Autonics

Graphic Panel

GP-S057

A N U







Thank you very much for selecting Autonics products. For your safety, please read the following before using.

Caution for your safety

XPlease keep these instructions and review them before using this unit.

*Please observe the cautions that follow:

⚠ Warning Serious injury may result if instructions are not followed.

 Δ Caution Product may be damaged, or injury may result if instructions are not followed.

▲Caution:Injury or danger may occur under special conditions.

⚠ Warning

- 1. In case of using this unit with machinery(Ex: nuclear power control, medical equpment, ship, vehicle, train, airplane, combustion apparatus, safety device, crime/disaster prevention equipment, etc) which may cause damages to human life or property, it is required to install fail-safe device.
- It may cause a fire, human injury or damage to property.
- 2. In case using the Graphic Panel touch switch for controlling, do not use the switch as an emergency switches or those related to safety that may cause physical injury or property damage in the event of a malfunction. It may cause a fire, human injury or damage to property
- 3. In case controlling other devices through Graphic Panel communication, and there is a possibility of malfunction due to communication error, an alternative circuit must be constructed.
- It may cause a fire, human injury or damage to property.
- 4. Do not use the product in an area or an environment not specified in the manual. It may cause a fire, human injury or damage to property
- 5. Do not connect, inspect or repair when power is on.
- It may cause a fire or give an electric shock
- 6. Do not disassemble the case. Please contact us if it is required.
- It may cause a fire or give an electric shock.
- 7. Please use the rectified power with insulation transformer.
- It may cause a fire or give an electric shock. 8. Do not use the power exceeded the rated voltage.
- It may cause a fire or give an electric shock.
- 9. Lithium battery is used in this product, do not disassemble or burn up.
- It may cause an explosion or a fire.
- 10. Wire properly after checking power terminal polarity.
- It may cause a fire or a malfunction

⚠ Caution

- 1. Please read all notes related to installation and wiring in the manual.
- If this is not observed, electrical shock or malfunction may occur.
- 2. Make sure the ground wire of Graphic Panel is wired separately from the ground wires of other devices. Ground resistance must be less than 100Ω , and a lead wire of which sectional area is over 1.25mm² should be used.
- If this is not observed, electrical shock or malfunction may occur.
- 3. When connecting Graphic Panel ports and constructing input/output, check the pin number and terminal block before connecting. It may cause a fire or a malfunction.
- 4. Please tighten bolt on terminal block with specified tightening torque. It may cause a short circuit, fire or a malfunction
- 5. Do not press the surface of the touch panel with sharp or hard objects. The touch panel may be damaged
- 6. Keep Graphic Panel at the specified temperature.
- If stored at a temperature beyond the specification, damage may occur.
- 7. Do not inflow dust or wire dregs into the unit. It may cause a fire or a malfunction.
- 8. Do not use in an area with excessive humidity or temperature. The Graphic Panel may malfunction, or its useful life may be shortened.

- 9. Do not close ventilating opening of this product.
- Malfunction may occur due to temperature increase
- 10. Keep the product out of direct sunlight or excessive dust. The Graphic Panel may malfunction, or its useful life may be shortened
- 11. Do not use or store in a place with shock or vibration.
- The Graphic Panel may malfunction, or its useful life may be shortened.
- 12. When liquid crystal from the broken LCD is smeared with skin, wash it for 15minutes. If it is gotten in the eye, wash it for 15 minutes and contact with the medical specialist for more information.
- 13. In cleaning unit, do not use water or an oil-based detergent and use dry towels. It may cause an electric shock or a fire.
- 14. Please separate as an industrial waste when disuse this unit.
- 15. To change the battery, contact the store or an authorized technician.
- 16. The manufacturer is not liable for damages that occur due to causes for which the manufacturer is not responsible, damages that occur due to an extraordinary situation, secondary damages, compensation for accidents, damages occurring on other products, compensation for other processes, and damage and loss of opportunity to the user due a malfunction of the product, regardless of the predictability of the accident.
- 17. Note that this device is KC certified for commercial use. Make proper applications
- ★The above specifications are subject to change and some models may be discontinued.

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■ Model

	Model	Monitor size	Display unit	Color	Power supply	Interface
	GP-S057-S1D0	5.7inch	STN LCD	MONO (Blue, White)	24VDC	Each port of RS232C, RS422C
	GP-S057-S1D1					Two port RS232C

Specifications

General Specifications

Item		GP-S057-S1D0 GP-S057-S1D1				
Power supply		24VDC				
Allowable voltage range		90 to 110% of power supply				
Power consumption		Max. 3.6W				
Serial interface		Each port of RS232C, RS422 Two ports of RS232C (Asynchronous method) (Asynchronous method)				
Real-tim	e controller	RTC embedded				
Battery life cycle		3 years at 25°C				
Insulated resistance		Min.100MΩ (at 500VDC megger)				
Ground		3rd grounding(Max.100Ω)				
Noise immunity		The square wave noise (Pulse width 1 μ s) by the noise simulator with $\pm~0.5$ kV				
Withstanding voltage		500VAC(50/60Hz) for a minute				
Vibration	Mechanical	0.75mm amplitude at frequency of 10 to 55Hz (for a minute) in each of X, Y, Z directions for an hour				
vibration	Malfunction	0.5mm amplitude at frequency of 10 to 55Hz (for a minute) in each of X, Y, Z directions for 10 minutes				
Shock	Mechanical	300m/s² (30G) in X, Y, Z directions for 3 times				
SHOCK	Malfunction	100m/s ² (10G) in X, Y, Z directions for 3 times				
Environ	Ambient temperature	0 to 50°C, Storage: -20 to 60°C				
-ment	Ambient humidity	35 to 85%RH, Storage: 35 to 85%RH				
Protection ratings		IP65F for front panel				
Accessory		Fixing bracket : 4pcs, Rubber waterproof ring, Battery included				
Approval		CE B				
Unit weight ^{※1}		Approx. 555g (Approx. 376g)				

X1: The weight in parentheses is only unit weight.

Environment resistance is rated at no freezing or condensation

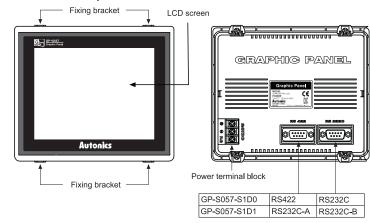
Performance Specifications

Model	GP-S057-S1D0(1)				
Display performance					
LCD type	5.7inch STN Blue Negative				
Resolution	320 × 240 dot				
Display area	119mm × 91mm				
Color MONO(Blue, White)					
LCD view angle Within each 30° of top/bottom/right/left					
Backlight White LED					
Brightness Adjustable by software					
Graphic Drawing Performance					
Language ×1	Support for Korean, English, Japanese, Chinese, Russian, Vietnamese, Portuguese				
Text	●Up to 1590 characters (6 × 8 font) displayable ●6 × 8, 8 × 8 ASCII character, High quality view of numbers ●8 × 16 ASCII characters, 16 × 16 regional characters (1- 8 times bigger for width, 0.5-5 times bigger for height)				
Graphic drawing memory	aphic drawing memory 512 KB				
Number of user screen	500pages				
Touch switch	Width 16 × Height 12=192				

Cable

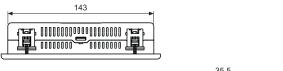
Communication cables connectable into external devices such as PLC are sold separately. Please refer to 'GP. LP user manual for communication' for communication cable

Parts description

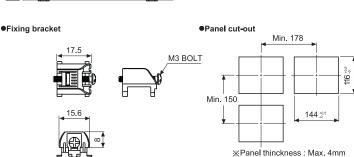


Dimensions

(Unit:mm)

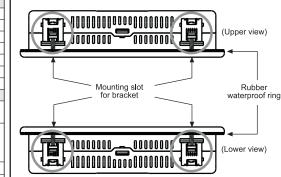




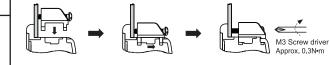


Installation

- 1. Set a rubber waterproof ring after placing the ring's joining part under the GP-S057.
- 2. Adhere closely between each edge of the GP-S057 and the rings
- 3. Set GP-S057 in panel.
- Set the fix bracket to 4 bracket slots and fix them with bracket's screws.



Mounting bracket



Serial interface

- •All devices connectable into GP-S057 including PC, PLC, serial printer, barcode reader and dedicated connectors can be connected into both RS232C and RS422 ports.
- Device must be set for the port in system setting for GP-S057.
- For details, refer to 'GP Editor user manual'.
- For the method of wiring external devices of PLC, refer to 'GP, LP user manual for communication'.

Port			Port	Pin	Pin	
RS232C	1	Non-used	RS422	1	TXD+	
RS232C-A RS232C-B		RXD		2	RXD+	
		TXD		3	Non-used	
5	4	DTR	1 0 0 6	4	Non-used	
4 8	5	SG	$\begin{vmatrix} 2 & 0 & 0 & 7 \\ 2 & 0 & 0 & 7 \end{vmatrix}$	5	SG	
3 • 7	6	DSR	3 0 0 8	6	TXD-	
2 6	7	Non-used	4 0 0 9	7	RXD-	
1 • 0	8	Non-used	5 6	8	Non-used	
D-Sub 9Pin Male		Non-used	D-Sub 9Pin Female		Non-used	

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 crimp-on type ring 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.
- ulletGround resistance should be less than 100 Ω and ground it separately.



Software

Please visit our website (www.autonics.com) to download GP Editor or firmware.

●GP Editor

GP Editor is for editing shape, arrangement, default of tag data which is displayed on GP-S057 screen. For GP Editor software, computer specification is as below

Operating system: Windows 98/NT/XP/Vista

Minimum specification	Recommended specification		
Pentium 4 or above	Pentium Dual Core		
256MB	512MB		
1GB(Available space)	2GB(Available space)		
1024 × 768	1024 × 768		
	Pentium 4 or above 256MB 1GB(Available space)		

Firmware Please refer to 'GP Editor user manual'

Manual

for communication', GP-S044/S057 user manual.

- It describes how to write screen data, and is about related usage of GP-S057 HMI function.
- GP. LP user manual for communication It describes connection for external devices such as PLC.
- ●GP-S044/S057 user manual

It describes general information on the installation and usage of GP-S057 and system control.

Visit our website (www.autonics.com) to download 'GP Editor user manual, or GP, LP user manual

Battery replacement

Please contact our service center to replace GP-S057 battery. It may cause an explosion or a fire when using improper battery.

Caution for using

- 1. Use communication cable after checking whether there is break, short.
- Please install power switch or circuit-breaker in order to cut power supply off. 3. Separate this unit from high voltage line, power line to avoid inductive noise
- 4. Do not use this product at below places
- ① Place where there is severe vibration or impact
- ② Place where dust exists, or corrosion causing environments.
- 3 Place where strong magnetic field or electric noise are generated
- Place where is temperature/humidity is beyond the specification ⑤ Place where strong alkalis or vibration or impact
- ® Place where there are direct ray of the sun
- . Installation environmer It shall be used indoor.
- ③ Pollution Degree 2
- Altitude Max 2 000m 4 Installation Category II

⊗It may cause malfunction if above instructions are not followed.

Major products

- Photoelectric sensors Temperature controllers
 Fiber optic sensors Temperature/Humidity transducers SR/Power controllers ■ Counters
 ■ Timers
- Door side sensors
 Area sensors
 Proximity sensors Panel meters
- Pressure sensors
 Rotary encoders
 Rotary encoders
 Connector/Sockets
 Taichometer/Pulse(Rate)
 Display units
 Sensor controllers Switching mode power supplies
- Control switches/Lamps/Buzzers
 I/O Terminal Blocks & Cables
- Stepper motors/drivers/motion controllers
 Graphic/Logic panels
 Field network devices
- Laser marking system(Fiber, CO₂, Nd:YAG)

 Laser welding/soldering system

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EP-KE-15-0004E