2016-04-11
5012614609- 7S09

DOP-*B07*

B07S(E)411/B07S411K / B07S401K
Instrunction Sheet

(1) Preface

Thank you for purchasing DELTA's DOP-B series. This instruction sheet will be helpful in the installation, wiring and inspection of Delta HMI. Before using the product, please read this instruction sheet to ensure correct use. You should thoroughly understand all safety precautions before proceeding with the installation, wiring and operation. Place this instruction sheet in a safe location for future reference. Please observe the following precautions:

- Install the product in a clean and dry location free from corrosive and inflammable gases or liquids.
- Ensure that all wiring instructions and recommendations are followed.
- Ensure that HMI is correctly connected to a ground. The grounding method must comply with the electrical standard of the country (Please refer to NFPA 70: National Electrical Code, 2005 Ed.).
- Do not disassemble HMI, modify or remove wiring when power is applied to HMI.
- Do not touch the power supply during operation. Otherwise, it may cause electric shock.

If you have any questions during operation, please contact our local distributors or Delta sales representatives.

(2) Pin Definition of Serial Communication

DOP-B07S(E)411 / DOP-B07S411K / DOP-B07S401K COM1 Port

COM Port	PIN	MODE1
		RS-232
PIN1	1	
	2	RXD
	3	TXD
	4	
	5	GND
	6	
	7	RTS
	8	CTS
	9	

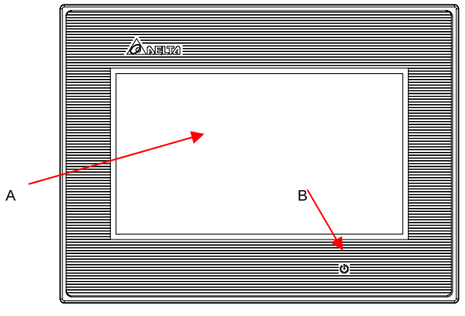
DOP-B07S(E)411 / DOP-B07S411K / / DOP-B07S401K COM2 Port

COM Port	PIN	MODE1		MODE2		MODE3	
		COM2	COM3	COM2	COM3	COM2	COM3
		RS-232	RS-485	RS-485	RS-485	RS-232	RS-422
PIN1	1			D+			TXD+
	2	RXD				RXD	
	3	TXD				TXD	
	4		D+		D+		RXD+
	5	GND		GND		GND	
	6			D-			TXD-
	7						
	8						
	9		D-		D-		RXD-

Note1: Blank = No Connection.

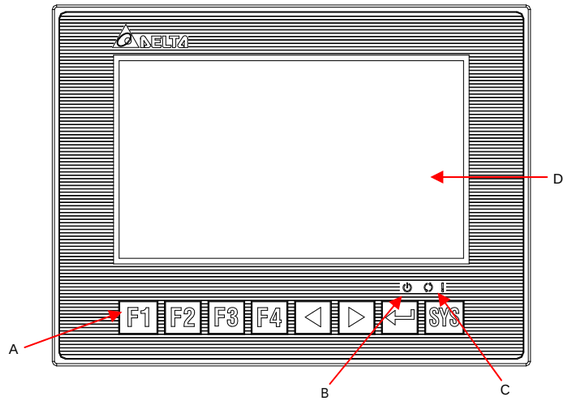
(3) Parts Names

DOP-B07S(E)411 (Front View)



A	Touch Screen / Display	B	Power LED Indicator

DOP-B07S411K (Front View)

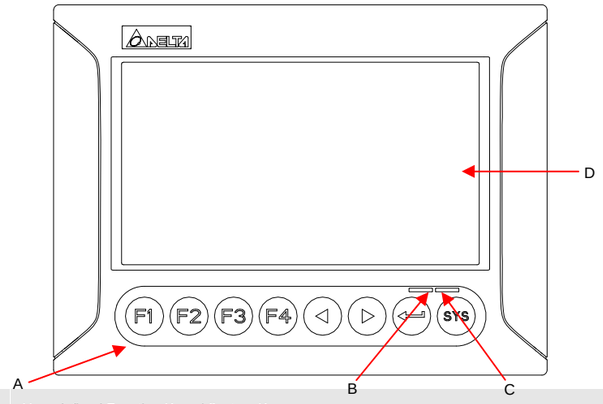


A	User-defined Function Keys / System Keys User-defined Function Keys: F1, F2, F3, F4 System Keys: ◁, ▷, ↵, SYS
B	: Power LED Indicator Lights in green when HMI works normally.
C	: Operation LED Indicator (Blue) (Note1) The operation LED indicator blinks in blue when either the communication is carried out or the data is accessing (please refer to the “Note1” below for explanation). : Alarm LED Indicator (Red) The alarm LED indicator blinks in red when one of the alarms is on.
D	Touch Screen / Display

NOTE

1. The definition of the operation LED indicator (Blue) can be determined by the users freely.

DOP-B07S401K (Front View)

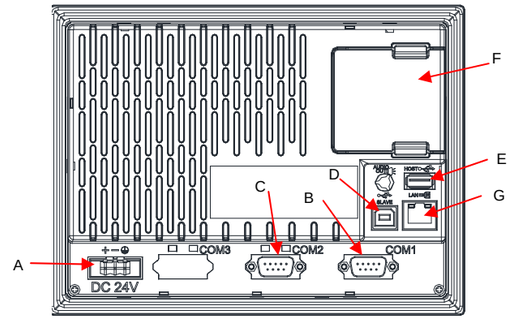


A	User-defined Function Keys / System Keys User-defined Function Keys: F1, F2, F3, F4 System Keys: ◁, ▷, ↵, SYS
B	Power LED Indicator (Green) Lights in green when HMI works normally.
C	Left side: Operation LED Indicator (Blue) (Note1) The operation LED indicator blinks in blue when either the communication is carried out or the data is accessing (please refer to the “Note1” below for explanation).
	Right side: Alarm LED Indicator (Red) The alarm LED indicator blinks in red when one of the alarms is on.
D	Touch Screen / Display

NOTE

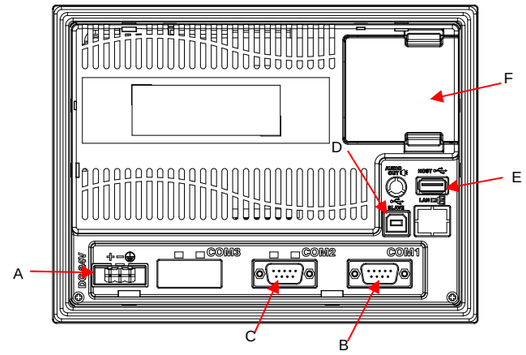
1. The definition of the operation LED indicator (Blue) can be determined by the users freely.

DOP-B07S(E)411 (Rear View)



A	Power Input Terminal	B	COM1
C	COM2	D	USB Slave
E	USB Host	F	Battery Case
G	Ethernet Interface (LAN) Note: DOP-B07E411 only.		

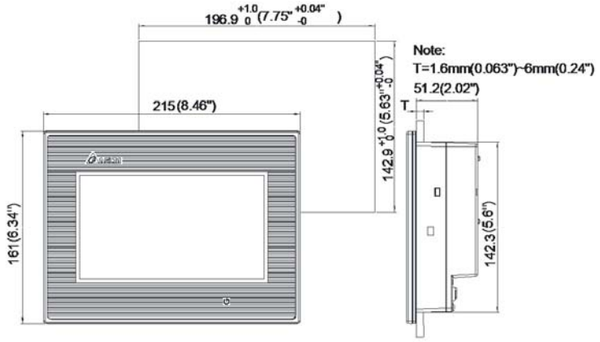
DOP-B07S411K / DOP-B07S401K (Rear View)



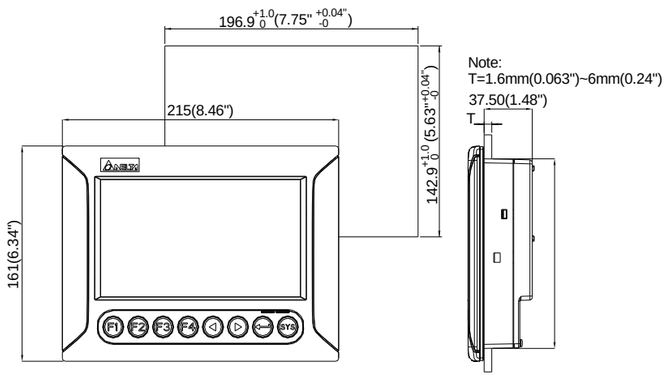
A	Power Input Terminal	B	COM1
C	COM2	D	USB Slave
E	USB Host	F	Battery Case

(4) Dimensions

DOP-B07S(E)411 / DOP-B07S411K



DOP-B07S401K



MODEL	DOP-B07S411	DOP-B07E411	DOP-B07S411K	DOP-B07S401K
Voltage Endurance	AC500V for 1 minute (between charging (DC24V terminal) and FG terminals)			
Power Consumption (Note 2)	4.0W			
Backup Battery	3V lithium battery CR2032 × 1			
Backup Battery Life	It depends on the temperature used and the conditions of usage, 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≦f < 8.3Hz = Continuous: 3.5mm, 8.3Hz≦f≦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	215 x 161 x 50			
Panel Cutout (W) x (H) mm	196.9 x 142.9			
Weight	Approx. 820g		Approx. 840g	

(5) Specifications

MODEL		DOP-B07S411	DOP-B07E411	DOP-B07S411K	DOP-B07S401K
LCD MODULE	Display Type	7" TFT LCD (65535 colors)			
	Resolution	800 x 480 pixels			
	Backlight	LED Back Light (less than 20,000 hours half-life at 25°C) (Note 1)			
	Display Size	154.08 x 85.92mm			
Operation System		Delta Real Time OS			
MCU		32-bit RISC Micro-controller			
NOR Flash ROM		Flash ROM 128 MB (OS System: 30MB / Backup: 16MB / User Application: 82MB)			
SDRAM		64Mbytes			
Backup Memory		16Mbytes			
Buzzer		Multi-Tone Frequency（2K ~ 4K Hz） / 85dB			
Ethernet Interface		N/A	IEEE 802.3, IEEE 802.3u 10/100 Mbps auto-sensing (has built-in isolated power circuit (Note 2))	N/A	
USB		1 USB Slave Ver 2.0 1 USB Host Ver 1.1			
Serial COM Port	COM1	RS-232(supports hardware flow control)			
	COM2	RS-232 / RS-485			
	COM3	RS-422 / RS-485			
Function Key		N/A		User defined key x 4 + System key x 4	
Perpetual Calendar (RTC)		Built-in			
Cooling Method		Natural air circulation			
Safety Approval		CE / UL			
Waterproof Degree		IP65			
Operation Voltage (Note2)		DC +24V（-10% ~ +15%）(please use isolated power supply)			

Pobrano z: https://panele-hmi.pl/panel-operatorski-hmi-7-delta-electronics-dop-b07s411