7" wide screen, TFT Color LCD type
Graphic panel + PLC function Logic panel LP-S044

▣Features

NEW

7" TFT Color LCD

- **●Supports reducing costs, saves space, easy to control by PLC+HMI+I/O module integration**
- **●Adopts 7 inch wide TFT LCD for realizing True Color with 16,777,216 colors**
- **●Analog touch method: Free tag arrangement than matrix touch method**
- ●Supports basic I/O of input 16 points, output 16 points
- ●Supports several device
  (auxiliary device 10K Word, data device 10K Word, etc)
- ●Built-in large memory
  (program memory : 8,000 step, drawing memory : 16MB)
- ●Built-in position control function
  : Provides simultaneous output for max.100kHz pulse 2 points
- ●Easy S/W upgrade at website
  (1) LP firmware file (2) GP Editor (Drawing program)
  (3) SmartStudio (Logic program) (4) Additional protocol (5) Language and font, etc
- ●Data logger function : Supports data gathering and backup of controller
- ●Supports variable image library
- ●Enables to monitor multi station and multi channel at the same time
- **●Supports several interface**
  : Supports USB Host/Device to high speed download and manage files
  : Supports high speed Ethernet to control data by large unit
  : Easy to connect various external devices with RS232C 2 ports and RS232C/RS422 multi communication port
- ●Supports several fonts: Supports window true type and several bitmap font (Selectable)
- ●Device monitoring function
  : Enables to monitor/control variable of connected control through communication port
- ●Printer/Barcode reader connection: Enables to print out alarm history, to read barcode

⚠ **Please read "Caution for your safety" in operation manual before using.**

▣Manual

Visit our webwite(www.autonics.com) to download 'GP Editor user manual' or 'SmartStudio user manual', 'SmartStudio programing manual', 'SmartStudio command manual', 'LP-S070 user manual', GP, LP user manual for communication'.

- **●GP Editor user manual**
  It describes how to write screen data, and is about related usage of LP-S070 HMI function.
- **●SmartStudio user manual, SmartStudio programming manual, SmartStudio command manual**
  It contains install method and usage, commands, etc of SmartStudio.
- **●GP, LP user manual for communication**: It describes connection for external devices such as PLC.
- **●LP-S070 user manual**: It describes general information on the installation and usage of LP-S070 and system contents.

▣Ordering information

LP	–	S	070	–	T	9	D	6	–	C	5	R

I/O connector	T	Terminal block connector
	R	Ribbon cable connector
I/O composition	5	IN:16points, OUT:16points
Module	C	All-in one type
Interface	6	RS232C, RS422, USB HOST USB DEVICE, Ethernet
	7	RS232C(2), USB HOST USB DEVICE, Ethernet
Power supply	D	24VDC
Color	9	16,777,216 color
Display unit	T	TFT Color LCD
Monitor size	070	7inch
Series	S	S series
Item	LP	Logic Panel

▣Specifications

Model		LP-S070-T9D6-C5R(T)	LP-S070-T9D7-C5R(T)
Power supply		24VDC	
Allowable voltage range		90 to 110% of power supply	
Power consumption		Max. 7.2W	
Display performance	LCD type	7inch TFT Color LCD	
	Resolution	800×480 dots	
	Display area	152.4mm×94.44mm	
	Color	16,777,216 color	
	LCD view angle	Within each 50˚/ 60˚/ 65˚/ 65˚ of top/bottom/left/right	
	Backlight	White LED	
	Brightness	Adjustable by software	
Graphic drawing performance	Language	English, Korean**(⋆1)**	
	Text	• Vector font • 6×8, 8×8 ASCII character, High quality view of numbers • 8×16 ASCII characters, 16×16 regional characters(1 to 8 times bigger for width, 0.5 to 5 times bigger for height)	
	Graphic drawing memory	16MB	
	Number of user screen	500 pages	
	Touch switch	Analog touch	
Control performance	Command	Basic command : 28, application command : 233	
	Program capacity	8K step	
	Processing time	Average : Approx. 2us/basic command, application command	
	I/O control type	Batch processing	
	Computer control mode	Repeated−doubling method, interrupt processing	
	Device range	*See manual	
	Special function	Positioning function *See manual	
Serial interface		Each port of RS232C, RS422(asynchronous method)	Two ports of RS232C
USB interface		Each of USB Host, USB Device(Version 1.1)	
Ethernet interface		IEEE802.3(U), 10/100Base−T	
Real−time controller		RTC embedded	
Battery life cycle		3 years at 25℃	
Insulated resistance		Min. 100MΩ(at 500VDC megger)	
Ground		3rd grounding(Max. 100Ω)	
Noise immunity		The squre wave noise(Pulse width 1㎲) by the noise simulator with ±500V R/S phase and repetition frequency 60Hz	
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	
	Malfunction	0.5mm amplitude at frequency of 10 to 55Hz(for a minute) in each of X, Y, Z directions for an 10minute	
Shock	Mechnical	300m/s² (30G) X,Y,Z directions for 3 times	
	Malfunction	100m/s² (10G) X,Y,Z directions for 3 times	
Environment	Ambient temperature	0 to 50℃, Storage: −20 to 60℃	
	Ambient humidity	35 to 85% RH, Storage: 35 to 85%RH	
Protection		IP65F for front panel	
Accessory		Fixing bracket: 4pcs, Battery(included)	
Approval		CE	
Unit weight		Approx. 540g	

※Environment resistance is rated at no freezing or dondensation.
※**(⋆1)**Language can be customized.

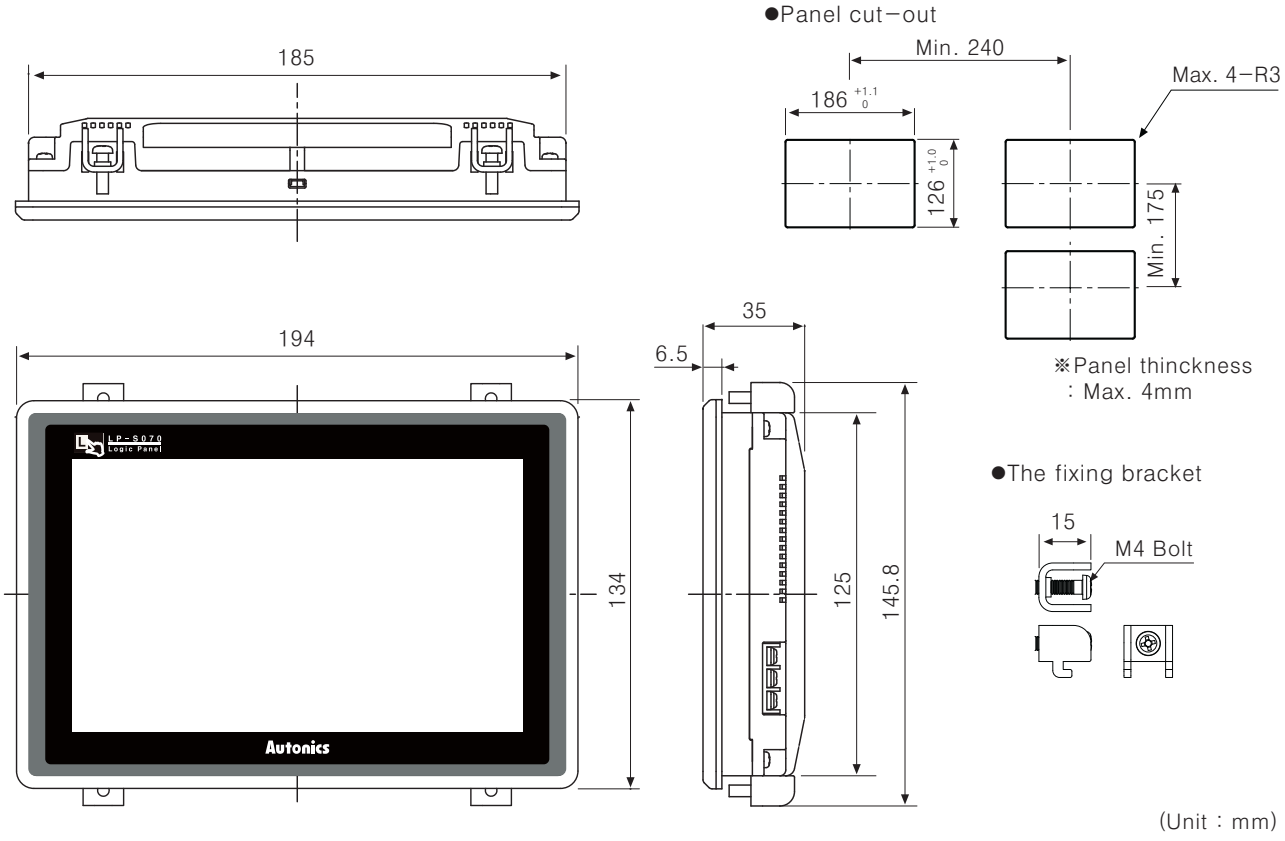
▣Input/Output performance

Input performance		Output performance	
Input point	16 points	Output point	16 points
Insulation method	Photo coupler insulation	Insulation method	Photo coupler insulation
Voltage range	19.2 to 28.8VDC	Voltage range	19.2 to 28.8VDC
Rated input voltage	24VDC	Rated input voltage	24VDC
Input resistance	Contact X0 to X5: Approx. 10mA Contact X6 to XF: Approx. 4mA	Max. load current	0.1A/1point, 1.6A/1COM
Input resistance	Contact X0 to X5: 2.2kΩ Contact X6 to XF: 5.6kΩ	Max. voltage falling when ON	Max. 0.2VDC
Response time	1ms	Response time	1ms
Common method	16 points/1COM	Common method	16 points/1COM
Acceptable wire	0.3 to 0.7㎟	Acceptable wire	0.3 to 0.7㎟

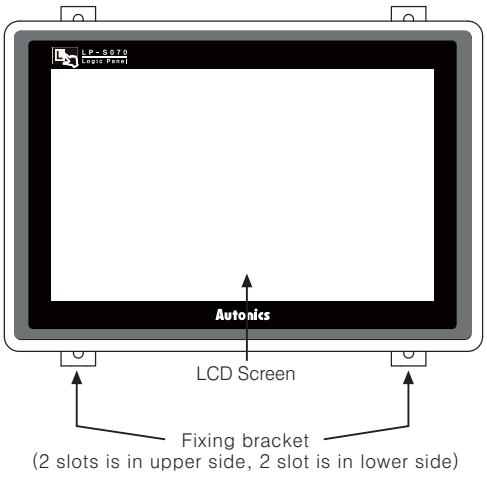
▣Functional description

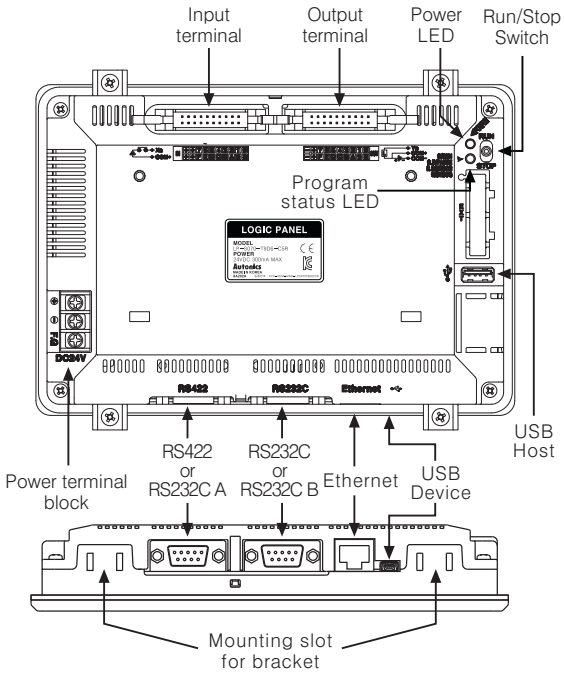
Figure display		Line, rectangle, circle, text, bitmap
Tags	Numeral display	Display the designated device as numerical value.(Decimal, hexadecimal, octal, binary, real number)
	ASCII display	Display the designated device value as ASCII character.
	Time display	Display current time or date.
	Alarm history	Register alarm history.
	Alarm list	Display generated (not backed up) alarm.
	Comment display	Display the designated comment as device status or value.
	Lamp	Display lamp as device status.
	Part display	Display the designated parts as device status and value.
	Line graph	Display several device values with a graph of broken line.
	Trend graph	Display change of device value for time with a graph of broken line.
	Bar graph	Display a device value with a bar graph.
	Statistic graph	Display a ratio of several device values with pie graph.
	Panel meter	Display a device value as panel meter.
	Touch key	Screen is switched, word/bit device values are set when it touched.
	Numeral input	Configure user input value in device.
	ASCII input	Configure user input ASCII code value in device.
System information function		Monitor/control GP operation from PLC.
Recipe function		Read/Write several PLC device collectively.
Security function		Only acceptable user can observe/operate important data.
Barcode read function		Connect barcode reader, read barcode.
Floating alarm function		Warning message is floated when alarm is generated.
Time operation		Specific bit device is ON/OFF for designated day and time.
Overlap window		Available to form dynamically overlapping another base screen on the base one.

▣Dimensions



▣Part description

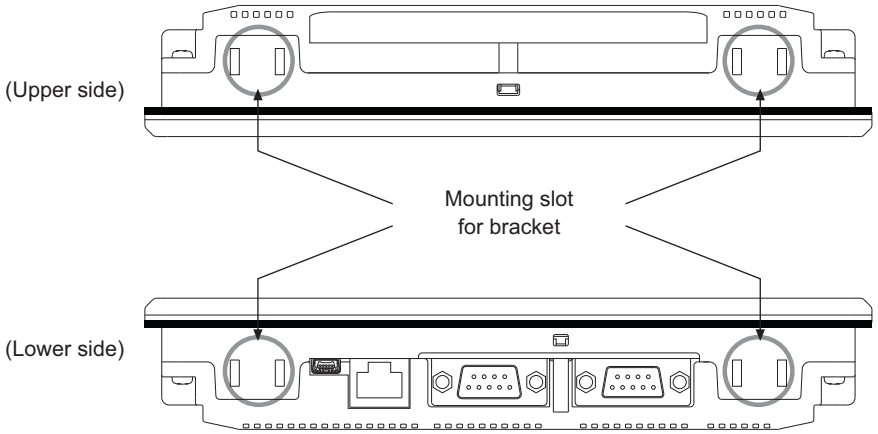




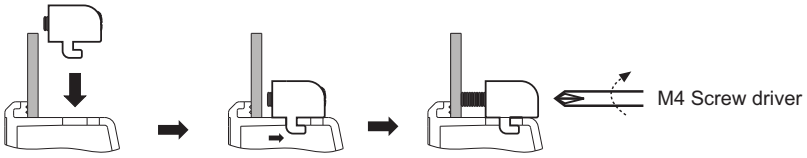
- ●Ethernet port: For connecting LAN cable and hub, use direct cable, and for connecting PC direcly, use cross cable.
- ●USB Device: It is used to upload and download project(It is required to install USB driver on PC), and when connect to PC, it can be used as a USB memory(PC recognizes it as a removable disk).
- ●USB Host: It used to manage data and upgrade firmware.

▣Installation

1. Set LP-S070 in panel.
2. Set fixing brackets in 4 slots(2 slots is in upper side, 2 slots is in lower side).



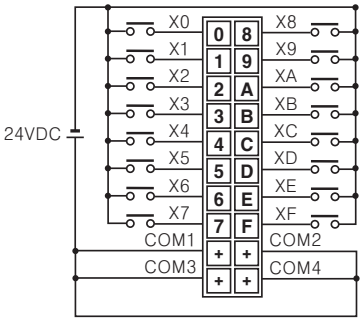
3. Tighten fixing bracket with M4 screw driver and tightening torque is 0.3 to 0.5N•m.



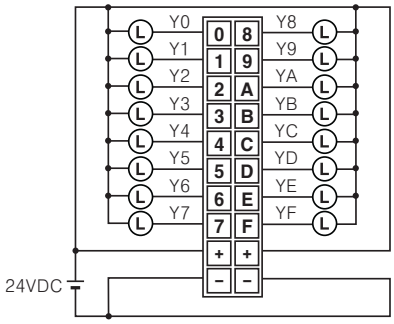
▣Input · output wiring

◎LP-S070-T9D6(7)-C5R

●Input wiring(Source type input module)

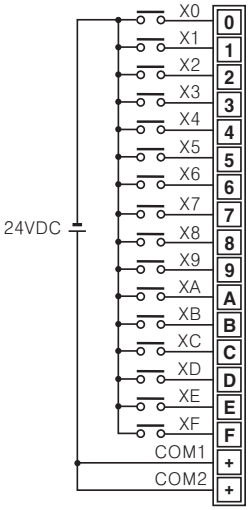


●Output wiring(Sink type output module)

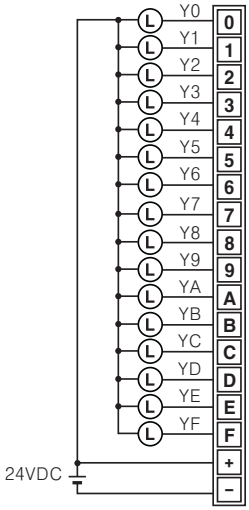


◎LP-S070-T9D6(7)-C5T

●Input wiring(Source type input module)



●Output wiring(Sink type output module)



※Check the pin number of the case before wiring.

▣Sold separately

◎I/O terminal block and I/O cable

Suitable I/O terminal block	INPUT/OUTPUT	Suitable I/O cable
AFS-H20 (Interface terminal block)	INPUT	CJ-HPHP20-V1N□-1ANR
	OUTPUT	
ABS-H16PA(TN)-NN (Relay terminal block)	OUTPUT	CJ-HPHP20-V1N□-1APR
AFE4-H20-16LF (Sensor connector terminal block)	INPUT	CJ-HPHP20-V1N□-1BNR
	OUTPUT	CJ-HPHP20-V1N□-1APR
—	—	CJ-HP20-VP□-R (OPEN type cable)
		CJ-HP20-VP□-L (OPEN type cable)

※"□" is for cable length. (Basic specification **010** : 1m, **020** : 2m, the others are option)
※For further details, refer to "**I/O terminal block & cable catalog**".

◎Communication cable (RS232C, RS422 port)

※Refer to "**GP/LP Communication Cable**" at R-31page.