**Color LCD Graphic Panel** 

# **GP-A Series**

# **INSTRUCTION MANUAL**

TCD210069AC

**Autonics** 

Thank you for choosing our Autonics product.

Read and understand the instruction manual and manual thoroughly before using the product.

For your safety, read and follow the below safety considerations before using. For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.

Keep this instruction manual in a place where you can find easily.

The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

Follow Autonics website for the latest information.

# **Safety Considerations**

- Observe all 'Safety Considerations' for safe and proper operation to avoid hazards.
- ↑ symbol indicates caution due to special circumstances in which hazards may occur.

▲ Warning Failure to follow instructions may result in serious injury or death.

- 01. Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss. (e.g. nuclear power control, medical equipment, ships, vehicles, railways, aircraft, combustion apparatus, safety equipment, crime/disaster prevention devices, etc.) ow this instruction may result in personal injury, economic loss or fire
- 02. Do not use the unit in the place where flammable/explosive/corrosive gas, high humidity, direct sunlight, radiant heat, vibration, impact, or salinity may be present.

ure to follow this instruction may result in explosion or fire 03. Use the unit within the rated specifications.

- ay result in fire or shortening the life cycle of the product.
- 04. Do not connect, repair, or inspect the unit while connected to a power source.
- 05. Check 'Power Wiring' and 'Serial Interface' before wiring.
- 06. In preparation for product damage, communication error, or malfunction, install external limit switch, emergency stop switch, or other protection circuit.
- 07. Since Lithium battery is embedded in the product, do not disassemble or burn the
- Failure to follow this instruction may result in fire
- 08. Do not disassemble or modify the unit.
- 09. Please contact to us for battery replacement.
- Jsing an unauthentic battery may result in fire or product damage.
- **↑ Caution** Failure to follow instructions may result in injury or product damage.
- 01. Use dry cloth to clean the unit, and do not use water or organic solvent.
- 02. When connecting the power input, use AWG 23 cable or over and tighten the terminal screw with a tightening torque of 0.5 to 0.8 N·m.
- 03. Keep the product away from metal chip, dust, and wire residue which flow into the
- Failure to follow this instruction may result in fire or product damage
- 04. Do not touch the front LCD screen over 2 points at the same time.
- 05. Do not put any heavy object on the front screen.
- Failure to follow this instruction may result in malfunction due to deformation of LCD and touch panel

### **Cautions during Use**

- · Follow instructions in 'Cautions during Use'. Otherwise, it may cause unexpected accidents
- Power supply should be insulated and limited voltage/current or Class 2, SELV power supply
- Install a power switch or circuit breaker in the easily accessible place for supplying or disconnecting the power.
- 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
- 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.
- Make a required space around the unit for radiation of heat, and do not block ventilation
- 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.
- 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

- When changing the battery, contact Autonics service center to change it. Using unauthentic
- battery may result in fire or product damage.

  This unit may be used in the following environments.
- Indoors (in the environment condition rated in 'Specifications')
- Altitude max. 2.000 m
- Pollution degree 2 - Installation category II

### **Cautions during Wiring**

- Do not apply power before power line connection.
- For power supply, use the wire of which cross section is at least 0.75 mm<sup>2</sup> and use the wire
  of which cross section is at least 1.25 mm<sup>2</sup> for grounding.
- Use ring crimp terminal with at least 3 mm of internal diameter and less than 6 mm of
- Tighten the terminal screw with 0.5 to 0.8 N·m torque
- Ground resistance should be less than 100  $\Omega$  and ground it separately

## **Product Components**

- Graphic panel + built in battery
- 4.6 / 5.7 / 7.0 inch: 4 fixing brackets
- Sold separately: communication cable
- 10.4 inch: 6 fixing brackets, CAN connector

#### Software

Visit Autonics web site to download software and manuals.

#### atDesigner

atDesigner is a dedicated screen editor software used to create, edit, and monitor the screen data of LP/GP-A devices. All data arrangement, layout, shapes, properties can be edited using atDesigner. The screen data, project admin account, security level, language, and script can all.

#### ■ Firmware

Please refer to 'GP-A Series user manual' for firmware upgrade.

#### Manuals

For the detailed information and instructions, please refer to the manuals, and be sure to follow cautions written in the technical descriptions Visit Autonics website to download manuals.

#### ■ GP-A Series user manual

It describes general information about installation and system of GP-A Series.

#### ■ atDesigner user manual

It describes how to design user screen and how to use HMI function.

# ■ GP/LP user manual for communication

It describes how to connect with external devices such as PLC.

## Ordering Information

This is only for reference, the actual product does not support all combinations. For selecting the specified model, follow the Autonics website.

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A <b>O</b> -	T 2
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O Screen size

046: 4.6 inch

GP

057: 5.7 inch

070: 7.0 inch

104·10 4 inch

② Display color 8: 262 144 color

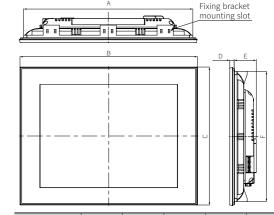
## 9: 16,777,216 color Interface

Model	8	RS232C	RS422	CAN	Micro SD	USB Host	USB Device	Ethernet
GP-A	6	1	1	-	-			
046/057/070	7	2	-	-	-	,	,	١,
CD 4104	8	1	1	1	1	1	1	1
GP-A104	9	2	-	1	1			

Specification	15								
	.046 GP-A057 GP-A070 GP-A104							104	
Model Screen size	4.6 ir	<b>A046</b>	<b>GP-A057</b> 5.7 inch		<b>iP-A0</b> .0 inc			nch	
LCD type	_	Color LCD	3.1 IIICII		.0 1110		12.	0.11	iicii
Resolution	800>	<320 pixel	640×480	pixel 8	00×4	180 pixe	l 8	00×	600 pixel
Pixel pitch (W×H)	_	× 0.13 mm	$0.18 \times 0.1$	_		× 0.19 mm		0.26 × 0.26 mm	
Display area Display color	_	<43.2 mm	115.2×86.4 mm 262,144 colors						×158.4 mr 7,216 color
LCD view angle						50°/60°			1,210 color 160°/70°
(top/bottom/left/		in 75°/70° /80° of each	Within 70° /80°/80° o			50 / 60 5° of eac			160 / 70 70° of each
right) Backlight	White	e LED							
Backlight life cycle		0,000 hours <sup>0</sup>	1)						
Luminance adjust-	Adju	stable by soft	ware						
nent Fouch	<u> </u>	og resistive f		d					
Touch panel		× 320 cell	640 × 48		nn ×	480 cel	1 2	nn v	< 600 cell
resolution	000	^ 320 Cell	040 / 40	J CEII O	00 ^	400 CEI	1 01	00 /	C 600 Cell
Touch panel life cycle	≥1	million times							
Sound	Magi	netic buzzer (	≥ 85 dB)						
Approval	_	© EAC							
Jnit weight packaged)	≈ 27 (≈ 3			≈ 520 ≈ 706				7 kg 62 kg)	
1) Based on 25 °C, time	_					8/	- 1	1.0	02 Ng)
Serial interface		RS232C, RS4							
JSB interface		Host: USB 2.	0 (Type A)	×1,Dev	ice: U	ISB 2.0 (	mini-	B) ×	1
JSB HOST power su	pply	5 VDC== ±5							
JSB HOST output current		500 mA							
JSB comm. distance	e	Host: < 2 m	, Device: <	< <u>2</u> m		_			
thernet interface		Ethernet: IEI		, 10/100B	ase-T	, conne	ctor: F	RJ45	j
CAN interface		24V CAN tra		AT1C/22\					
External storage Printer		Micro SD ma PCL3 GUI pr							
Processor		ATMEL ARM			re (53	6 MHz)			
RAM		DDR2 133 M	Hz 256 MB						
lash		256 MB		/- /-					
Backup memory Backup type		SRAM 1MB (I Logging/ala							
Battery life cycle		5 years at 25°		nathe dev	ice				
Clock			RTC embedded						
		e different up to model. For the detailed information, refer to 'Ordering Inform							
upportive interface can b	oe diffe	rent up to mode		tailed inforr	nation	, refer to '	Orderir	ng Inf	ormation'.
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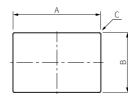
#### **Dimensions**

• Unit: mm, For the detailed dimensions of the product, follow the Autonics web site.



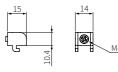
	Α	В	С	D	E	F
4.6 inch	135	143.5	75.5	6.5	36	67
5.7 inch	160	168.5	128.5	6.5	36	120
7.0 inch	185	194	134	6.5	28.5	125
10.4 inch	260	273	212	7.2	34	200

· Panel cut-out



	Α	В	С
4.6 inch	135.5*1.1	67.5°1.1	≤ 4-R3
5.7 inch	160.5*1.0	120.5*1.0	≤ 4-R3
7.0 inch	186°1.1	126+1.0	≤ 4-R3
10.4 inch	260.5°1.1	200.5 0	≤ 4-R3

• Fixing bracket



## Installation

1. Set the product in panel. (panel thickness: ≤ 4mm) When installing GP-A104 on panel, make 100mm of space from upper, lower, right, left side of the product on the panel and back side of panel. It is for preventing effect of electromagnetic waves and heat from other controllers. [Image 1]

- 2. Set fixing brackets in the fixing bracket mounting slots. [Image 2]
  - 3. Tighten the fixing bracket with M4 Screw driver and tightening torque is 0.5 to  $0.6N \cdot m$ .

