

10 inch Panel PC

■ Feature

- Familiar to user with the Microsoft Windows 10 OS
- Equipped with Quad core processor
- Fan less type with low noise, low heat and no need to replacing fan component
- Equipped with 10 inch wide IPS TFT LCD of 16,777,216 colors for realizing True color
- Possible to be touched with not only hand but also glove, pen tip or etc. with resistive type touch screen
- Lesser restrictions on place with display and system all-in-one panel PC
- Supporting various types of interface
: HDMI, USB, VGA, Ethernet, Audio, Serial (RS232C/RS485/RS422)
- Various methods of installation
: installing on panel, installing with holder (VESA standard 100×100mm)



⚠ Please read "Safety Considerations" in instruction manual before using.



■ Manual

For the detailed information and instructions, please refer to the user manual, and be sure to follow cautions written in the technical descriptions (catalog, homepage). Visit our homepage (www.autonics.com) to download manuals.

■ Specifications

○ General specifications

Model	APC-1011	
Power supply	24VDC---	
Allowable voltage range	90 to 110% of power supply	
Power consumption	Max. 30W	
Hard disk	mSATA 64GB SSD	
System memory	DDR3L 4GB	
Indicator	Power indicator: green LED	
Speaker	Stereo speaker 2W+2W	
Watch dog timer	Watch Dog Timer (1 to 255 sec, software setting)	
Battery life cycle	5 years at 25°C	
Real-time controller	RTC embedded	
Insulated resistance	Min. 100MΩ (at 500VDC megger)	
Ground	3rd grounding (max. 100Ω)	
Noise immunity	±0.5kV the square wave noise (pulse width: 1μs) by the noise simulator	
Withstanding voltage	500VAC 50/60Hz for 1 minute	
Vibration	Mechanical	0.75mm amplitude at frequency of 10 to 55Hz (for 1 minute) in each X, Y, Z direction for 1 hour
	Malfunction	0.5mm amplitude at frequency of 10 to 55Hz (for 1 minute) in each X, Y, Z direction for 10 minutes
Shock	Mechanical	300m/s ² (approx. 30G) in each X, Y, Z direction for 3 times
	Malfunction	100m/s ² (approx. 10G) in each X, Y, Z direction for 3 times
Environment	Ambient temperature	0 to 50°C, storage: -20 to 60°C
	Ambient humidity	35 to 85%RH, storage: 35 to 85%RH
Language ^{※1}	Korean, English	
Protection structure	IP65 (front panel, IEC standard)	
Accessory	Fixing bracket: 8, mold bracket: 1, M3 bolt for mold bracket: 2	
Approval		
Weight ^{※2}	Approx. 2kg (approx. 1.6kg)	

※1: Supported language can be added by downloading language pack.

For more details about language pack, please visit Microsoft website.

※2: The weight includes packaging. The weight in parenthesis is for unit only.

※Environment resistance is rated at no freezing or condensation.

(A)	Photoelectric Sensors
(B)	Fiber Optic Sensors
(C)	Door/Area Sensors
(D)	Vision Sensor
(E)	Proximity Sensors
(F)	Pressure Sensors
(G)	Rotary Encoders
(H)	Connectors/ Connector Cables/ Sensor Distribution Boxes/ Sockets
(I)	Temperature Controllers
(J)	SSRs / Power Controllers
(K)	Counters
(L)	Timers
(M)	Panel Meters
(N)	Tacho / Speed / Pulse Meters
(O)	Display Units
(P)	Sensor Controllers
(Q)	Switching Mode Power Supplies
(R)	Stepper Motors & Drivers & Controllers
(S)	Graphic/ Logic Panels
(T)	Panel PC
(U)	Field Network Devices
(V)	Software

APC-1011

○ Performance specifications

● System performance

CPU	Integrated Intel®J3160/1.6GHz Quad core processor, TDP 6W
Operating system	Windows 10 IoT Enterprise Entry (64bit)

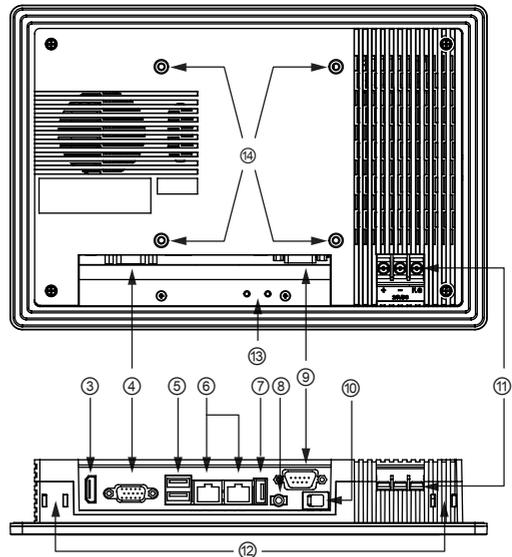
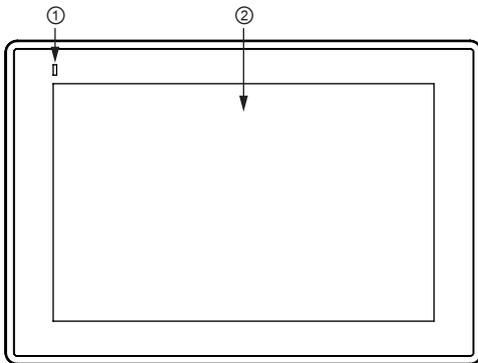
● Display performance

LCD type	IPS TFT Color LCD
Touch method	Resistive
Resolution	WXGA 1280×800
Contrast	16:10
Display area	216.96×135.6mm
Color	16,777,216 color
LCD view angle	Within 85° of top/bottom/left/right
Backlight	White LED
Backlight MTBF	500,000hrs (LED Backlighting)
Luminance	350cd/m ²

● Interface type

HDMI	1
USB	USB 3.0 HOST: 1, USB 2.0 HOST: 2
VGA	1
Ethernet	Gigabit Ethernet: 2
Audio	1
Serial	RS232C/RS422/RS485: 1 (jumper pin setting)

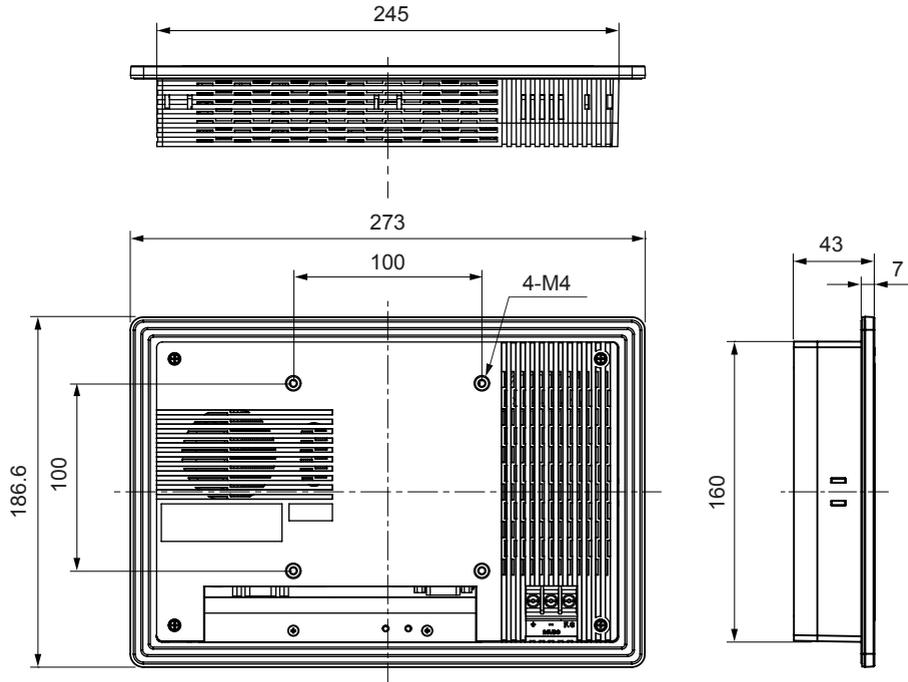
■ Unit Description



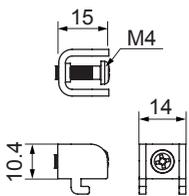
No.	Description
①	Operation indicator (green LED)
②	LCD screen
③	HDMI
④	VGA
⑤	USB 2.0
⑥	Ethernet
⑦	USB 3.0
⑧	Audio
⑨	RS232C/RS485/RS422 (jumper pin setting)
⑩	Power switch
⑪	Power terminal
⑫	Fixing bracket mounting slot
⑬	Mold bracket mounting hole
⑭	VESA hole

Dimension

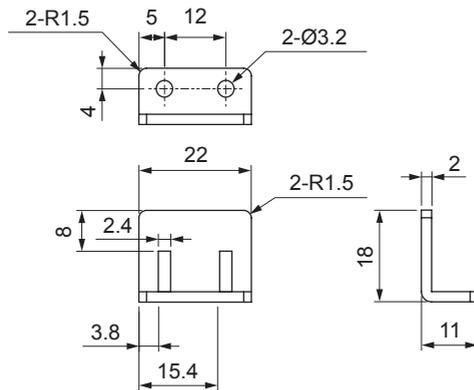
(unit: mm)



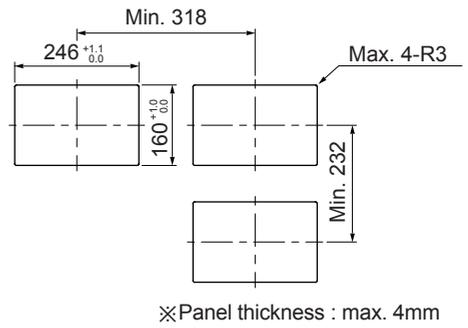
● Fixing bracket



● Mold bracket



● Panel cut out



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Serial Interface

● All devices which are connectable with APC-1011 including PC, PLC, serial printer, barcode reader, and dedicated connectors can be connected to any of RS232C, RS485 and RS422 ports.

● Changing serial interface

- 1) Open the rear case of APC-1011 with a screw driver.
- 2) Set the serial interface selecting jumper pin ① with the jumper bar to serial interface to use.
- 3) When setting to RS232C, connect the D-sub connector to COM2 ②).

When setting to RS485/RS422, connect the D-sub connector to JP12 ③).

※ For more details, refer to the below image and table.



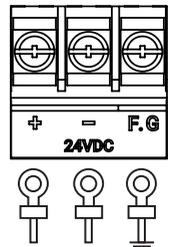
No.	Name	RS232C (default)	RS485	RS422
①	Serial interface setting jumper pin			
②	COM2		—	—
③	JP12	—		—

● D-sub connector by type of serial interface

Port	Pin	Port	Pin	Port	Pin			
RS232C D-Sub 9-Pin Female	1	DCD	RS422 D-Sub 9-Pin Female	1	TXD-	RS485 D-Sub 9-Pin Female	1	DATA-
	2	RXD		2	TXD+		2	DATA+
	3	TXD		3	RXD-		3	Disabled
	4	DTR		4	RXD+		4	Disabled
	5	GND		5	GND		5	Disabled
	6	DSR		6	GND		6	Disabled
	7	RTS		7	Disabled		7	Disabled
	8	CTS		8	Disabled		8	Disabled
	9	RI		9	Disabled		9	Disabled

Power Wiring

- For power supply, use the wire of which cross section is at least 0.75mm² and use the wire of which cross section is at least 1.25mm² for grounding.
- Use round terminal with at least 3mm of internal diameter and less than 6mm of external diameter.
- Do not apply power before power line connection.
- Check power polarity.
- Tighten the terminal screw with 0.5 to 0.8N·m torque.
- Ground resistance should be less than 100Ω and ground it separately.

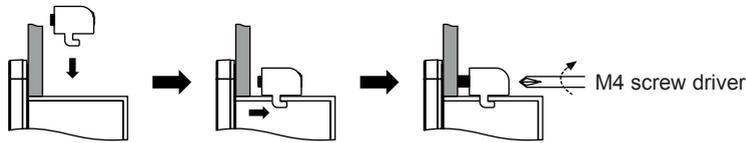


■ Installation

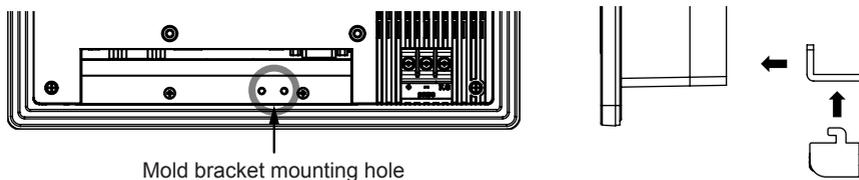
○ Product installation

● Installing on panel

1. Set APC-1011 in panel.
2. Set fixing brackets in slots (3 in top, 2 in bottom, 2 in side).
3. Tighten fixing brackets with the M4 screw driver with the tightening torque of 0.3 to 0.5N·m.



4. When additional fixing bracket is in need on the bottom, connect the mold bracket on the rear of the product, before set fixing bracket. Tighten mold bracket with the M3 screw driver with the tightening torque of 0.3 to 0.5N·m.

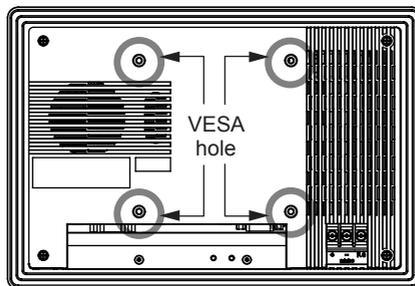


Mold bracket mounting hole

※When using the mold bracket, install it with the included bolts (M3×8mm). If you use a bolt out of specification, it may result in product damage.

● Installing with holder

You have to purchase 100×100mm holder separately. Autonics does not have dedicated holder. Fix the purchased holder to the VESA hole on the rear of the product, using M4 Screw driver. Way to fix holder can be different according to each holder.



○ Software installation

You can download and use software programs for Autonics products in APC-1011. Please refer to 'Software' in the catalogue or user manual for detailed information about software programs for APC-1011.

※Newly purchased APC-1011 has Vision Master program as default.

●Installation using PC

1. Download program to install from Autonics website (www.autonics.com).
2. Save the downloaded installation file in a USB driver and plug the USB driver to USB port of APC-1011 to move the installation file.
3. Touch the installation file in APC-1011 to install the program.

●Direct installation

1. Plug LAN cable to Ethernet port of APC-1011 to connect to Internet.
2. Access to Autonics website (www.autonics.com) in APC-1011 to download program.
3. Touch the downloaded installation file in APC-1011 to install the program.

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■ Battery Replacement

Please contact our service center to replace battery.
It may cause an explosion or a fire when using improper battery.

■ Proper Usage

◎Cautions during Use

1. Follow instructions in 'Cautions during Use'. Otherwise, it may cause unexpected accidents.
2. 24VDC power supply should be insulated and limited voltage/current or Class 2, SELV power supply device.
3. Install a power switch or circuit breaker in the easily accessible place for supplying or disconnecting the power.
4. Operate the product after supplying power to the product, input/output equipment, and load.
If operate product before supplying power, it may result in output error or malfunction.
5. Keep away from high voltage lines or power lines to prevent inductive noise.
Do not use near the equipment which generates strong magnetic force or high frequency noise.
6. Make a required space around the unit for radiation of heat, and do not block ventilation openings.
7. Do not push the touch panel with a hard and sharp object or push the panel with excessive force.
It may result in fire or malfunction.
8. When skin is smeared with liquid crystal from the broken LCD, rinse with running water for over 15 minutes.
If it gets into the eyes, rinse eyes with running water for over 15 minutes and contact a doctor.
9. This unit may be used in the following environments.
 - ①Indoors (in the environment condition rated in 'Specifications')
 - ②Altitude max. 2,000m
 - ③Pollution degree 2
 - ④Installation category II