



Automation for a Changing World

Delta Human Machine Interface DOP-100 Series



 www.deltaww.com

 **DELTA**
Smarter. Greener. Together.

Advanced Human Machine Interface for

The DOP-100 Series Human Machine Interfaces include a Basic HMI, Standard HMI and Advanced HMI for different applications. The HMIs adopt the latest Cortex-A8 / Dual Core high-speed processor and 65,536 color LCD screen with high brightness and contrast. In addition, they are equipped with the HMI programming software DOPSoft 4.0 and built-in Lua editor for easy programming as well as alarm / history log / user authority functions for highly efficient management.

With advanced communication capabilities and enhanced functions, the DOP-100 Series elevates machine efficiency to bring more value to our customers, and to achieve "Automation for a Changing World"!



Advanced Display

Standard HMI

Features General and Ethernet Types for various applications

Advanced HMI

Features narrow frame design, supports various network communications, multilingual input and multimedia functions

Future Industry

Basic HMI

Simple operating structure for harsh environments

Handheld HMI

Customized for the teaching needs of various motion platforms such as robotic arms



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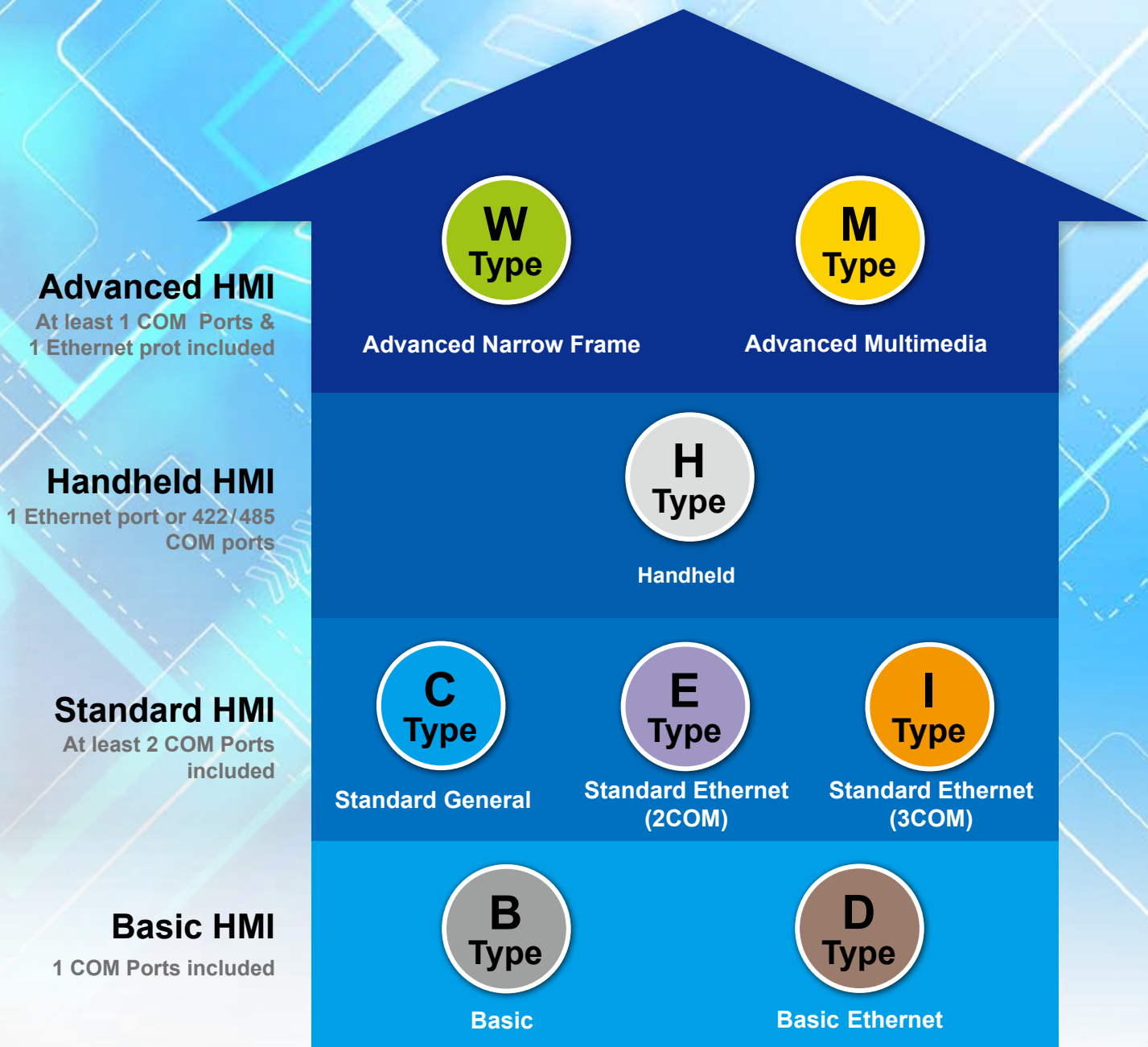
Easy Model Selection

The DOP-100 Series offers complete models for different applications. Users can easily select a suitable HMI based on size or function easily

| | |
|------------------|---|
| B Type | 1 COM port |
| D Type | 1 COM port + 1 Ethernet port |
| C Type | 2 COM ports |
| E Type | 2 COM ports + 1 Ethernet port |
| I Type | 3 COM ports + 1 Ethernet port |
| H Type | Handheld HMI + 1 Ethernet port or 422/485 COM ports |
| W Type | More than 1 COM port + 1 Ethernet port + Narrow frame design + Multi-language |
| M Type | 2 COM ports + 2 Ethernet ports + Narrow frame design + Multi-language + Multi-media |

Type Definition
DOP-107 W V



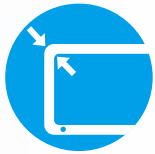


Advanced HMI

The Advanced HMI adopts a wide screen and narrow frame design. It supports Ethernet communication & multilingual inputs. The Multimedia Type DOP-112 / 115 offers multimedia functions to meet different applications.



Features



Narrow Frame
Enlarged visual display for better user experience



LUA Language
Simple and easy structural programming language to meet various demands



Pressing times >10,000,000
Effective pressing times increased through strict endurance tests



IP65 Rating
The front case protects the HMI from, rain, and dust



Multilingual Input
16 different languages input for easy operation



Diagnostics Function
Collects and solves issues remotely



Power Isolation
Protects the HMI from accidental surge interference



VNC Remote Monitoring
Remote control with mobile devices



QRcode Scanning
Generates QRcodes with self-defined content for mobile device identification



Supports GIF Graphic Elements
Easy setting to play vivid GIF elements



Embedded Linux System
Open system for flexible and stable program development



DOPSoft 4.0
New software DOPSoft 4.0 offers more complete functions and a better interface



Operating Temperature 0°C ~ 50°C
Compliant with industrial operating environments



CE / UL Certified
Compliant with CE and UL standards



Multimedia Functions
Captures image with an external camera or replays important recordings



Only



Ethernet Communication
Connects to a master device or PLC with high-speed Ethernet communication



Communication Isolation
COM and Ethernet ports with built-in isolation circuits enhance communication stability



OPC UA
Supports M2M communication and data transmission among machines from various manufacturers for diverse industries



FTP/eMail Supported
Simple data transmission and real-time status report



Supports PDF and TXT Reader
PDF and TXT files supported

Camera & Video Play

Multi-Media Functions



Analog Camera

Supports external camera via analog, suitable for capturing fast and short-distanced images

Applications: Textiles | Pharmaceutical | Rubber & Plastics



IP Camera

Supports IP Camera via Ethernet, suitable for capturing remote and wide-range images

Applications: Packaging | Logistics | Mining | Power Generation | Oil & Gas



VGA Input

Displays images from external devices such as machine vision systems, PCs or notebooks



Video Play

Views mpeg4 files captured by analog or IP camera from internal storage or USB disk/SD card



Event Trigger

HMI performs specific actions when an event condition occurs
Sets up event trigger conditions to capture images and archive as mpeg4 files

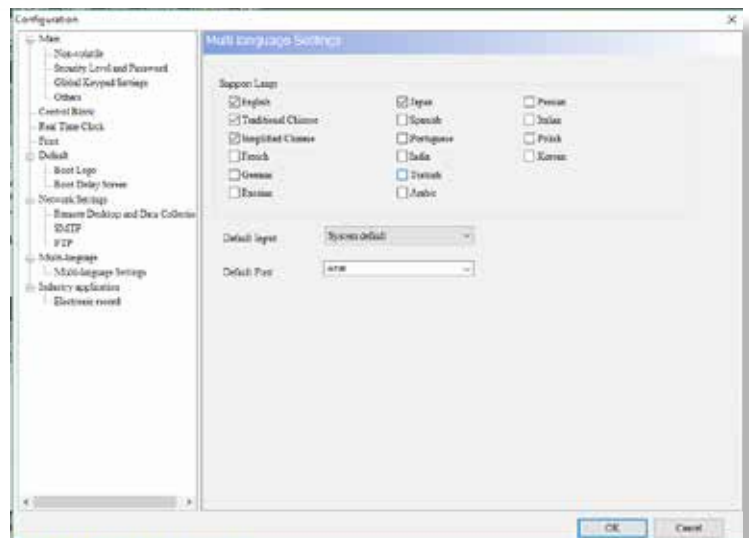


Multi-Language Input for Localization

▶ The Advanced HMI supports multilingual inputs for:

- Recipe Name (ENRCPG)
- Recipe Group Name (ENRCPNO)
- Recipe Content (Char)
- User Name

▶ Supports 16 languages: English, Traditional Chinese, Simplified Chinese, French, German, Russian, Japanese, Korean, Spanish, Portuguese, Hindi, Turkish, Arabic, Persian, Italian and Polish



Delta' HMI can implement M2M communication and data transmission for diverse industries by means of OPC UA. Communication among different manufacturers' machines is enabled through information modeling.

Standard HMI

The Standard HMI is equipped with 2 COM ports to meet most applications. It also offers Ethernet Types for fast and easy connection with other equipment.



Features



Embedded Linux System
Open system for flexible and stable program development



LUA Language
Simple and easy structural programming language to meet various demands



DOPSoft 4.0
New software DOPSoft 4.0 offers more complete functions and a better interface



Pressing times >10,000,000
Effective pressing times increased through strict endurance tests



Operating Temperature 0°C ~ 50°C
Compliant with industrial operation environments



IP65 Rating
The front case protects the HMI from rain, and dust



CE / UL Certified
Compliant with CE and UL standards



Diagnostics Function
Collects and solves issues remotely



Ethernet Communication
Connects to master device or PLC with high-speed Ethernet communication



Power Isolation
Protects the HMI from accidental surge interference



Communication Isolation
COM and Ethernet ports with built-in isolation circuits enhance communication stability



VNC Remote Monitoring
Remote control with mobile devices



FTP/eMail Supported
Simple data transmission and real-time status report



Supports PDF and TXT Reader
PDF and TXT files supported



Supports GIF Graphic Elements
Easy setting to play vivid GIF elements



User-Friendly
Intuitive operation interfaces for users

Basic HMI

The Basic HMI features basic functions and easy installation for industrial applications. With an IP65 water-proof rating, it is suitable for harsh environments.



Features



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Open system for flexible and stable program development



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New software DOPSoft 4.0 offers more complete functions and a better interface



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CE / UL Certified
Compliant with CE and UL standards



Diagnostics Function
Collects and solves issues remotely



Ethernet Communication
Connects to master device or PLC with high-speed Ethernet communication



FTP/eMail Supported
Simple data transmission and real-time status report



Communication Isolation
COM and Ethernet ports with built-in isolation circuits enhance communication stability



VNC Remote Monitoring
Remote control with mobile devices



Supports PDF and TXT Reader
PDF and TXT files supported



Diagnostics Function
Collects and solves issues remotely



User-Friendly
Intuitive operation interfaces for users

Handheld HMI

The handheld human-machine interface adopts a lightweight handheld design and can choose to support Com communication (422/485) or Ethernet communication. Meet the teaching needs of various motion platforms such as robotic arms.



Features



Embedded Linux System
Open system for flexible and stable program development



LUA Language
Simple and easy structural programming language to meet various demands



DOPSoft 4.0
New software DOPSoft 4.0 offers more complete functions and a better interface



Pressing times >10,000,000
Effective pressing times increased through strict endurance tests



Operating Temperature 0°C ~ 50°C
Compliant with industrial operating environments



IP54 Rating
The front case protects the HMI from rain, and dust



CE Certified
Compliant with CE standards



Diagnostics Function
Collects and solves issues remotely



Ethernet Communication
Connects to a master device or PLC with high-speed Ethernet communication



Power Isolation
Protects the HMI from accidental surge interference



Communication Isolation
COM and Ethernet ports with built-in isolation circuits enhance communication stability



FTP/eMail Supported
Simple data transmission and real-time status report



Supports PDF and TXT Reader
PDF and TXT files supported



QRcode Scanning
Generates QRcodes with self-defined content for mobile device identification



User-Friendly
Intuitive operation interfaces for users

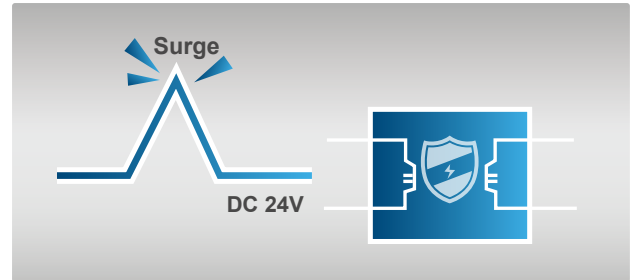


Diagnostics Function
Collects and solves issues remotely

Robust Hardware

Power Isolation

- Complete series with built-in power isolation circuits provides the most complete protection against accidental external spikes



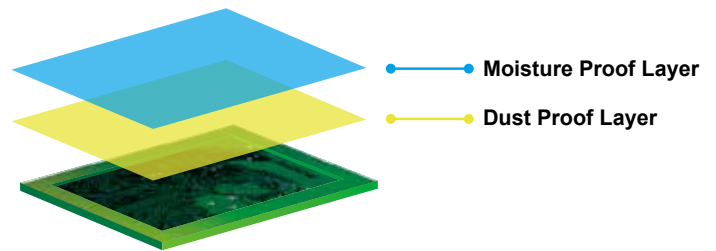
Fully Isolated Communication Interface

- Complete series has built-in COM and Ethernet isolation circuits to protect against noise that can occur from the grounding of various devices such as PLCs, servo drives, inverters and others



PCB Coating

- Complete series has PCB coating for enhanced durability and to protect against humidity and dust for applications in a range of environments

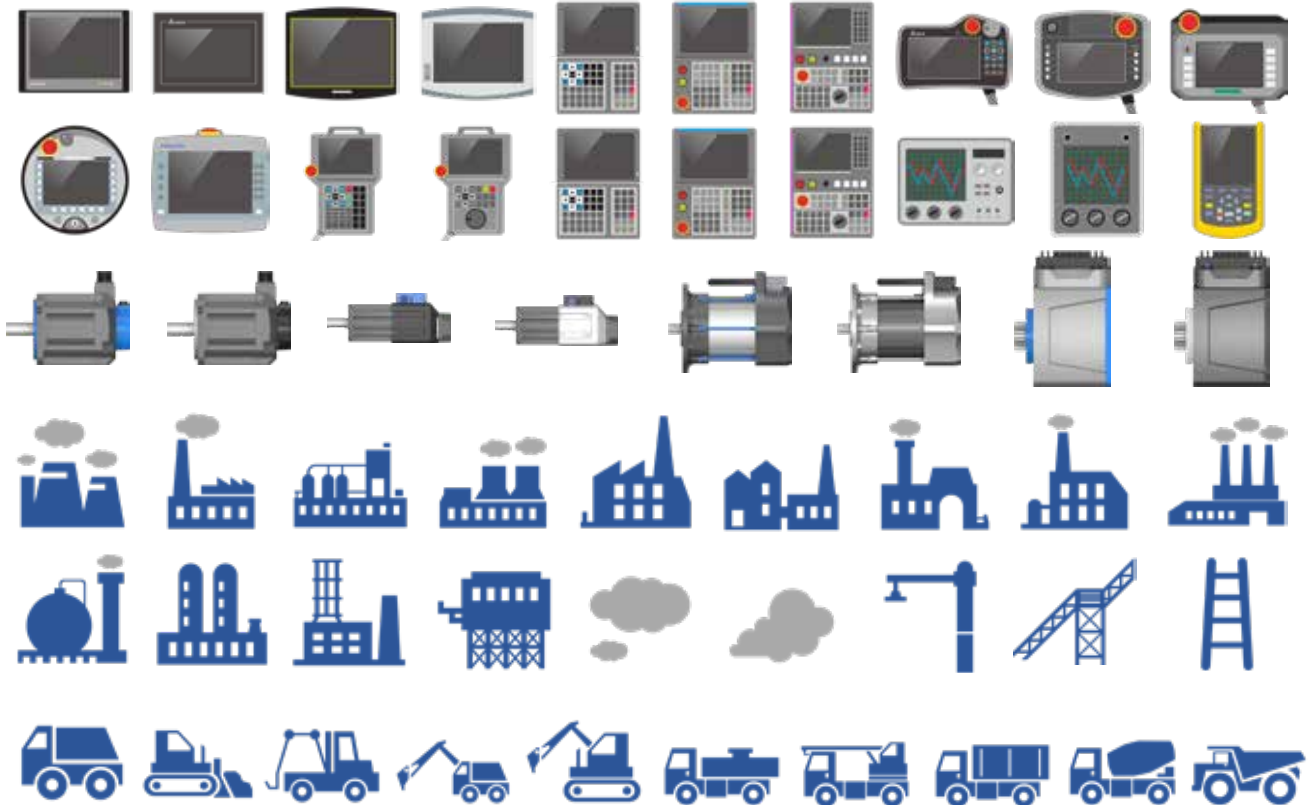


| Model | Power Isolation | Communication Isolation |
|---------------------------------------|-----------------|-------------------------|
| Advanced HMI (Multimedia Type) | | |
| DOP-112/115 MX | Yes | Yes |
| Advanced HMI | | |
| DOP-103WQ/107WV/110WS | Yes | Yes |
| DOP-112/115 WX | Yes | Yes |
| Handheld HMI | | |
| DOP-107H | Yes | Yes |
| Standard HMI (Ethernet Type) | | |
| DOP-107IV | Yes | Yes |
| DOP-108IG/110IG | Yes | Yes |
| DOP-110IS | Yes | Yes |
| DOP-107EV | Yes | Yes |
| DOP-107EG | Yes | Yes |
| Standard HMI | | |
| DOP-105CQ | Yes | No |
| DOP-107CV | Yes | No |
| DOP-110CS | Yes | No |
| DOP-110CG | Yes | No |
| Standard HMI (General Type) | | |
| DOP-107DV | No | No |
| Basic HMI | | |
| DOP-103BQ | No | No |
| DOP-107BV | No | No |

Programming Software – DOPSoft 4.0

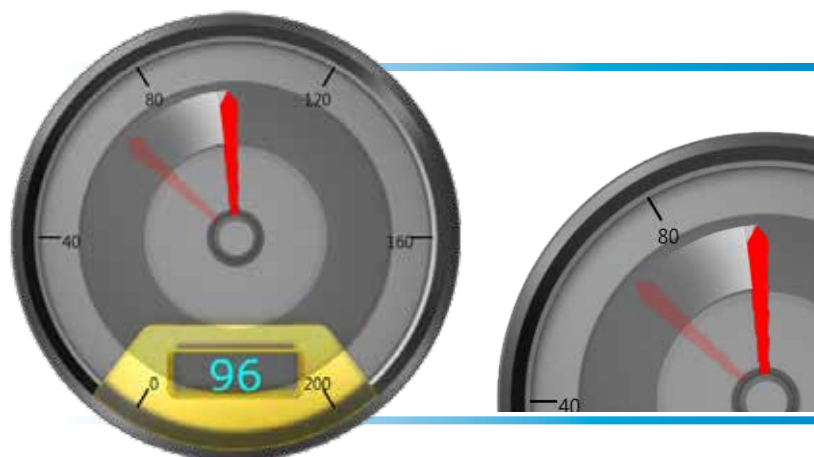
Abundant Elements

- ▶ Abundant built-in element graphics for vivid interface display for a variety of industrial applications



Smooth Animation

- ▶ New smooth animation technology for realistic dashboard display



Programming Software - DOPSoft 4.0

User-friendly Programming Interface

The screenshot shows the DOPSoft 4.0 interface with the following callouts:

- Bookmark Management**: A green box with a line pointing to the 'Screen_12' tab in the top window bar.
- Project Management Batch**: A green box with a line pointing to the project tree on the left side of the interface.
- Editing Area**: A green box with a line pointing to the main workspace area where the 'DELTA' screen is being edited.
- Output List**: A green box with a line pointing to the 'Output' window at the bottom left, which lists messages, errors, and warnings.
- Edit Preview**: A green box with a line pointing to the 'Screen Management' window at the bottom right, which shows thumbnails of other screens in the project.

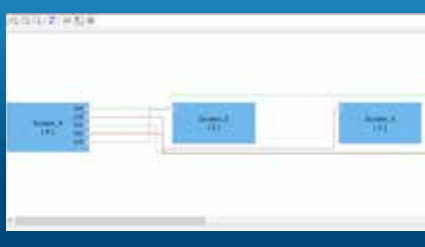
Additional interface elements visible include a menu bar (File, Edit, View, Element, Screen, Tools, Options, Window, Help), a toolbar with various icons, and a main workspace displaying a 3D industrial scene with tanks and pipes.

Customized keyboard

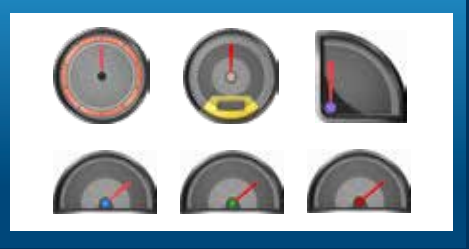


Abundant accessories

Process paradigms



Field devices



| | |
|--------------------|---|
| Screen Name | Screen_12 |
| Screen Properties | Detail... |
| Background Color | <input type="checkbox"/> RGB(252, 252, 252) |
| Screen Lock Bit | None |
| Screen Macro | |
| Screen Open Macro | 3 |
| Screen Close Macro | 0 |
| Screen Cycle Macro | 17 |
| Width | 1024 |
| Height | 768 |

| | |
|-----------------------|-------|
| Write Address: | \$5 0 |
| Read Address: | None |
| Write Offset Address: | None |
| Read Offset Address: | None |

| | |
|-------------------|----------------|
| Style: | Standard |
| Fireground Color: | [Color Picker] |
| Blink: | No |
| Filed style: | Gradient |

General Tool

Shortcut icons help enhance working efficiency

Property

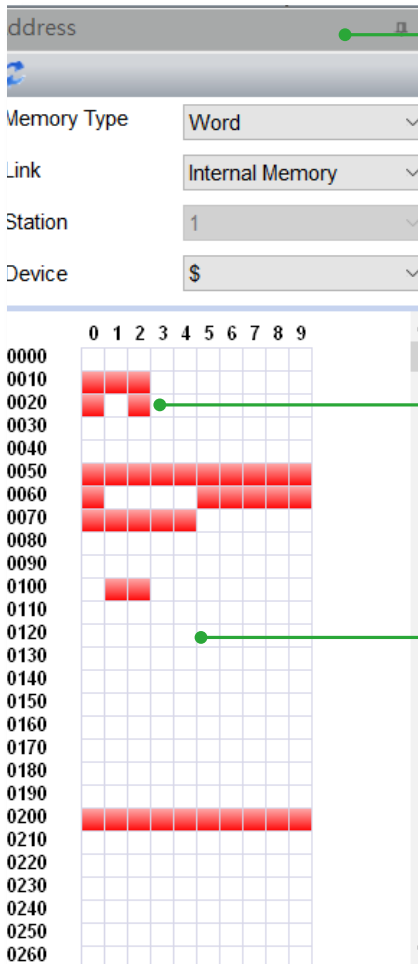
Provides easier property setup via group lists

Property Quick Window

Standard accessory dialog box adopts built-in preview and quick-edit functions

Programming Software - DOPSoft 4.0

Editing Windows



Register View Window

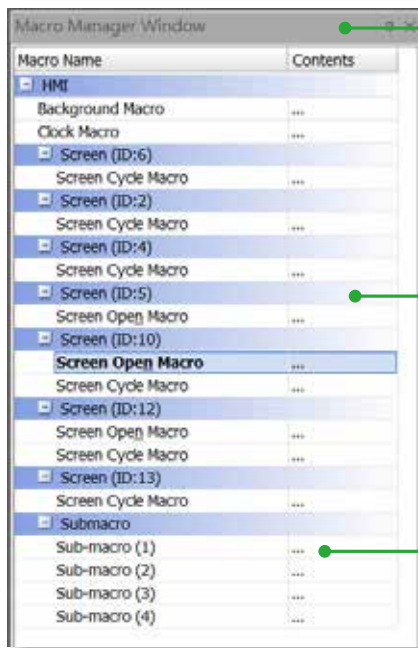
The color blocks of red and white allow users to view the memory register status



Red blocks indicate the used registers



White blocks indicate empty registers



Macro Management Window

Users can view all types of macros in the project



Selected a macro via the list



Directly edit the macro after clicking

```

11
12 while true do
13
14   -- read from 020, 021
15   dx = mem.inter.Read(20)
16   dy = mem.inter.Read(21) / 10
17
18   -- get the path by cos formula
19   r = r + dy
20   x = x + dx
21   y = math.cos(r) * 100 + offsety
22
23   if [x < 0] value = math.cos(radian) end
24             Parameters
25             radian: number, Radian
26 mem.inter Returns
27             value: number
28             Example) cos(30 deg)
29             = math.cos(math.rad(30))
30             => 0.866025
31 else mem.inter.Write(2, 0xFF00)
32
33 end

```




Tip window for `math.cos`:

```

Parameters
radian: number, Radian
Returns
value: number
Example) cos(30 deg)
= math.cos(math.rad(30))
=> 0.866025

```

Lua Tool Bar

-  Program Debugging
-  Stops program debug
-  Program break point

Online Coding Tips

Lua editor displays tip windows of the codes when users move the mouse to selected codes

Watch variable

| Name | Value | Global / Local | Type | Format |
|------|-------|----------------|--------|--------|
| dx | 3 | Global | Number | DEC |
| dy | 0.1 | Global | Number | DEC |
| r | 0.1 | Global | Number | DEC |
| y | 3 | Global | Number | DEC |
| name | nil | Local | | DEC |

Parameter Monitoring Window

Allows users to monitor parameter variation during program development

Items

- Basic syntax
 - if then else elseif end
 - for var=1,3 do _ end
 - while
 - table, array
 - + - * / % ^
 - function, call function
 - logic: xor and or not lshift rshift
- Internal memory - \$
 - mem.inter.Read
 - mem.inter.ReadDW
 - mem.inter.ReadFloat
 - mem.inter.ReadBit
 - mem.inter.Write

[Detail]

```

if (100 > 20) then
  -- do something
end

if (100 > 20) then
  -- do something
else
  -- do something
end

[boolean expression]
a = 100
if (a == 100) then equal = true end
if (a ~= 100) then not_equal = true end
if (a <= 100) then less_than_or_equal = true end
if (a >= 100) then greater_than_or_equal = true end
end

```

Programming Assistance Window

Provides online assistance as follows:

- Lua code templates
- Program usage and properties
- Program samples

Advanced Alarm

Strengthened alarm functions allow users to easily manage machine operations and quickly eliminate problems

- ▶ Alarm messages contain current register data for issue analysis

| Detail | | | Properties |
|--------|----------------------------|----------|------------|
| No. | Message Content | Category | |
| 1* | Temp. too High , PV is %d1 | 1 | |
| 2* | Temp. too Low , PV is %d1 | 1 | |
| 3* | PV is %d1 , ALM Mail | 2 | |
| 4 | | 0 | |
| 5 | | 0 | |

| Message |
|---------------------------|
| Temp. too Low , PV is 12 |
| Temp. too High , PV is 91 |
| Temp. too Low , PV is 15 |
| Temp. too Low , PV is 23 |

Alarm Sorting

Alarm sorting via a "Sorting" function based on alarm attributes for quick information inquiries

Supports Compound Address Monitoring

Able to monitor Word and Bit documents at the same time

| Detail | | Properties | | | | |
|--------|----------------------------|------------|------|---------|-------------------|-----------------|
| No. | Message Content | Category | Type | Address | Trigger Condition | Monitor Address |
| 1* | Temp. too High , PV is %d1 | 1 | Word | \$15 | \$15 > 70 | \$15 |
| 2* | Temp. too Low , PV is %d1 | 1 | Word | \$15 | \$15 < 30 | \$15 |
| 3* | PV is %d1 , ALM Mail | 2 | Bit | \$198.4 | On | \$15 |
| 4 | | 0 | Bit | None | On | None |

Versatile Alarm Triggering Conditions

Triggering conditions can be setup via a built-in function, no external editing programs required

Alarm Notification

Automatically sends out alarm notification emails to logged-in recipients when alarms occur and supports the Secure Sockets Layer (SSL) protocol to ensure safe data transmission



- Indicates the alarm trigger and recovery time, and provides alarm acknowledge time / date (Ack) to confirm and monitor troubleshooting progress

| Message | Trigger | Ack | Recovery |
|---------------------------|---------------------|---------------------|---------------------|
| Temp. too Low • PV is 12 | 15:07:12 02/03/2017 | | 15:07:15 02/03/2017 |
| Temp. too High • PV is 91 | 15:07:15 02/03/2017 | 15:07:56 02/03/2017 | 15:07:22 02/03/2017 |
| Temp. too Low • PV is 15 | 15:07:22 02/03/2017 | | 15:07:25 02/03/2017 |
| Temp. too Low • PV is 23 | 15:07:28 02/03/2017 | 15:07:58 02/03/2017 | 15:07:34 02/03/2017 |

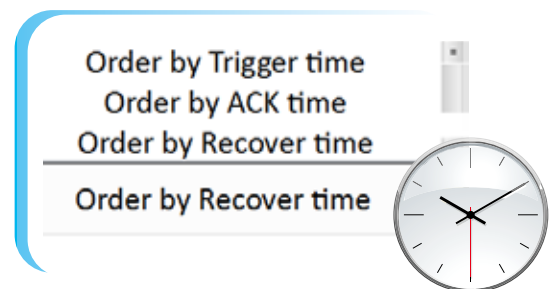
Alarm Filtering

Advanced address control filtering allows users to find specified alarm messages according to user needs

| Action | |
|---|--|
| Address control filtering allows users to find specified alarms | |
| No. | Action |
| 0 | Preset state, shows all triggered alarms |
| 1 | Hide alarms with "Restore Time" and "Confirm Time" |
| 2 | Hide alarms with "Restore Time" |
| 3 | Hide alarms with "Restore Time" or "Confirm Time" |
| 4 | Hide alarms with "Confirm Time" |

Alarm Ordering

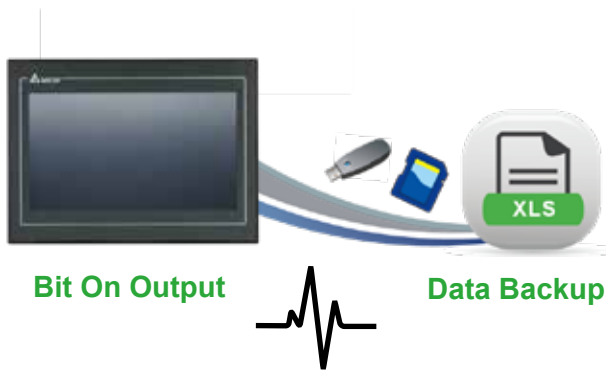
Able to display alarms in the order of Trigger Time / Confirm Time / Restore Time



Data Management

Historical Data

- ▶ Able to generate historical reports with user-defined file names and timestamps through Bit Control



The 'Save As Mul' configuration window includes the following settings:

- Save As Mul** (selected)
- File Date**: None, %m, %d
- File Time**: %H, %M, None
- File Name**: DOP
- Saving trigger**: \$175.0

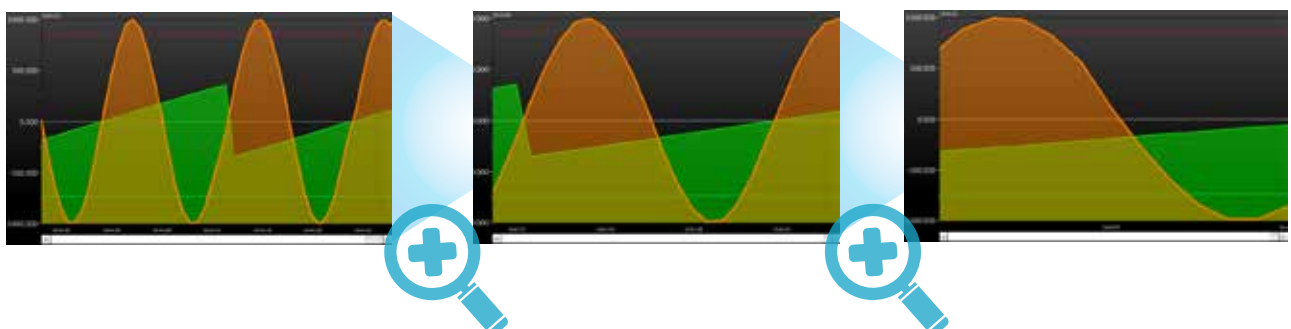
Historical Data Review

- ▶ Allows historical data review on backup in USB disk or SD cards



Zoom In / Out Display

- ▶ Zoom in / out function for convenient data viewing



Recipes

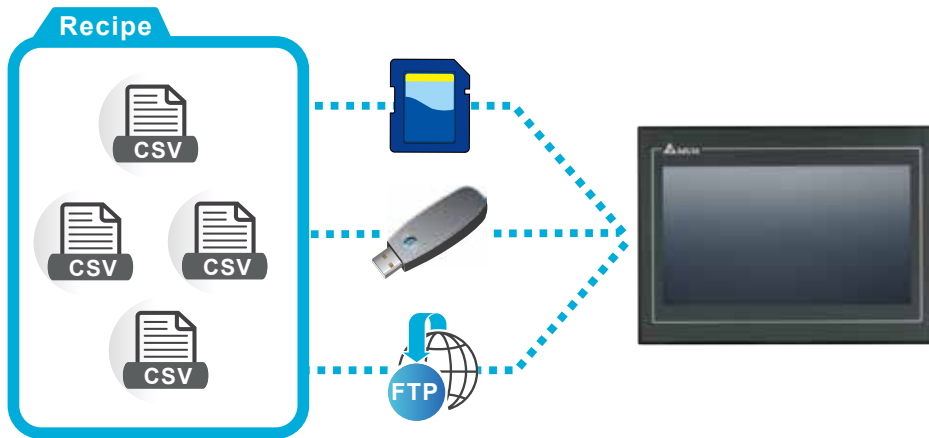
- ▶ Supports 2D and 3D recipe grouping, more flexible in building recipe database
- ▶ Various recipe formats, including text format (Unicode) which can also be used as formula notes

| | D100 | D101 | D102 | D103 | D104 | D105 | D106 | |
|---------------|------------|--------------|---------|------|----------|-------|-------|------|
| | D100 | D101 | D102 | D103 | D104 | D105 | D106 | 50.7 |
| Cake Recipe 1 | Strawberry | 300 | 0 | 0 | 221.56 | 533.1 | 150.7 | 63.9 |
| Cake Recipe 2 | Chocolate | 0 | 300 | 0 | 387.98 | 490.8 | 163.9 | 79.8 |
| Cake Recipe 3 | Vanilla | 0 | 0 | 300 | 120.14 | 505.3 | 279.8 | |
| | Strawberry | Chocolate | Vanilla | | Sugar | Flour | Milk | |
| | Char | Unsigned DEC | | | Floating | | | |

Recipe Group 2 (includes rows 1-4)

Recipe Group 1 (includes rows 5-6)

- ▶ Recipes can be saved in CSV files for convenient editing on PCs
- ▶ Allows recipe update or backup through USB disks, SD cards or FTP



PDF for Data Review

- ▶ Saves manuals or instruction PDF files in USB disks or SD cards for reference anytime



User Authority Management

Account and Authorization Management

- ▶ Supports 8 levels of authority and allows 8 accounts (account name/password) for each level
- ▶ Different function and operation access for each authority level to enhance operation safety

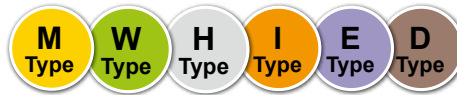


Operation Log

- ▶ Operation log for different user accounts to trace/analyze possible causes of malfunctions
- ▶ Provides comprehensive information for managers to analyze the operating habits of different users and improve efficiency

| Time | Date | User | Level | Screen Description | Action | Address | Pre Value | Change |
|----------|------------|------|-------|----------------------|---------|---------|-----------|--------|
| 13:02:08 | 09/29/2020 | | 0 | Screen_Maintained_0 | Set Val | \$0.0 | 0 | 1 |
| 13:02:20 | 09/29/2020 | | 0 | Screen_Maintained_0 | Login | \$10.0 | | 11 |
| 13:02:20 | 09/29/2020 | 11 | 1 | Screen_Maintained_0 | Set Val | \$10.0 | 0 | 1 |
| 13:02:23 | 09/29/2020 | 11 | 1 | Screen_Numeric Entry | Set Val | \$100 | 0 | 99 |
| 13:02:28 | 09/29/2020 | 11 | 1 | Screen_Maintained_0 | Set Val | \$10.0 | 1 | 0 |
| 13:02:31 | 09/29/2020 | 11 | 1 | Screen_Maintained_0 | Set Val | \$10.0 | 0 | 1 |
| 13:02:34 | 09/29/2020 | 11 | 1 | Screen_Numeric Entry | Set Val | \$100 | 99 | 88 |
| 13:02:37 | 09/29/2020 | 11 | 1 | Screen_Maintained_0 | Set Val | \$0.0 | 0 | 1 |
| 13:03:04 | 09/29/2020 | 11 | 1 | Screen_Numeric Entry | Set Val | \$100 | 88 | 55 |
| 13:03:09 | 09/29/2020 | 11 | 1 | Screen_Numeric Entry | Set Val | \$100 | 55 | 33 |
| 13:03:10 | 09/29/2020 | 11 | 1 | Screen_Maintained_0 | Set Val | \$10.0 | 1 | 0 |
| 13:03:12 | 09/29/2020 | 11 | 1 | Screen_Maintained_0 | Set Val | \$10.0 | 0 | 1 |
| 13:03:16 | 09/29/2020 | 11 | 1 | Screen_Numeric Entry | Set Val | \$100 | 33 | 123 |

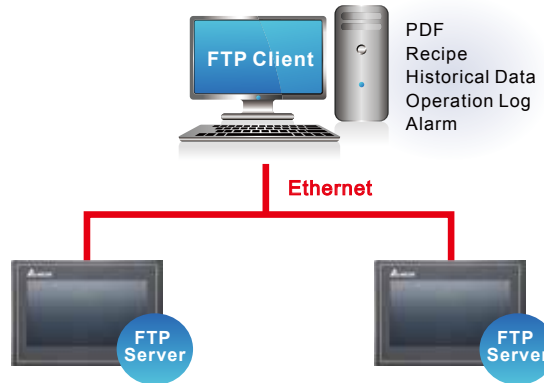
Cloud Integration



Only With Ethernet

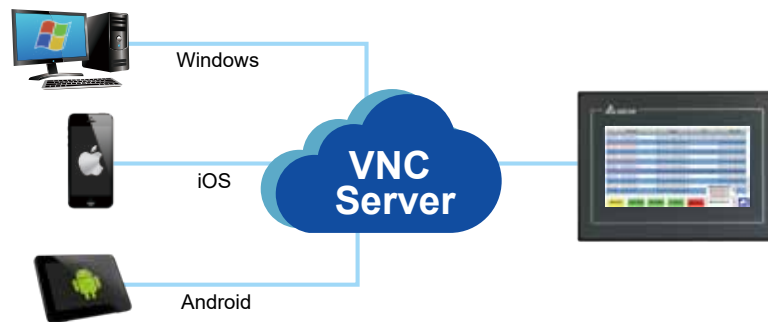
FTP Server

- ▶ Built-in FTP server to update recipes or PDF files, and backup historical data, operation log and alarms



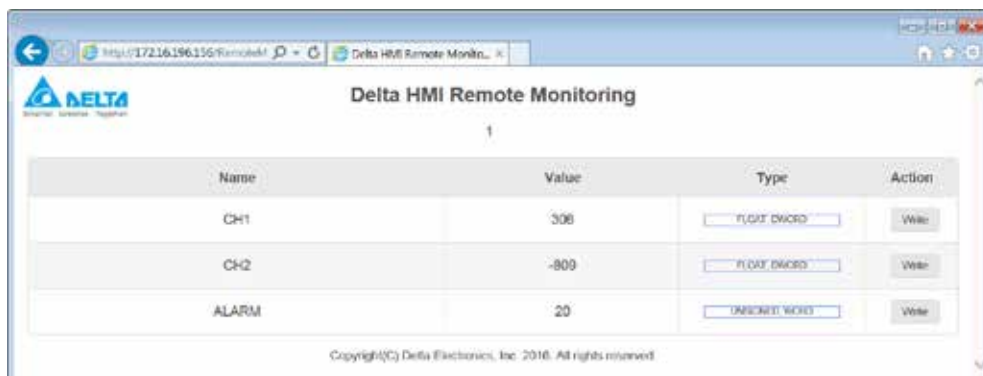
VNC Server

- ▶ Built-in VNC server allows remote monitoring and operating of the DOP-100 Series via VNC Client APP (Windows, iOS, Android)
- ▶ Lock function: block remote operation during on-site operation to avoid unsynchronized commands. VNC server allows remote monitoring but not remote operation when the lock function is on



Web Monitoring

- ▶ Allows direct monitoring of register data via web page, and requires no additional software installation



Hardware Specifications

Advanced HMI

| Model | | Advanced Narrow Frame Type | | |
|---------------------------------|--|---|---|-----------------------|
| | | DOP-103WQ | DOP-107WV | DOP-110WS |
| LCD Module | Display | 4.3" TFT LCD | 7" TFT LCD | 10.1" TFT LCD |
| | Color | 65,536 | | |
| | Resolution (Pixels) | 480 x 272 | 800 x 480 | 1024 x 600 |
| | Back Light | LED Back Light | | |
| | Back Light Brightness (cd/m ²) | 400 | 450 | 450 |
| | Back Light Life (Hour) ¹ | 10,000 | 20,000 | 30,000 |
| | Display Area | 95.04 x 53.856 mm | 154.08 x 85.92 mm | 225.52 x 128.10 mm |
| MCU | | ARM Cortex-A8 (800MHz) | | |
| Flash ROM (Bytes) | | 256 MB | | |
| RAM (Bytes) | | 512 MB | | |
| Touch Panel | | Four-wire resistor, over 10,000,000 pressing times | | |
| Buzzer | | Multi-Tone Frequency (2K ~ 4K Hz) / 80dB | | |
| Ethernet Interface | | 1 Port ² , 10/100 Mbps auto-sensing | | |
| USB | | 1 USB Slave Ver 2.0 / 1 USB Host Ver 2.0 | | |
| SD | | N/A | | SD x 1 |
| Serial COM Port | COM1 | RS-232 (supports hardware flow control) / RS-485 ² | RS-232 (supports hardware flow control) | |
| | COM2 | RS-422 / RS-485 ² | RS-232 (supports hardware flow control) / RS-485 ² | |
| | COM3 | N/A | RS-422 / RS-485 ² | |
| RTC | | Built-in | | |
| Cooling | | Natural air circulation | | |
| Certification | | CE / UL | | |
| Waterproof | | IP65 / NEMA4 / UL Type 4X (indoor use only) | | |
| Operation Voltage ³ | | DC +24V (-15% ~ 15%) ² | | |
| Voltage Endurance | | A599V for 1 minute (between charging DC24 terminal and FG terminals) | | |
| Power Consumption ⁵ | | Max. 5.8W ³ | Max. 8.4W ³ | Max. 11W ³ |
| Backup Battery | | 3V lithium battery CR2032 x 1 | | |
| Backup Battery Life | | Depends on the temperature used and the conditions of usage, usually about 3 years or more at 25° C | | |
| Operating Temperature | | 0° C ~ 50° C | | |
| Storage Temperature | | -20° C ~ 60° C | | |
| Ambient Humidity | | 10% ~ 90% RH (0 ~ 40° C), 10% ~ 55% RH (41 ~ 50° C), Pollution Degree 2 | | |
| Vibration | | IEC 61131-2 compliant 5Hz ~ 8.3Hz = Continuous: 3.5mm, 8.3Hz ~ 150Hz = Continuous: 1.0g | | |
| Shock | | IEC 60068-2-27 compliant 15g peak for 11ms duration, X, Y, Z, directions for 6 times | | |
| Dimensions (W) x (H) x (D) mm | | 137 x 103 x 37.1 | 196 x 136 x 39 | 270 x 180.9 x 47.75 |
| Mounting dimension (W) x (H) mm | | 118.8 x 92.8 | 186.8 x 126.8 | 255 x 170.5 |
| Weight | | 280g | 560g | 1,100g |

1) The half-life of a backlight is defined as the original luminance being reduced by 50% when the maximum driving current is supplied to an HMI.

2) Built-in power isolation

3) An isolated power supply is recommended.

4) Some models are in the process of application for UL and KCC certification. For more information, please consult our distributors.

5) The value of the power consumption indicates the electrical power consumed by the HMI with no peripheral devices connected.

6) The content of this catalogue may be revised without prior notice. Please consult our distributors or download the most updated version at <http://www.deltaww.com>

Advanced HMI

| Model | | Advanced Narrow Frame Type | | Advanced Multimedia Type | |
|---------------------------------|--|---|----------------------|--------------------------|----------------------|
| | | DOP-112WX | DOP-115WX | DOP-112MX | DOP-115MX |
| LCD Module | Display | 12" TFT LCD | 15" TFT LCD | 12" TFT LCD | 15" TFT LCD |
| | Color | 24bit | | | |
| | Resolution (Pixels) | 1024 x 768 | | | |
| | Back Light | LED Back Light | | | |
| | Back Light Brightness (cd/m ²) | 500 | 450 | 500 | 450 |
| | Back Light Life (Hour) ¹ | 50,000 | | | |
| | Display Area | 245.76 x 184.32 mm | 304.1 x 228.1 mm | 245.76 x 184.32 mm | 304.1 x 228.1 mm |
| MCU | | Dual Core 1GHz | | | |
| Flash ROM (Bytes) | | 8GB | | | |
| RAM (Bytes) | | DDR3 1000MHz 1GB | | | |
| Touch Panel | | Four-wire resistor, over 10,000,000 pressing times | | | |
| Buzzer | | Multi-Tone Frequency (2K ~ 4K Hz) / 85dB | | | |
| Ethernet Interface | | 2 Port, 100M bps x 2 | | | |
| USB | | 1 Mini USB Slave Ver 2.0 / 1 USB Host Ver 2.0 | | | |
| SD | | SD x 1 | | | |
| Serial COM Port | COM1 | RS-232 (supporting flow control) / RS485 ² | | | |
| | COM2 | RS-422 / RS485 ² | | | |
| | COM3 | RS-232 (supporting flow control) / RS-485 ² | | | |
| | COM4 | RS-422 / RS485 | | | |
| RTC | | Built-in | | | |
| Cooling | | Natural air circulation | | | |
| Certification | | CE / UL | | | |
| Waterproof | | IP65 / NEMA4 / UL Type 4X (indoor use only) | | | |
| Operation Voltage ³ | | DC +24V (-15% ~ 15%) ² | | | |
| Voltage Endurance | | A599V for 1 minute (between charging DC24 terminal and FG terminals) | | | |
| Power Consumption ⁵ | | Max. 16.08W | Max. 21.12W | Max. 16.08W | Max. 21.12W |
| Backup Battery | | 3V lithium battery CR2032 x 1 | | | |
| Backup Battery Life | | Depends on the temperature used and the conditions of usage, usually about 3 years or more at 25° C | | | |
| Operation Temperature | | 0°C ~ 50°C | | | |
| Storage Temperature | | -20°C ~ 60°C | | | |
| Ambient Humidity | | 10% ~ 90% RH (0 ~ 40° C), 10% ~ 55% RH (41 ~ 50° C), Pollution Degree 2 | | | |
| Vibration | | IEC 61131-2 compliant 5Hz ~ 8.3Hz = Continuous: 3.5mm, 8.3Hz ~ 150Hz = Continuous: 1.0g | | | |
| Shock | | IEC 60068-2-27 compliant 15g peak for 11ms duration, X, Y, Z, directions for 6 times | | | |
| Dimensions (W) x (H) x (D) mm | | 317.4 x 246.4 x 52.7 | 387.7 x 295.7 x 63.5 | 317.4 x 246.4 x 52.7 | 387.7 x 295.7 x 63.5 |
| Mounting dimension (W) x (H) mm | | 302.7 x 228.7 | 372.4 x 283.7 | 302.7 x 228.7 | 372.4 x 283.7 |
| Weight | | 2110g | 3200g | 2110g | 3200g |

1) The half-life of a backlight is defined as the original luminance being reduced by 50% when the maximum driving current is supplied to an HMI.

4) Built-in power isolation

5) An isolated power supply is recommended.

4) Some models are in the process of application for UL and KCC certification. For more information, please consult our distributors.

7) The value of the power consumption indicates the electrical power consumed by the HMI with no peripheral devices connected.

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Hardware Specifications

Standard HMI

| Model | | Standard General Type | | | |
|---------------------------------|--|--|-------------------------|--------------------------|---|
| | | DOP-105CQ | DOP-107CV | DOP-110CS | DOP-110CG |
| LCD Module | Display | 5.6" TFT LCD | 7" TFT LCD | 10" TFT LCD | 10.4" TFT LCD |
| | Color | 65,536 | | | |
| | Resolution (Pixels) | 320 x 234 | 800 x 480 | 1024 x 600 | 800 x 600 |
| | Back Light | LED Back Light | | | |
| | Back Light Brightness (cd/m ²) | 200 | 400 | 300 | 300 |
| | Back Light Life (Hour) ¹ | 20000 | | | |
| | Display Area | 113.28 x 84.70 mm | 154.08 X 85.92 mm | 226 X 128.7 mm | 211.2 x 158.4 mm |
| MCU | | ARM Cortex-A8 (800MHz) | | | |
| Flash ROM (Bytes) | | 256 Mbytes | | | |
| RAM (Bytes) | | 256 Mbytes | | | |
| Touch Panel | | Four-wire resistor, over > 10,000,000 pressing times | | | Four-wire resistor, over > 1,000,000 pressing times |
| Audio Output | Buzzer | Multi-Tone Frequency (2K ~ 4K Hz) / 80dB | | | |
| | AUX | N/A | | | |
| USB | | 1 USB Slave Ver 2.0 / 1 USB Host Ver 2.0 | | | |
| SD | | N/A | | | |
| Serial COM Port | COM1 | RS-232 (supports hardware flow control) ² | | | |
| | COM2 | RS-232 (supports hardware flow control) / RS-485 ² | | | |
| | COM3 | RS-422 / RS-485 ² | | | |
| RTC | | Built-in | | | |
| Cooling | | Nature air circulation | | | |
| Certification | | CE / UL (please equip shielding cables and linefilters with capacity of 300ohm/100MHz) | | | |
| Waterproof | | IP65 / NEMA4 / UL Type 4X (indoor use only) | | | |
| Operation Voltage ³ | | DC +24V (-15% ~ +15%)(please equip isolated-type power supplies) Supplied by Class 2 or SELV circuit (isolated from MAINS by double insulation) | | | |
| Voltage Endurance | | A500V for 1 minute (between charging DC24 terminal and FG terminals) | | | |
| Power Consumption ⁵ | | Max. 6.86 W ³ | Max. 8.5 W ³ | Max. 10.4 W ³ | Max. 8W ³ |
| Backup Battery | | 3V lithium battery CR2032 × 1 | | | |
| Backup Battery Life | | Depends on the temperature used and the conditions of usage, usually about 3 years or more at 25° C | | | |
| Operation Temperature | | 0°C ~ 50°C | | | |
| Storage Temperature | | -20°C ~ 60°C | | | |
| Ambient Humidity | | 10% ~ 90% RH (0 ~ 40° C), 10% ~ 55% RH (41 ~ 50° C), Pollution Degree 2 | | | |
| Vibration | | IEC 61131-2 compliant 5Hz ~ 8.3Hz = Continuous: 3.5mm, 8.3Hz ~ 150Hz = Continuous: 1.0g | | | |
| Shock | | IEC 60068-2-27 compliant 15g peak for 11ms duration, X, Y, Z, directions for 6 times | | | |
| Dimensions (W) x (H) x (D) mm | | 184 x 144 x 50 | 215 x 161 x 61.2 | 272 x 200 x 61 | 229 x 224 x 46.8 |
| Mounting dimension (W) x (H) mm | | 172.4 x 132.4 | 196.9 x 142.9 | 261.3 x 189.3 | 285.2 x 210.2 |
| Weight | | 670 g | 970 g | 1330g | 1735 g |

1) The half-life of a backlight is defined as the original luminance being reduced by 50% when the maximum driving current is supplied to an HMI.6

2) Built-in power isolation

3) An isolated power supply is recommended.

4) Some models are in the process of application for UL and KCC certification. For more information, please consult our distributors.

5) The value of the power consumption indicates the electrical power consumed by the HMI with no peripheral devices connected.

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Standard HMI

| Model | | Standard Ethernet Type (2 COM) | |
|---------------------------------|--|--|--------------------------|
| | | DOP-107EG | DOP-107EV |
| LCD Module | Display | 7" TFT LCD | 7" TFT LCD |
| | Color | 65,536 | |
| | Resolution (Pixels) | 800 x 600 | 800 x 480 |
| | Back Light | LED Back Light | |
| | Back Light Brightness (cd/m ²) | 450 | 400 |
| | Back Light Life (Hour) ¹ | 20000 | 20000 |
| | Display Area | 141 X 105.75 mm | 154.08 X 85.92 mm |
| MCU | | ARM Cortex-A8 (800MHz) | |
| Flash ROM (Bytes) | | 256 Mbytes | |
| RAM (Bytes) | | 256 Mbytes | |
| Touch Panel | | Four-wire resistor, over > 10,000,000 pressing times | |
| Audio Output | Buzzer | Multi-Tone Frequency (2K ~ 4K Hz) / 80dB | |
| | AUX | Stereo output | N/A |
| Ethernet Interface | | 1 Port ² , 10/100 Mbps auto-sensing | |
| USB | | 1 USB Slave Ver 2.0; 1 USB Host Ver 2.0 | |
| SD | | SDx1 | N/A |
| Serial COM Port | COM1 | RS-232 (supports hardware flow control) ² | |
| | COM2 | RS-232 (supports hardware flow control) / RS-485 ² | |
| | COM3 | RS-422 / RS-485 ² | |
| RTC | | Built-in | |
| Cooling | | Natural air circulation | |
| Certification | | CE / UL (please equip Shielding cables and linefilters with capacity of 300ohm/100MHz) | |
| Waterproof | | IP65 / NEMA4 / UL Type 4X (indoor use only) | |
| Operation Voltage ³ | | DC +24V (-15% ~ +15%)(please equip isolated-type power supplies) Supplied by Class 2 or SELV circuit (isolated from MAINS by double insulation) | |
| Voltage Endurance | | A500V for 1 minute (between charging DC24 terminal and FG terminals) | |
| Power Consumption ⁵ | | Max. 8.4 W ³ | Max. 8.76 W ³ |
| Backup Battery | | 3V lithium battery CR2032 × 1 | |
| Backup Battery Life | | Depends on the temperature used and the conditions of usage, usually about 3 years or more at 25° C | |
| Operating Temperature | | 0°C ~ 50°C | |
| Storage Temperature | | -20°C ~ 60°C | |
| Ambient Humidity | | 10% ~ 90% RH (0 ~ 40° C), 10% ~ 55% RH (41 ~ 50° C), Pollution Degree 2 | |
| Vibration | | IEC 61131-2 compliant 5Hz ~ 8.3Hz = Continuous: 3.5mm, 8.3Hz ~ 150Hz = Continuous: 1.0g | |
| Shock | | IEC 60068-2-27 compliant 15g peak for 11ms duration, X, Y, Z, directions for 6 times | |
| Dimensions (W) x (H) x (D) mm | | 184 x 144 x 51.5 | 215 x 161 x 61.2 |
| Mounting dimension (W) x (H) mm | | 172.4 x 132.4 | 196.9 x 142.9 |
| Weight | | 800g | 970g |

1) The half-life of a backlight is defined as the original luminance being reduced by 50% when the maximum driving current is supplied to an HMI.

2) Built-in power isolation

3) An isolated power supply is recommended.

4) Some models are in the process of application for UL and KCC certification. For more information, please consult our distributors.

5) The value of the power consumption indicates the electrical power consumed by the HMI with no peripheral devices connected.

6) The content of this catalogue may be revised without prior notice. Please consult our distributors or download the most updated version at <http://www.deltaww.com>

Hardware Specifications

Standard HMI

| Model | | Standard Ethernet Type (3 COM) | | | |
|---------------------------------|--|--|-------------------------|------------------------|------------------------|
| | | DOP-107IV | DOP-108IG | DOP-110IS | DOP-110IG |
| LCD Module | Display | 7" TFT LCD | 8" TFT LCD | 10.1" TFT LCD | 10.4" TFT LCD |
| | Color | 65,536 | | | |
| | Resolution (Pixels) | 800 x 480 | 800 x 600 | 1024 x 600 | 800 x 600 |
| | Back Light | LED Back Light | | | |
| | Back Light Brightness (cd/m ²) | 400 | 250 | 300 | 300 |
| | Back Light Life (Hour) ¹ | 20000 | | | |
| | Display Area | 152.4 x 91.44 mm | 162 x 121.5 mm | 226 x 128.7 mm | 211.2 x 158.4 mm |
| MCU | | ARM Cortex-A8 (800MHz) | | | |
| Flash ROM (Bytes) | | 256 Mbytes | | | |
| RAM (Bytes) | | 256 Mbytes | | | |
| Touch Panel | | Four-wire resistor, over > 10,000,000 pressing times | | | |
| Audio Output | Buzzer | Multi-Tone Frequency (2K ~ 4K Hz) / 80dB | | | |
| | AUX | N/A | Stereo output | | |
| Ethernet Interface | | 1 Port ² , 10/100 Mbps auto-sensing | | | |
| USB | | 1 USB Slave Ver 2.0 / 1 USB Host Ver 2.0 | | | |
| SD | | SD x 1 | | | |
| Serial COM Port | COM1 | RS-232 (supports hardware flow control) ² | | | |
| | COM2 | RS-232 (supports hardware flow control) / RS-485 ² | | | |
| | COM3 | RS-232 (supports hardware flow control) / RS-422 / RS-485 ² | | | |
| RTC | | Built-in | | | |
| Cooling | | Nature air circulation | | | |
| Certification | | CE / UL (please equip shielding cables and linefilters with capacity of 300ohm/100MHz) | | | |
| Waterproof | | IP65 / NEMA4 / UL Type 4X (indoor use only) | | | |
| Operation Voltage ³ | | DC +24V (-15% ~ +15%)(please equip isolated-type power supplies) Supplied by Class 2 or SELV circuit (isolated from MAINS by double insulation) | | | |
| Voltage Endurance | | A500V for 1 minute (between charging DC24 terminal and FG terminals) | | | |
| Power Consumption ⁵ | | Max. 12W ³ | Max. 9.88W ³ | Max. 9.6W ³ | Max. 9.6W ³ |
| Backup Battery | | 3V lithium battery CR2032 × 1 | | | |
| Backup Battery Life | | Depends on the temperature used and the conditions of usage, usually about 3 years or more at 25° C | | | |
| Operation Temperature | | 0°C ~ 50°C | | | |
| Storage Temperature | | -20°C ~ 60°C | | | |
| Ambient Humidity | | 10% ~ 90% RH (0 ~ 40° C), 10% ~ 55% RH (41 ~ 50° C), Pollution Degree 2 | | | |
| Vibration | | IEC 61131-2 compliant 5Hz ~ 8.3Hz = Continuous: 3.5mm, 8.3Hz ~ 150Hz = Continuous: 1.0g | | | |
| Shock | | IEC 60068-2-27 compliant 15g peak for 11ms duration, X, Y, Z, directions for 6 times | | | |
| Dimensions (W) x (H) x (D) mm | | 215 x 161 x 61.2 | 227.1 x 174.1 x 61 | 272.6 x 200.6 x 54 | 299 x 224 x 46.8 |
| Mounting dimension (W) x (H) mm | | 196.9 x 142.9 | 219.4 x 166.5 | 261.3 x 189.3 | 285.2 x 210.2 |
| Weight | | 970 g | 1226 g | 1130 g | 1600 g |

1) The half-life of a backlight is defined as the original luminance being reduced by 50% when the maximum driving current is supplied to an HMI.6

2) Built-in power isolation

3) An isolated power supply is recommended.

4) Some models are in the process of application for UL and KCC certification. For more information, please consult our distributors.

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Basic HMI

| Model | Basic Type | | Basic Ethernet Type | |
|---------------------------------|--|---|---|-------------------|
| | DOP-103BQ | DOP-107BV | DOP-107DV | |
| LCD Module | Display | 4.3" TFT LCD | 7" TFT LCD | |
| | Color | 65,536 | | |
| | Resolution (Pixels) | 480 x 272 | 800 x 480 | 800 x 400 |
| | Back Light | LED Back Light | | |
| | Back Light Brightness (cd/m ²) | 400 | | |
| | Back Light Life (Hour) ¹ | 20000 | | |
| | Display Area | 95.04 x 53.856 mm | 154.08 x 85.92 mm | 154.08 x 85.92 mm |
| MCU | ARM Cortex-A8 (800MHz) | | | |
| Flash ROM (Bytes) | 256 Mbytes | | | |
| RAM (Bytes) | 256 Mbytes | | | |
| Touch Panel | Four-wire resistor, over > 10,000,000 pressing times | | | |
| Audio Output | Buzzer | Multi-Tone Frequency (2K ~ 4K Hz) / 80dB | | |
| | AUX | N/A | | |
| Ethernet Interface | N/A | N/A | 1 Port, 10/100 Mbps auto-sensing ² | |
| USB | 1 USB Slave Ver 2.0 / 1 USB Host Ver 2.0 | | | |
| SD | N/A | | | |
| Serial COM Port | COM1 | RS-232/RS-485 (supports hardware flow control) ² | | |
| | COM2 | RS-422 / RS-485 ² | | |
| | COM3 | N/A | | |
| RTC | Built-in | | | |
| Cooling | Nature air circulation | | | |
| Certification | CE / UL (please equip shielding cables and linefilters with capacity of 300ohm/100MHz) | | | |
| Waterproof | IP65 / NEMA4 / UL Type 4X (indoor use only) | | | |
| Operation Voltage ³ | DC +24V (-15% ~ +15%)(please equip isolated-type power supplies) Supplied by Class 2 or SELV circuit (isolated from MAINS by double insulation) | | | |
| Voltage Endurance | A500V for 1 minute (between charging DC24 terminal and FG terminals) | | | |
| Power Consumption ⁵ | Max. 5.67W ³ | Max. 8.6W ³ | Max. 8.8W ³ | |
| Backup Battery | 3V lithium battery CR2032 × 1 | | | |
| Backup Battery Life | Depends on the temperature used and the conditions of usage, usually about 3 years or more at 25° C | | | |
| Operation Temperature | 0°C ~ 50°C | | | |
| Storage Temperature | -20°C ~ 60°C | | | |
| Ambient Humidity | 10% ~ 90% RH (0 ~ 40° C), 10% ~ 55% RH (41 ~ 50° C), Pollution Degree 2 | | | |
| Vibration | IEC 61131-2 compliant 5Hz ~ 8.3Hz = Continuous: 3.5mm, 8.3Hz ~ 150Hz = Continuous: 1.0g | | | |
| Shock | IEC 60068-2-27 compliant 15g peak for 11ms duration, X, Y, Z, directions for 6 times | | | |
| Dimensions (W) x (H) x (D) mm | 137 x 103 x 37.1 | 215 x 161 x 35.5 | 215 x 161 x 35.5 | |
| Mounting dimension (W) x (H) mm | 118.8 x 92.8 | 196 x 142.9 | 196 x 142.9 | |
| Weight | 280g | 700g | 700g | |

1) The half-life of a backlight is defined as the original luminance being reduced by 50% when the maximum driving current is supplied to an HMI.6

2) Built-in power isolation

3) An isolated power supply is recommended.

4) Some models are in the process of application for UL and KCC certification. For more information, please consult our distributors.

5) The value of the power consumption indicates the electrical power consumed by the HMI with no peripheral devices connected.

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Hardware Specifications

Handheld HMI

| Model | | Handheld HMI | | | |
|---------------------------------|--|---|-------------------------------------|-----------------------------|-------------------------------------|
| | | DOP-107HS4xx | DOP-107HE4xx | DOP-107HE4xxZM | DOP-107HE47xZD |
| LCD Module | Display | 7" TFT LCD | | | |
| | Color | 65536 | | | |
| | Resolution (Pixels) | 800 x 480 | | | |
| | Back Light | LED Back Light | | | |
| | Back Light Brightness (cd/m ²) | 400 | 450 | | 450 |
| | Back Light Life (Hour) ¹⁾ | 10,000 | 20,000 | | 30,000 |
| | Display Area | 154.08 x 85.92 mm | | | |
| MCU | | ARM Cortex-A8 (800MHz) | | | |
| Flash ROM (Bytes) | | 256 MB | | | |
| RAM (Bytes) | | 512 MB | | | |
| Touch Panel | | Four-wire resistor, over > 10,000,000 pressing times | | | |
| Buzzer | | Multi-Tone Frequency (2K ~ 4K Hz) / 80dB | | | |
| Ethernet Interface | | N/A | 1 Port *2, 10/100 Mbps auto-sensing | | 1 Port *2, 10/100 Mbps auto-sensing |
| USB | | 1 USB Slave Ver 2.0 | | | |
| SD | | SD/SDHC | | | |
| Serial COM Port/Communication | | RS-232/ RS-485 | N/A | | N/A |
| Emergency stopswitch | | B contact x 2 | | A contact x 1/B contact x 1 | |
| | | Rated voltage: < DC 30V Maximum rated current: 1A Minimum allowable load: DC 5V / 1 mA Complies with IEC60947-5-1, EN60947-5-1, IEC60947-5-5, EN60947-5-5, UL 508, CSA C22.2 No.14, GB 14085.5 | | | |
| 3-position operation switch | | A contact x 1 | | | |
| | | Rated voltage: < DC 30V Maximum rated current: 700 mA Minimum allowable load: DC 3V / 5 mA Complies with EN/ IEC60947-5-8, IEC60947-5-1, EN60947-5-1, JIS C8201-5-1, UL508, CSA C22.2 NO. 14 Applicable standards for use with ISO12100-1,-2/EN12100-1,-2, IEC60204-1/EN60204-1, ISO11161/prEN11161, ISO10218/EN775, ANSI/RIA R15.06, ANSI B11.19 | | | |
| MPG | | Rated voltage: < DC 24V Resolution: 50(P/R) Output waveform: square wave Output phase: A, B Phase difference between A and B: 90° ± 45° Maximum frequency response: 200 Hz | | | |
| | | Auxiliary keyboard | | 15 Function Keys | 21 Function Keys |
| Cable length | | 5 m (when end of model name = 5) 10 m (when end of model name = A) | | | |
| Calendar | | Built-in | | | |
| Cooling method | | Natural cooling | | | |
| Certification | | CE | | | |
| Protection rating | | IP54 | | | |
| Operating voltage ³⁾ | | DC +24V (-15% ~ +15%) ²⁾ (supplied by SELV circuits (isolated from MAINS by double insulation)) | | | |
| Leakage current | | AC500V for one minute (between DC24 and FG terminals) | | | |
| Power consumption ⁵⁾ | | 4.896W | | | |
| Backup battery | | 3V lithium battery CR2450 × 1 | | | |
| Backup battery life | | About 5 years or more at 25°C (77°F)(subject to operation temperature and condition) | | | |
| Operation temperature | | 0°C ~ 40°C | | | |
| Storage temperature | | -20°C ~ 60°C | | | |
| Operating environment | | 10% ~ 90% RH (0 ~ 40° C), 10% ~ 55% RH (41 ~ 50° C), Pollution Degree 2 | | | |
| Vibration resistance | | IEC 61131-2 compliant 5Hz ~ 8.3Hz = Continuous: 3.5mm, 8.3Hz ~ 150Hz = Continuous: 1.0g | | | |
| Shock resistance | | IEC 60068-2-27 compliant 15g peak for 11ms duration, X, Y, Z, directions for 6 times | | | |
| Dimensions (W) x (H) x (D) mm | | 257.4 x 170.3 x 71.8 (emergency stop switch and hook included) | | | |
| Weight | | 750 g (cable excluded) | | | |

1) The half-life of a backlight is defined as the original luminance being reduced by 50% when the maximum driving current is supplied to an HMI.6

2) Built-in power isolation

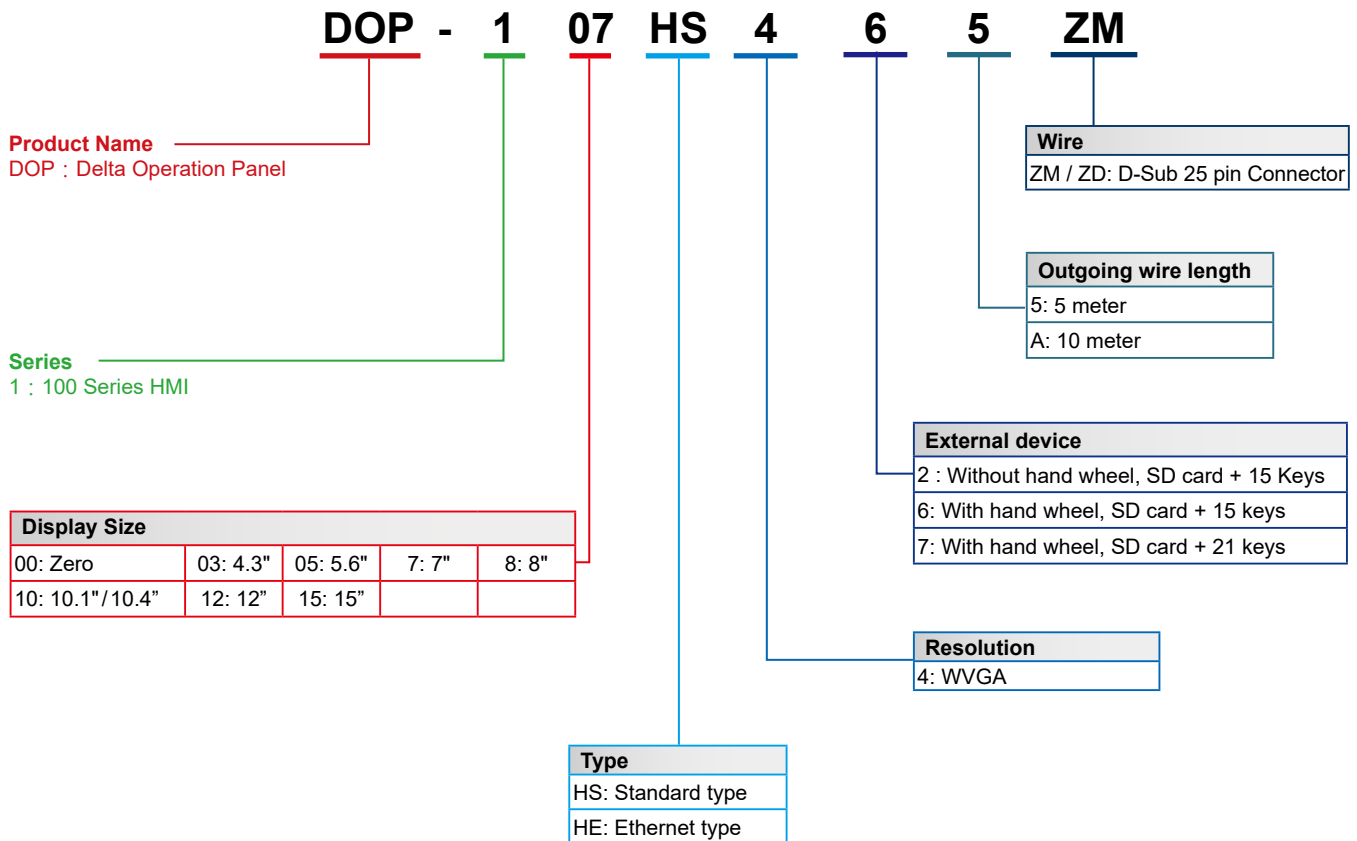
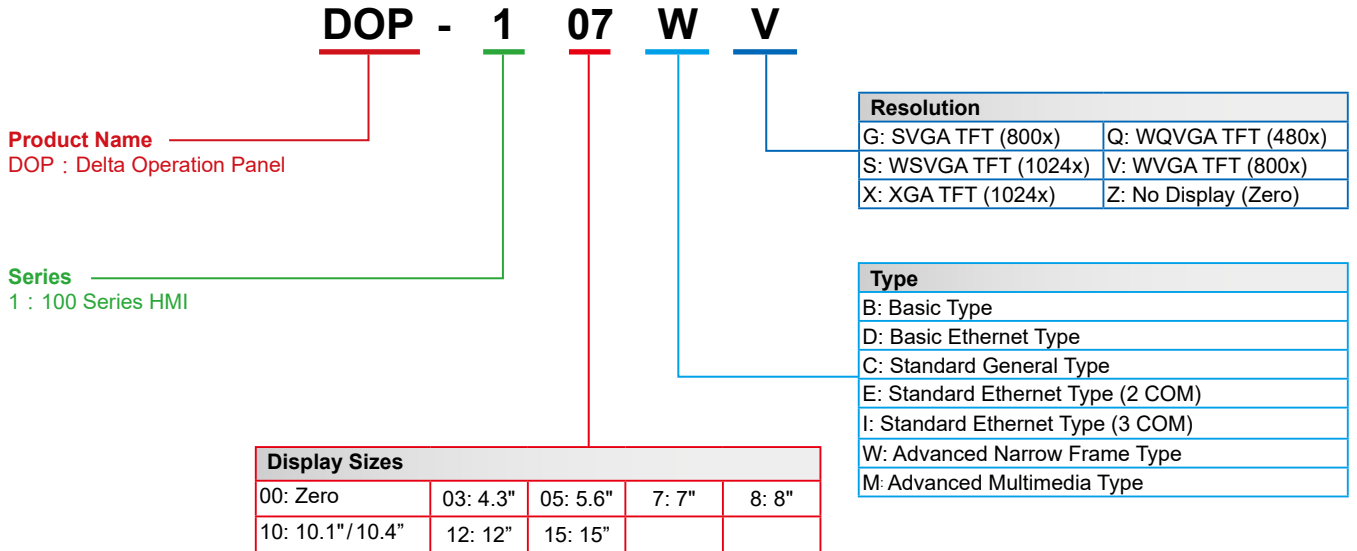
3) An isolated power supply is recommended.

4) Some models are in the process of application for UL and KCC certification. For more information, please consult our distributors.

5) The value of the power consumption indicates the electrical power consumed by the HMI with no peripheral devices connected.

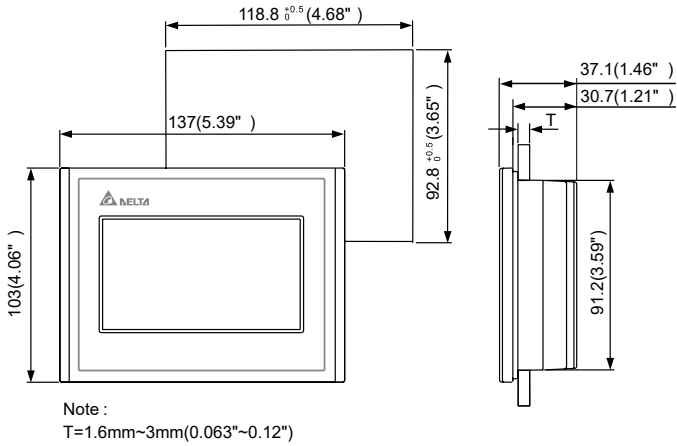
6) The content of this catalogue may be revised without prior notice. Please consult our distributors or download the most updated version at <http://www.deltaww.com>

Model Description

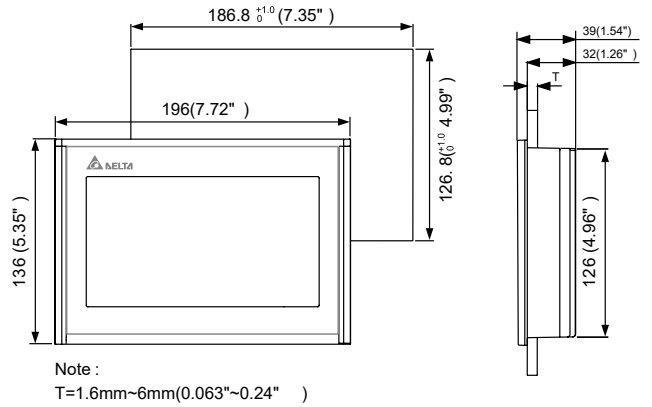


Dimensions Unit: mm (inches)

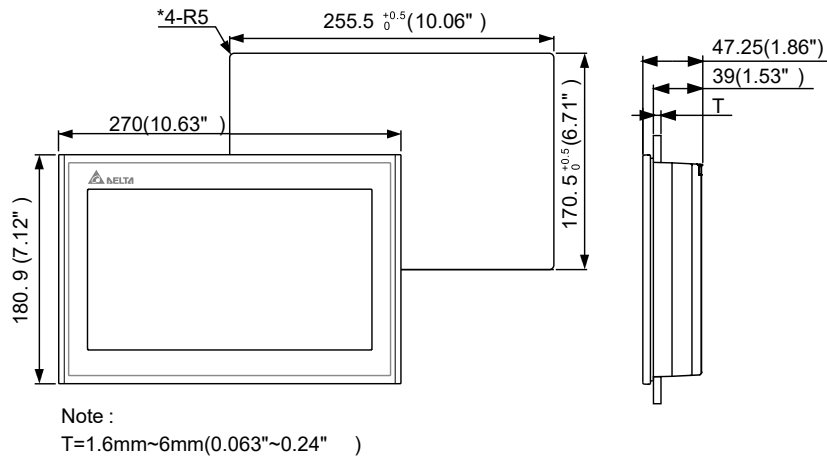
• DOP-103WQ



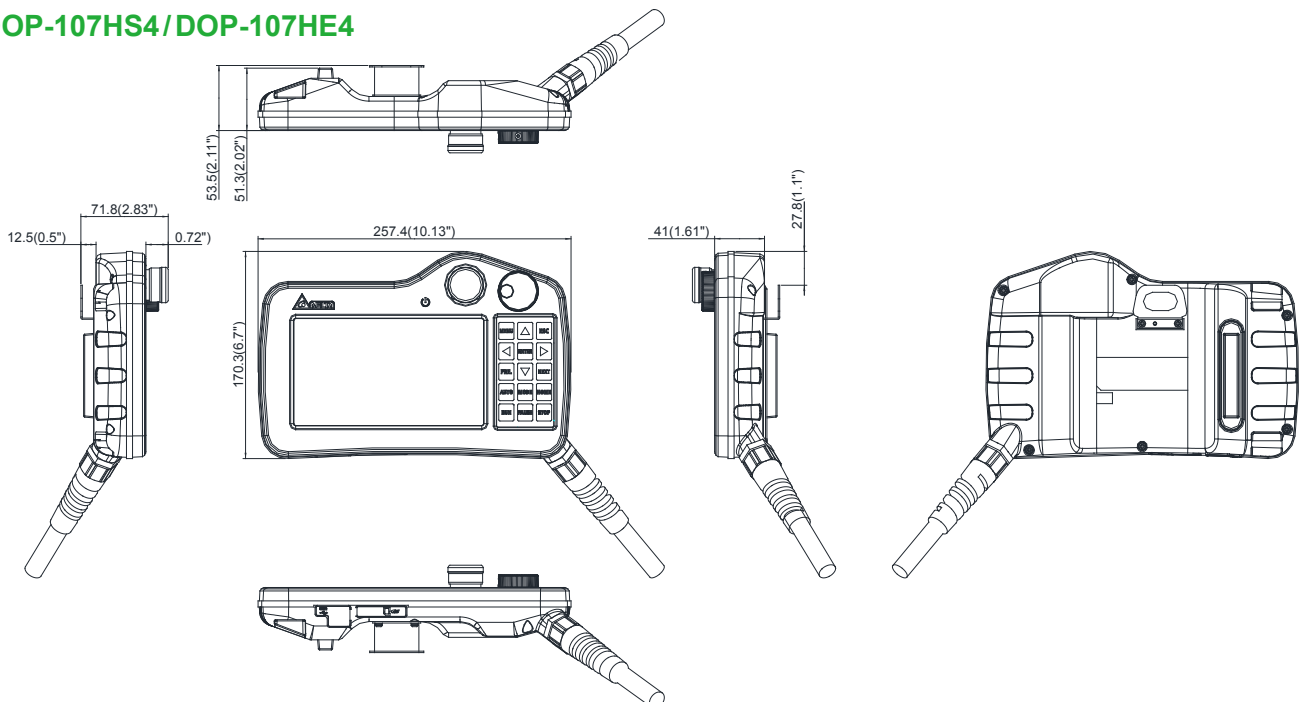
• DOP-107WV



• DOP-110WS

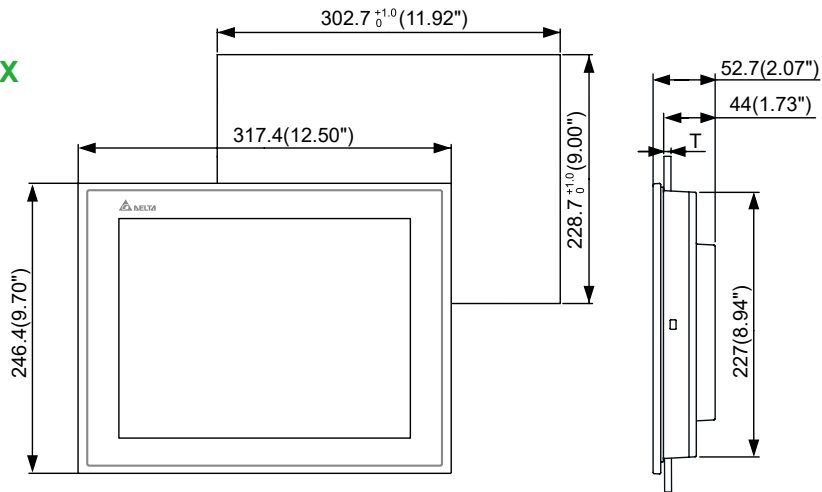


• DOP-107HS4/DOP-107HE4



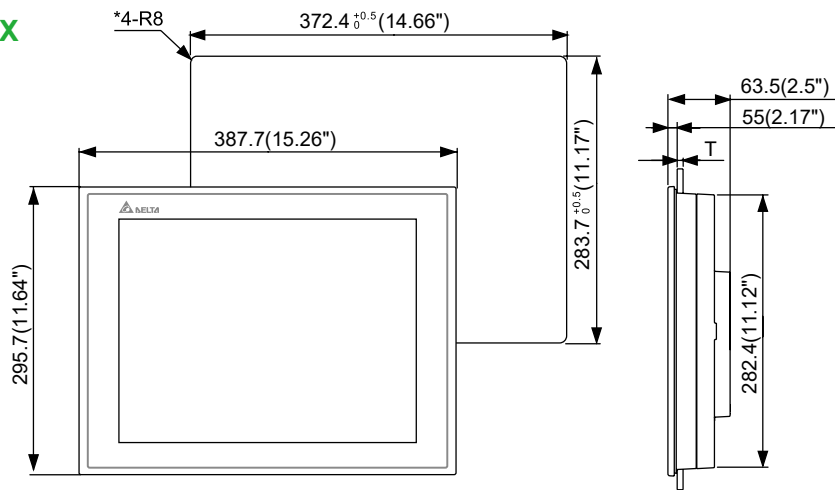
Dimensions Unit: mm (inches)

• DOP-112MX / DOP-112WX



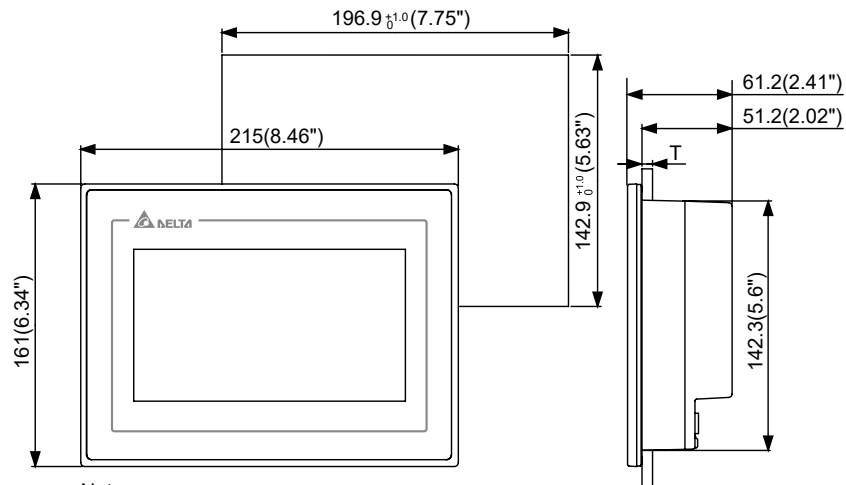
Note:
T=1.6 mm ~ 6 mm(0.063" ~ 0.24")

• DOP-115MX / DOP-115WX



Note:
T=1.6 mm ~ 6 mm(0.063" ~ 0.24")

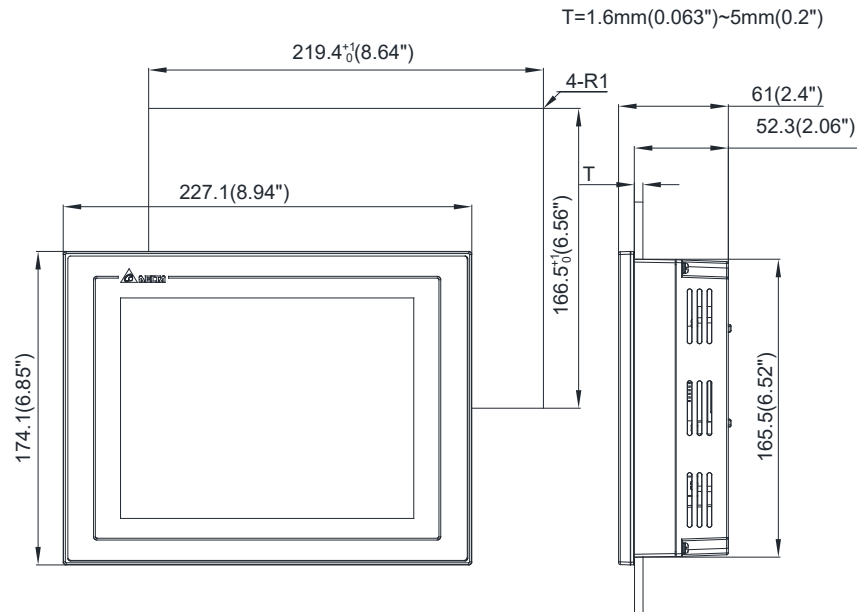
• DOP-107IV



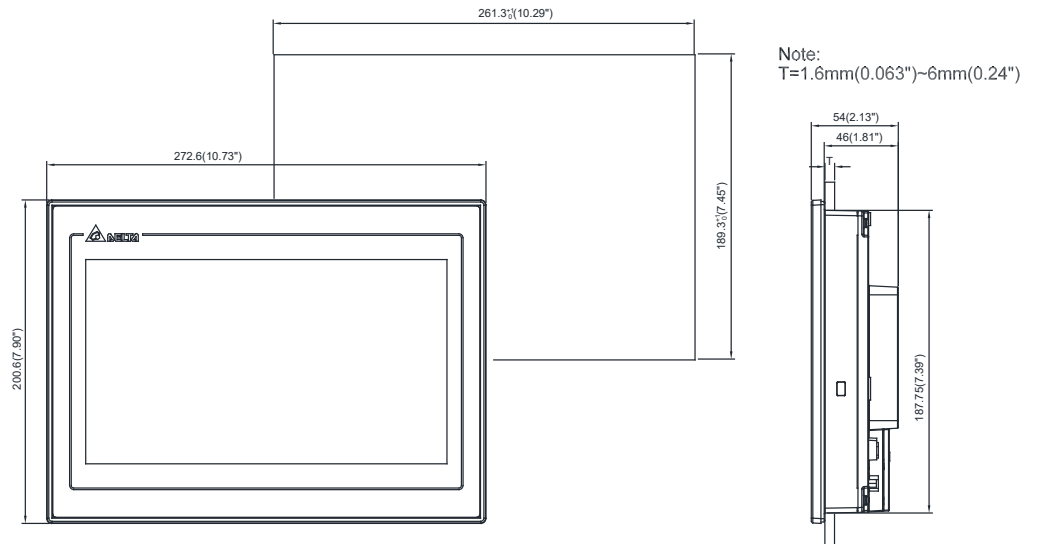
Note:
T=1.6 mm ~ 6 mm(0.063" ~ 0.24")

Dimensions Unit: mm (inches)

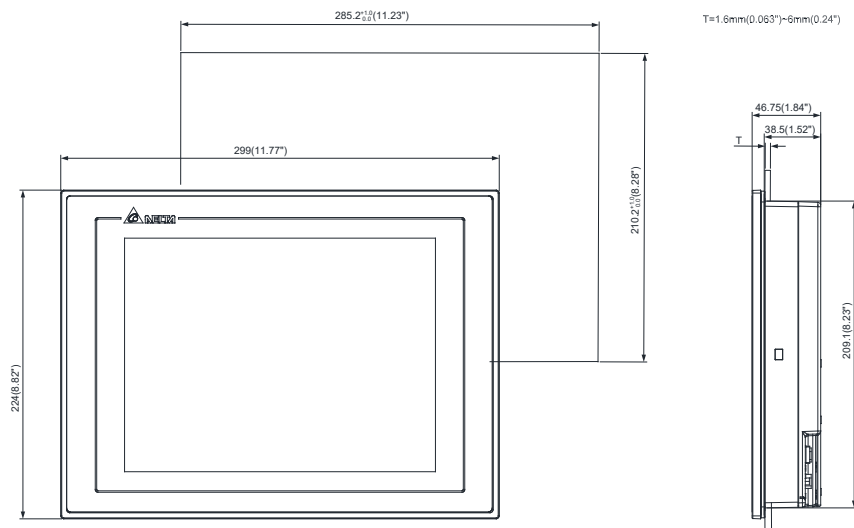
• DOP-108IG



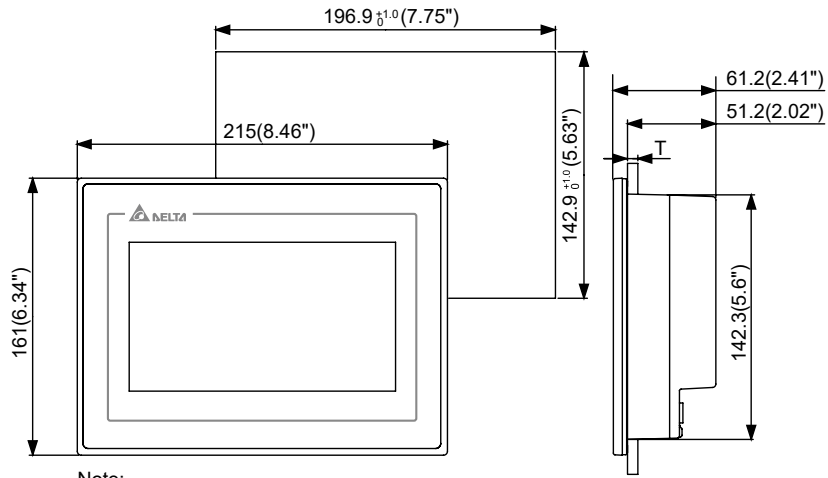
• DOP-110IS



• DOP-110IG

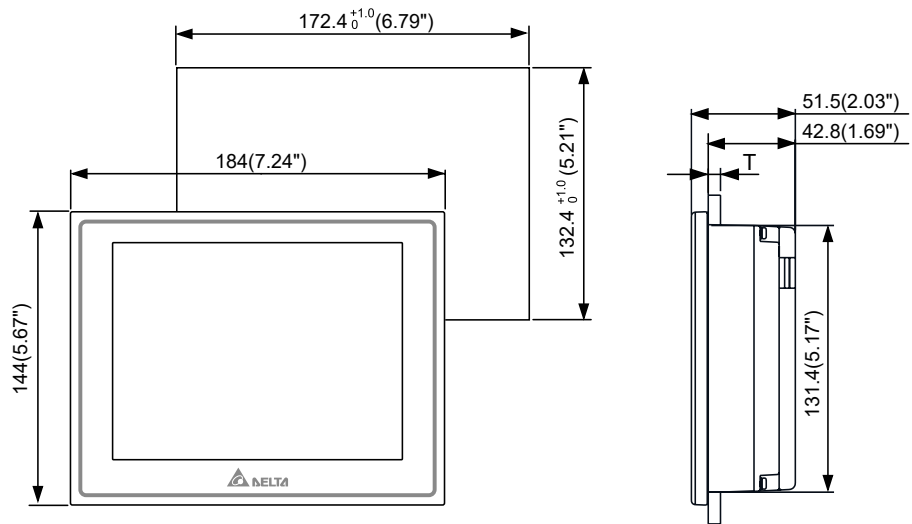


• DOP-107EV



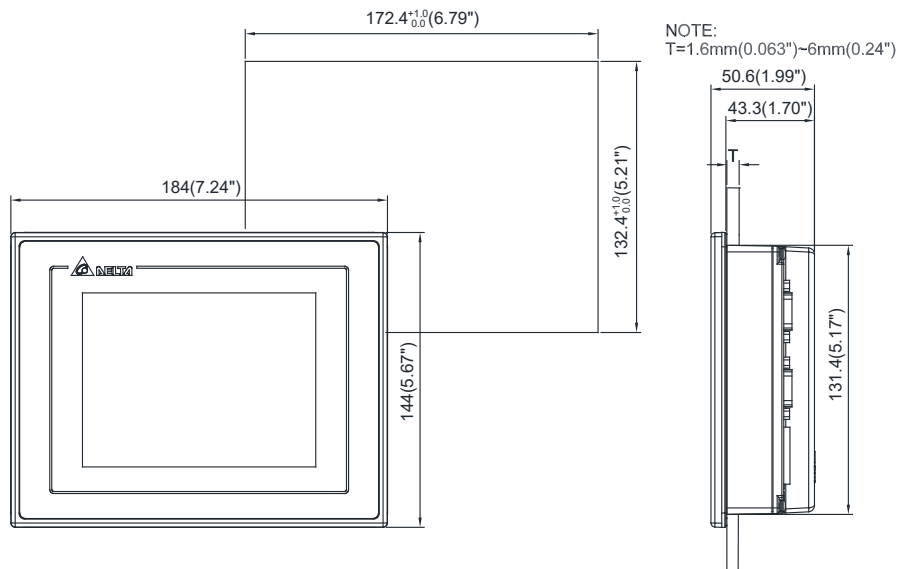
Note:
T=1.6 mm ~ 6 mm(0.063" ~ 0.24")

• DOP-107EG



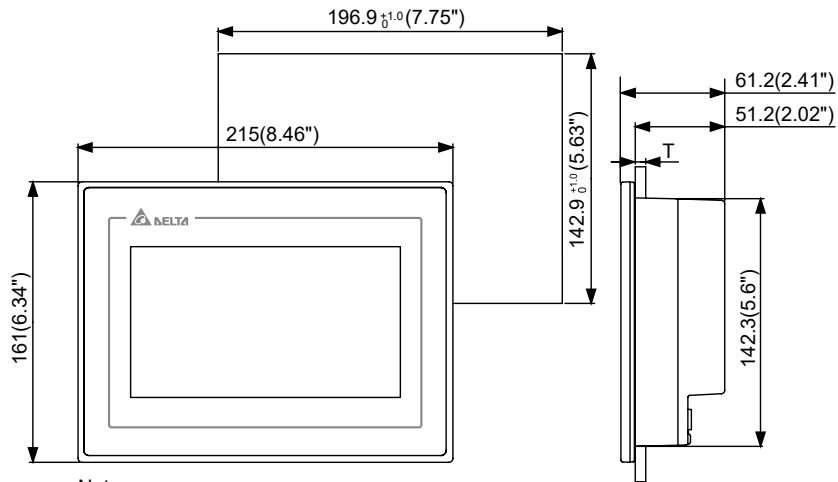
Note:
T=1.6 mm ~ 6 mm(0.063" ~ 0.24")

• DOP-105CQ



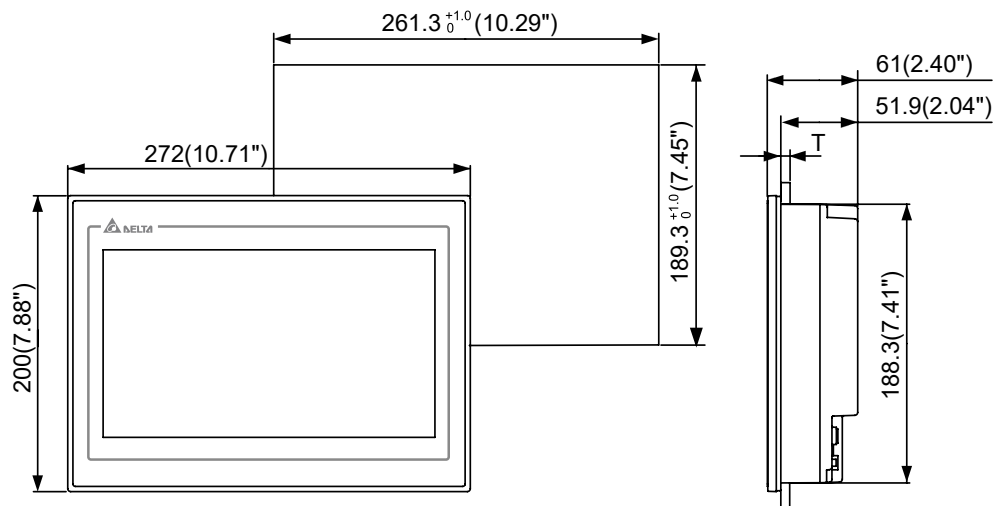
Dimensions Unit: mm (inches)

• DOP-107CV



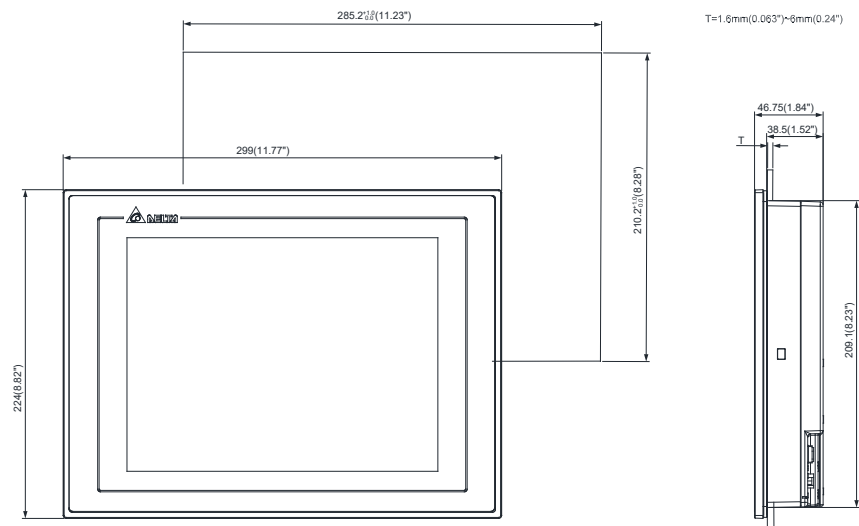
Note:
T=1.6 mm ~ 6 mm(0.063" ~ 0.24")

• DOP-110CS



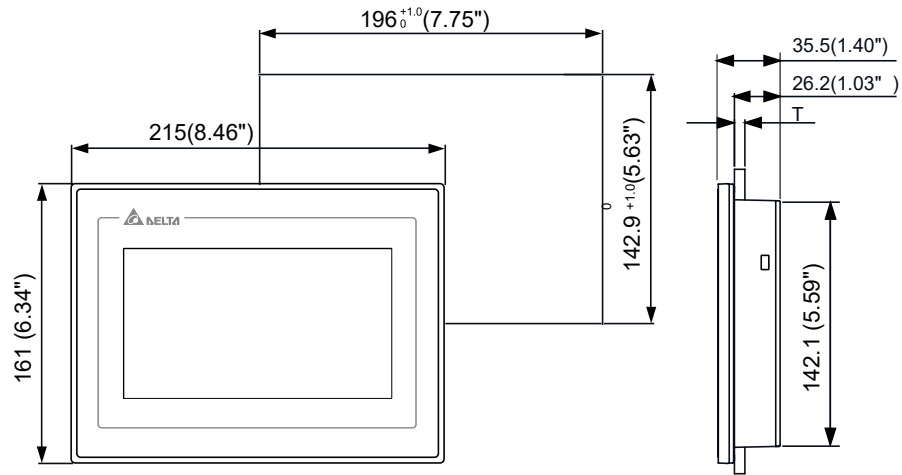
Note:
T=1.6 mm ~ 6 mm(0.063" ~ 0.24")

• DOP-110CG



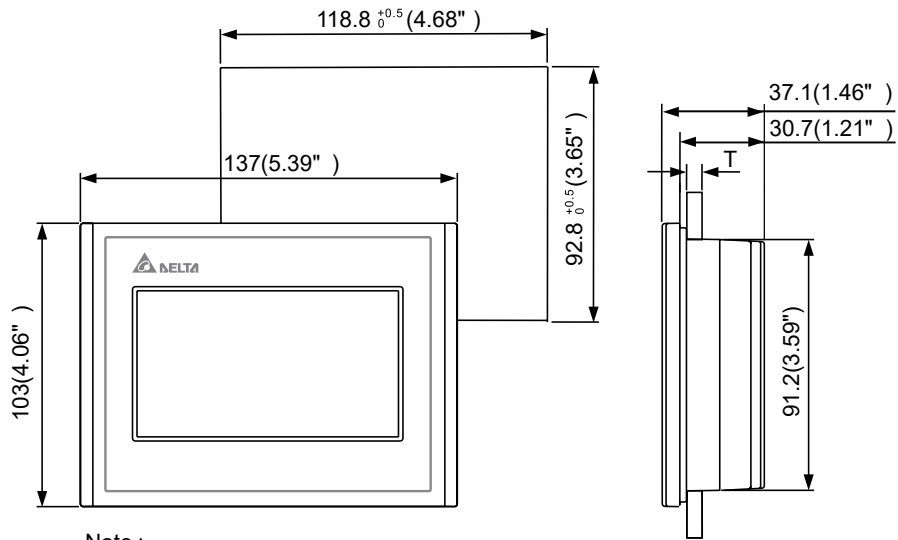
T=1.6mm(0.063")~6mm(0.24")

• DOP-107DV



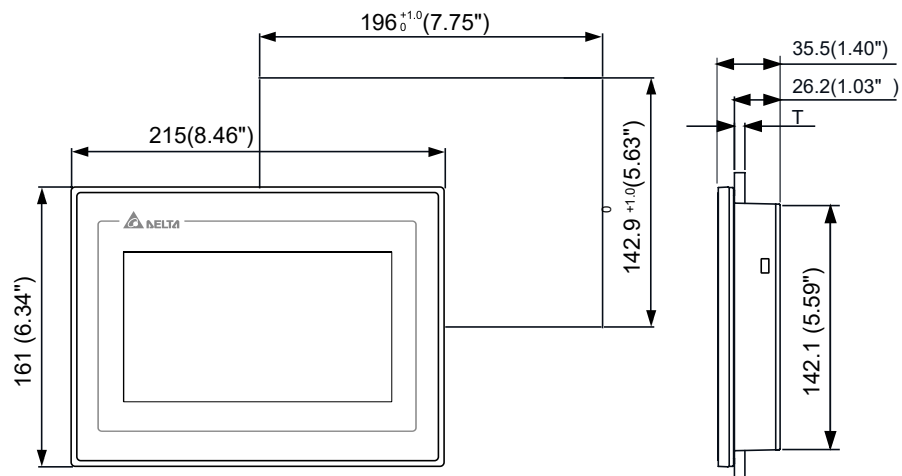
Note:
T=1.6 mm~6 mm(0.06"~0.24")

• DOP-103BQ



Note :
T=1.6mm~3mm(0.063"~0.12")

• DOP-107BV



Note:
T=1.6 mm~6 mm(0.06"~0.24")



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