Automation for a Changing World

Delta Human Machine Interface
DOP Series

AELTA

Smarter. Greener. Together.

One Touch Gives You Limitless Possib

Meets Customer Needs. Satisfies a Variety of Applications. Provides Multiple Functions. Creates

A Wide Range of Options

Three serial communication interfaces (RS-232/RS-422/RS-485), USB disk, Ethernet, audio output, SD card and more are supported for various applications.

Powerful Controller Drivers Support

Not just Delta industrial automation products, but more than 30 brands, and over 100 models of PLCs or controllers can be connected for effortless communication and versatile operation.

DELTA DOP-B HMI

Drive

Motion

Best Performance

Huma

Beautiful Display

Beneficial Featur

bilities with HMI

s the Ultimate FA Equipment.

High Quality and Full-Color Display

A full 65,536-color display is available on all models. With a whole new 2D drawing technique, the screen resolution is enhanced for more realistic images and for more colorful and vivid displays.

Energy Saving and Environmental Automation

All models are equipped with LED backlights which provide energy-efficient lighting that is made without mercury, reduces energy use and CO_2 emissions, and protects the environment.

DELTA

Product Line-up

DOP-B series

The DOP-B series provides various types and different sizes of touch panel HMIs with multiple dimensions and colors, and also offers fast and convenient control functions to meet the diverse application requirements demanded of industrial automation machines.

DOP-B				
4.3 inches Wide	B03S211 B03E211	7 inches		B07S515 B07E515 B07PS515
5.6 inches	B05S111	8 inches		B08S515 B08E515
7 inches Wide	B07S401K	10.1 inches		B10S411 B10S615 B10E615
	B07S411K	10.4 inches		B10S511 B10VS511 B10PE515
	B07S410 B07S411 B07E411 B07S415 B07E415 B07PS415			

DOP-H Series

The DOP-H series provides handheld type HMIs and customized teaching pendants for controlling and programming the motion of robot arms and other motion control systems.

DOP-H		
7 inches Wide		H07S425 H07E425 H07S42A H07E42A H07S465 H07E465 H07S46A H07E46A

DOP-W Series

The DOP-W series offers large-size HMIs that come with high resolution and high brightness touch screens, and should be your first choice to meet customer needs for a wide range of high-end industrial automation applications.

DOP-W		
10.4 inches		W105B
12 inches		W127B
15 inches		W157B

ANELTA

High Quality Display

65,536-color high quality TFT display offers more realistic and vivid images to capture and visualize system and manufacturing processes more quickly.

Audio Output Interface

Alarm!

In case of errors, an alarm alerts users via an audio message in real time.

Supports built-in amplified speaker using 3.5 mm stereo mini jack

▶ As the broadcast of alarms is triggered by the corresponding bit, the alarm messages can be played and output in different sound files by setting values of word registers.

D100=1

M30=ON

Overcurrent!

D100=3

M30=ON

Overload!

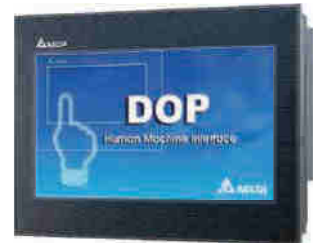| D100	Sound Files	Audio Messages
1	A.wav	Overcurrent
2	B.wav	Overvoltage
3	C.wav	Overload

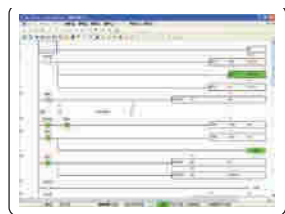# Supports Various Peripherals via USB Hub

Slave (USB-type B)

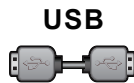⚠ Compatible with Windows Vista / Windows 7

Screen data can be transferred rapidly via USB connection.

Up to 480Mbps high-speed data transfer via USB v2.0
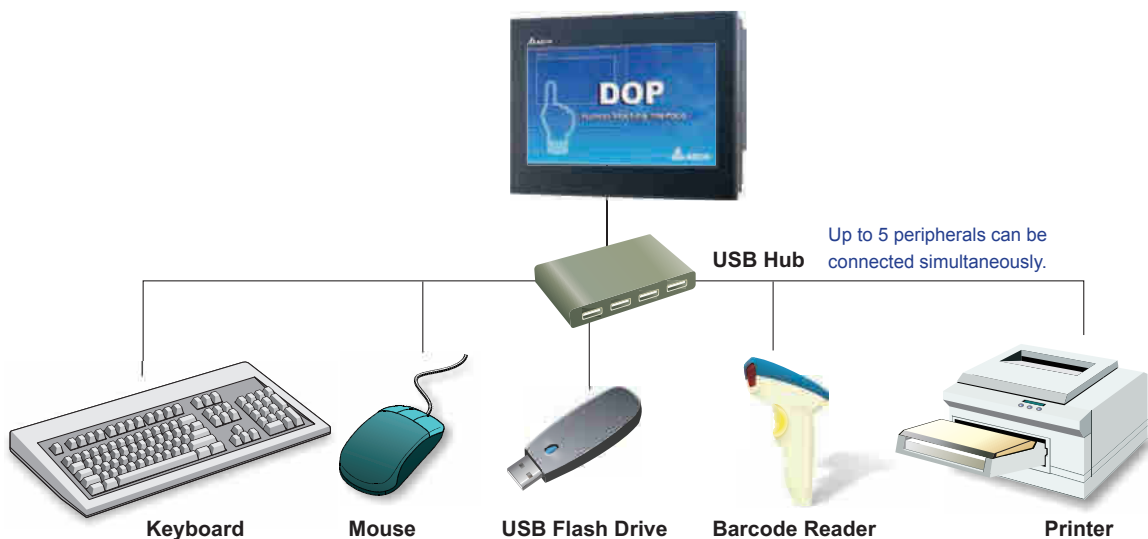
PLC Programming Software: WPLSoft

USB   RS-223

*Supports Delta DVP series PLC only.

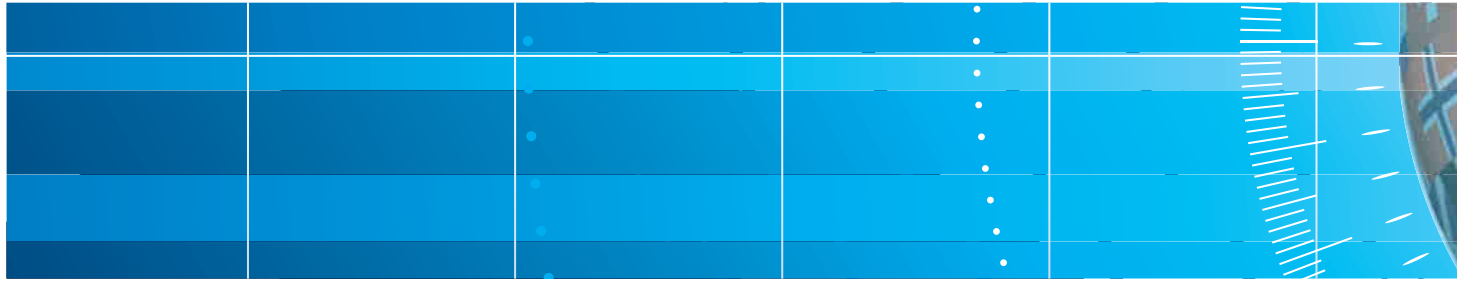Using the bypass function, enable monitoring functions and modify PLC programs directly via the USB connection.

Master (USB-type A)

Various peripherals can be connected via a USB Hub.

USB Hub   Up to 5 peripherals can be connected simultaneously.

Keyboard   **Mouse**   **USB Flash Drive**   **Barcode Reader**   **Printer**

Supports printers compatible with PictBridge.

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DELTA

SD Card / USB Disk   Versatile Storage Interface

▶ Exploiting the convenience of an SD card or USB disk, screen data transfer and collection can be quickly performed and the storage capacities of the HMI can be easily increased. No need to worry about data capacity of excessive history and recipe data

▶ SD card and USB disk are in FAT32 format, fully compatible with Microsoft Windows and allow filenames that exceed eight characters in length

Recipe   **USB disk**   **SD Card**

The recipe data can be saved in CSV format and easily edited on an external PC in Excel to effectively save PLC memory.

Recipe   **Alarm**   **USB disk**   **SD Card**

History and alarm information can also be saved in CSV format and stored to the SD card / USB disk.

▶ Multiple project screen data can be saved in SD card / USB disk simultaneously and transferred to HMI. No need to connect to a PC

▶ The data saved in an SD card / USB disk can be encrypted and the number of copies can be limited to protect the programs from unauthorized use

Project A   **Project B**   **Project C**   **USB disk**   **SD Card**

▶ PLC ladder diagrams can be transferred and backed up via SD card / USB disk even in a location where an external PC is not available

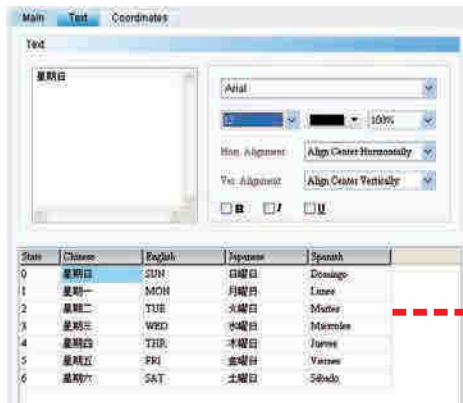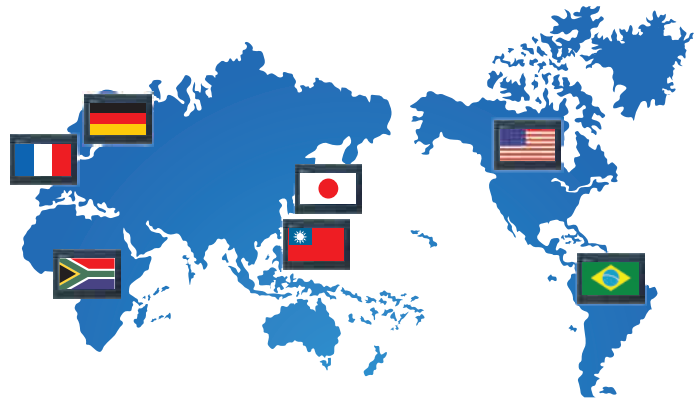▶ SD card / USB disk are capable of storing several PLC ladder diagrams

PLC Ladder Diagrams   **USB disk**   **SD Card**

Support Delta DVP series PLC only.

Multilingual Display

Up to 32 languages are available. No need to redesign the screen data! A benefit for marketing the equipment to manufacturers and end users around the world.

Multilingual editing on a PC in Excel

	D	E	F	G
1	Chinese	English	Japanese	Spanish
2	星期日	SUN	日曜日	Domingo
3	星期一	MON	月曜日	Lunes
4	星期二	TUE	火曜日	Martes
5	星期三	WED	水曜日	Miércoles
6	星期四	THR	木曜日	Jueves
7	星期五	FRI	金曜日	Viernes
8	星期六	SAT	土曜日	Sábado

Password Settings

Provides 8 levels of passwords to set user security and prevent improper use. Only the security level that is equal to or higher than the current setting can use the element.
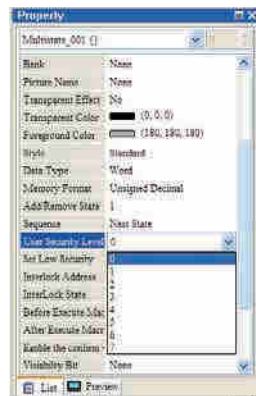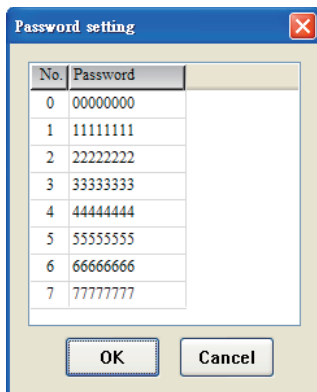
Element Invisible Function

The element on the screen can be hidden by triggering the corresponding bit.

DELTA

Provides Diverse Communication Interfaces

Easy to communicate with more than 30 brands of PLCs/Controllers

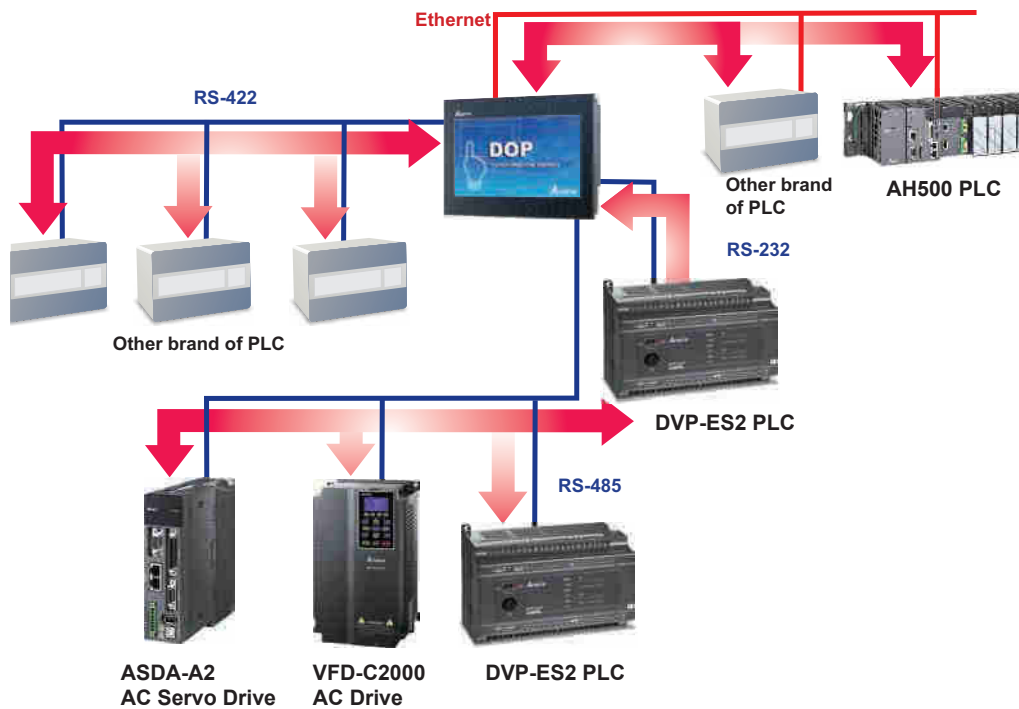All DOP series models support RS-232/485/422 communication interfaces and over 20 different PLC/Controller drivers. With the aid of an Ethernet interface, it is possible to use four communication interfaces at the same time, easily connecting to various industrial automation devices for a complete communication network link managed by Delta's new DOP series.

Ethernet

RS-422

DOP

Other brand of PLC

AH500 PLC

RS-232

Other brand of PLC

DVP-ES2 PLC

RS-485

ASDA-A2 AC Servo Drive

VFD-C2000 AC Drive

DVP-ES2 PLC

VGA Model

DOP-B10VS511 supports VGA video input which integrates live video and HMI display into one unit. Incorporated with Delta's DMV series machine vision system, Delta offers an integrated solution that delivers precise and reliable control to meet the needs of industry upgrades and bring benefits to our customers around the world.
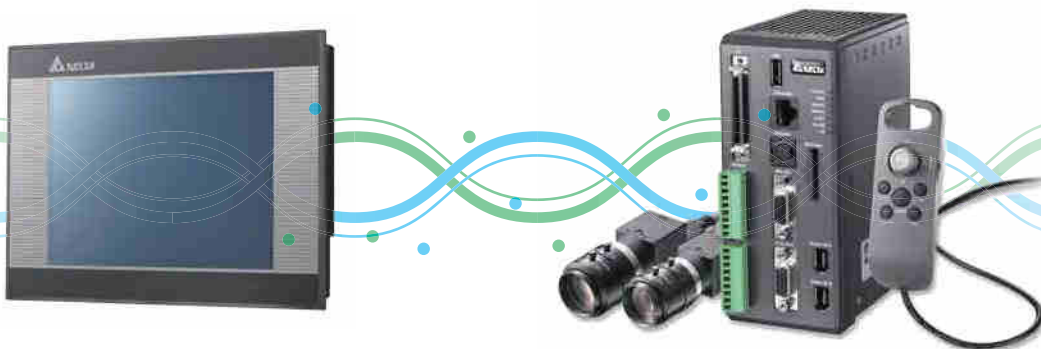
Specifications	
Input Interface	VGA Input
Resolution	800 x 600 pixels
Scanning Frequency	56 Hz / 60 Hz

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Integrates Delta Professional Functions (PS Models Only):

G-Code

▶ Supports Delta's motion controllers: DVP-10MC / DVP-20PM / AH20MC

▶ Capable of viewing and changing the G-code files with the HMI

▶ Supports serial and Ethernet communications

Create Autocad files

DOP-B07PS515

Connect the USB Disk to the HMI

USB Host

Download to the AH20MC

Makes the programming of motion control systems really easy

Run the program

AH20MC

Copy to the USB disk

Transform to G-Code

```
N01 G00 Z1.00000
N10 G64
N20 G00 X51.41791 Y6.46013
N30 G01 Z-0.10000 F1000.00
N40 G01 X51.43897 Y6.57145
N50 G01 X51.46328 Y6.60449
N60 G01 X54.19628 Y9.64749
N70 G01 X54.54002 Y10.03007
N80 G01 X54.61772 Y10.20689
N90 G01 X54.69736 Y10.58087
N100 G01 X55.03397 Y11.59650
N110 G01 X55.22240 Y12.08614
N120 G01 X55.52968 Y12.78773
```

ASDA-A2 Servo Drive

Drawing Machine

Electronic Cam (E-Cam) Curve Table

▶ Supports ASDA-A2 series servo drives

▶ A personal computer is not required. Electronic cam curves can be generated on HMI and downloaded to the ASDA-A2 series servo drive directly

Electronic Cam Curve

DOP

Supports E-Cam table macro for making E-Cam curve on HMI

▶ Auto rotary shear with sealing zone

▶ Indirect printing

▶ Auto rotary shear – cos compensation

E-CAM Area Number

601
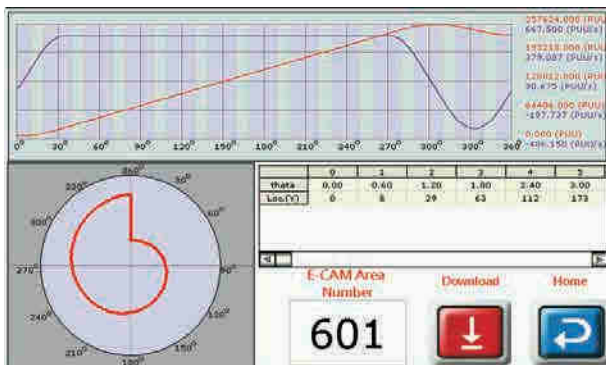
Supports cubic curve manual creation

New	Load	Save	Save As	Delete	Up	Down	Add Field	Delete Field	Output

USB Disk:
SD:
  20120307
  20120221_152917.
  20120217_184259.

P5-19	1.0	
Theta	R	Type
0	0	Cubic Curve
25	55	Const. Acc.
90	0	Const. Spee
180	0	Cubic Curve
247	99	Cubic Curve
360	0	N/A

NELTA

DOP-W Features

The Ultimate in Industrial Versatility

▶ 1GHz high speed processor for higher computing performance

▶ Aluminum enclosure: greater vibration resistance and higher tolerance for ambient environments compared with plastic enclosure.

▶ The enclosure with dark gray mold texturing is easily cleaned and ideal for the medical and food sectors.

▶ 1024 x 768 pixels high resolution and high brightness display
(W127B: 500 cd/m², W157B: 450 cd/m²)

▶ 256MB Flash ROM

▶ Highly reliable touch panel with min. 10,000,000 touches

Front Speaker

▶ The built-in stereo amplifying speaker provides efficient alarm notifications. No additional speaker is required.

▶ Apart from replacing general alarm with buzzers, functions for playing recorded voice and reminders are available for multiple applications.

▶ Mechanism design breakthrough. The front panel including the front speaker has acquired the IP65 waterproof certificate.

Multiple Peripheral Interfaces

▶ Supports 2 COM Ports

▶ Supports 2 Ethernet Ports

▶ Supports 3 USB Host 2.0 Ports

▶ Supports SD card

▶ Apart from traditional mounting, DOP-W also supports the VESA standard mounting interface making wall mounts easier.

*VESA mounting interface is only available on devices above 12 inches.

Multi-User Authority Management

This function allows users to assign authority levels and register passwords to set permissions for different user groups for security control. No need for third-party configuration and set-up costs.
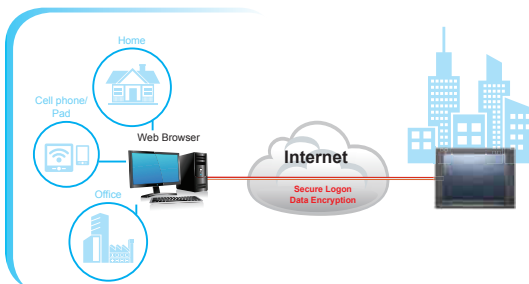
▶ 8 levels of user authority Level: 0 ~ 7

▶ 8 sets of user accounts with passwords for each user authority

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High-Capacity Memory

▶ Increased memory capacity stores more nonvolatile data, such as alarm messages and historical records than ever before for power-loss protection.

DOP-B vs DOP-W ROM

DOP-B — 128MB

DOP-W — **256MB**

Doubled Memory Capacity

More Powerful Remote Monitoring Function

▶ Compatible with eRemote

▶ Supports VNC Server

▶ Monitoring by eRemote software or web browser on PC

▶ Apps for eRemote or VNC Client support Apps on Android devices

▶ VNC Client supported Apps on iOS devices

* JAVA is required in web browsers.

Home
Cell phone/Pad
Web Browser
Office
Internet
Secure Logon Data Encryption

Two Individual Ethernet Ports

▶ Two individual Ethernet ports are equipped as standard, one is for HMI communication and the other is for external I/O for quick and easy integration.

Multilingual Display

▶ In addition to English and numbers, 16 languages are supported for a more localized interface

* Supports English, Traditional Chinese, and Simplified Chinese only during the launching period.

* Other languages such as Arabic, French, German, Hebrew, Hindi, Portuguese, Spanish, Japanese, Korean, Thai, Turkish, Russian, and Persian are continually added.

Video Player

▶ A new video player with self-defined playlist allows users to manage the list based on different applications.

* Supported Format: WMV

DOPSoft

The all new and upgraded configuration software provides complete functions and a user-friendly operator interface. Make editing easier than ever with a whole new level of design.
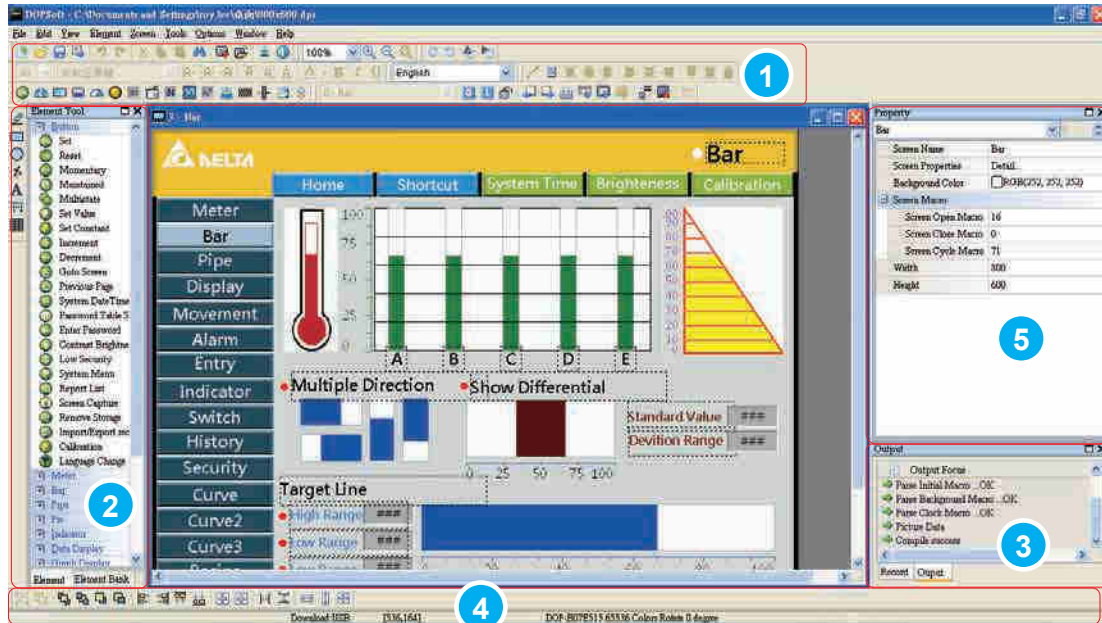
1 Toolbar

Actions such as edit, save, upload and compile can be executed easily just by clicking the attractive and easy-to-see icons on the toolbar.

2 Element Tool Window

The Element Tool Window provides a wide variety of element icons for selection. Use the mouse to select the desired element icon and drag it onto the work place to create a new element.

3 Output Window

The Output Window displays all the editing actions and output messages when the compile function is enabled. Once an error occurs, the error messages are displayed in Output Window as well.

4 Layout Toolbar

The Layout Toolbar offers Bring to Front, Send to Bottom, Align, Across / Down Space Evenly, Make Same Size and other functions for the benefit of creating intricate and beautiful elements.

5 Property Table

The Property Table displays the element property settings for each element.

Picture Bank

Newly designed picture bank offers more colorful and attractive elements.

Convenient Screen Data Conversion

Compatible with all DOP series, project files can be easily upgraded and converted to DOPSoft format.

DOP-W

DOP-B   DOPSoft   DOP-H
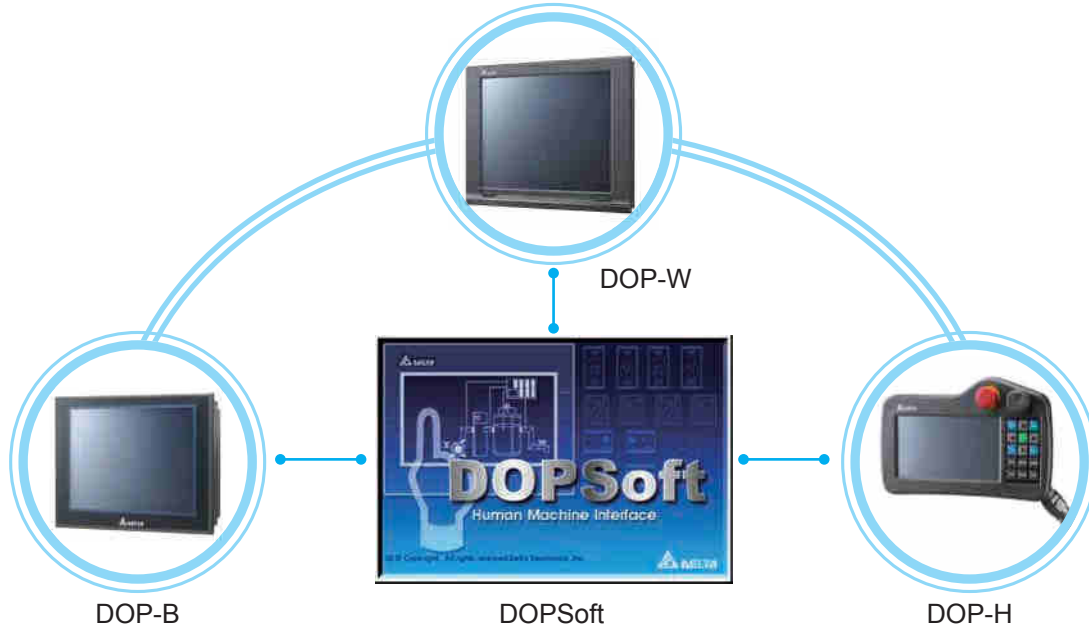
The screen data can be converted to different models even if the display size is not the same. The same project can be applied on different models.

5.6 inches   10 inches

*After the screen data is converted, it still needs to confirm the element position, text size and other settings.

Minimum System Requirements of DOPSoft

Hardware / Software	System Requirements
CPU	Pentium4 1.6GHz or greater is recommended
Memory	2G MB and above is recommended
Hard Disk	Capacity: 400MB and above
Monitor	Supports resolution: 800 x 600 or higher full-color display
Printer	Printer compatible with Windows 2000 Windows XP / Windows Vista / Windows 7
Operating System	Windows 2000 / Windows XP Windows Vista / Windows 7

*Users can download the DOPSoft configuration software and the user manual at Delta's website via the following link: http://www.deltaww.com

NELTA

Solution for Constructing a Network between Office and Production Site via Ethernet

eServer Data Collection Software

eServer lets you transfer production information and history data directly from production site to a PC in the office via Ethernet.

Daily Report				
Time	Data 1	Data 2	Data 3	Data 4
2009/4/22 AM 07:30	24	56	67	99
2009/4/22 AM 08:30	74	41	93	48
2009/4/22 AM 09:30	14	74	32	56
2009/4/22 AM 10:30	53	24	12	34
2009/4/22 AM 11:30	99	32	16	85
2009/4/22 AM 12:30	24	62	36	83
2009/4/22 PM 01:30	14	95	23	90

PC

Factory

Ethernet

Device date

D0	14
D1	95
D2	23
D3	90
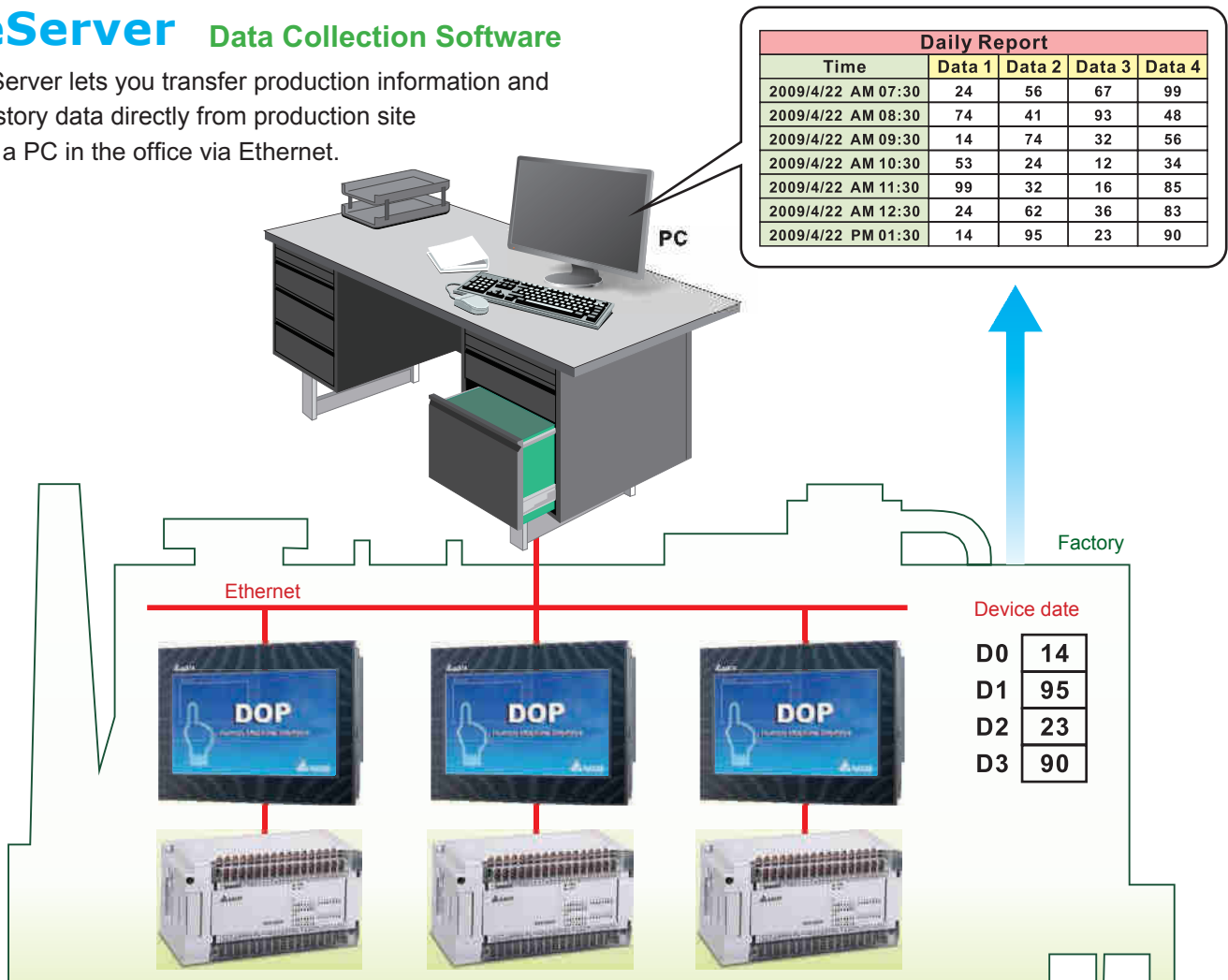
1 Excel Sampling Data

▶ Collected data can be saved in user-defined Excel files according to purpose and to easily create production reports

▶ If the formulas in the Excel file are set in advance, the production data, i.e. defective rate, average working hours and capacity utilization rate, and more can be calculated in real time while production data is recorded

▶ Production data can be saved in daily reports, weekly reports, monthly reports, and others automatically under different settings.

2 Database Sampling Data

▶ Users can access any database via ODBC (Open Database Connectivity) interface

3 Recipe Data Transfer

▶ Users can transfer and backup the recipe data via eServer easily

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eRemote

Remote Control Software

eRemote lets you view and monitor the same screen shown on the HMI at the production site, and control the manufacturing process via Ethernet. No matter where you are, remote control is easily accomplished.

Minimum System Requirements for eServer / eRemote

Hardware / Software	System Requirements
CPU	Pentium 4,1.6GHz or greater is recommended
Memory	2G MB and above is recommended
Hard Disk	Capacity: 100MB and above
Monitor	Supports resolution: 1024 x 768 or higher full-color display.
Printer	Printer compatible with Windows 2000 / Windows XP / Windows Vista / Windows 7
Operating System	Windows 2000 / Windows XP / Windows Vista / Windows 7

*Users can download the eServer / eRemote software and the user manual at Delta's website via the following link: http://www.deltaww.com

System Requirements of eRemote App	
Operating System	Android 4.1.2 and later versions
Storage Capacity	860 KB and above

Specifications

DOP-B Series

MODEL		DOP-B03S211	DOP-B03E211	DOP-B05S111	DOP-B07S410	DOP-B07S411	DOP-B07E411	DOP-B07S401K DOP-B07S411K	DOP-B07S415	DOP-B07PS415	DOP-B07E415
LCD MODULE	Display Size and Type	4.3" TFT LCD		5.6" TFT LCD	7" Widescreen TFT LCD						
	Display Colors	65536 colors									
	Resolution (pixels)	480 x 272		320 x 234	800 x 480						
	Backlight	LED Back Light									
	Luminance (cd/m^2)	280	400	200	250	250	250	250	350	350	350
	Backlight Life (hours) (Note 1)	20,000	10,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
MCU		400 MHz									
Flash ROM (Bytes)		128 MB		128 MB	4MB	128 MB					
RAM (Bytes)		64MB			64MB						
Backup Memory (Bytes)		16MB			32k	16MB					
Buzzer		Multi-Tone Frequency (2K ~ 4K Hz) / 85dB									
AUX		N/A	N/A		N/A						Stereo output
Ethernet		N/A	1 Port (Note 2)	N/A	N/A		1 Port (Note 2)	N/A			1 Port (Note 2)
Memory Card		N/A	N/A		N/A				SD card (supports SDHC)		
USB		1 USB Host Ver 1.1 / 1 USB Client Ver 2.0			1 USB Client Ver 2.0	1 USB Host Ver 1.1 / 1 USB Client Ver 2.0					
Serial COM Port	COM1	RS-232 (Supports hardware flow control) / RS-485		RS-232 (Supports hardware flow control)(Note 2)	RS-232 (Supports hardware flow control)/ RS-485 / RS-422	RS-232 (Supports hardware flow control)			RS-232 (Supports hardware flow control)(Note 2)		
	COM2	RS-422 / RS-S485	RS-422 / RS-485 (Note 2)	RS-232 / RS-485 (Note 2)	N/A	RS-232 / RS-485			RS-232 / RS-422 / RS-485 (Note 2)		
	COM3	N/A		RS-422 / RS-485 (Note 2)	N/A	RS-422 / RS-485			RS-232 / RS-422 / RS-485 (Note 2)		
VGA Input		N/A	N/A		N/A						
Delta Professional Integration Function		N/A	N/A		N/A				YES		N/A
Function Key		N/A	N/A		N/A			8	N/A		
Perpetual Calendar (RTC)		Built-in									
Cooling Method		Natural air circulation									
Safety Approval		CE / UL									
Waterproof Degree		IP65 / UL type 4x									
Operation Voltage (Note 3)		DC +24V (-10% ~ +15%) (Note2)									
Voltage Endurance		AC500V for 1 minute (between charging DC24 terminal and FG terminals)									
Power Consumption (Note 5)		2.64 W	2.64 W	3.0 W	3.5 W	4 W	4 W	4 W	5 W	5 W	7.5 W
Backup Battery		3V lithium battery CR2032 x 1									
Backup Battery Life		It depends on the temperature used and the conditions of usage, about 3 years or more at 25 $^\circ$C									
Operation Temp.		0°C ~ 50°C									
Storage Temp.		-20°C ~ +60°C									
Ambient Humidity		10% ~ 90% RH (0 ~ 40° C), 10% ~ 55% RH (41 ~ 50 $^\circ$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 11 ms duration, X, Y, Z directions for 6 times									
Dimensions (W) x (H) x (D) mm		129 × 103 × 39	129 x103 × 39	184 × 144 × 50	215 × 161 × 35.3	215 × 161 × 50	215 x 161 x 50	215 × 161 × 50	215 × 161 × 50	215 × 161 × 50	215 × 161 × 50
Panel Cutout (W) x (H) mm		118.8 × 92.8	118.8 × 92.8	172.4 × 132.4	196.9 × 142.9	196.9 × 142.9	196.9 x 142.9	196.9 × 142.9	196.9 × 142.9	196.9 × 142.9	196.9 × 142.9
Weight		Approx. 230 g	Approx. 264 g	Approx. 670 g	Approx. 700 g	Approx. 820 g	Approx. 820 g	Approx. 820 g	Approx. 970 g	Approx. 970 g	Approx. 970 g

1) The half-life of backlight is defined as original luminance being reduced by 50% when the maximum driving current is supplied to HMI.
2) With built-in isolated power circuit.
3) Please use isolated power supply.
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 HMI with no peripheral devices connected.
   To ensure normal operation, it is recommended using a power supply with a capacity 1.5 ~2 times the value of the power consumption.
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

DOP-B07S515	DOP-B07PS515	DOP-B07E515	DOP-B08S515	DOP-B08E515	DOP-B10S511	DOP-B10VS511	DOP-B10E515	DOP-B10PE515	DOP-B10S411	DOP-B10S615	DOP-B10E615
7" TFT LCD			8" TFT LCD		10.4" TFT LCD				10.1" Widescreen TFT LCD		
65536 colors											
800 x 600			800 x 600		800 x 600				800 x 480	1024 x 600	
LED Back Light											
450	450	450	500	500	300	300	300	300	300	200	200
20,000	20,000	20,000	25,000	25,000	10,000	10,000	10,000	10,000	20,000	15,000	15,000
400 MHz											
128 MB			128 MB		128 MB				128 MB		
64MB			64MB		64MB				64MB		
16MB			16MB		16MB				16MB		
Multi-Tone Frequency (2K ~ 4K Hz) / 85dB											
N/A	Stereo output	N/A	N/A	Stereo output	N/A			Stereo output	N/A		Stereo output
N/A	1 Port (Note 2)	N/A	N/A	1 Port (Note 2)	N/A			1 Port (Note 2)	N/A		1 Port (Note 2)
SD card (supports SDHC)	SD card (supports SDHC)	SD card (supports SDHC)	SD card (supports SDHC)	SD card (supports SDHC)	N/A		SD card (supports SDHC)	SD card (supports SDHC)	N/A	SD card (supports SDHC)	SD card (supports SDHC)
1 USB Host Ver 1.1 / 1 USB Client Ver 2.0											
RS-232 (Supports hardware flow control)(Note 2)			RS-232 (Supports hardware flow control)(Note 2)		RS-232 (Supports hardware flow control)	RS-232 (Supports hardware flow control)(Note 2)			RS-232 (Supports hardware flow control)	RS-232 (Supports hardware flow control)(Note 2)	
RS-232 / RS-485(Note 2)			RS-232 / RS-422 / RS-485(Note 2)		RS-232 / RS-485	RS-232 / RS-485(Note2)	RS-232 / RS-422 / RS-485(Note 2)		RS-232 / RS-485	RS-232 / RS-422 / RS-485(Note 2)	
RS-422 / RS-485(Note 2)			RS-232 / RS-422 / RS-485(Note 2)		RS-232 / RS-422 / RS-485	RS-232 / RS-422 / RS-485(Note2)	RS-232 / RS-422 / RS-485(Note 2)		RS-232 / RS-422 / RS-485	RS-232 / RS-422 / RS-485(Note 2)	
N/A			N/A		N/A	Resolution 800x600 pixels / Scanning Frequency 56Hz / 60Hz	N/A		N/A		
N/A	YES	N/A	N/A		N/A			YES	N/A		
N/A			N/A		N/A				N/A		
Built-in											
Natural air circulation											
CE / UL											
IP65 / UL type 4x											
DC +24V (-10% ~ +15%)(Note2)											
AC500V for 1 minute (between charging DC24 terminal and FG terminals)											
7.68W	7.68W	7.68W	5.2W	7.8W	6.1W	6.1W	9.6W	9.6W	6.6W	12W	12W
3V lithium battery CR2032 x 1											
It depends on the temperature used and the conditions of usage, about 3 years or more at 25 °C											
0°C ~ 50°C											
-20°C ~ +60°C											
10% ~ 90% RH (0 ~ 40°C), 10% ~ 55% RH (41 ~ 50°C), Pollution Degree 2											
IEC 61131-2 compliant 5Hz ~ 8.3Hz = Continuous: 3.5mm, 8.3Hz ~ 150Hz = Continuous: 1.0g											
IEC 60068-2-27 compliant 15g peak for 11 ms duration, X, Y, Z directions for 6 times											
184 × 144 × 50	184 × 144 × 50	184 × 144 × 50	227.1 × 174.1 × 61	227.1 × 174.1 × 61	299 × 224 × 51.1	299 × 224 × 51.1	299 × 224 × 51.1	299 × 224 × 51.1	272 × 200 × 61	272 × 200 × 61	272 × 200 × 61
172.4 × 132.4	172.4 × 132.4	172.4 × 132.4	219.4 × 166.5	219.4 × 166.5	285.2 × 210.2	285.2 × 210.2	285.2 × 210.2	285.2 × 210.2	261.3 × 189.3	261.3 × 189.3	261.3 × 189.3
Approx. 800 g	Approx. 800 g	Approx. 800 g	Approx. 1226 g	Approx. 1228 g	Approx. 1700 g	Approx. 1700 g	Approx. 1700 g	Approx. 1700 g	Approx. 1520 g	Approx. 1520 g	Approx. 1520 g

1) The half-life of backlight is defined as original luminance being reduced by 50% when the maximum driving current is supplied to HMI.
2) With built-in isolated power circuit.
3) Please use isolated power supply.
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 HMI with no peripheral devices connected.
   To ensure normal operation, it is recommended using a power supply with a capacity 1.5 ~2 times the value of the power consumption.
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

DOP-W Series

MODEL		DOP-W105B	DOP-W127B	DOP-W157B
LCD MODULE	Display Size and Type	10.4″ TFT LCD	12.1″ TFT LCD	15″ TFT LCD
	Display Colors	65536 colors		
	Resolution (pixels)	800 x 600	1024 x 768	
	Backlight	LED Back Light		
	Luminance (cd/m^2)	300	500	450
	Backlight Life (hours)[Note 1]	10,000	30,000	100,000
MCU		1 GHz		
Flash ROM (Bytes)		256 MB		
RAM (Bytes)		256 MB		
Backup Memory		800000 numbers of data (alarm data + historical data)		
Buzzer		Multi-Tone Frequency (2 K ~ 4 K Hz) / 80dB		
Audio Output		Stereo output	Stereo output / Built in 1.5W Speaker	
USB		1 USB Host Ver 2.0	3 USB Host Ver 2.0	
SD		SD card (supports SDHC)		
Serial COM Port	COM1	N/A		
	COM2	RS-232 / RS-422 / RS-485[Note 2]		
	COM3	RS-232 / RS-422 / RS-485[Note 2]		
Ethernet		2 Ports[Note2]		
Perpetual Calendar (RTC)		Built-in[Note5]		
Cooling Method		Natural air circulation		
Safety Approval		CE / UL		
Waterproof Degree		IP65 / UL type 4x	IP65 / UL type 1	
Operation Voltage [Note3]		DC +24V (-10% ~ +15%)		
Voltage Endurance		AC500V for 1 minute (between charging (DC24V terminal) and FG terminals)		
Power Consumption [Note 6]		13.5W	18.5W	21.6W
Backup Battery		Uses a gold-capacitor instead of a battery, no need to replace batteries		
Backup Battery Life		It can keep the RTC working at least seven days in a working environment where the conditions do not exceed the specifications for DOP-W series.		
Operation Temperature		0°C ~ 50°C		
Storage Temperature		-20°C ~ +60°C, 10% ~ 90% RH		
Ambient Humidity		10% ~ 90% RH [0 ~ 40°C], 10% ~ 55% RH [41 ~ 50°C] Pollution Degree 2		
Vibration		IEC61131-2 compliant 5Hz $\leq$ f < 8.3Hz = Continuous: 3.5mm, 8.3Hz $\leq$ f $\leq$ 150Hz = Continuous: 1.0g		
Shock		IEC 60068-2-27 compliant 15g peak for 11 ms duration, X, Y, Z directions for 6 times		
Dimensions (W) x (H) x (D) mm		299 × 224 × 46.8	313 × 239.5 × 67.5	384.4 × 295.8 × 67.8
Panel Cutout (W) x (H) mm		285.2 × 210.2	302.7 × 228.7	372.4 × 283.7
Weight		Approx. 1750 g	Approx. 2830 g	Approx. 3880 g

1) The half-life of backlight is defined as original luminance being reduced by 50% when the maximum driving current is supplied to HMI.
2) With built-in isolated power circuit.
3) Please use isolated power supply.
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 HMI with no peripheral devices connected.
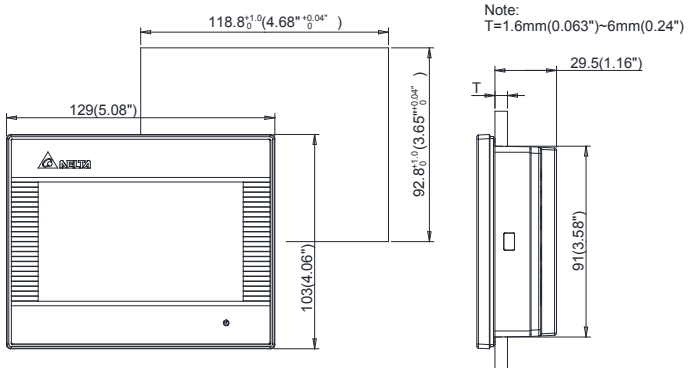   To ensure normal operation, it is recommended using a power supply with a capacity 1.5 ~2 times the value of the power consumption.
6) The content of this catalogue may be revised without prior notice. Please consult our distributors or download the most updated version at http://www.deltaww.com
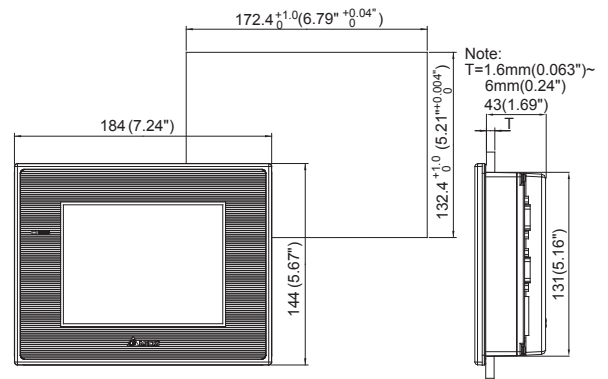
Dimensions Unit: mm (inches)

DOP-B Series

• DOP-B03S(E)211

118.8$^{+1.0}_{0}$(4.68"$^{+0.04"}_{0}$)

129(5.08")

92.8$^{+1.0}_{0}$(3.65"$^{+0.04"}_{0}$)

103(4.06")

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

29.5(1.16")

T

91(3.58")

• DOP-B05S111

172.4$^{+1.0}_{0}$(6.79"$^{+0.04"}_{0}$)

184 (7.24")

132.4$^{+1.0}_{0}$(5.21"$^{+0.04"}_{0}$)

144(5.67")

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

43(1.69")

T

131(5.16")

• DOP-B07S(E)415 / DOP-B07PS415

196.9$^{+1.0}_{0}$(7.75"$^{+0.04"}_{-0}$)

215(8.46")

142.9$^{+1.0}_{0}$(5.63"$^{+0.04"}_{-0}$)

161(6.34")

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

51.2(2.02")

142.3(5.6")
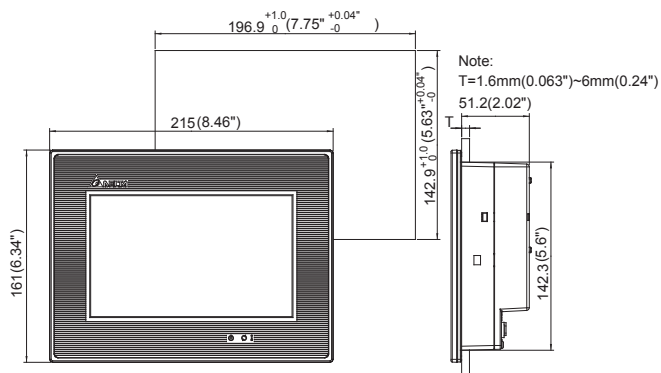
• DOP-B07S(E)515 / DOP-B07PS515

172.4$^{+1.0}_{0}$(6.79"$^{+0.04"}_{0}$)

184 (7.24")

132.4$^{+1.0}_{0}$(5.21"$^{+0.04"}_{0}$)

144 (5.67")

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

43(1.69")

T

131(5.16")
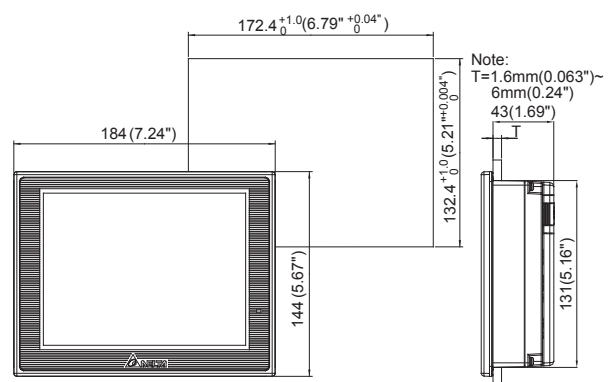
DOP-B Series

• DOP-B07S411 / B07E411

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

• DOP-B07S410

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

• DOP-B07S401K

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

• DOP-B07S411K

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

NELTA
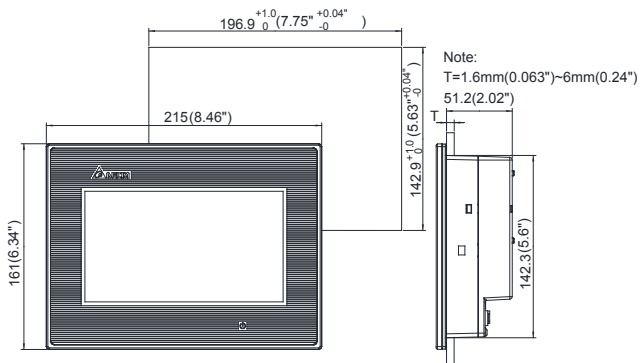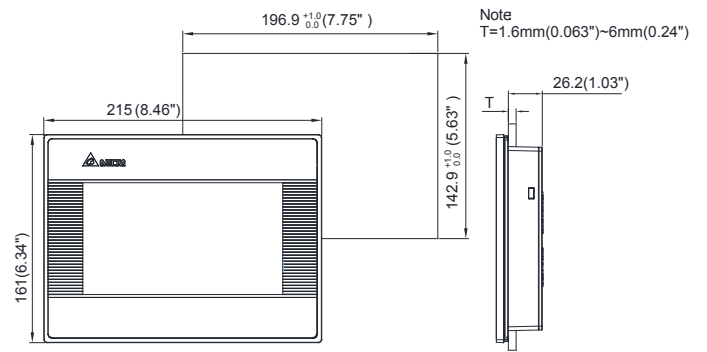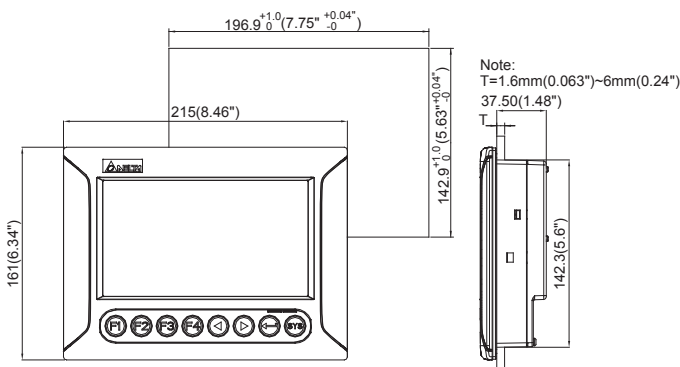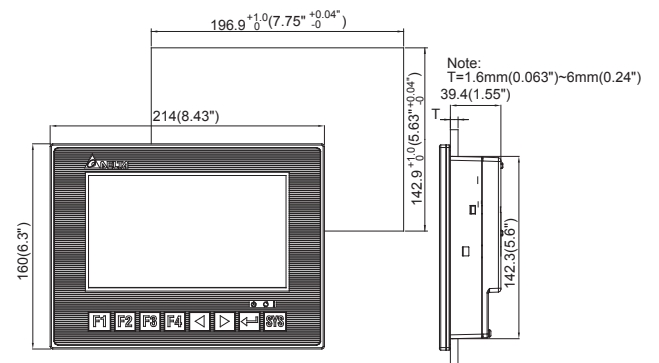
Dimensions Unit: mm (inches)

DOP-B Series

• **DOP-B08S(E)515**

219.4$^{+1}_{0}$(8.63"$^{+0.04"}_{0}$)

227.1(8.94")

4-R1.0(0.04")

166.5$^{+1}_{0}$ 6.55"$^{+0.04"}_{0}$

174.1(6.85")

52.3(2.06")

NOTE:
T=1.6mm(0.06") ~ 5.0mm(0.19")

• **DOP-B10S(E)51x / DOP-B10PE515 / DOP-B10VS511**

285.2$^{+1.0}_{0.0}$(11.23")

299(11.77")

210.2$^{+1.0}_{0.0}$(8.28")

224(8.82")

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

38.5

• **DOP-B10S(E)615**

261.3$^{+1.0}_{0}$ (10.29"$^{+0.04"}_{0}$)

272(10.71")

189.3$^{+1.0}_{0}$ (7.45"$^{+0.04"}_{0}$)

200(7.88")

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

51.9(2.04")

188.3(7.41")

23
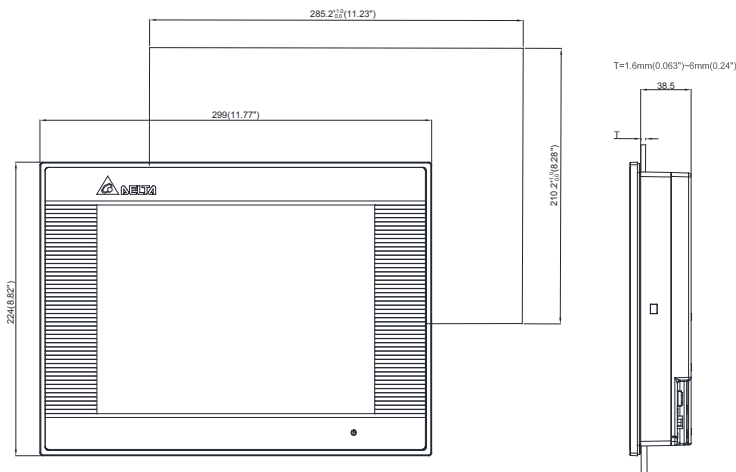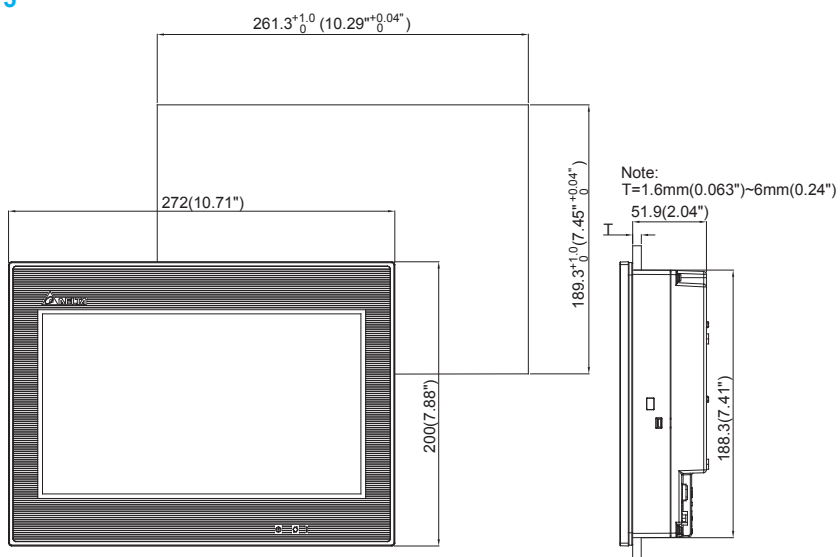
Dimensions Unit: mm (inches)

DOP-H Series

• DOP-H07X4XX

53.5(2.11")
51.3(2.02")

71.8(2.83")

12.5(0.5") 0.72"

257.4(10.13")

170.3(6.7")

41(1.61")

27.8(1.1")

DOP-W Series

• DOP-W105B

285. 2 $^{+1.0}_{0.0}$ (11. 23")

299(11. 77")

224(8. 82")

210. 2 $^{+1.0}_{0.0}$ (8. 28")

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

38. 5

T

24
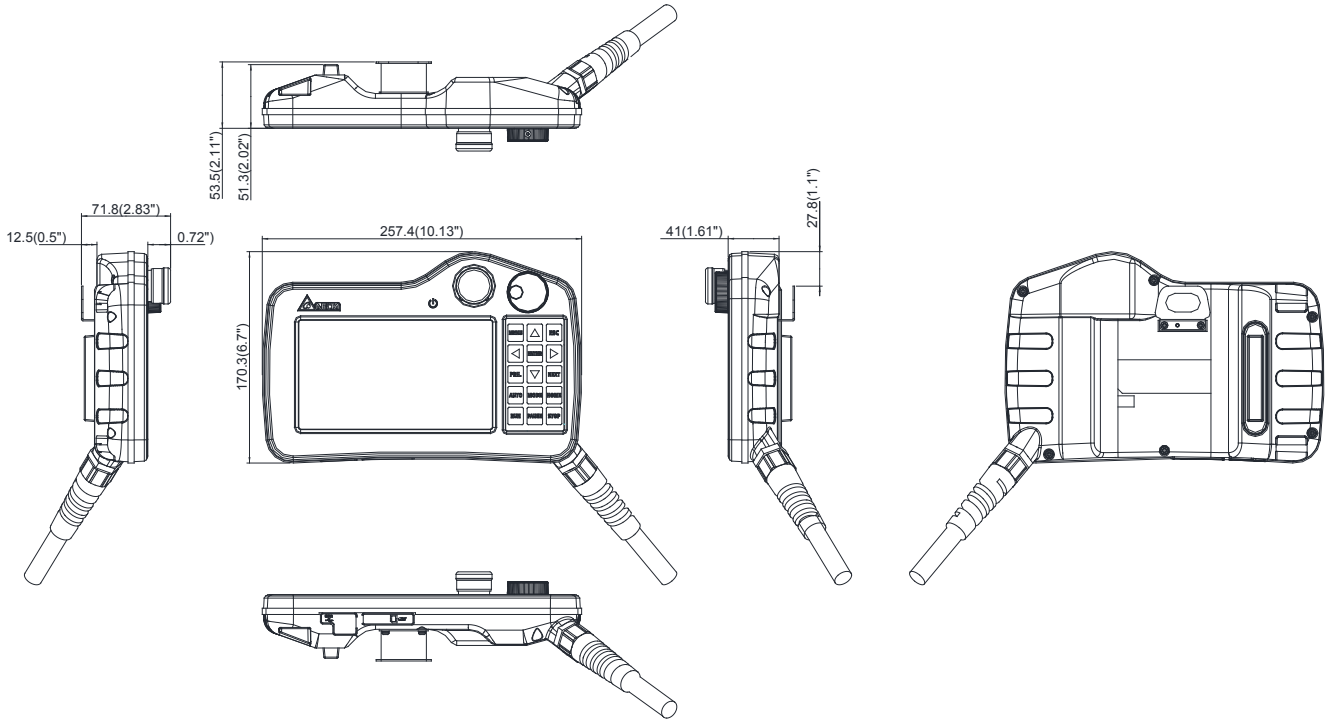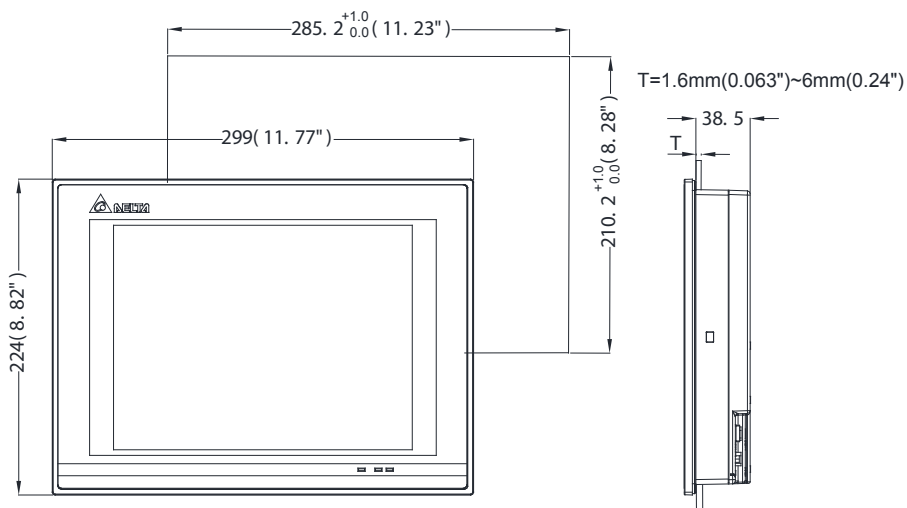
Dimensions Unit: mm (inches)

DOP-W Series

• **DOP-W127B**

302. 7 $^{+1.0}_{0.0}$ (11. 92")

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

313. 2(12. 33")

228. 7 $^{+1.0}_{0.0}$ (9. 00")

59. 0

T

239. 5(9. 43")

• **DOP-W157B**

372. 4 $^{+1.0}_{0.0}$ (14. 66")

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

384. 4(15. 13")

283. 7 $^{+1.0}_{0.0}$ (11. 17")

59. 2

T

295. 8(11. 65")
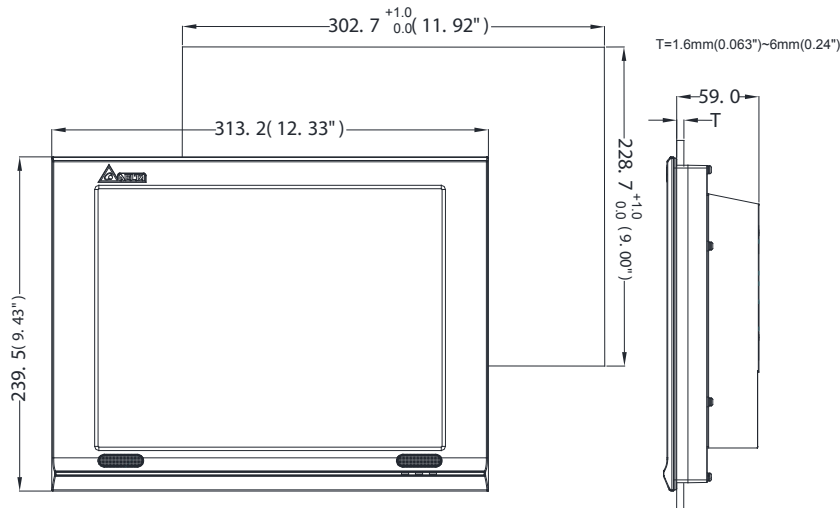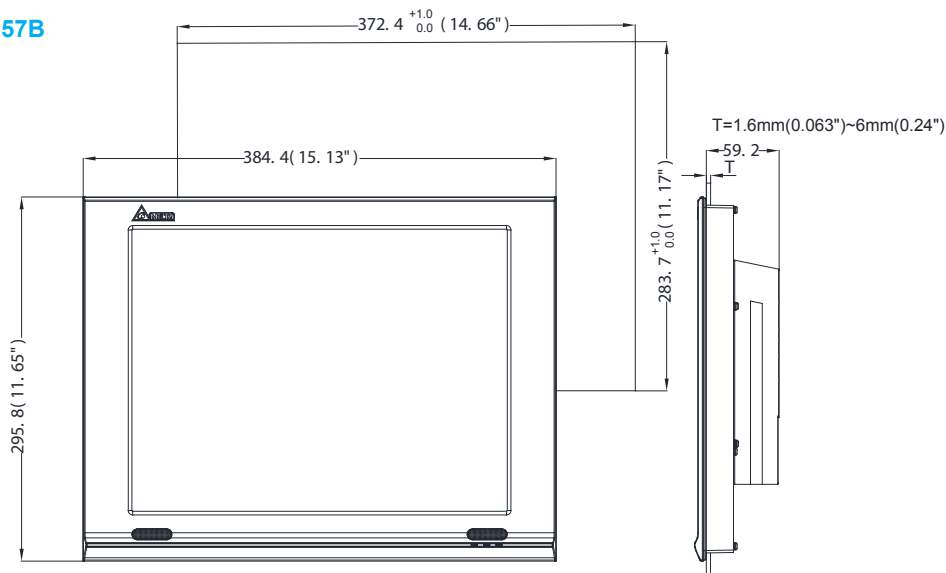
Optional Accessories

Model Name	Description
DOP-CA232DP	DOP-CA232DP: RS-232 Communication Cable for DVP Series PLC (Female Socket)
DVPACAB2A30	DVPACAB2A30: RS-232 Communication Cable for DVP Series PLC (Male Socket)
DOP-CAUSBAB	DOP-CAUSBAB: USB Communication Cable

Ordering Information

DOP - B 07 S 4 1 1 K

【Product Name】
DOP : Delta Operation Panel

【Series】
B : B Series HMI

【Display Size】
03: 4.3 inches / 05: 5.6 inches
07: 7 inches / 08: 8 inches
10: 10.1 / 10.4 inches

【Type】
S: Standard model
E: Ethernet model
PS: Standard model with professional functions
PE: Ethernet model with professional functions
VS: Standard model with VGA input

【Appearance】

【Resolution】
1: QVGA   4: WVGA
5: SVGA   6: WXGA

【Peripheral Interface】
0: None
1: USB Host only
5: USB Host and SD

【Function Code】
K: Keypad

DOP - H 07 S 4 6 5

【Product Name】
DOP : Delta Operation Panel

【Series】
H : H Series HMI

【Display Size】
07 : 7 inches

【Type】
S: Standard Type
E: Ethernet

【Appearance】

【Resolution】
4: WVGA

【Cable Length】
5: 5m
A: 10m

DOP - W 12 7 B

【Product Name】
DOP: Delta Operation Panel

【Series】
W: W Series

【Display Size】
10: 10"
12: 12.1"
15: 15"

【Resolution】
5: SVGA
7: XGA

【Type】
B: Standard Type