



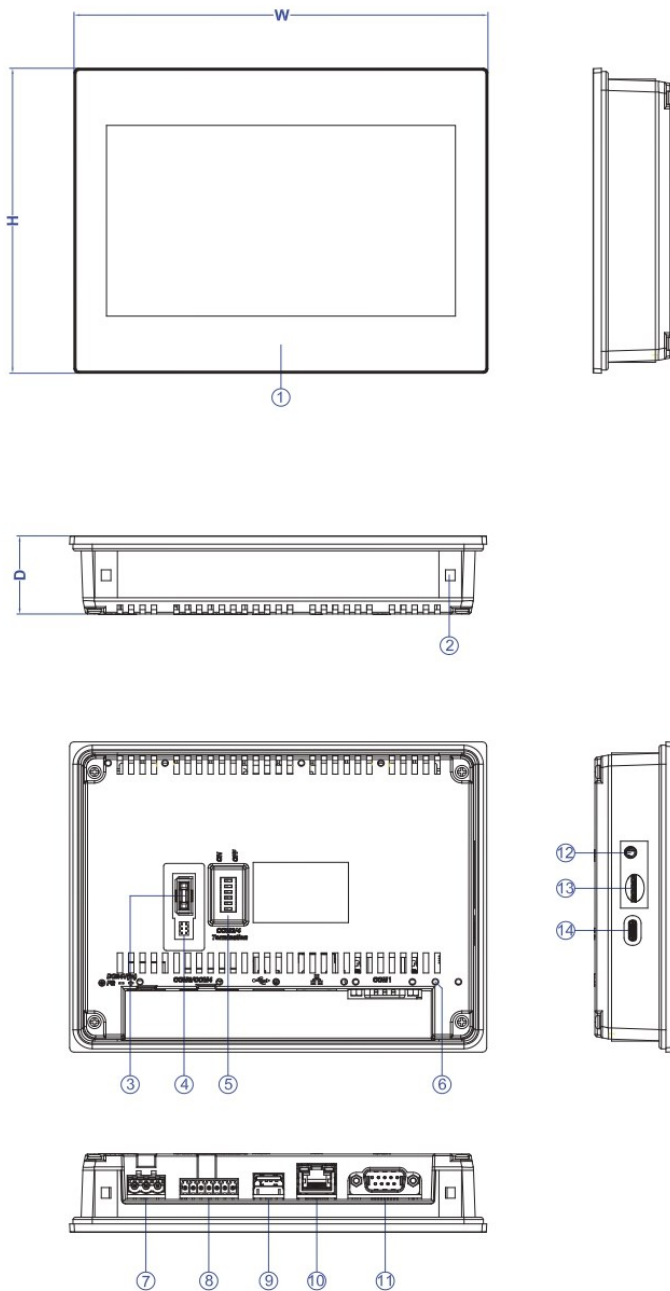
# P5070ZB

HMI with 7" TFT LCD display

- ◇ Cortex 600 MHz Processor
- ◇ Built-in Power Isolation
- ◇ Built-in PLC Expansion function
- ◇ PCB coating for Stability in Harsh Environment
- ◇ Fan-less Design for Cooling Method
- ◇ High Noise Immunity Design for Industrial Application

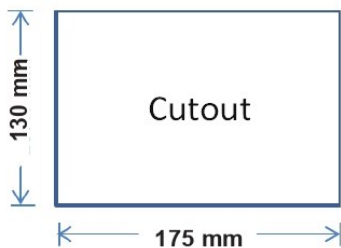
|                   |                                      |  |                   |                            |                                |                       |
|-------------------|--------------------------------------|--|-------------------|----------------------------|--------------------------------|-----------------------|
| Display           | Panel Size                           | 7" TFT (16:9)  | I/O Port          | Serial 1 (DB-9)            | RS-232 (2W)                    |                       |
|                   | Panel Resolution                     | 800 x 480  |                   | Serial 2 (Terminal Blocks) | RS-422/485 (4W)<br>RS-485 (2W) |                       |
|                   | Brightness                           | 400 (cd/m <sup>2</sup> )   |                   | RS-422/485 Isolation       | –                              |                       |
|                   | Contrast Ratio                       | 500  |                   | Ethernet                   | 10M / 100M                     |                       |
|                   | Backlight Type                       | LED  |                   | USB HOST                   | USB2.0 x 1                     |                       |
|                   | Backlight Life Time                  | 30,000 Hrs   |                   | USB Device                 | USB2.0 x 1(USB Type C)         |                       |
|                   | Colors                               | 16.7M  |                   | Micro-SD Slot              | Yes                            |                       |
|                   | LCD Viewing Angle                    | 70/50/70/70 (T/B/L/R)  |                   | Audio Output               | Yes                            |                       |
| Touch             | Type                                 | 4-wire Resistive Type  | I/O Extension     | Video Input                | –                              |                       |
|                   | Accuracy                             | X axis±2%; Y axis±2%   |                   | Termination Switch         | Yes                            |                       |
| Memory            | Flash                                | 256MB  |                   | PLC Extension              | Yes                            |                       |
|                   | RAM                                  | 128MB  |                   | HMI Extension              | Yes                            |                       |
| System            | CPU                                  | 32 bit RISC Cortex 600MHz  |                   | Wireless Module            | Yes                            |                       |
|                   | RTC                                  | Yes  |                   | Power                      | Power Input Range              | 14 ~ 32VDC            |
| Dimension /Weight | Dimensions W x H x D                 | 186.2 x 137.6 x 27.7 (mm)  |                   |                            | Power Isolation                | Yes                   |
|                   | Cut-out                              | 175.0 x 130.0 (mm)   |                   |                            | Isolation Resistance           | Exceed 50MΩ at 500VDC |
|                   | Weight                               | 505 (g)  | Power Consumption |                            | 12.48W (@24VDC)                |                       |
| Environment       | Protection Structure                 | Front panel : IP65 / Rear Case : IP20  |                   |                            |                                |                       |
|                   | PCB Coating                          | Yes  |                   |                            |                                |                       |
|                   | Operating Temp                       | 0~50°C   |                   |                            |                                |                       |
|                   | Storage Temp                         | -20 ~ 60°C   |                   |                            |                                |                       |
|                   | Relative Humidity                    | 10%~90% (40°C Non-condensing)  |                   |                            |                                |                       |
|                   | Withstand Voltage                    | 500VAC/20mA/1 Min. (between charger & FG terminals)  |                   |                            |                                |                       |
|                   | Vibration Endurance                  | 5 to 9Hz Half-amplitude: 3.5mm ;<br>9 to 150 Hz Constant acceleration: 19.6m/s <sup>2</sup> (2G) ;<br>3 directions of X, Y, Z: 10times (IEC61131-2 complaints) |                   |                            |                                |                       |
| Software          | FvDesigner V1.5.81 or later versions |  |                   |                            |                                |                       |
| Certification     | CE , UL                              |  |                   |                            |                                |                       |

## ◆ Dimensions Drawing



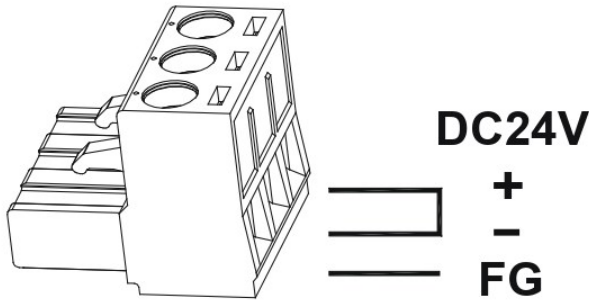
|   |          |
|---|----------|
| W | 186.2 mm |
| H | 137.6 mm |
| D | 27.7 mm  |

|   |  |
|---|--|
| ① | Power Indicator Light                                      |
| ② | Fixing hole  |
| ③ | Expansion module connector                                 |
| ④ | HB1 P2C Connector  |
| ⑤ | COM3/COM4 Termination Switch                               |
| ⑥ | HB1 PLC Screw Hole   |
| ⑦ | Power Terminal Block                                       |
| ⑧ | COM3/COM4 Pluggable Terminal Block                         |
| ⑨ | USB Connector  |
| ⑩ | Ethernet RJ45 Connector (for Ethernet/Multifunction model) |
| ⑪ | COM1:DB-9 Male Connector*                                  |
| ⑫ | Audio Phone Jack (for Multifunction model)                 |
| ⑬ | Micro-SD Card Slot (for Multifunction model)               |
| ⑭ | TYPE C Connector   |





| Pluggable Terminal Block |               |               |               |
|--------------------------|---------------|---------------|---------------|
| PIN#                     | COM3 [RS-422] | COM3 [RS-485] | COM4 [RS-485] |
| 1                        | NC            | NC            | DATA+         |
| 2                        | NC            | NC            | DATA-         |
| 3                        | GND           | GND           | GND           |
| 4                        | RX+           | NC            | NC            |
| 5                        | RX-           | NC            | NC            |
| 6                        | TX+           | DATA+         | NC            |
| 7                        | TX-           | DATA-         | NC            |

| DB-9 Male Connector |                 |
|---------------------|-----------------|
| PIN#                | COM1 [RS-232]   |
| 1                   | NC <sup>1</sup> |
| 2                   | RX              |
| 3                   | TX              |
| 4                   | NC              |
| 5                   | GND             |
| 6                   | NC              |
| 7                   | NC              |
| 8                   | NC              |
| 9                   | NC              |

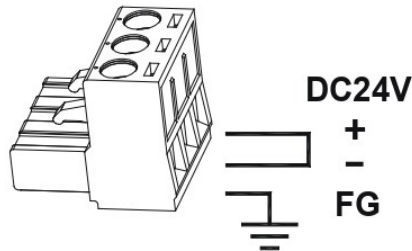


- Be sure to connect the ground FG terminal to a class-3 ground (Ground resistance should not exceed 100Ω). Try to make the ground wire as short as possible.
- Use 22 – 14 AWG (0.6 – 1.5 mm<sup>2</sup>) wire for the power connections.

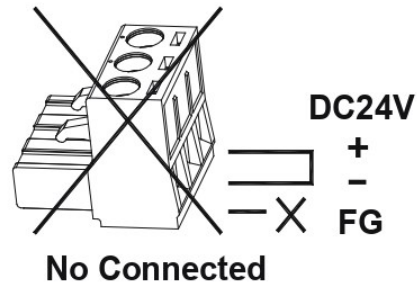
|  |   |
|--|---|
|  <b>Caution</b> | Please use solid wires between 22AWG and 14AWG. Maximum 300V and rated temperature to 105°C for input power pins. |
|--|---|

|  |  |
|--|--|
|  <b>Caution</b> | Make sure the HMI is properly grounded to prevent electrical shock, fire or malfunction. |
|--|--|

### Recommended

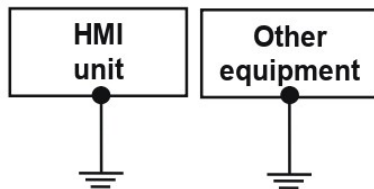


### Prohibited

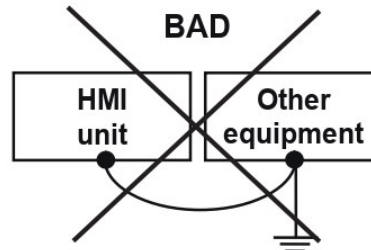


- HMI unit and other equipment should have the same electrical grounding (reference voltage level), otherwise communication errors may occur.

### GOOD



### BAD



## 1.3 Operation

- Do not use sharp objects or excessive force to press the touch screen. This may damage the touch screen. Screen protector can be applied to the HMI screen to protect it from damage, for ordering information, please contact our sales department.
- Do not use the output signal of the device as any safety function or system emergency stop. It may result in personal injury or equipment damage if a malfunction of the touch occurs.

## 1.4 Maintenance and Service

- The agreed guarantee applies.
- Only qualified personnel should make repairs and perform maintenance.
- Disconnect the device from the power supply before carrying out cleaning or maintenance.
- Clean the front panel with a soft cloth and mild detergent.
- Please use original replacement spare parts or accessories.