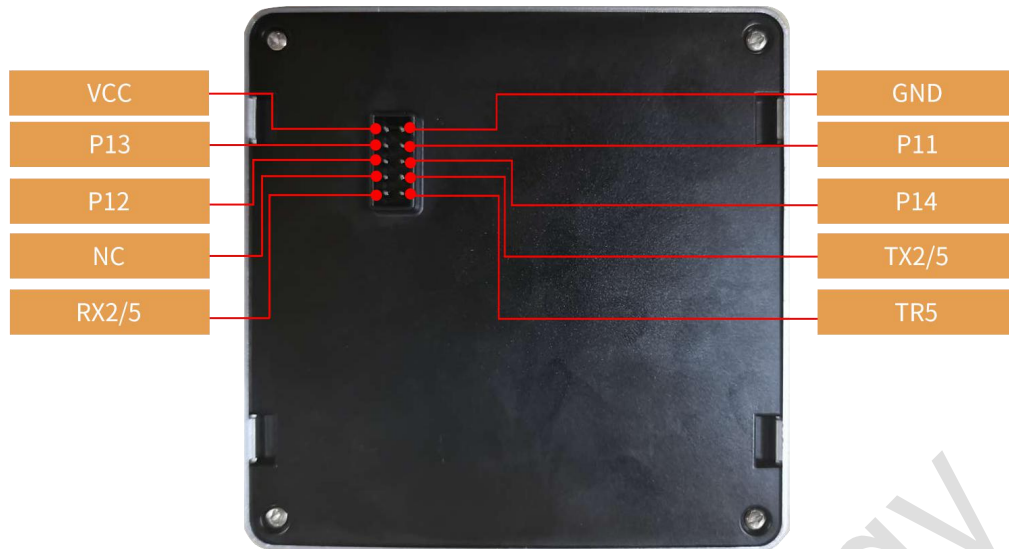
- **Operating Environment**

| Item | Condition | Min | Typ. | Max | Unit |
|---------------------|-------------------------|-----|------|-----|------|
| Working Temperature | 60%RH at 220VAC Voltage | 0 | 25 | 50 | ℃ |
| Storage Temperature | - | -30 | 25 | 70 | ℃ |
| Working Humidity | 25℃ | 10% | 60% | 90% | RH |
| Protective Paint | - | - | None | - | - |

- **Interface**



| Item | Parameter | Corresponding Internal Pin |
|------|-----------|-----------------------------------|
| B | IO | 485_TX |
| A | | 485_RX |
| O | O | P1.3 electric relay1 valve(IO3) |
| C | | |
| L | | P1.1 electric relay 2 low(IO1) |
| M | | P1.4 electric relay 3 middle(IO4) |
| H | P | P1.2 electric relay 4 high(IO2) |
| N | | |
| L | | Zero line and live line |
| NC | — | Undefined |



| Item | Parameter | Description |
|------|-----------|--|
| 1 | VCC | Power input, 5V. |
| 2 | GND | GND |
| 3 | P13 | P1.3 electric relay1 valve(IO3) |
| 4 | P11 | P1.1 electric relay 2 low(IO1) |
| 5 | P12 | P1.2 electric relay 4 high(IO2) |
| 6 | P14 | P1.4 electric relay 3 middle(IO4) |
| 7 | NC | Undefined |
| 8 | TX2/5 | UART2 and UART5 transmit data. (TX2 and TX5, logic AND) |
| 9 | RX2/5 | UART2 and UART5 receive data. (RX2 and RX5 shorted) |
| 10 | TR5 | Output for RS485 transmit/receive switching (TR5 and UART 2 self-transmit/receive control pin, logic OR) |

● Interface Detail Value

| Item | Condition | Min | Typ. | Max | Unit |
|----------------------|-------------------------------------|------|--------|---------|------|
| Baud Rate | User Set | 3150 | 115200 | 3225600 | bps |
| (V_AB) | Output 1, Iout = 1mA | 2.5 | 5.0 | - | V |
| | Output 0, Iout = -1mA | - | -5.0 | -2.5 | V |
| (V_AB) | Input 1, Iin = 1mA | 0 | 2.5 | - | V |
| | Input 0, Iin = -1mA | - | -2.5 | -0.2 | V |
| Interface | RS485 (UART2&UART5 multiplexing) | | | | |
| Socket | 5.08mm Spacing connection terminal | | | | |
| USB Interface | None | | | | |
| SD Card Slot | Yes (SDHC/FAT32 file format) | | | | |
| WIFI Module | TC040C14U04:None TC040C14W04:Yes | | | | |

● Memory

| Item | Typical value | Features | Typical value | Unit | Description |
|------------------------|---------------|-----------------------------|---------------|--------|---|
| FLASH (TA/DGUS II) | 16Mbytes | Space of Font | 4-12 | Mbytes | A single font of 256Kbytes, store font, icon libraries, and other binary files |
| | | Picture Storage (.ICL file) | 12-4 | Mbytes | JPEG format (Picture quantity relate to JPEG size, size of a single JPEG image file should not exceed 248 Kbytes) |
| RAM (DGUS II) | 128Kbytes | Variable Storage Space | / | / | Data is not saved when power down |
| Nor Flash (DGUS II) | 512Kbytes | User database | / | / | Data is saved when power down |

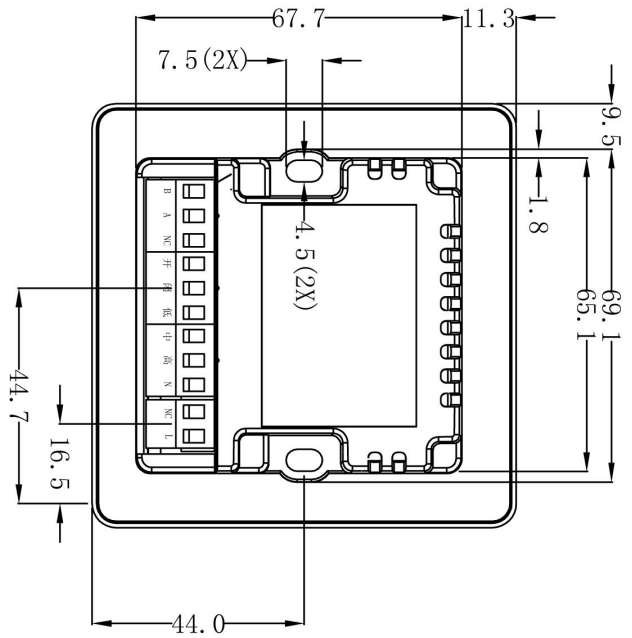
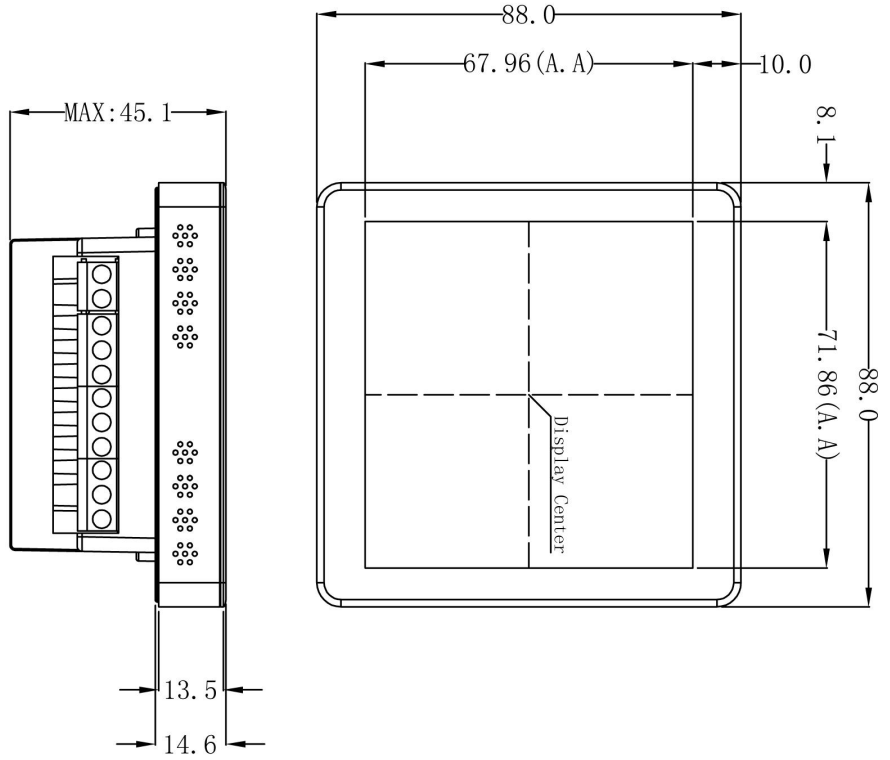
● UI & Peripheral

| UI & Peripherals | |
|------------------|---|
| UI Version | TA / DGUS II (DGUS II pre-installed) |
| Peripherals | TC040C14U04: Capacitive touch screen, Built-in Speaker, Built-in Temperature sensor, Speech recognition, Proximity sensor, RTC TC040C14W04: Capacitive touch screen, Built-in Speaker, Built-in Temperature sensor, Built-in WIFI, Speech recognition, Proximity sensor, RTC |

● Packing Capacity & Dimension

| Dimension | | | | |
|------------------|--------------------------------------|-------|----------------|---------------|
| Dimension | 88.0 (W) * 88.0 (H) * 45.1 (T)mm | | | |
| Net Weight | TC040C14U04:220g TC040C14W04:225g | | | |
| Packing Capacity | | | | |
| Model | Size | Layer | Quantity/Layer | Quantity(Pcs) |
| Carton1: | 220mm(L)*160mm(W)*47mm (H) | - | - | - |
| Carton2: | 250mm(L)*200mm(W)*80mm (H) | 1 | 2 | 2 |
| Carton3: | 320mm(L)*270mm(W)*80mm (H) | 1 | 4 | 4 |
| Carton4: | 450mm(L)*350mm(W)*300mm(H) | - | - | - |
| Carton5: | 600mm(L)*450mm(W)*300mm(H) | 1 | 40 | 40 |

Disclaimer: The product design is subject to alternation and improvement without prior notice.



| Pin | Definition | Type | Description |
|-----|------------|------|--------------------------|
| B | 1 | 485- | 485- |
| A | 2 | 485+ | 485+ |
| NC | 3 | - | Not Defined |
| 0 | 4 | 0 | Normally Op AC Output |
| C | 5 | 1 | Normally Close AC Output |
| L | 6 | 0 | AC Output |
| M | 7 | 0 | AC Output |
| H | 8 | 0 | AC Output |
| N | 9 | P | (110~230V) Power Input |
| NC | 10 | - | Not Defined |
| L | 11 | P | 110~230V) Power Input |

Unmarked Tolerance is +/-0.3mm
Active area is marked in Dash lines

| Model | TC040C14U04/W04 | | | | |
|---------|-----------------|---------|------|------|--|
| Drawing | A 4 | Drawn | DWIN | Date | |
| Scale | 1:1 | Review | | Date | |
| Unit | MM | Approve | | Date | |

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Record of Revision

| Version | Revise Date | Content | Editor |
|----------------|--------------------|-----------------------|---------------|
| 00 | 2023-02-24 | First Edition | YML |
| 01 | 2023-07-20 | Add Pinout Definition | YML |

Please contact us if you have any questions about the use of this document or our products, or if you would like to know the latest information about our products:

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Thank you all for continuous support of DWIN, and your approval is the driving force of our progress!

Installation Schematic

