Digitized Automation for a Changing World

# Delta Human Machine Interface
# DOP-100 Series

www.deltaww.com

# Easy Model Selection

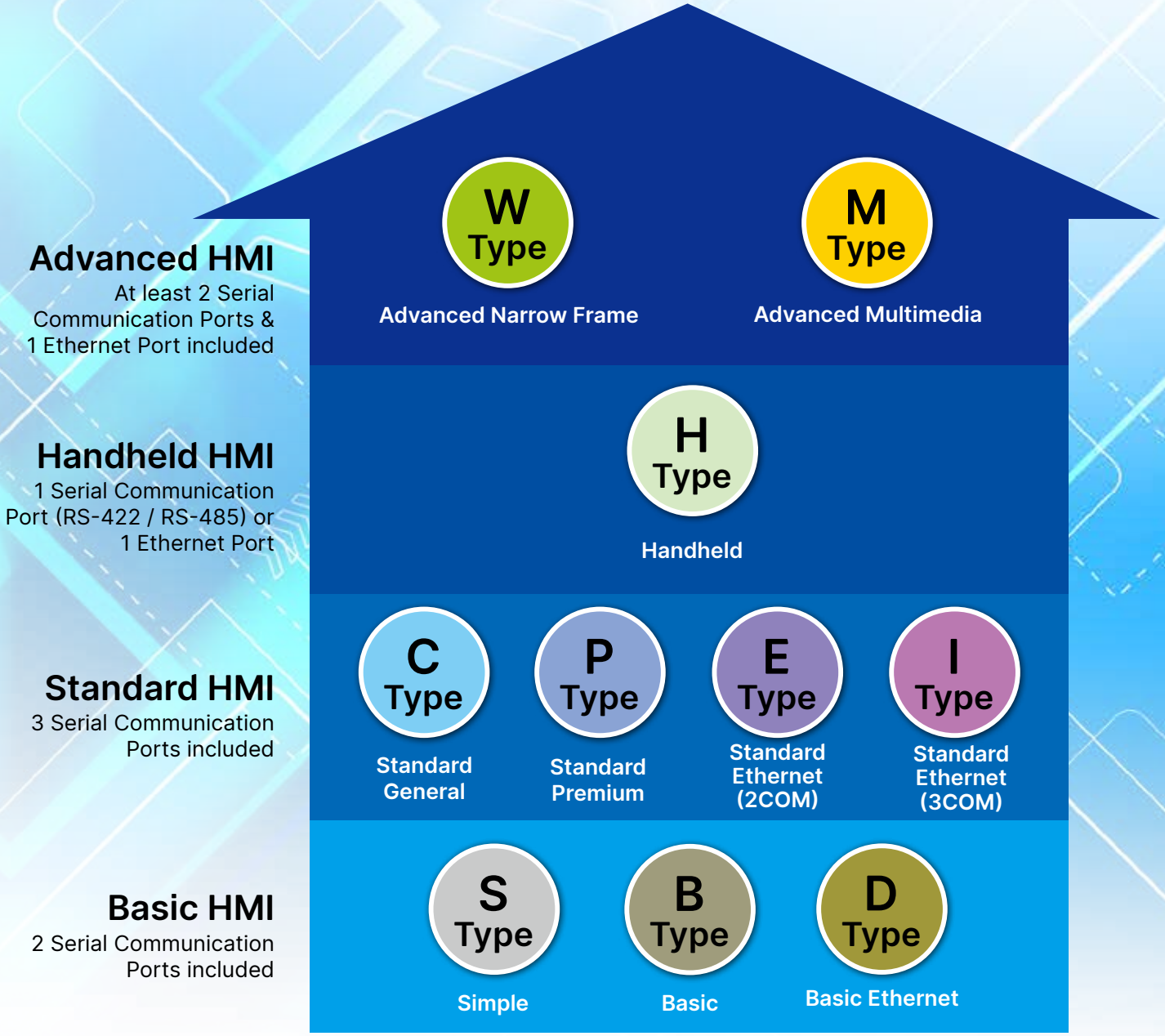
The DOP-100 Series offers diverse models for different applications. Users can easily select a suitable HMI based on size or function

| | | |
|---|---|---|
| S Type | ▸ Serial Communication Port x2 (D-sub x1) | |
| B Type | ▸ Serial Communication Port x2 (D-sub x1) | |
| D Type | ▸ Serial Communication Port x2 (D-sub x1) | ▸ Ethernet port x1 (RJ45 x1) |
| C Type | ▸ Serial Communication Port x3 (D-sub x2) | |
| P Type | ▸ Serial Communication Port x3 (D-sub x2) | ▸ Ethernet Port x1 (RJ45 x1) |
| E Type | ▸ Serial Communication Port x3 (D-sub x2) | ▸ Ethernet Port x1 (RJ45 x1) |
| I Type | ▸ Serial Communication Port x3 (D-sub x3) | ▸ Ethernet Port x1 (RJ45 x1) |
| H Type | ▸ Serial Communication Port x1 (D-sub x1) or Ethernet Port x1 (RJ45 x1) | |
| W Type | ▸ Serial Communication Port x2~4 (D-sub x1~2)<br>▸ Narrow frame design , Multi-language | ▸ Ethernet Port x1~2 (RJ45 x1~2) |
| M Type | ▸ Serial Communication Port x4 (D-sub x2)<br>▸ Narrow frame design , Multi-language, Multi-media | ▸ Ethernet Port x2 (RJ45 x2) |

## Type Definition

**DOP-107 W V**

W Type


Advanced HMI
At least 2 Serial Communication Ports & 1 Ethernet Port included
W Type
Advanced Narrow Frame
M Type
Advanced Multimedia
Handheld HMI
1 Serial Communication Port (RS-422 / RS-485) or 1 Ethernet Port
H Type
Handheld
Standard HMI
3 Serial Communication Ports included
C Type
Standard General
P Type
Standard Premium
E Type
Standard Ethernet (2COM)
I Type
Standard Ethernet (3COM)
Basic HMI
2 Serial Communication Ports included
S Type
Simple
B Type
Basic
D Type
Basic Ethernet

# 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.


M Type

W Type

# Features

### Narrow Frame
Enlarged visual display for a better user experience

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

### Pressing Times >10,000,000
Effective pressing times validated by strict endurance tests

### IP65 Rating
Protects the HMI from rain and dust

### Multilingual Input
16 different languages input for easy operation

### Diagnostics Function
Collects and troubleshoots issues remotely

### Power Isolation
Protects the HMI from accidental surge interference

### VNC Remote Monitoring
Remote control with mobile devices

### QRcode Scanning
Generates QRcodes 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

### DIAScreen
New software DIAScreen offers more functions and a better interface

### Operating Temperature 0°C ~ 50°C
Applicable in various industrial operating environments

### CE / UL Certified
Compliant with CE and UL standards

### Multimedia Functions
Captures images with an external camera or replays important recordings

M Type Only

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

### Communication Isolation
Serial Communication Ports 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 update

### Supports PDF and TXT Reader
PDF and TXT files supported

# Camera & Video Play
# **Multimedia Functions**


## Analog Camera

Supports external camera via analog signals, 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

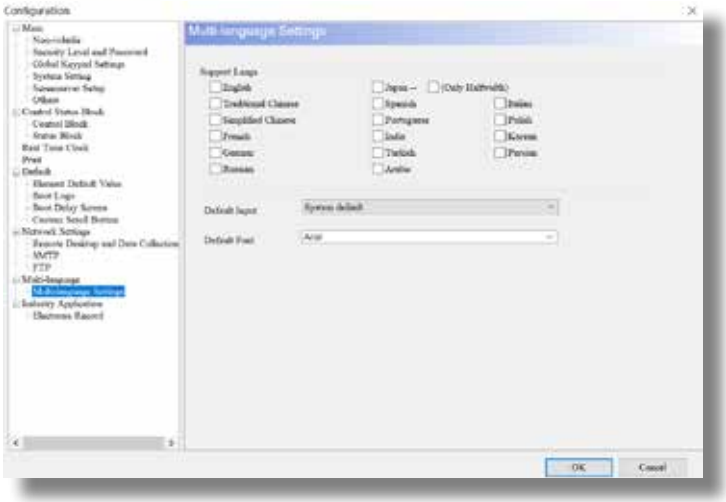
Views mpeg4 files captured by analog or IP camera from internal storage or USB disk / SD card

## Event Trigger

Responds to preset 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 (ENRCPNONAME)
  - Recipe Content (Char)
  - User Name



- Supports 16 languages: English, Traditional Chinese, Simplified Chinese, French, German, Russian, Japanese (Fullwidth or Halfwidth), Korean, Spanish, Portuguese, Hindi, Turkish, Arabic, Persian, Italian and Polish

OPC UA

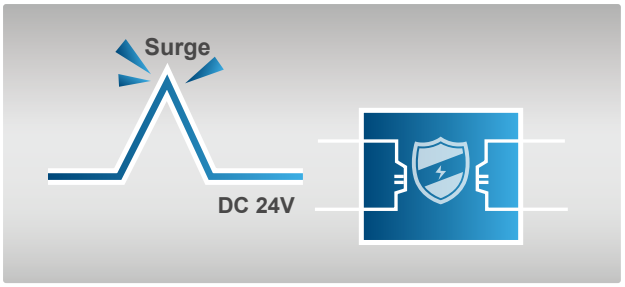
Delta's HMI can implement M2M communication and data transmission for diverse industries by means of OPC UA. Communication among different manufacturers' machines is enabled through information modeling.

DELTA

# Robust Hardware

## Power Isolation

- The HMI with built-in power isolation circuits provides protection against accidental external spikes

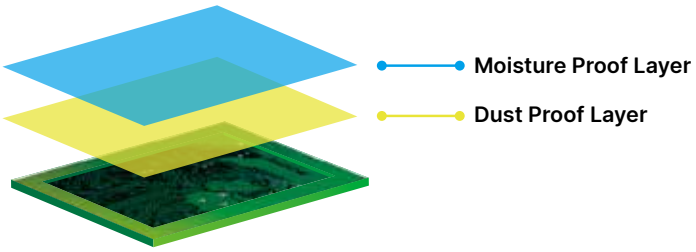



## Isolated Communication Interface

- The HMI with built-in Serial Communication Port and Ethernet isolation circuits to protect against noise that can occur from the grounding of various devices such as PLCs, servo drives, motor drives and others

## PCB Coating

- The DOP-100 series has PCB coating for enhanced durability and to protect against humidity and dust for applications in a range of environments

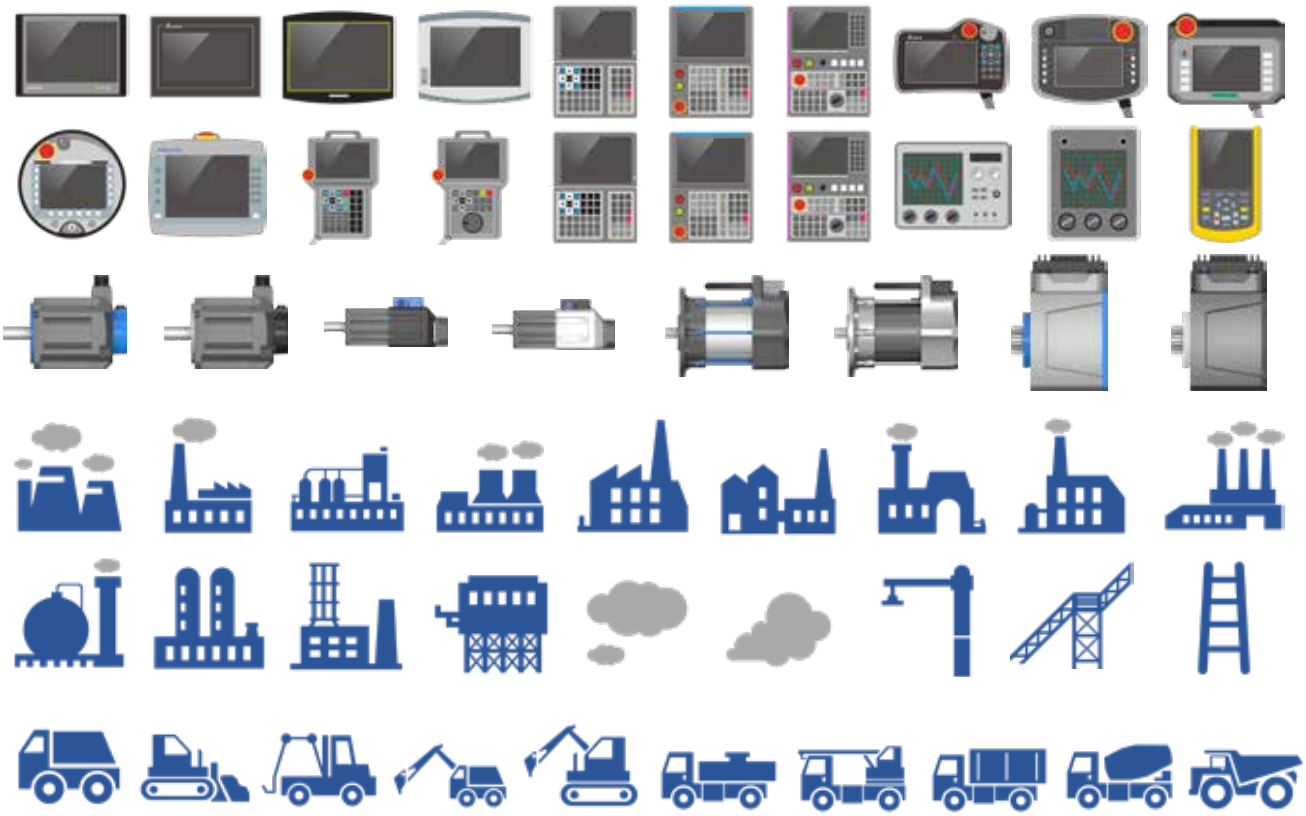



| Model | Power Isolation | Serial Communication Port Isolation | Ethernet Isolation |
|---|---|---|---|
| **Advanced HMI (Multimedia Type)** | | | |
| DOP-112/115 MX | Yes | Yes | Yes |
| **Advanced HMI** | | | |
| DOP-103WQ/107WV/110WS | Yes | Yes | Yes |
| DOP-112/115 WX | Yes | Yes | Yes |
| **Handheld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

# Programming Software – DIAScreen

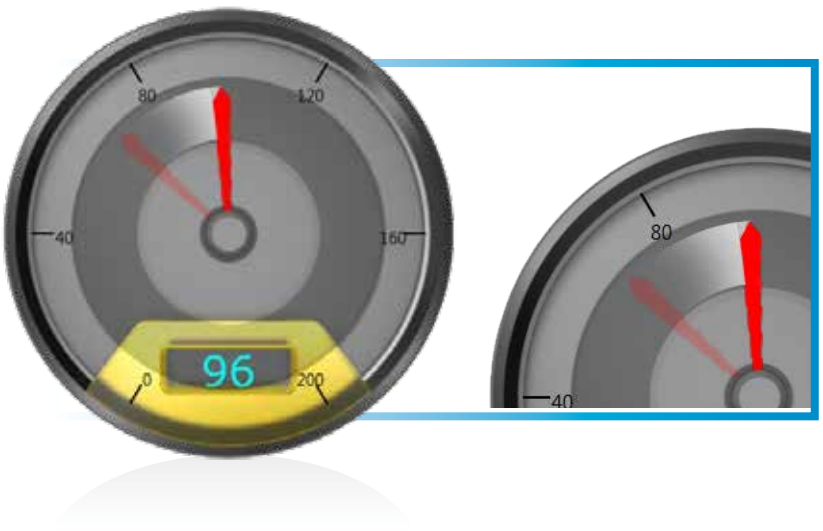
## Abundant Elements

- 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 - DIAScreen

## User-Friendly Programming Interface

**Bookmark Management**

Bookmark menu allows users to switch pages easily

**Project Management Batch**

Users can quickly switch items via the project branch feature

**Editing Area**

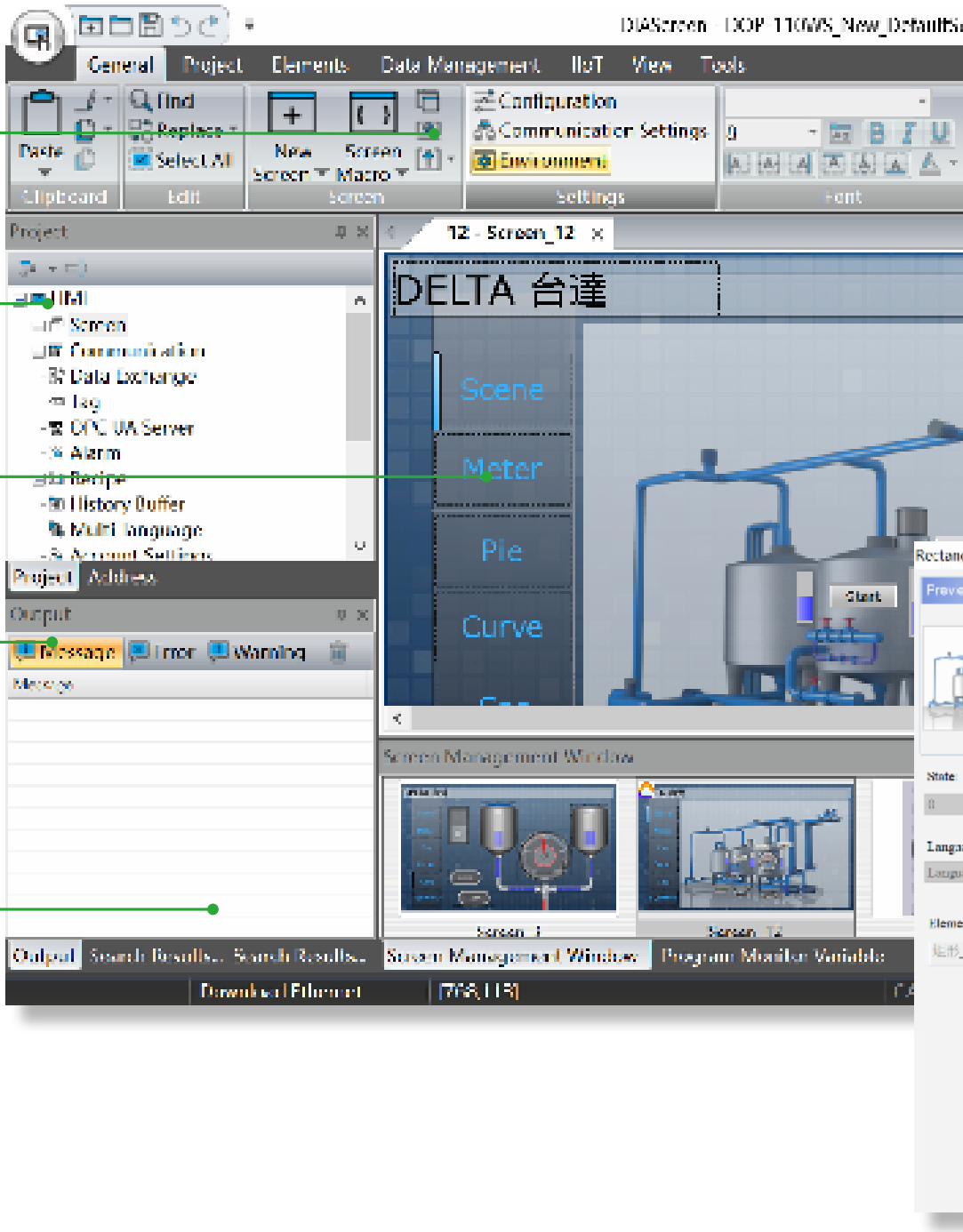
Provides real-time display of users' edits

**Output List**

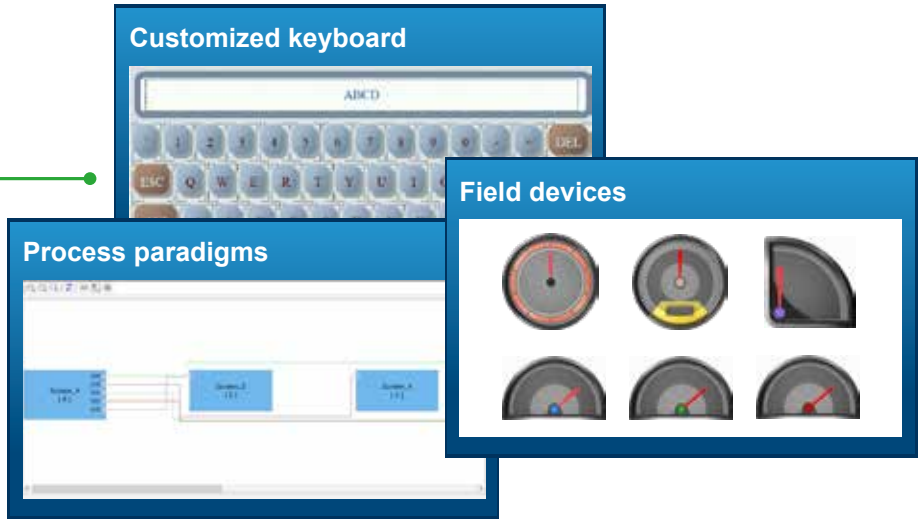
Automatically displays edit results of each screen. Users can review and troubleshoot by clicking screens

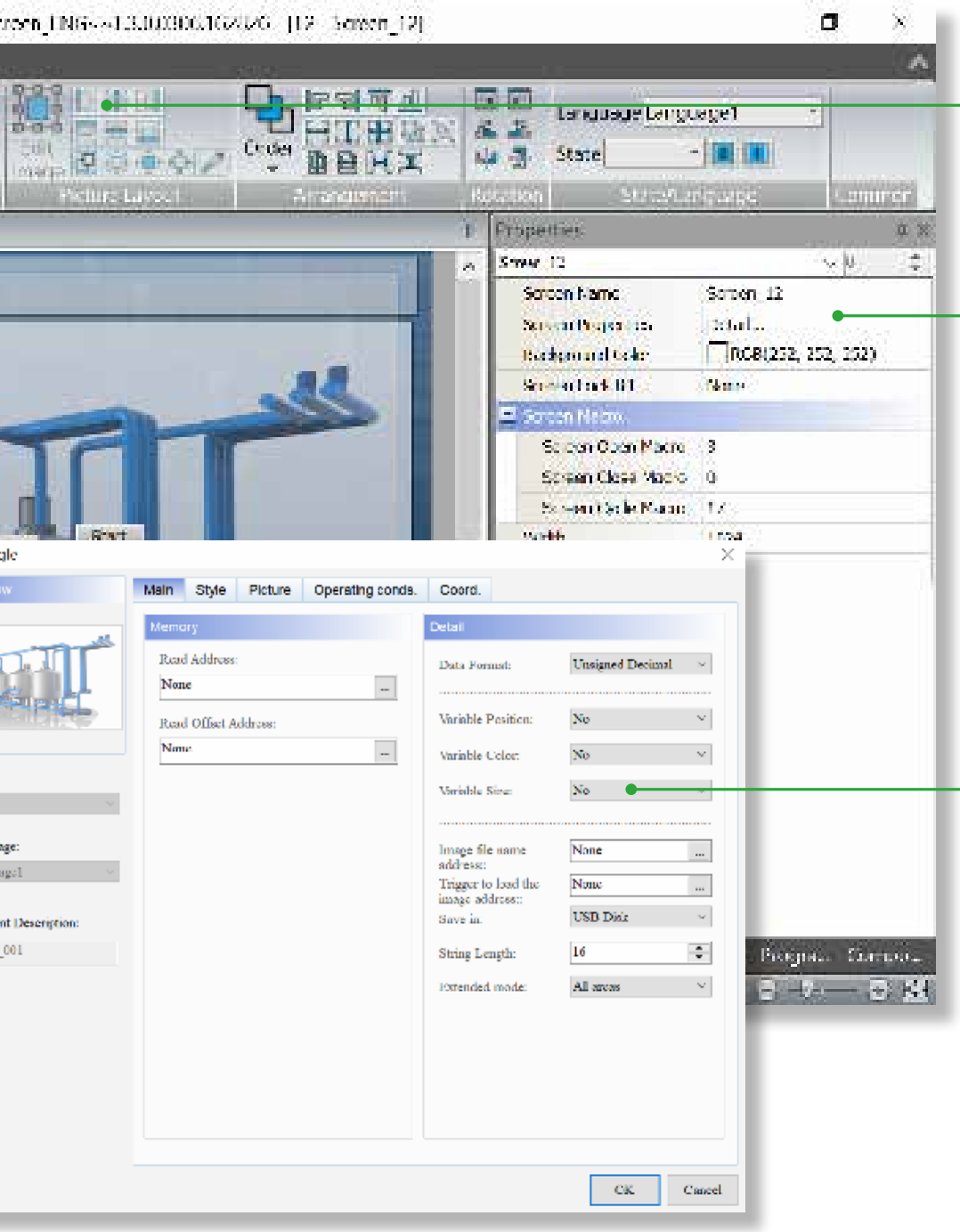
**Edit Preview**

Users can quickly browse the overall project via edit preview



Abundant Accessories




General Tool

Shortcut icons help enhance efficiency

Property

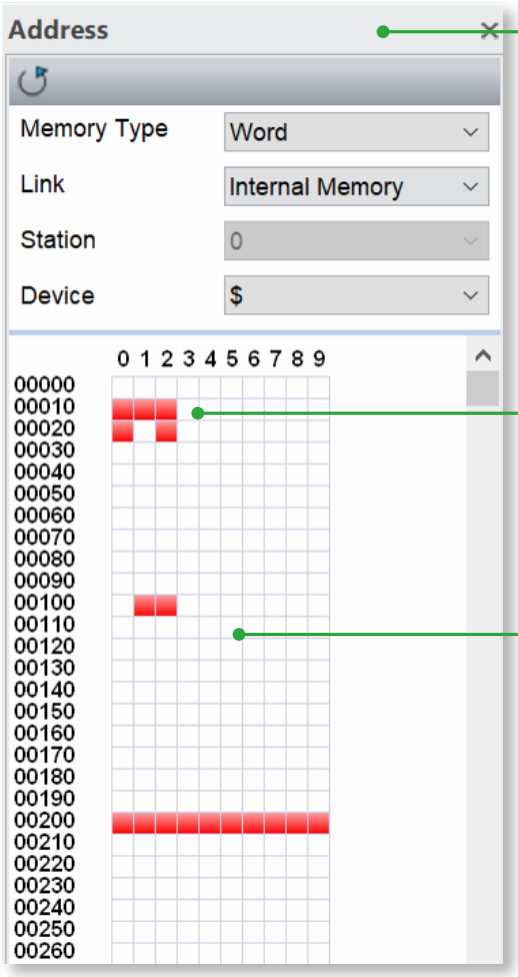
Provides easier property setup via group lists

Property Window

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

# Programming Software - DIAScreen

## Editing Windows

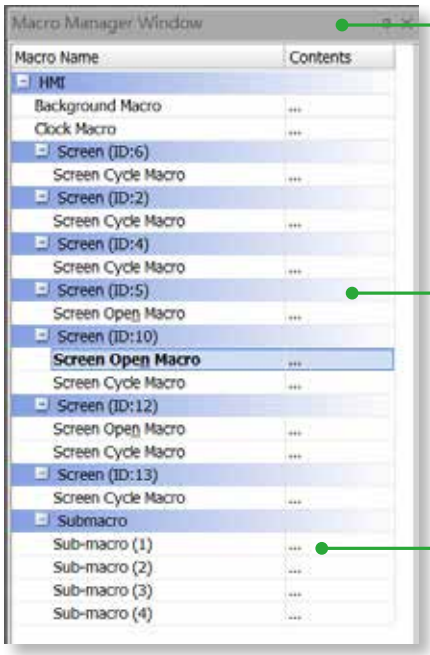



### Register View Window

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

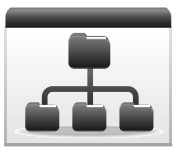
Red blocks indicate the used registers

White blocks indicate empty registers



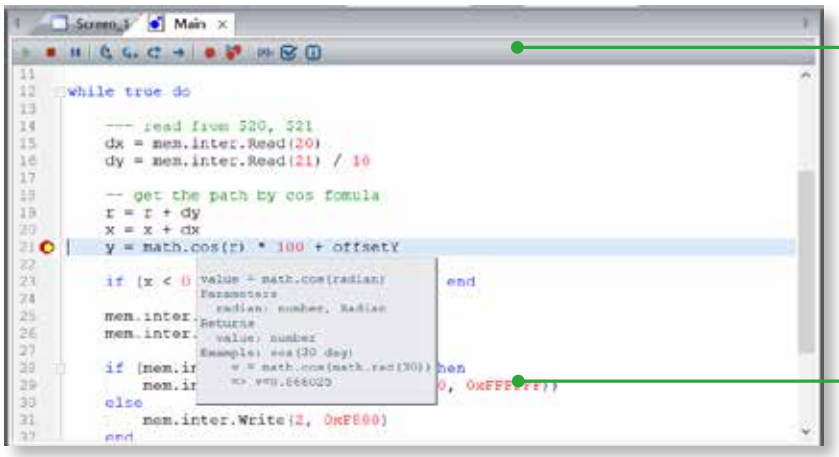

### Macro Management Window

Users can view all types of macros in the project



Select a macro via the list


Directly edit the macro after clicking

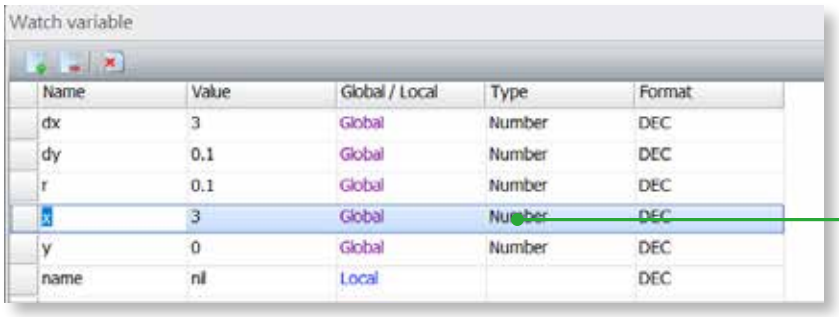



## Lua Tool Bar

Program debug

Stops program debug

Program break point

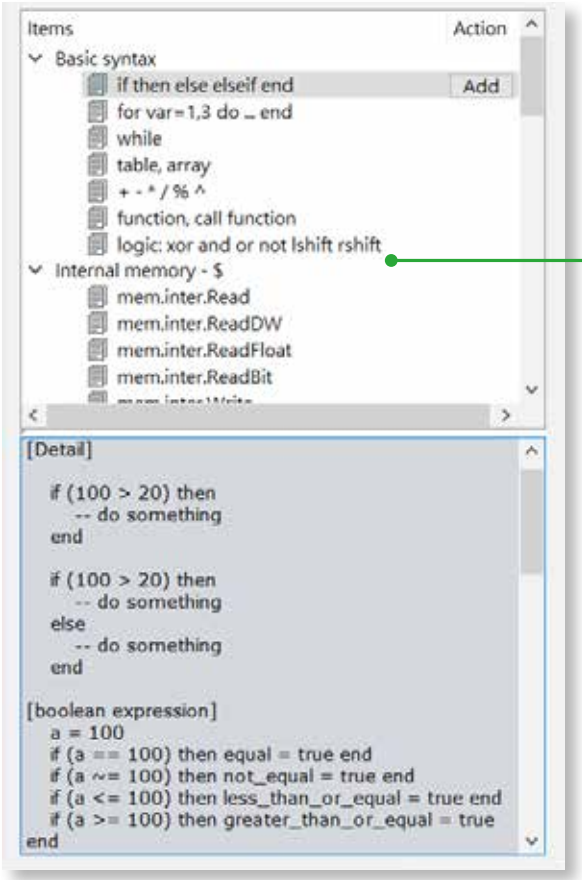



## Online Coding Tips

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

## Parameter Monitoring Window

Allows users to monitor parameter variation during program development




## Programming Assistance Window

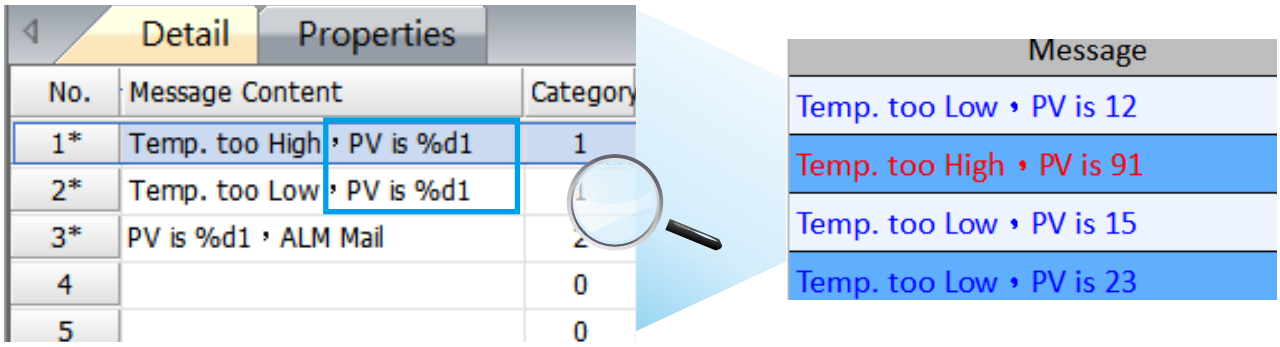
Provides online assistance as follows:

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

# Advanced Alarm

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

- Alarm messages contain current register data for issue analysis

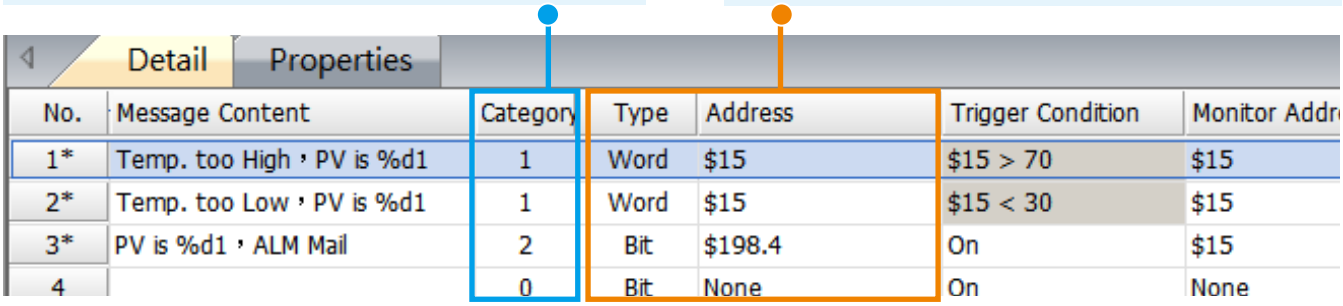



### Alarm Sorting

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

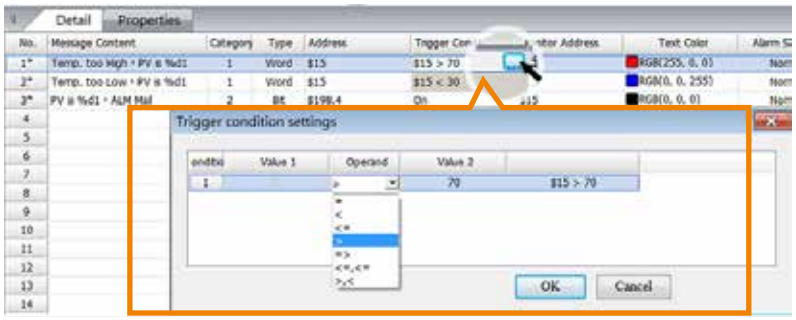
### Supports Compound Address Monitoring

Monitors Word and Bit documents at the same time




### 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 |

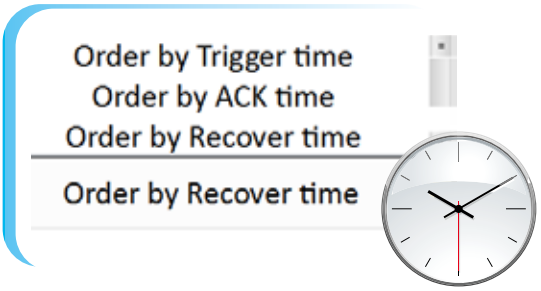
## Alarm Filtering

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 "Recover Time" and "Ack Time" |
| 2 | Hide alarms with "Recover Time" |
| 3 | Hide alarms with "Recover Time" or "Ack Time" |
| 4 | Hide alarms with "Ack Time" |

## Alarm Ordering

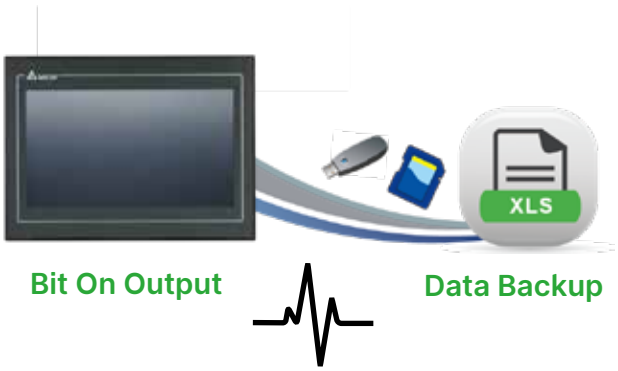
Displays alarms in the order of Trigger Time / Ack Time / Recover Time

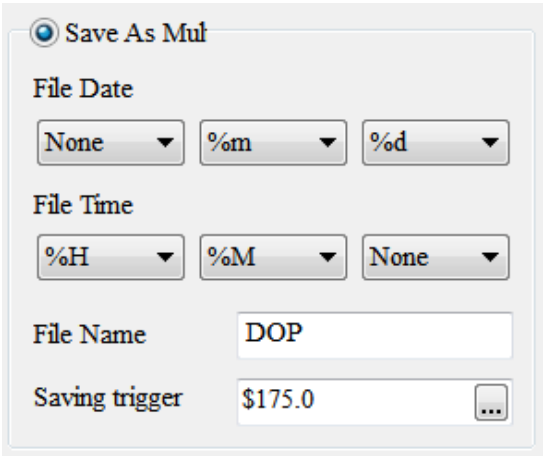


# Data Management

## Historical Data

- Generates historical reports with user-defined file names and timestamps through Bit Control



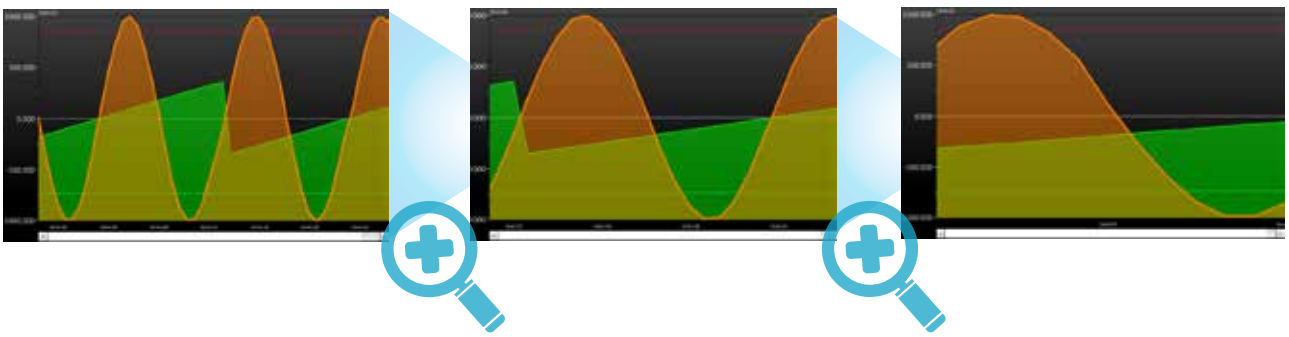




## Historical Data Review

- 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, for more flexibility 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 |
| Cake Recipe 1 | Strawberry | 300 | 0 | 0 | 221.56 | 533.1 | 150.7 |
| Cake Recipe 2 | Chocolate | 0 | 300 | 0 | 387.98 | 490.8 | 163.9 |
| 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

Recipe Group 1

- 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

- Users can save 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 20 accounts (account name/password) for each level to enhance operation safety
- Different function and operation access for each authority level to enhance operation safety
- Automatically logs out inactive users to ensure data security


## 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 enhance 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 |

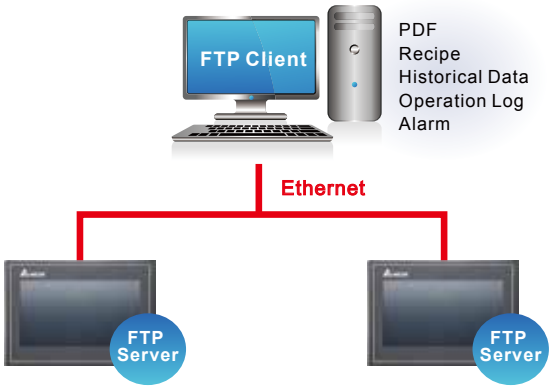
# Network Functions

M Type W Type H Type I Type E Type P Type D Type

Only With Ethernet

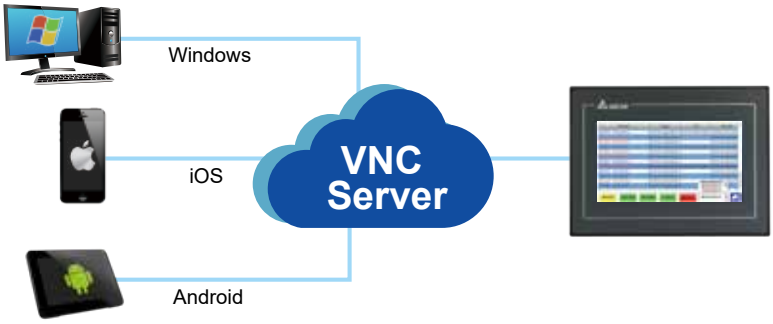
## FTP Server

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



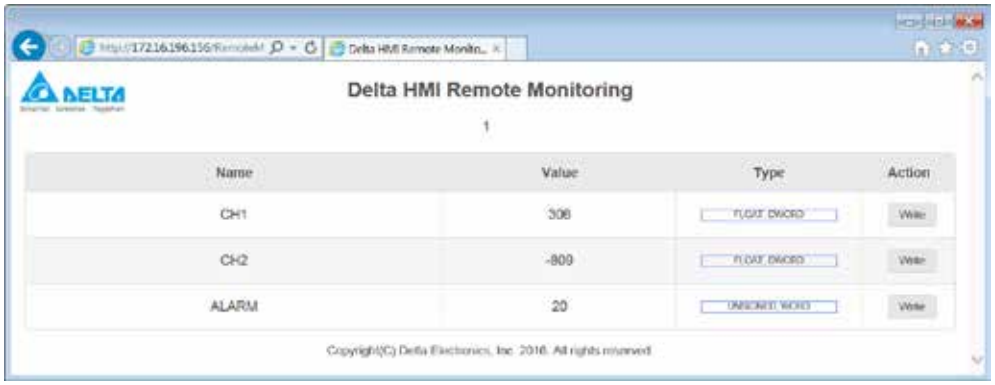

## VNC Server

- Built-in VNC server allows remote monitoring and operating of the DOP-100 Series via VNC Client APP (Windows, iOS, Android)
- Lock function: blocks remote operation during on-site operation to avoid unsynchronized commands. The 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 | 16-bit | | |
| | Resolution (Pixels) | 480 x 272 | 800 x 480 | 1,024 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 (800 MHz) | | |
| 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) / 80 dB | | |
| 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)[*2] | |
| | COM2[*2] | RS-422 / RS-485[*2] | RS-232 (supports hardware flow control) / RS-485[*2] | |
| | COM3[*2] | N/A | RS-422 / RS-485[*2] | |
| RTC | | Built-in | | |
| Cooling | | Natural air circulation | | |
| Certification | | CE / UL (please use shielding Ethernet cables and magnetic rings with filters of 300 ohm / 100 MHz) | | |
| Waterproof | | IP65 / NEMA4 / UL Type 4X (indoor use only) | | |
| Operation Voltage[*3] | | DC +24V (-15% ~ 15%)[*2], supplied by Class 2 or SELV circuit (isolated from MAINS by double insulation) | | |
| Voltage Endurance | | AC500 V for 1 minute (between charging DC24 terminal and FG terminals) | | |
| Power Consumption[*5] | | Max. 5.8 W[*3] | Max. 8.4 W[*3] | Max. 11 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 5 Hz ~ 8.3 Hz = Continuous: 3.5 mm, 8.3 Hz ~ 150 Hz = Continuous: 1 g | | |
| Shock | | IEC 60068-2-27 compliant 15 g peak for 11 ms 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 47.25 |
| Mounting Dimensions (W) x (H) mm | | 118.8 x 92.8 | 186.8 x 126.8 | 255 x 170.5 |
| Weight | | 280 g | 560 g | 1,100 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.
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 | 24-bit | | | |
| | Resolution (Pixels) | 1,024 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 | | Cortex-A7, Dual Core 1 GHz | | | |
| Flash ROM (Bytes) | | 8 GB | | | |
| RAM (Bytes) | | DDR3 1,000 MHz 1 GB | | | |
| Touch Panel | | Four-wire resistor, over 10,000,000 pressing times | | | |
| Buzzer | | Multi-Tone Frequency (2K ~ 4K Hz) / 85 dB | | | |
| Ethernet Interface | | 2 Ports[*2], 10 / 100 Mbps Auto sensing | | | |
| 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) / RS-485[*2] | | | |
| | COM2 | RS-422 / RS-485[*2] | | | |
| | COM3 | RS-232 (supporting flow control) / RS-485[*2] | | | |
| | COM4 | RS-422 / RS-485[*2] | | | |
| RTC | | Built-in | | | |
| Cooling | | Natural air circulation | | | |
| Certification | | CE / UL (please use shielding Ethernet cables and magnetic rings with filters of 300 ohm / 100 MHz) | | | |
| Waterproof | | IP65 / NEMA4 / UL Type 4X (indoor use only) | | | |
| Operation Voltage[*3] | | DC +24V (-15% ~ 15%)[*2], supplied by Class 2 or SELV circuit (isolated from MAINS by double insulation) | | | |
| Voltage Endurance | | AC500 V for 1 minute (between charging DC24 terminal and FG terminals) | | | |
| Power Consumption[*5] | | Max. 16.08 W | Max. 21.12 W | Max. 16.08 W | Max. 21.12 W |
| 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 | | | |
| Viberation | | IEC 61131-2 compliant 5 Hz ~ 8.3 Hz = Continuous: 3.5 mm, 8.3 Hz ~ 150 Hz = Continuous: 1 g | | | |
| Shock | | IEC 60068-2-27 compliant 15 g peak for 11 ms 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 Dimensions (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 | | 2,110 g | 3,200 g | 2,110 g | 3,200 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.
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# Model Description

**DOP - 1 07 W V**

**Product Name**
DOP: Delta Operation Panel

**Series**
1: 100 Series HMI

| Resolution | |
|---|---|
| G: SVGA TFT (800x) | Q: WQVGA TFT (480x) |
| S: WSVGA TFT (1024x) | V: WVGA TFT (800x) |
| X: XGA TFT (1024x) | Z: No Display (Zero) |

| Type |
|---|
| S: Simple Type |
| B: Basic Type |
| D: Basic Ethernet Type |
| C: Standard General Type |
| P: Standard Premium Type |
| E: Standard Ethernet Type (2 COM) |
| I: Standard Ethernet Type (3 COM) |
| W: Advanced Narrow Frame Type |
| M: Advanced Multimedia Type |

| Display Sizes | | | | |
|---|---|---|---|---|
| 00: Zero | 03: 4.3" | 05: 5.6" | 7: 7" | 8: 8" |
| 10: 10.1"/10.4" | 12: 12" | 15: 15" | | |

**DOP - 1 07 HS 4 6 5 ZM**

**Product Name**
DOP: Delta Operation Panel

**Series**
1: 100 Series HMI

| Wire |
|---|
| ZM / ZD: D-Sub 25 pin Connector |

| Outgoing wire length |
|---|
| 5: 5 meter |
| A: 10 meter |

| External device |
|---|
| 2: Without hand wheel, SD card + 15 Keys |
| 6: With hand wheel, SD card + 15 keys |
| 7: With hand wheel, SD card + 21 keys |

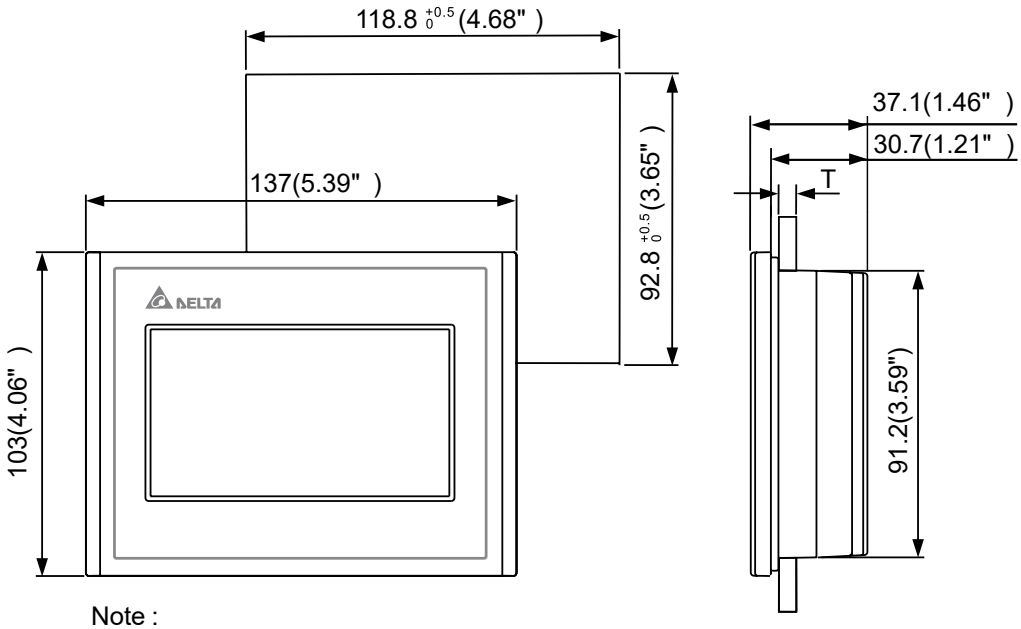
| Display Size | |
|---|---|
| 00: Zero | 07: 07" |

| Resolution |
|---|
| 4: WVGA |

| Type |
|---|
| HS: Standard type |
| HE: Ethernet type |

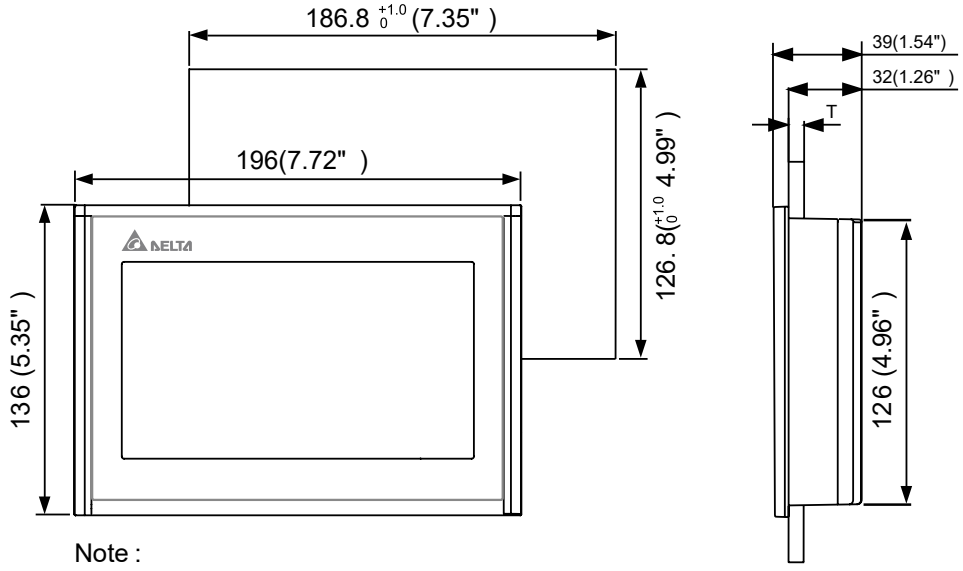
# Dimensions Unit: mm (inches)

## •DOP-103WQ




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

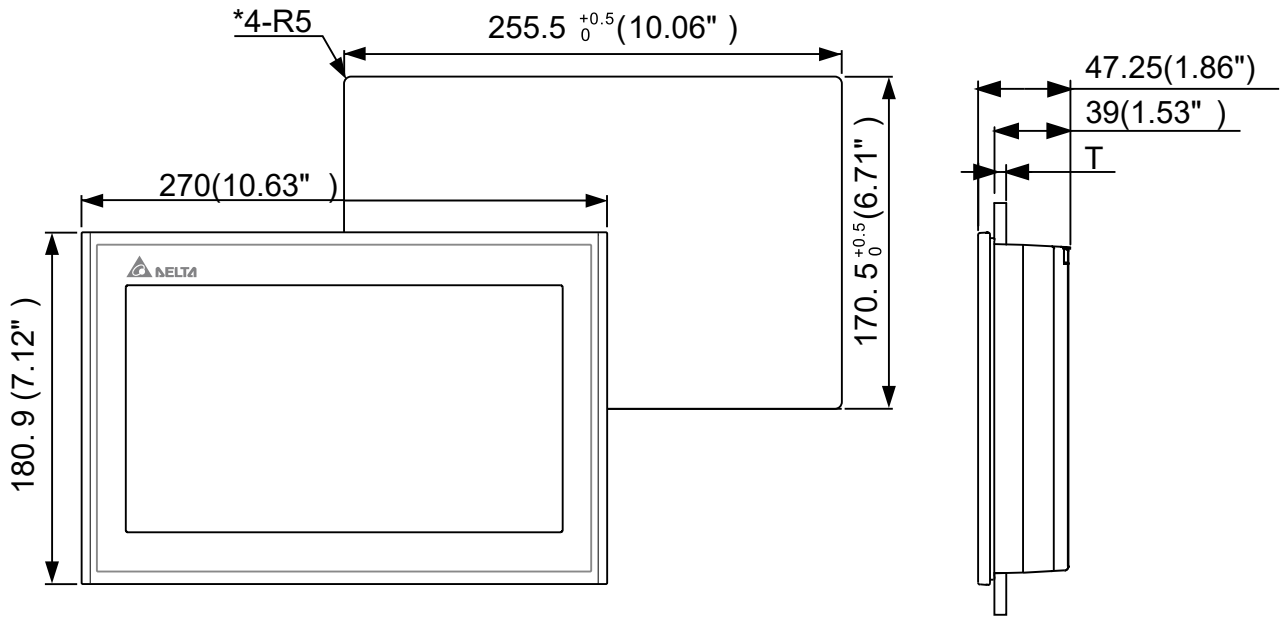
## •DOP-107WV




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

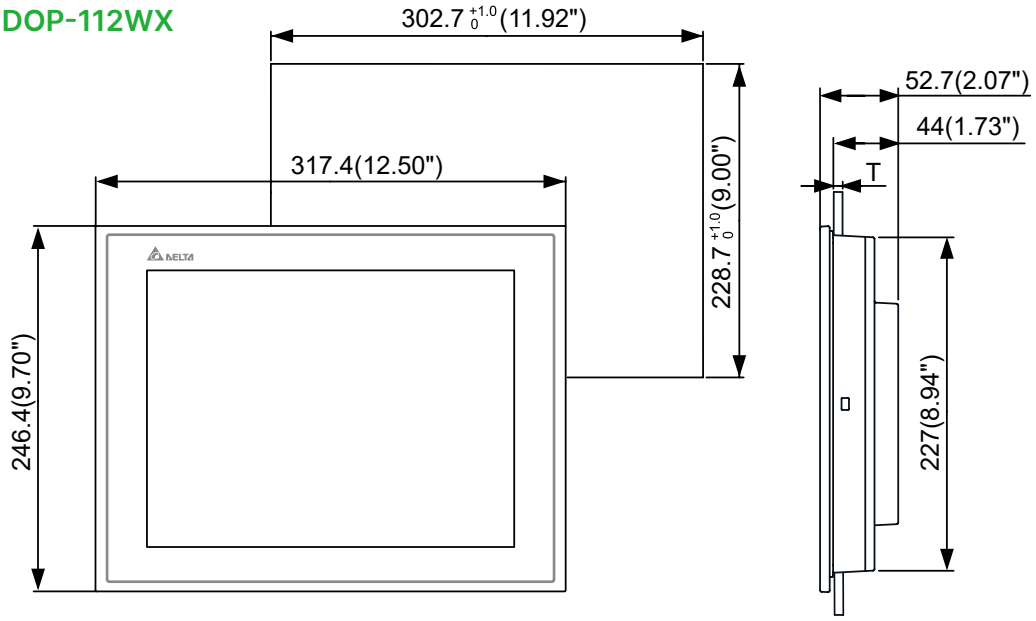
# Dimensions Unit: mm (inches)

## •DOP-110WS




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

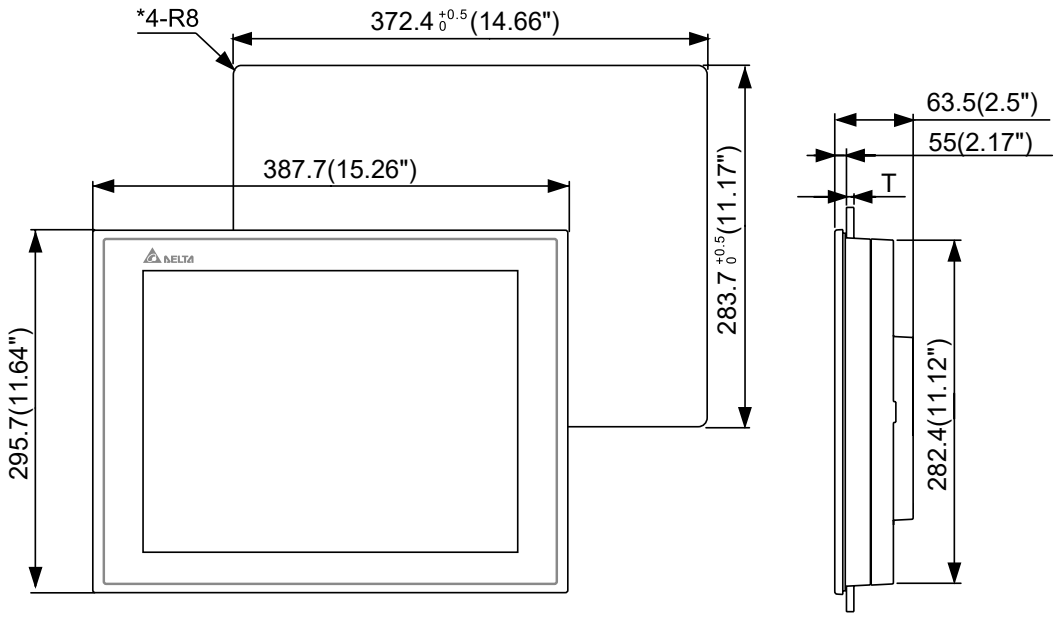
## •DOP-112MX / DOP-112WX




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

# Dimensions Unit: mm (inches)

## •DOP-115MX / DOP-115WX




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