

IIoT



Digitized Automation for a Changing World

Delta Human Machine Interface DOP-300 Series



HMI DOP-300 Series Made for IIoT Solutions, Shaping a New Horizon for Smart Operations

The human-machine interface (HMI) plays a critical role IIoT by collecting and consolidating information while seamlessly connecting devices with management software. Delta introduces the all-new HMI DOP-300 Series , which features a dual-core high-speed processor and support for MQTT and OPC UA protocols. With built-in Wi-Fi and 4G antennas, along with an easy-to-install wireless communication module, DOP-300 Series significantly enhances connectivity, ensuring seamless data acquisition from equipment and efficient data transmission to the cloud.

Designed with a super-wide viewing angle and a full-color 24-bit display, the DOP-300 Series also features a fully laminated touchscreen panel, greatly enhancing visual quality and touch responsiveness. The combination of powerful functionality and vibrant visuals delivers an exceptional user experience.

Catering to smart manufacturing applications, the DOP-300 Series comes equipped with DIACloud services and the DIAWebDesigner web-based configuration system. This allows customers to monitor key operational data and equipment status in real time. By linking device manufacturers, system integrators, and end-users through the cloud, the system continuously accumulates and analyzes data, ensuring industry knowledge retention and ongoing production optimization.

As a gateway to IIoT, the DOP-300 Series ushers in a new era of smart manufacturing. It transforms the vision of a fully integrated service ecosystem into reality, making smart

* ISO27001、ISO27701 and IEC62443

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OT+IT Ecosystem

DOP-300 Series: Building a Smart & Connected Ecosystem

The HMI DOP-300 consolidates equipment data and uploads it to the DIACloud. Through the DIAWebDesigner web-based configuration system, it enables remote management with data visualization, achieving seamless and boundless smart manufacturing management.

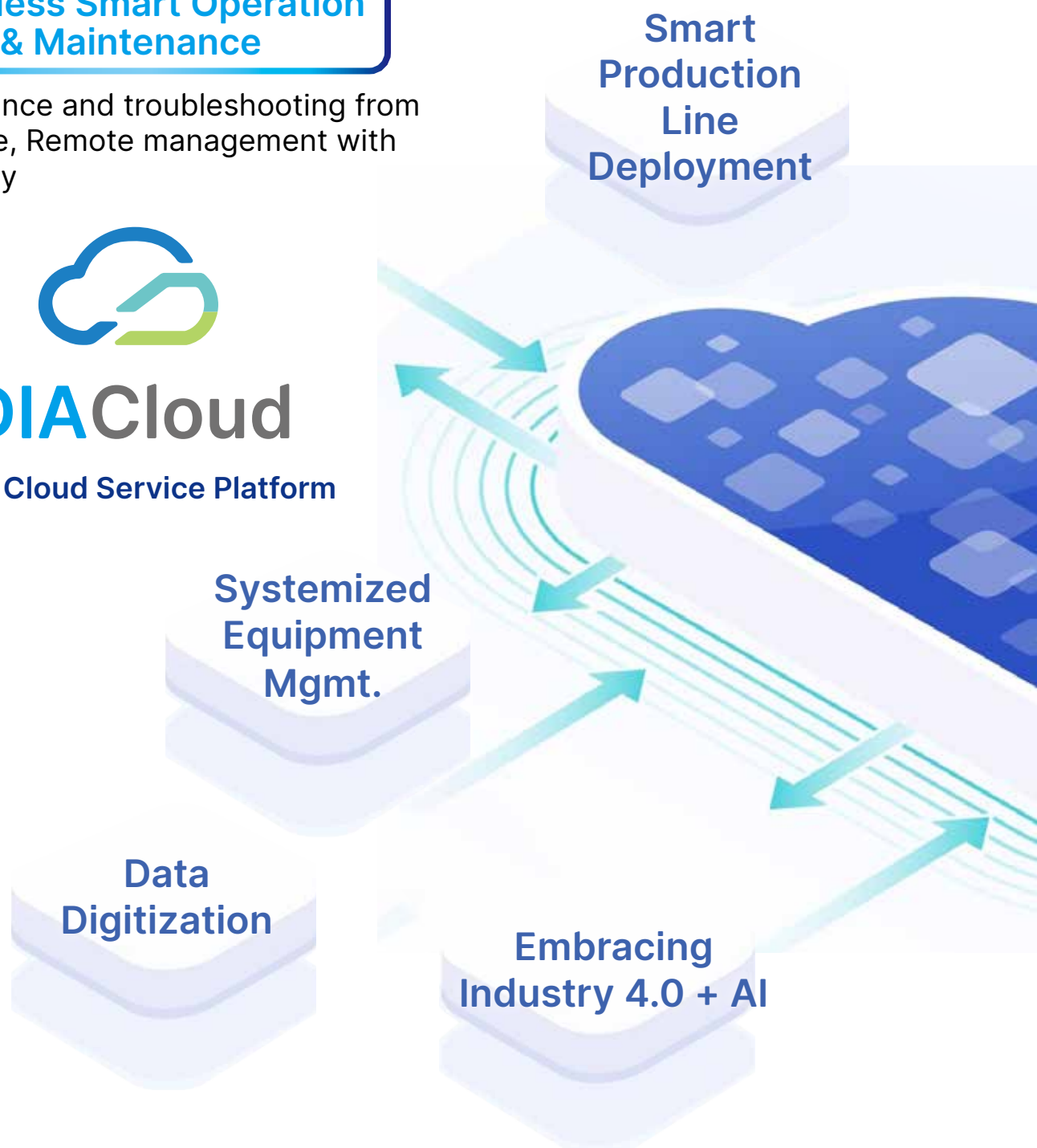
Seamless Smart Operation & Maintenance

Maintenance and troubleshooting from anywhere, Remote management with zero delay



DIACloud

Delta Cloud Service Platform



Data Visualization

Smart HMI



Delta HMI DOP-300

The DOP-300 Series HMI delivers a smoother, more intuitive operation, enhanced by advanced software features such as data integration, cloud applications, and mobile monitoring. It's the ultimate smart HMI solution for modern industrial needs.

Visualized Dashboard

With an intuitive interface design and a feature-rich data monitoring dashboard, the DOP-300 Series empowers users to effortlessly monitor and manage on-site equipment in real time.

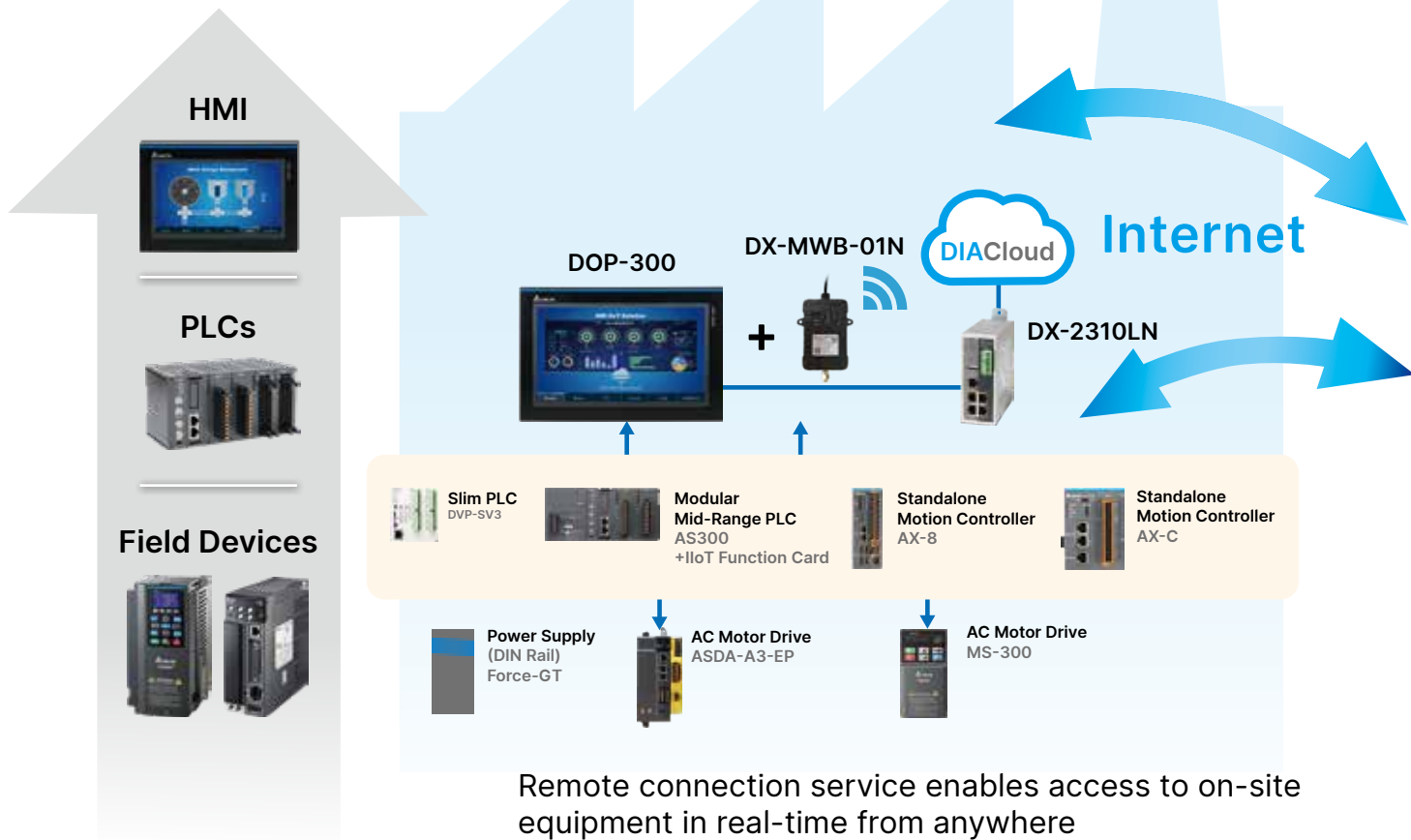


DIAWebDesigner

Delta Web Configuration Planning System

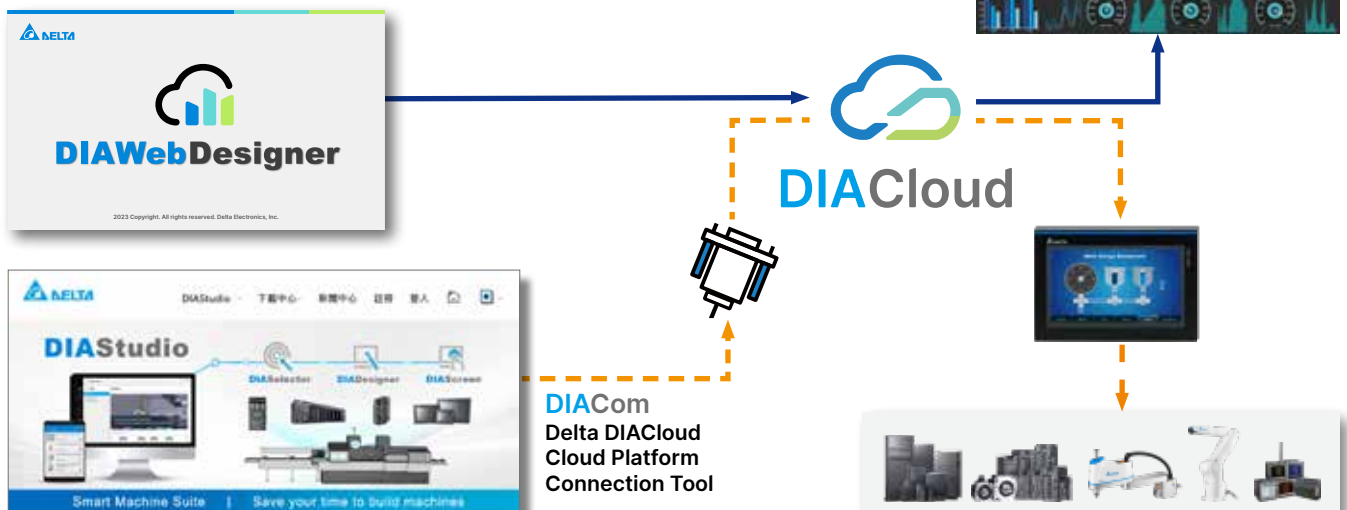
OT+IT Ecosystem

IIoT Structure



Remote Monitoring Dashboard

- Collect equipment data and design customized dashboard using rich and diverse charts



A web configuration planning system with an intuitive user interface design and easy deployment

Display data from different sources on a monitoring dashboard using rich and diverse charts

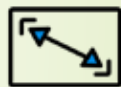


IoT Cloud Services Platform

- User-friendly web portal
- Equipment mgmt. & remote monitoring
- Safe connection with field devices
- Global services



eDIACloud App QR Code



Mobile Apps

- Easy cloud connection
- Field devices remote monitoring
- Supports bluetooth

Visualized Dashboard

- Key data analytics
- Data encryption ensures safe data transmitting
- Rich widgets and customized dashboard

Global Server Network

- Offers multi-country server deployment, the best choice for cross-border remote maintenance



AWS, Microsoft Azure, UCLLOUD, Inspur, Alibaba Cloud, HUAWEI Cloud, Tencent Cloud, China Mobile Cloud

Software Services

Smoother OT+IT Data Integration

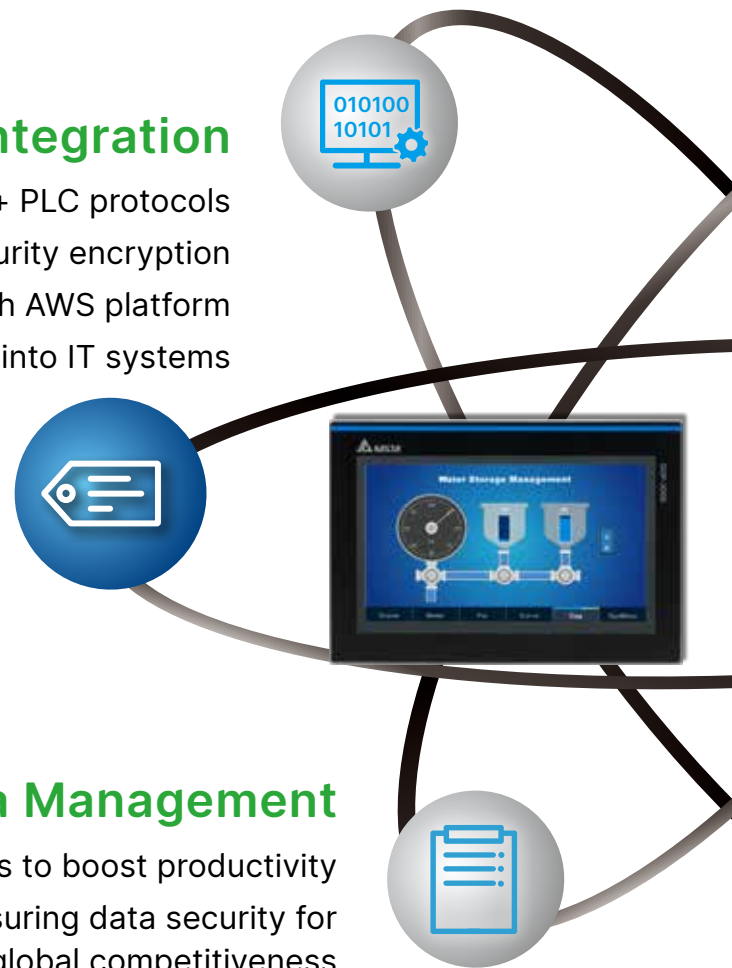
- Supports 200+ PLC protocols
- Stronger OPC UA security encryption
- MQTT encrypted transmission, integrated with AWS platform
- Supports database connection, integrating data into IT systems

One-Click Deployment

- Cascade controllers for quick tag sharing
- Data is easy to read, search, and maintain, significantly boosting data management efficiency

Flexible & Secure Data Management

- Batch report supports flexible analytics to boost productivity
- Complies with FDA 21 CFR Part 11, ensuring data security for enhanced global competitiveness



Supported Protocols

OPC UA	OPC UA Client	Delta	Delta AS Series PLC (Modbus)	Mitsubishi	A Series / J71UC24
	OPC UA Server		Delta AS Series PLC (Modbus TCP)		A2A/A2AS/A2USH A1SH/A3N/A2ASH CPU
MQTT	Client (Publish/Subscribe)		Delta Controller ASCII		FX Series
	Broker		Delta Controller RTU		FX2N
BACnet	BACnet MS/TP		Delta DVP PLC		FX3U Ethernet
	BACnet UDP		Delta DVP Q-Link		FX3U / FX3GA
	BACnet/IP Server		Delta DVP TCP		FX5U Ethernet
MODBUS	984 RTU (Master)		Delta EtherNet/IP		iQ-R Series Computer Link (3C Frame)
	ASCII (Master)		Delta EtherNet/IP (Tag)		iQ-R Series TCP (SLMP)
	ASCII (Slave)	Siemens	S7 200		J2s / J3 Series
	RTU (Slave)		S7 200 (ISO TCP)		L Series Computer Link (3C Frame)
Digital	TCP/IP		S7 200 Smart (ISO TCP)		L Series Ethernet (3E Frame)
	Digital Memory Link Normal		S7 300 (with PC Adaptor)		Q Series Computer Link
	Digital Memory Link Normal (Slave)		S7 300 (without PC Adaptor)		Q Series CPU Port
	Digital Memory Link Extended		S7 300 (Direct MPI)		Q Series Ethernet (3E Frame)
	Digital Memory Link Extended (Slave)		S7 300 (ISO TCP)		QnA Series CPU Port
CODESYS	CODESYS		S7 1200 (ISO TCP)	Beckhoff	TwinCAT ADS / AMS TCP
			S7 1500 (ISO TCP)		TwinCAT Ethernet (Tag)
			S7 LOGO (ISO TCP)		TwinCAT3 ADS / AMS TCP
YUDIAN	AIBUS	Fatek			FB Series TCP



Remote Controlling

- Use VNC Viewer to simultaneously monitor other HMIs, enhancing productivity
- Offers remote monitoring of machine commissioning, maintenance, and operation

Mobile Connectivity

- Offers flexible wireless network connection with multiple devices
- Reduced cabling saves electrical control costs & enhances space utilization
- Seamless IIoT integration with DIACloud

User-friendly UI

- Supports customized UI interfaces for enhanced visuals
- Easy for users to get started quickly

Keyence	KV1000 /KV3000	Panasonic	FP Series	Eaton	Controller ASCII
	KV Nano		FP Series TCP		Controller RTU
	KV Series TCP		FP2 Series TCP		TCP/IP
	KV /KZ Series		FP7 Series		ELC Series
Allen Bradley	Micro Logix	Inovance	FP7 Series TCP		ASCII-GVX
	SLC 5		GT Series General Purpose		RTU-GVX
	DH485		MODBUS TCP-AM400_800		ASCII-MVX
	EtherNet/IP-ControLogix, CompactLogix		MODBUS-AM400_800		RTU-GVX
	EtherNet/IP-ControLogix, CompactLogix (Tag)		MODBUS TCP-H3U Series		ASCII-NFX
	EtherNet/IP-MicroLogix, SLC		MODBUS-H3U Series		RTU-NFX
Omron	EtherNet/IP-Micro820 (Tag)	XINJE	MODBUS TCP-H5U Series	YASKAWA	MEMOBUS
	OEMAX NX Series PLC		MODBUS-H5U Series		MP300 Series
	FINS-CJ/CP/NJ Series FINS TCP		XINJE XC Series PLC (Modbus)		MP300 Series UDP
	FINS-CJ/NJ/NX Series FINS UDP		XINJE XC Series PLC (Modbus TCP)		SIGMA Series
	CS/CJ/CP1/CV/CVM Series		XINJE XD/XL Series PLC (Modbus)		SIO UDP
YOKOGAWA	ACE	FANUC	XINJE XD/XL Series PLC (Modbus TCP)		MP3000 TCP
			XINJE XD/XL Series PLC (UDP)		MP3000 UDP
JingWei	Textile_M6		MODBUS TCP-FANUC Robot	Fuji Electric	Frenic Inverter
			FANUC iSeries TCP		MICREX SX Series TCP

Hardware Features

Built-in Wi-Fi & 4G Antenna

- Ensures wireless IIoT connectivity

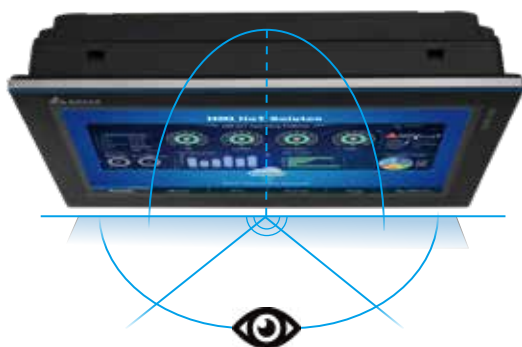


Wi-Fi Antenna

4G Antenna

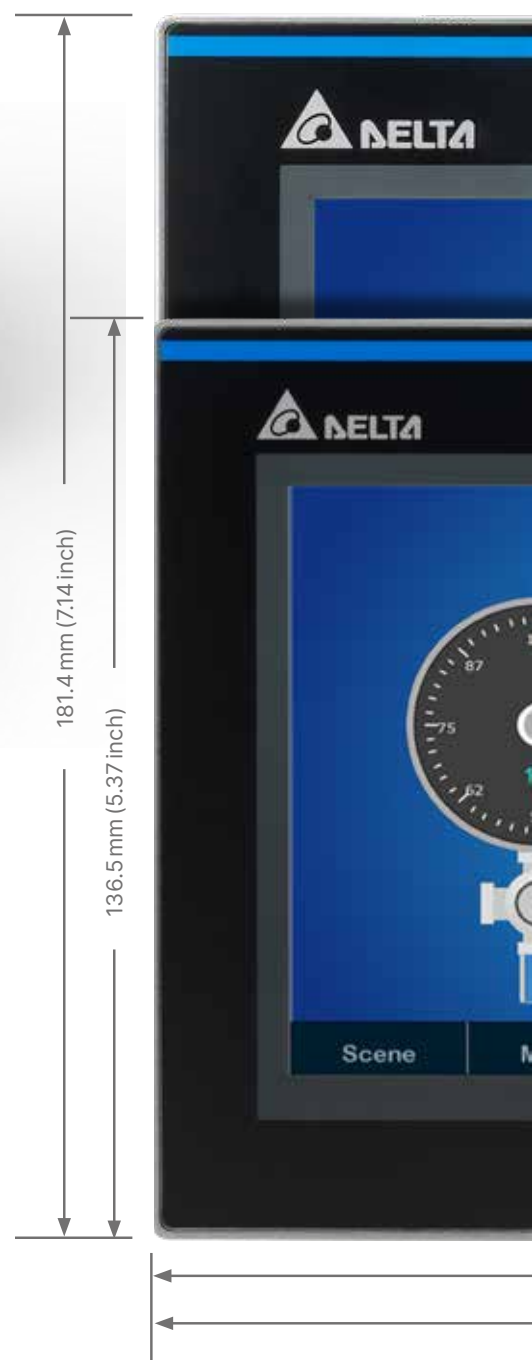
170° Wide Viewing Angle

- Whether viewed from above, below, or the side, the display remains clear from any installation position



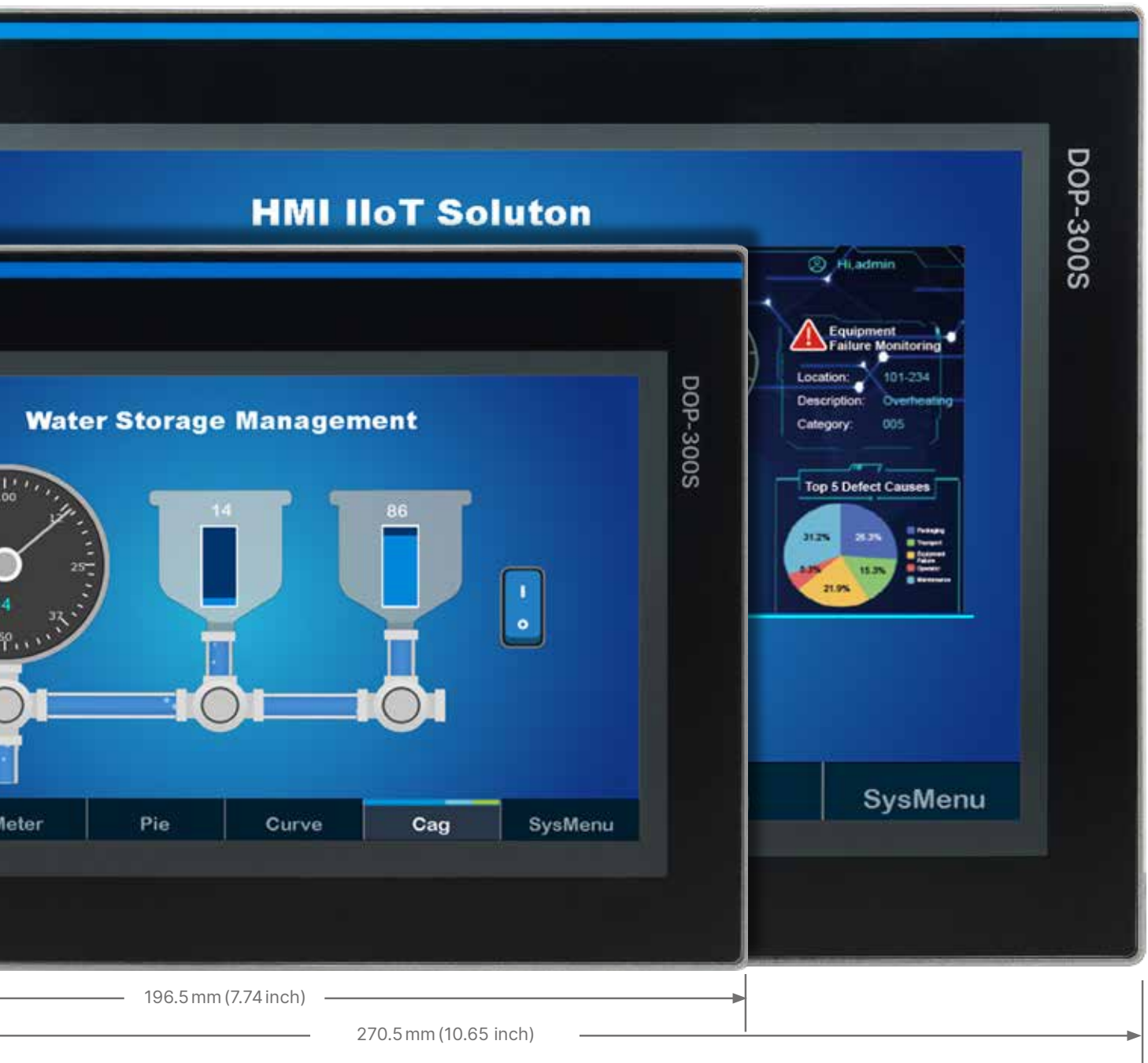
Full-color Display

- 24-bit color with fine precision, delivering vibrant and lifelike visuals



Modernized Design

- Wide screen with a narrow frame design, enhancing user comfort

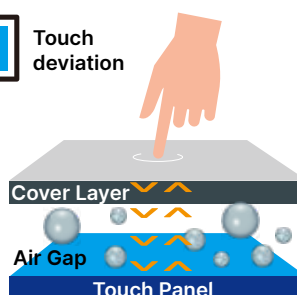


Fully-Laminated Display

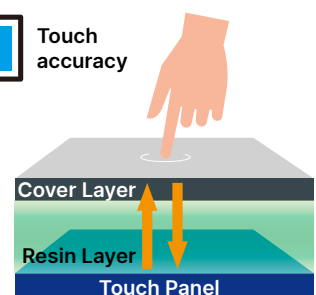
- Enhanced touch accuracy and sensitivity
- Enhanced texture



Touch deviation



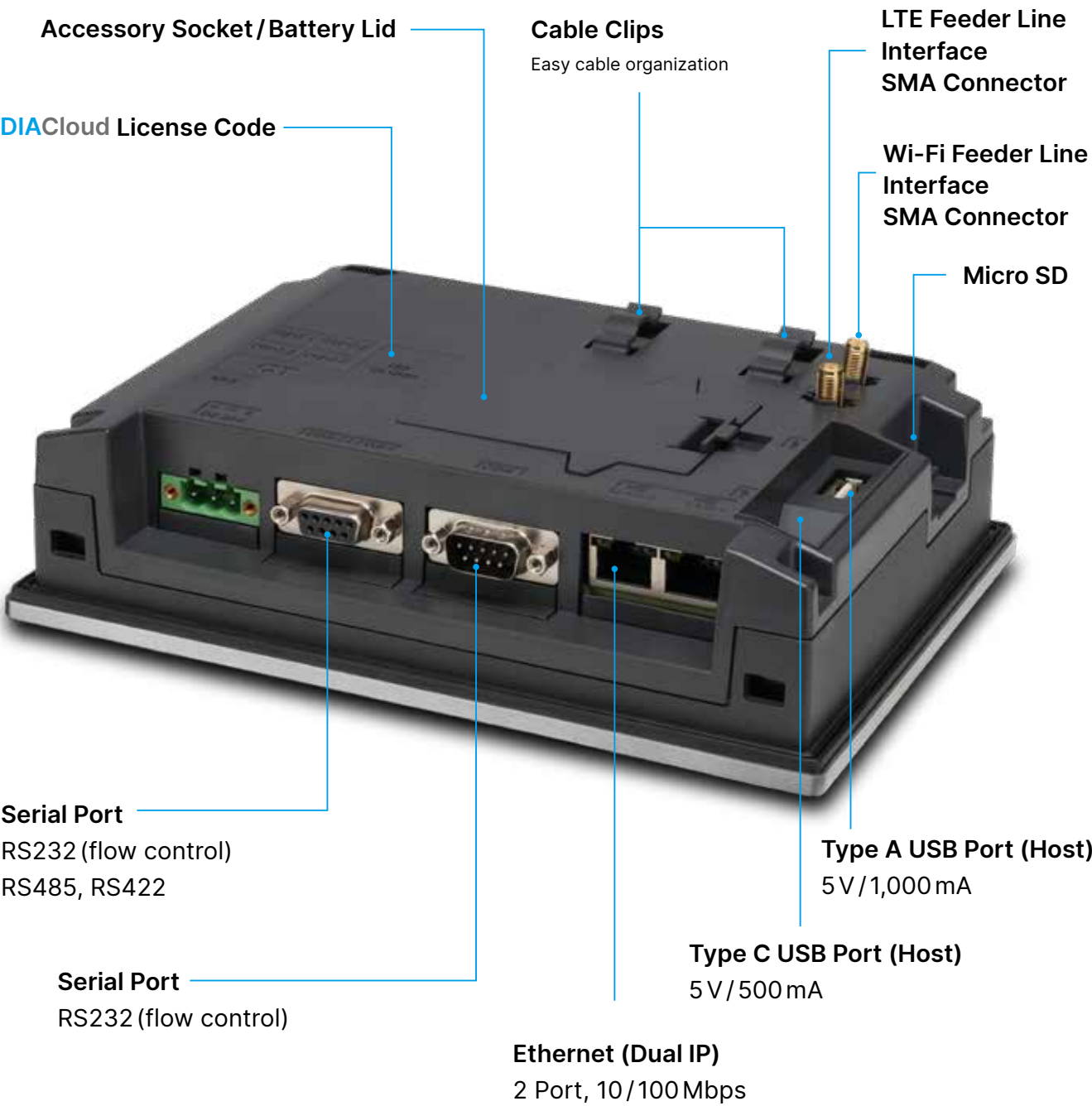
Touch accuracy



Product Features

Multiple Interfaces for Easy Connectivity and Expandability

RF Functions*	Frequency Bands
LTE*	B1/B3/B5/B7/B8/B20/B38/B40/B41
Wi-Fi*	2.4 GHz 802.11b/g/n



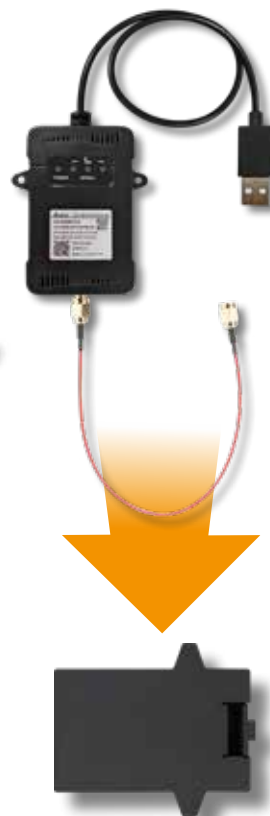
* To have perfect RF functions for the DOP-300, the Delta Wireless Dongle is highly suggested. For more information on the Delta Wireless Dongle, please refer to page 17 "Ordering Information/Optional Accessories"

Wireless Communication Accessories**

- Built-in HMI antenna for streamlined setup and fast networking, saving space in your control cabinet
- Snap-fit cover design for easy assembly and quick battery replacement



Wi-Fi and Bluetooth Module
DX-MWB



- Easy accessory installation



**For related optional accessories, please refer to page 17 "Ordering Information / Optional Accessories"

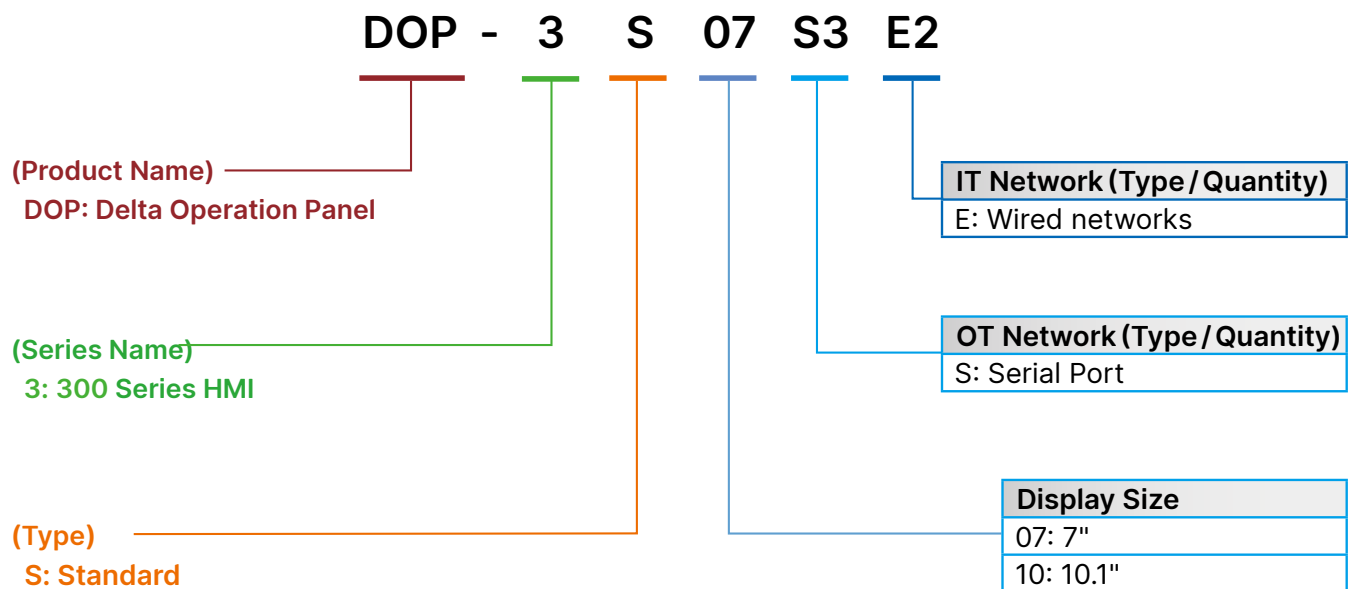
Specifications

Model		DOP-3S07S3E2	DOP-3S10S3E2
Display	Display Type	7" TFT LCD (24 bits)	10.1" TFT LCD (24 bits)
	Resolution	1024 x 600 pixels	
	Back Light	LED Backlight (half-life > 20,000 hours at 25° C or 77° F)	
	Display Area	154.21 x 85.92 mm	222.72 x 125.28 mm
	Brightness	400 cd/m ² (Typ.)	
CPU		ARM Cortex-A7 Dual Core 1.2GHz	
Flash ROM		512 Mbytes	
RAM		512 Mbytes	
Touch Panel		Four-wire resistor	
Buzzer		Multi-Tone Frequency (2 k ~ 4 kHz) / 80 dB	
Internet Interface		2 Port, 10/100MbpsAuto-detection (with built-in isolated circuits)	
USB Host		1 Port USB Ver 2.0 Type A 5V/1,000mA; 1 Port USB Ver 2.0 Type C 5V/500mA	
USB Slave		N/A	
SD		Micro SD	
Serial Communication Port	COM1	RS-232 (supports flow control)	
	COM2	RS-232/RS-485	
	COM3	RS-422/RS-485	
Auxiliary Keyboard		N/A	
Calendar		Built-in	
Cooling Method		Natural Coling	
Certification		CE/UL (please use shielding Ethernet cables and COM port magnetic rings with filters of 300 ohm/100 MHz)	
Panel Protection Rating		IP66/NEMA4/UL TYPE 4X (Indoor Use Only)	
Cyber Security		ISO 27001、ISO27701 IEC 62443	
Operating Voltage ^{*3}		DC +24V (-15% ~ +15%) (PLEASE USE ISOLATED POWER SUPPLY) SUPPLIED BY CLASS 2 OR SELV CIRCUIT (ISOLATED FROM MAINS BY DOUBLE INSULATION) EVALUATED BY UL60950 OR UL61010-1 AND UL61010-2-201 STANDARD	
Voltage Endurance		AC 500V for 1 minute (between DC24 and FG terminals)	
Power Consumption ^{*5}		14.7W (Max)	16.2W (Max)
Backup Battery		3V lithium battery CR2032 x 1	
Backup Battery Life		About 3 years or more at 25°C (77°F) (subject to operation temperature and condition)	
Operation Temperature		0°C ~ 50°C	
Storage Temperature		-20°C ~ 60°C	
Operating Environment		10% ~ 90% RH [0°C ~ 40°C], 10% ~ 55% RH [41°C ~ 50°C], pollution level 2	
Vibration		Complies with IEC61131-2 standards: continuous vibration from 5Hz to 8.3Hz with an amplitude of 3.5mm; 8.3Hz to 150Hz at 1 G	
Shock		Complies with IEC60068-2-27 standards: shock resistance of 11ms, 15G peak, 6 times in X, Y, and Z directions respectively	
Dimensions (W) x (H) x (D) mm		196x136x39	270x180.9x47.25
Mounting Dimensions (W) x (H) mm		186.8x126.8	255x170
Weight		Approx. 880g	Approx. 940g

Notes:

1. The half-life of a backlight is defined as the original luminance being reduced by 50% when the maximum driving current is supplied. The estimated life is at 25°C
2. Insular circuit endurance: 1,500V spikes for 1 min
3. Power consumption refers to the power consumed by the HMI itself with no peripheral devices. A power supply with a capacity of 1.5 ~ 2 times the labeled power consumption is recommended to ensure proper operation.
4. An isolated power supply is recommended.
5. For the operation manual of the HMI editor software DIAScreen, please download from Delta's official website: <http://www.deltaww.com>
6. DOP-300 Series is designed for industrial automation products. Please read the instructions carefully before installation to ensure safety

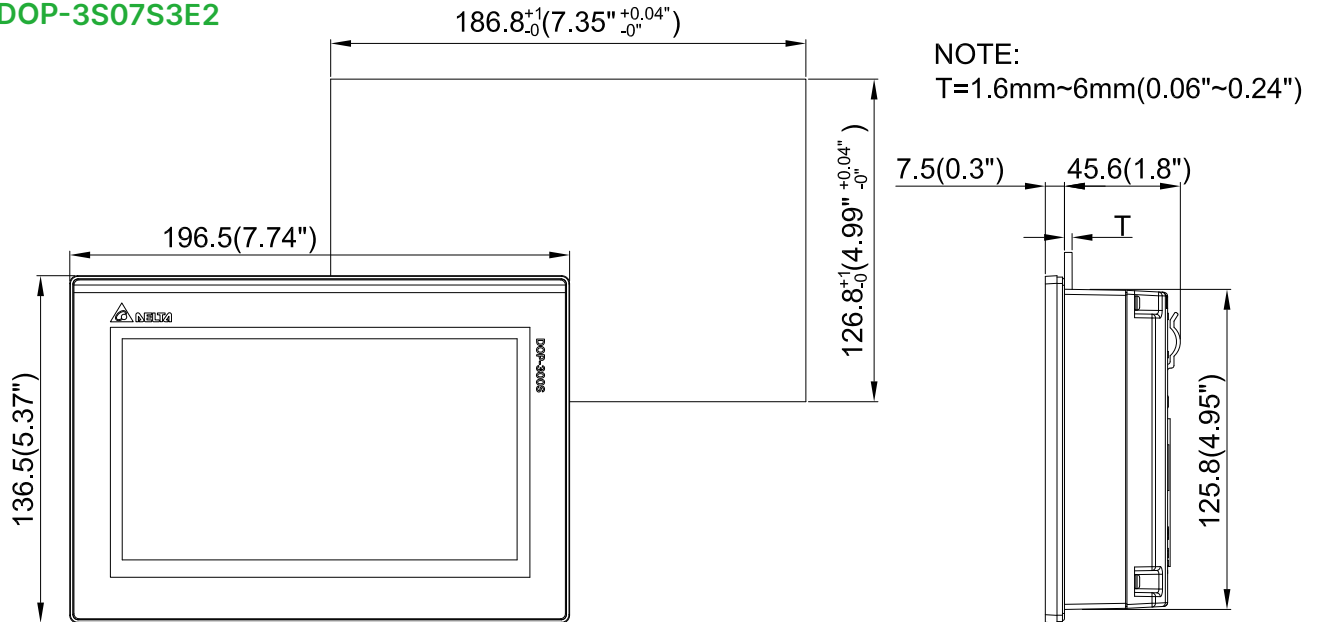
Model Name Explanation



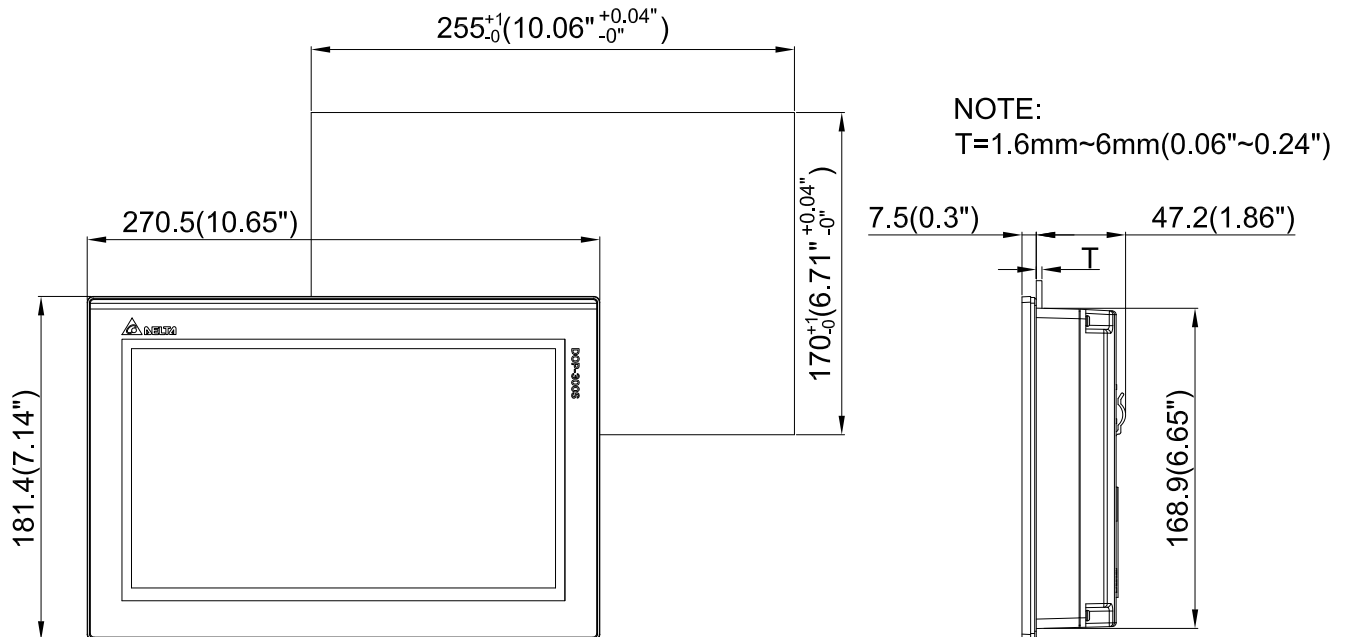
Specifications

Dimensions Unit: mm (inches)

•DOP-3S07S3E2



•DOP-3S10S3E2



Ordering information

• HMI

Product	Dimensions	CPU	RAM	ROM	Ethernet Port	Serial Port	DIACloud	Model	Certificates
HMI DOP-300	7 inches	Dual Core 1.2GHz	512 MB	512 MB	2	3	Built-in	DOP-3S07S3E2	CE, UL
	10.1 inches	Dual Core 1.2GHz	512 MB	512 MB	2	3	Built-in	DOP-3S10S3E2	CE, UL

Note: To ensure usage rights, please activate and use it within two years after shipment from Delta, and it will be valid within one year after activation.
Delta reserves the right to adjust.

• Optional Accessories

Product	Working Temp.	Protocol	Frequency Range	Encryption	Related Products	Antenna	Frequency	Model	Certificates
Wireless Module	0°C ~ 50°C	802.11b/g/n compatible	2.4 GHz	802.11i (WPA, WPA2)	DOP-3S07S3E2 DOP-3S10S3E2	N/A	CN, EU, INDIA	DX-MWB-01N	CE, SRRRC, WPC
Wireless Module	0°C ~ 50°C	802.11b/g/n compatible	2.4 GHz	802.11i (WPA, WPA2)	DOP-100 Series (DOP-107SV, DOP-12/15" NOT SUPPORTED)	Yes	CN, EU, INDIA	DX-MWB-01	CE, SRRRC, WPC

Note: To ensure usage rights, please activate and use it within two years after shipment from Delta, and it will be valid within one year after activation.
Delta reserves the right to adjust.

• Software

Product	Descriptions	Operating System
DIAScreen	Used for Editor Software for DOP-Handheld, DOP-100 & DOP-300 Series	Windows® 8/10/11 (32-bit/64-bit)
DIASWebDesigner	Provides professional visible page design for DIACloud, and creates the reports using programmed elements with vivid drawings and charts	Windows® 8/10/11 (32-bit/64-bit)

• Top-up Card

Product	Capacity	Use Time	Usage	Related Products	Model
Remote Access	36 GB	1 year	Used for VNC, HMI or remote upload/download from PLC	DOP-3S07S3E2 DOP-3S10S3E2	DX-TRA-0036

Product	Tags	Use Time	Usage	Related Products	Model
Cloud Application	500 TAG	1 year	Used for data analysis and visible charts	DOP-3S07S3E2 DOP-3S10S3E2	DX-TCA-0500

Note: To ensure usage rights, top-up card must be activated and used within two years after delivery by Delta, and it will be valid within one year after activation.
Delta reserves the right to make adjustments.

Global Operations

ASIA (Taiwan)



Taoyuan Technology Center (Green Building)



Taoyuan Plant 1



Tainan Plant (Diamond-rated Green Building)

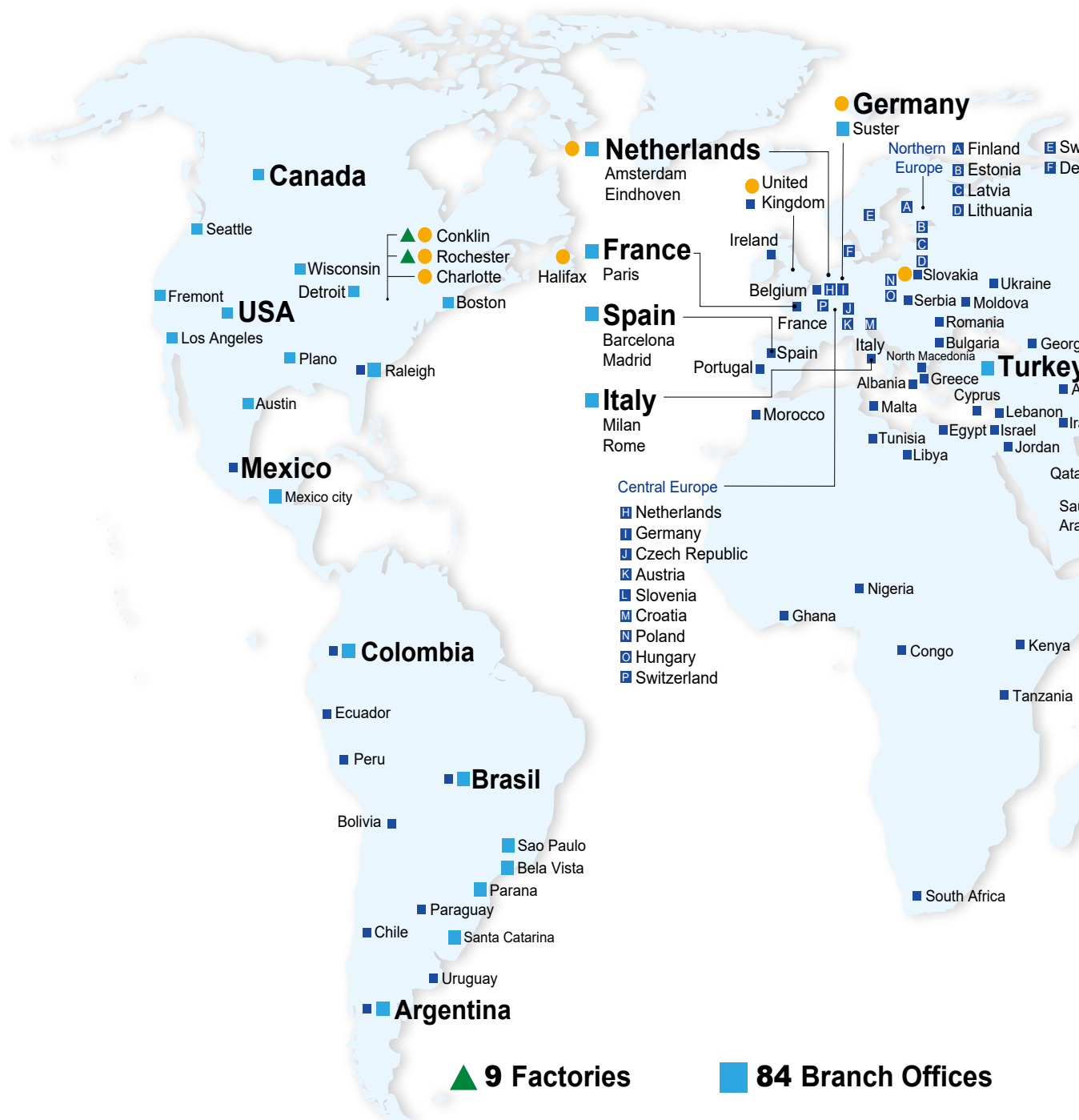
ASIA (China)



Wujiang Plant 3



Shanghai Office



ASIA (Japan)



Tokyo Office



ASIA (India)



Rudrapur Plant
(Green Building)

EUROPE

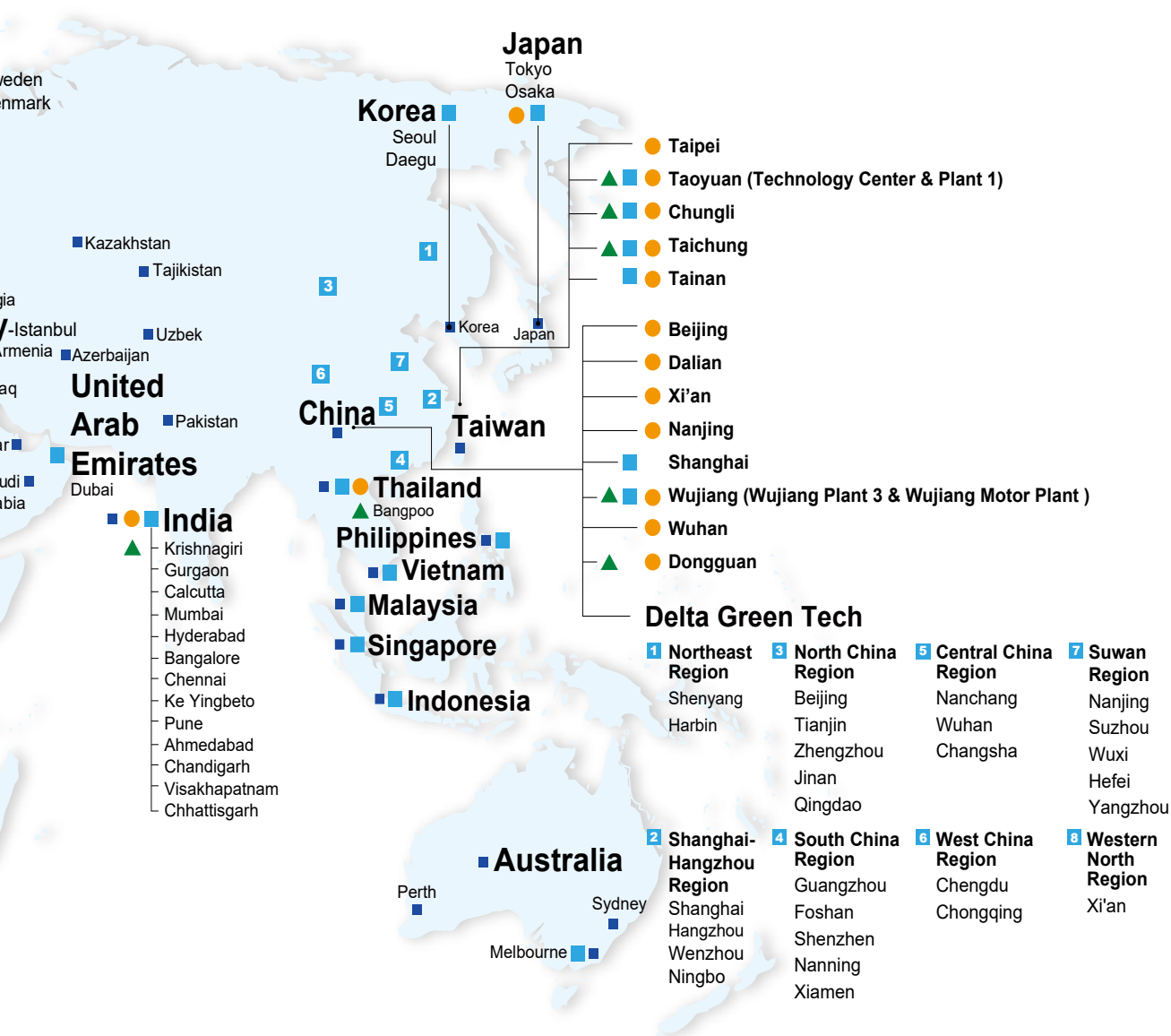


Amsterdam, the Netherlands

AMERICA



Research Triangle Park, U.S.A.



● 23 R&D Centers

■ 904 Distributors



Smarter. Greener. Together.

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