



Workaround to solve critical long lead-time of GP4000/SP5000 Series

Proposal to replace GP4000/SP5000 by ST6000

May 2022

Sales Enablement

*Updated on Jun 2022

Proposal

This guidebook is a reference material for customers who use the GP4000/SP5000 series, to change to the ST6000 Series GP-Pro EX model, due to shortages*. Please check the differences in specifications or functions between the products in advance.

Current model GP4000T/TW Series



3.5"~12.1" Display



For more details:

<https://www.proface.com/en/product/hmi/gp4000/top>

SP5000 Series



Power Box
Standard Box

X

7"~15" Display



For more details:

<https://www.proface.com/en/product/hmi/sp5000/top>

Recommended replaced model ST6000 Series



7"~15" Display



For more details:

<https://www.proface.com/en/product/hmi/st6000/top>

*Shortage severity level is higher for GP4000 and SP5000 series than for ST6000 series. Back to Normal logistic, is expected earlier for ST6000 than for GP4000 and SP5000.

Migration under shortage issue

This guidebook is a reference material for customers who use the GP4000/SP5000 series, to change to the ST6000 Series GP-Pro EX model, due to shortages. Below is an alternative migration path to ST6000 GP-Pro EX model.

Existing Offer				New Offer –ST6000 Series			Screen area vs existing offer	Panel-cut compatibility	Hardware comparison	Installation method	Software Comparison	Certification
Series	Size	Model		Size	Model	Reference						
GP4000T Series	12.1"	GP-4601T	→	15"W	ST-6700W	PFXST6700WADE	147%	NO: Details	Details			
				12"W	ST-6600W	PFXST6600WADE	94%		Details			
	10.4"	GP-4501T	→	12"W	ST-6600W	PFXST6600WADE	127%		Details			
				10"W	ST-6500W	PFXST6500WADE	83%		Details			
	7.5"	GP-4401T	→	10"W	ST-6500W	PFXST6500WADE	157%	YES, with panel cut-out adaptor: Details	Details			
				7"W	ST-6400W	PFXST6400WADE	74%		Details			
	5.7"	GP-4301T	→	7"W	ST-6400W	PFXST6400WADE	133%	NO: Details	Details			
GP4000TW Series	10.4"	GP-4501TW	→	12"W	ST-6600W	PFXST6600WADE	127%	NO: Details	Details			
				10"W	ST-6500W	PFXST6500WADE	83%		Details			
	7"W	GP-4401WW	→	7"W	ST-6400W	PFXST6400WADE	95%	YES, with panel cut-out adaptor: Details	Details	Details	Details	Details
	5.7"	GP-4301TW	→	7"W	ST-6400W	PFXST6400WADE	133%	NO: Details	Details			
	3.5"	GP-4201TW	→	4"W	ST-6200W	PFXST6200WADE	137%	YES: Details	Details			
SP5000 Series - Premium Display	15"	SP-5700TP	→	15"W	ST-6700W	PFXST6700WADE	96%	NO: Details	Details			
	12.1"	SP-5600TP	→	12"W	ST-6600W	PFXST6600WADE	94%		Details			
				12"W	ST-6600W	PFXST6600WADE	127%		Details			
	10.4"	SP-5500TP	→	10"W	ST-6500W	PFXST6500WADE	83%		Details			
SP5000 Series - Advanced Display	12.1"	SP-5600TA	→	12"W	ST-6600W	PFXST6600WADE	94%	YES: Details	Details			
	12"W	SP-5600WA	→	12"W	ST-6600W	PFXST6600WADE	100%		Details			
	10"W	SP-5500WA	→	10"W	ST-6500W	PFXST6500WADE	95%		Details			
	7"W	SP-5400WA	→	7"W	ST-6400W	PFXST6400WADE	90%		Details			

Hardware comparison



Panel Cut Dimensions – GP4000T vs ST6000

The model that has the same panel cut dimensions is 3.5” GP4000T Series only.

Existing Offer	Wide [mm]	High [mm]	ST6000	Wide [mm]	High [mm]	Remark
GP-4201T (3.5")	118.5	92.5	ST-6200WA (4.3"W)	118.5	92.5	Compatible
GP-4301T (5.7")	156.0	123.5	ST-6400WA (7"W)	190.0	135.0	Make cut-out bigger or Wait for ST-6300TADE
GP-4401T (7.5")	204.5	159.5	ST-6400WA (7"W)	190.0	135.0	Panel cut-out adapter (PFXZCDAT72)*
			ST-6500WA (10.1"W)	255.0	185.0	Make cut-out bigger
GP-4501T (10.4")	259.0	201.0	ST-6500WA (10.1"W)	255.0	185.0	Make cut-out smaller or Wait for ST-6500TADE
			ST-6600WA (12.1"W)	295.0	217.0	Make cut-out bigger or Wait for ST-6500TADE
GP-4601T (12.1")	301.5	227.5	ST-6600WA (12.1"W)	295.0	217.0	Make cut-out smaller
			ST-6700WA (15"W)	394.0	250.0	Make cut-out bigger

**It can be used with ST6400 but not guarantee because installation way is different from GP4401 + PFXZCDAT72. Due to the HW design and mounting screw design, customer need to assemble panel adapter at first, and then mount HMI to adapter. Therefore, no promotion as Accessory.*



Panel Cut Dimensions – GP4000TW vs ST6000

The model that has the same panel cut dimensions is 3.5” GP4000TW Series only.

Existing Offer	Wide [mm]	High [mm]	ST6000	Wide [mm]	High [mm]	Remark
GP-4201TW (3.5")	118.5	92.5	ST-6200WA (4.3"W)	118.5	92.5	Compatible
GP-4301TW (5.7")	156.0	123.5	ST-6400WA (7"W)	190.0	135.0	Make cut-out bigger or Wait for ST-6300TADE
GP-4401WW (7")	204.5	159.5				Panel cut-out adapter (PFXZCDAT72)*
GP-4501TW (10.4")	301.5	227.5	ST-6500WA (10.1"W)	255.0	185.0	Make cut-out smaller or Wait for ST-6500TADE
			ST-6600WA (12.1"W)	295.0	217.0	Make cut-out smaller or Wait for ST-6500TADE

**It can be used with ST6400 but not guarantee because installation way is different from GP4401W + PFXZCDAT72. Due to the HW design and mounting screw design, customer need to assemble panel adapter at first, and then mount HMI to adapter. Therefore, no promotion as Accessory.*



Panel Cut Dimensions – SP5000 vs ST6000

The model that has the same panel cut dimensions is Advanced Display SP-5400WA(7”W), SP-5500WA (10”W) and SP-5600WA (12”W.)

Existing Offer		Wide [mm]	High [mm]	ST6000	Wide [mm]	High [mm]	Remark
Premium Display	SP-5500TP (10.4”)	259.0	201.0	ST-6500WA (10.1”W)	255.0	185.0	Make cut-out smaller
				ST-6600WA (12.1”W)	295.0	217.0	Make cut-out bigger
	SP-5600TP (12.1”)	301.5	227.5	ST-6600WA (12.1”W)	295.0	217.0	Make cut-out smaller
	SP-5700TP (15”)	383.5	282.5	ST-6700WA (15”W)	394.0	250.0	Make cut-out bigger
Advanced Display	SP-5400WA (7”W)	190.0	135.0	ST-6400WA (7”W)	190.0	135.0	Compatible
	SP-5500WA (10”W)	255.0	185.0	ST-6500WA (10.1”W)	255.0	185.0	Compatible
	SP-5600WA (12”W)	295.0	217.0	ST-6600WA (12.1”W)	295.0	217.0	Compatible
	SP-5600TA (12.1”)	301.5	227.5	ST-6600WA (12.1”W)	295.0	217.0	Make cut-out smaller
				ST-6700WA (15”W)	394.0	250.0	Make cut-out bigger

GP4000 vs ST6000

Hardware spec comparison - GP-4201T(3.5") vs ST-6200WA(4.3"W)

		GP-4201T	ST-6200WA with GP-Pro EX	Remark
Display type		TFT Color LCD		●
Display size, Resolution		3.5", 320 x 240 pixels (QVGA)	4.3"W, 480 x 272 pixels (WQVGA)	●
PPI (Pixel per inch)		114	128	●
Effective display area (W x H)		70.56 x 52.92 mm (3,734.04 mm ²)	95.04 x 53.86 mm (5,118.85 mm ²)	●
Display colors		65,536 colors (No blink) /16,384 colors (Blink)	16 million colors (No blink)	● ●
Backlight		White LED (not user replaceable)	White LED (not replaceable)	●
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)	20,000 hours or more (before backlight brightness decreases to 50%)	●
Brightness control		16 levels (Adjusted with touch panel or software)	16 levels (Adjusted with touch panel or software)	●
Application memory	System card/ System memory	Flash EPROM	Flash EPROM	●
	Removable system	No	No	●
	Screen area	16MB	64MB	●
Backup memory	Screen area	SRAM 320KB	SRAM 320KB	●
	Variable area	SRAM 64KB	SRAM 64KB	●
	Battery (clock data backup)	Primary battery (replaceable)		●
Touch panel type		Resistive film (analog, single touch)		●
Touch panel resolution		1,024 x 1,024		●
Touch panel service life		1 million times or more		●
Serial		COM 1 (RS-232C/422/485) Alternative solution Proposal: Use USB-232C adapter	COM 1 (RS-232C/422/485) Alternative solution Proposal: Use USB-232C adapter	●
USB		USB 2.0 (Type A) x 1 USB 2.0 (mini-B) x 1	USB 2.0 (Type A) x 1 USB 2.0 (micro-B) x 1	●
Ethernet		10BASE-T/100BASE-TX x 1	10BASE-T/100BASE-TX x 1	●
SD card slot		No		●
Rate Input Voltage		24V DC (Input voltage limits: 19.2~28.8Vdc)		●
External Dimensions (W x H x D)		132 x 106 x 42 mm	134.5 x 108.5 x 43 mm	●

Hardware spec comparison GP-4401T(7.5”) vs GP-4301T (5.7”) vs ST-6400WA(7”W)

		GP-4401T	Remark	ST-6400WA with GP-Pro EX	Remark	GP-4301T
Display type		TFT Color LCD	●	TFT Color LCD	●	TFT Color LCD
Display size, Resolution		7.5", 640 x 480 pixels (VGA)	●●	7"W, 800 x 480 pixels (WVGA)	●	5.7", 320 x 240 pixels (QVGA)
PPI (Pixel per inch)		107	●	133	●	70
Effective display area (W x H)		153.7 x 115.8 mm (17,798.46 mm ²)	●	154.08 x 85.92 mm (13,238.55 mm ²)	●	115.2 x 86.4 mm (9,953.28 mm ²)
Display colors		65,536 colors (No blink) / 16,384 colors (Blink)	●●	16 million colors (No blink)	●●	65,536 colors (No blink) / 16,384 colors (Blink)
Backlight		White LED (not user replaceable)	●	White LED (Not replaceable)	●	White LED (not user replaceable)
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)	●	20,000 hours or more (before backlight brightness decreases to 50%)	●	50,000 hours or more (before backlight brightness decreases to 50%)
Brightness control		16 levels (Adjusted with touch panel or software)	●	16 levels (Adjusted with touch panel or software)	●	16 levels (Adjusted with touch panel or software)
Application memory	System card/ System memory	FLASH EPROM	●	Flash EPROM	●	FLASH EPROM
	Removable system	No	●	No	●	No
	Screen area	32MB	●	64MB	●	16MB
Backup memory	Screen area	SRAM 320KB	●	SRAM 320KB	●	SRAM 320KB
	Variable area	SRAM 64KB	●	SRAM 64KB	●	SRAM 64KB
	Battery (clock data backup)	Primary battery (replaceable)	●	Primary battery (replaceable)	●	Primary battery (replaceable)
Touch panel type		Resistive film (analog, single touch)	●	Resistive film (analog, single touch)	●	Resistive film (analog, single touch)
Touch panel resolution		1,024 x 1,024	●	1,024 x 1,024	●	1,024 x 1,024
Touch panel service life		1 million times or more	●	1 million times or more	●	1 million times or more
Serial		COM1 (RS-232C) COM2 (RS-422/485)	●	COM1 (RS-232C) COM2 (RS-422/485)	●	COM1 (RS-232C) COM2 (RS-422/485)
USB		USB 2.0 (Type A) x 1 USB 2.0 (mini-B) x 1	●	USB 2.0 (Type A) x 1, USB 2.0 (micro-B) x 1	●	USB 2.0 (Type A) x 1 USB 2.0 (mini-B) x 1
Ethernet		10BASE-T/100BASE-TX x 1	●	10BASE-T/100BASE-TX x 2	●	10BASE-T/100BASE-TX x 1
SD card slot		x 1	●	No	●	x 1
Rate Input Voltage		24V DC (Input voltage limits: 19.2~28.8Vdc)	●	24V DC (Input voltage limits: 19.2~28.8Vdc)	●	24V DC (Input voltage limits: 19.2~28.8Vdc)
External Dimensions (W x H x D)		218 x 173 x 60 mm	●	208 x 153 x 45 mm	●	169.5 x 137 x 59.5 mm

Hardware spec comparison GP-4501T(10.4”W) vs GP-4401T(7.5”) vs ST-6500WA(10.1”W)

Upper compatible

Incompatible or Different



		GP-4501T	Remark	ST-6500WA with GP-Pro EX	Remark	GP-4401T
Display type		TFT Color LCD		TFT Color LCD		TFT Color LCD
Display size, Resolution		10.4", 640 x 480 pixels (VGA)		10.1"W, 1,024 x 600 pixels (WSVGA)		7.5", 640 x 480 pixels (VGA)
PPI (Pixel per inch)		77		118		107
Effective display area (W x H)		211.2 x 158.4 mm (33,454.08 mm ²)		222.72 x 125.28 mm (27,902.36 mm ²)		153.7 x 115.8 mm (17,798.46 mm ²)
Display colors		65,536 colors (No blink) / 16,384 colors (Blink)		16 million colors (No blink)		65,536 colors (No blink) / 16,384 colors (Blink)
Backlight		White LED (not user replaceable)		White LED (not replaceable)		White LED (not user replaceable)
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)		20,000 hours or more (before backlight brightness decreases to 50%)		50,000 hours or more (before backlight brightness decreases to 50%)
Brightness control		16 levels (Adjusted with touch panel or software)		16 levels (Adjusted with touch panel or software)		16 levels (Adjusted with touch panel or software)
Application memory	System card/ System memory	FLASH EPROM		Flash EPROM		FLASH EPROM
	Removable system	No		No		No
	Screen area	32MB		64MB		32MB
Backup memory	Screen area	SRAM 320KB		SRAM 320KB		SRAM 320KB
	Variable area	SRAM 64KB		SRAM 64KB		SRAM 64KB
	Battery (clock data backup)	Primary battery (replaceable)		Primary battery (replaceable)		Primary battery (replaceable)
Touch panel type		Analog model: Resistive film (analog, single touch) Matrix model: Resistive film (matrix, multi touch)		Resistive film (analog, single touch)		Resistive film (analog, single touch)
Touch panel resolution		Analog model: 1,024 x 1,024 Matrix model: 32 x 24 keys/screen		1,024 x 1,024		1,024 x 1,024
Touch panel service life		1 million times or more		1 million times or more		1 million times or more
Serial		COM1 (RS-232C) COM2 (RS-422/485)		COM1 (RS-232C) COM2 (RS-422/485)		COM1 (RS-232C) COM2 (RS-422/485)
USB		USB 2.0 (Type A) x 1 USB 2.0 (mini-B) x 1		USB 2.0 (Type A) x 1 USB 2.0 (micro-B) x 1		USB 2.0 (Type A) x 1 USB 2.0 (mini-B) x 1
Ethernet		10BASE-T/100BASE-TX x 1		10BASE-T/100BASE-TX x 2		10BASE-T/100BASE-TX x 1
SD card slot		x 1		No		x 1
Rate Input Voltage		24V DC (Input voltage limits: 19.2~28.8Vdc) 100...240V AC (Input voltage limits: 85...264 Vac)		24V DC (Input voltage limits: 19.2~28.8Vdc)		24V DC (Input voltage limits: 19.2~28.8Vdc)
External Dimensions (W x H x D)		272.5 x 214.5 x 57 mm		273 x 203 x 47 mm		218 x 173 x 60 mm

● : Upper compatible
● : Incompatible or Different

		GP-4601T	Remark	ST-6600WA with GP-Pro EX	Remark	GP-450T
Display type		TFT Color LCD	●	TFT Color LCD	●	TFT Color LCD
Display size, Resolution		12.1", 800 x 600 pixels (SVGA)	●	12.1"W, 1,280 x 800 pixels (WXGA)	●●	10.4", 640 x 480 pixels (VGA)
PPI (Pixel per inch)		83	●	125	●	77
Effective display area (W x H)		246.0 x 184.5 mm (45,387 mm ²)	●	261.12 x 163.2 mm (42,614.78 mm ²)	●	211.2 x 158.4 mm (33,454.08 mm ²)
Display colors		65,536 colors (No blink) / 16,384 colors (Blink)	●●	16 million colors (No blink)	●●	65,536 colors (No blink) / 16,384 colors (Blink)
Backlight		White LED (not user replaceable)	●	White LED (not replaceable)	●	White LED (not user replaceable)
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)	●	20,000 hours or more (before backlight brightness decreases to 50%)	●	50,000 hours or more (before backlight brightness decreases to 50%)
Brightness control		16 levels (Adjusted with touch panel or software)	●	16 levels (Adjusted with touch panel or software)	●	16 levels (Adjusted with touch panel or software)
Application memory	System card/ System memory	FLASH EPROM	●	Flash EPROM	●	FLASH EPROM
	Removable system	No	●	No	●	No
	Screen area	32MB	●	64MB	●	32MB
Backup memory	Screen area	SRAM 320KB	●	SRAM 320KB	●	SRAM 320KB
	Variable area	SRAM 64KB	●	SRAM 64KB	●	SRAM 64KB
	Battery (clock data backup)	Primary battery (replaceable)	●	Primary battery (replaceable)	●	Primary battery (replaceable)
Touch panel type		Analog model: Resistive film (analog, single touch) Matrix model: Resistive film (matrix, multi touch)	●●	Resistive film (analog, single touch)	●●	Analog model: Resistive film (analog, single touch) Matrix model: Resistive film (matrix, multi touch)
Touch panel resolution		Analog model: 1,024 x 1,024 Matrix model: 40 x 30 keys/screen	●●	1,024 x 1,024	●●	Analog model: 1,024 x 1,024 Matrix model: 32 x 24 keys/screen
Touch panel service life		1 million times or more	●	1 million times or more	●	1 million times or more
Serial		COM1 (RS-232C) COM2 (RS-422/485)	●	COM1 (RS-232C) COM2 (RS-422/485)	●	COM1 (RS-232C) COM2 (RS-422/485)
USB		USB 2.0 (Type A) x 1 USB 2.0 (mini-B) x 1	●	USB 2.0 (Type A) x 1 USB 2.0 (micro-B) x 1	●	USB 2.0 (Type A) x 1 USB 2.0 (mini-B) x 1
Ethernet		10BASE-T/100BASE-TX x 1	●	10BASE-T/100BASE-TX x 2	●	10BASE-T/100BASE-TX x 1
SD card slot		x 1	●	No	●	x 1
Rate Input Voltage		24V DC (Input voltage limits: 19.2~28.8Vdc) 100...240V AC (Input voltage limits: 85...264 Vac)	●	24V DC (Input voltage limits: 19.2~28.8Vdc)	●	24V DC (Input voltage limits: 19.2~28.8Vdc) 100...240V AC (Input voltage limits: 85...264 Vac)
External Dimensions (W x H x D)		315 x 241 x 56 mm	●	313 x 235 x 50 mm	●	272.5 x 214.5 x 57 mm

Hardware specifications GP-4601T (12.1”) vs ST-6700WA(15.6”W)

		GP-4601T	ST-6700WA with GP-Pro EX	Remark
Display type		TFT Color LCD	TFT Color LCD	●
Display size, Resolution		12.1", 800 x 600 pixels (SVGA)	15.6"W, 1,366 x 768 pixels (FWXGA)	● ●
PPI (Pixel per inch)		83	100	●
Effective display area (W x H)		246.0 x 184.5 mm (45,387mm ²)	344.23 x 193.54 mm (66,622.27 mm ²)	●
Display colors		65,536 colors (No blink) / 16,384 colors (Blink)	16 million colors (No blink)	● ●
Backlight		White LED (not user replaceable)	White LED (Not replaceable)	●
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)	20,000 hours or more (before backlight brightness decreases to 50%)	●
Brightness control		16 levels (Adjusted with touch panel or software)	16 levels (Adjusted with touch panel or software)	●
Application memory	System card/ System memory	FLASH EPROM	FLASH EPROM	●
	Removable system	No	No	●
	Screen area	32MB	64MB	●
Backup memory	Screen area	SRAM 320KB	SRAM 320KB	●
	Variable area	SRAM 64KB	SRAM 64KB	●
	Battery (clock data backup)	Primary battery (replaceable)	Primary battery (replaceable)	●
Touch panel type		Analog model: Resistive film (analog, single touch) Matrix model: Resistive film (matrix, multi touch)	Resistive film (analog, single touch)	● ●
Touch panel resolution		Analog model: 1,024 x 1,024 Matrix model: 40 x 30 keys/screen	1,024 x 1,024	● ●
Touch panel service life		1 million times or more	1 million times or more	●
Serial		COM1 (RS-232C) COM2 (RS-422/485)	COM1 (RS-232C) COM2 (RS-422/485)	●
USB		USB 2.0 (Type A) x 1 USB 2.0 (mini-B) x 1	USB 2.0 (Type A) x 1 USB 2.0 (micro-B) x 1	●
Ethernet		10BASE-T/100BASE-TX x 1	10BASE-T/100BASE-TX x 2	●
SD card slot		x 1	No	●
Rate Input Voltage		24V DC (Input voltage limits: 19.2~28.8Vdc) 100...240V AC (Input voltage limits: 85...264 Vac)	24V DC (Input voltage limits: 19.2~28.8Vdc)	●
External Dimensions (W x H x D)		315 x 241 x 56 mm	412 x 268 x 50 mm	●

GP4000TW vs ST6000

Hardware spec comparison - GP-4201TW(3.5") vs ST-6200WA(4.3"W)

		GP-4201TW	ST-6200WA with GP-Pro EX	Remark
Display type		TFT Color LCD		●
Display size, Resolution		3.5", 320 x 240 pixels (QVGA)	4.3"W, 480 x 272 pixels (WQVGA)	●
PPI (Pixel per inch)		114	128	●
Effective display area (W x H)		70.56 x 52.92 mm (3,734.04 mm ²)	95.04 x 53.86 mm (5,118.85 mm ²)	●
Display colors		65,536 colors (No blink) /16,384 colors (Blink)	16 million colors (No blink)	● ●
Backlight		White LED (not user replaceable)	White LED (not replaceable)	●
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)	20,000 hours or more (before backlight brightness decreases to 50%)	●
Brightness control		8 levels (Adjusted with touch panel or software)	16 levels (Adjusted with touch panel or software)	●
Application memory	System card/ System memory	Flash EPROM	Flash EPROM	●
	Removable system	No	No	●
	Screen area	8MB	64MB	●
Backup memory	Screen area	SRAM 128KB	SRAM 320KB	●
	Variable area	No	SRAM 64KB	●
	Battery (clock data backup)	Primary battery (replaceable)		●
Touch panel type		Resistive film (analog, single touch)		●
Touch panel resolution		1,024 x 1,024		●
Touch panel service life		1 million times or more		●
Serial		COM1 (RS-232C) COM2 (RS-422/485)	COM 1 (RS-232C/422/485) <i>Alternative solution Proposal: Use USB-232C adapter</i>	● ●
USB		USB 2.0 (Type A) x 1 USB 2.0 (mini-B) x 1	USB 2.0 (Type A) x 1 USB 2.0 (micro-B) x 1	●
Ethernet		No	10BASE-T/100BASE-TX x 1	●
SD card slot		No		●
Rate Input Voltage		24V DC (Input voltage limits: 19.2~28.8Vdc		●
External Dimensions (W x H x D)		132 x 106 x 42 mm	134.5 x 108.5 x 43 mm	●

Hardware spec comparison GP-4401WW(7”W) vs GP-4301TW(5.7”W) vs ST-6400WA(7”W)

●: Upper compatible

●: Incompatible or Different



		GP-4401WW	Remark	ST-6400WA with GP-Pro EX	Remark	GP-4301TW
Display type		TFT Color LCD	●	TFT Color LCD	●	TFT Color LCD
Display size, Resolution		7”W, 800 x 480 pixels	●	7”W, 800 x 480 pixels (WVGA)	●	5.7”, 320 x 240 pixels (QVGA)
PPI (Pixel per inch)		133	●	133	●	70
Effective display area (W x H)		152.4 x 91.44 mm (13,935.46 mm ²)	●	154.08 x 85.92 mm (13,238.55 mm ²)	●	115.2 x 86.4 mm (9,953.28 mm ²)
Display colors		65,536 colors (No blink) /16,384 colors (Blink)	●●	16 million colors (No blink)	●●	65,536 colors (No blink) /16,384 colors (Blink)
Backlight		White LED (not user replaceable)	●	White LED (Not replaceable)	●	White LED (not user replaceable)
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)	●	20,000 hours or more (before backlight brightness decreases to 50%)	●	50,000 hours or more (before backlight brightness decreases to 50%)
Brightness control		8 levels (Adjusted with touch panel or software)	●	16 levels (Adjusted with touch panel or software)	●	8 levels (Adjusted with touch panel or software)
Application memory	System card/ System memory	Flash EPROM	●	Flash EPROM	●	Flash EPROM
	Removable system	No	●	No	●	No
	Screen area	16MB	●	64MB	●	8MB
Backup memory	Screen area	SRAM 128KB	●	SRAM 320KB	●	SRAM 128KB
	Variable area	No	●	SRAM 64KB	●	No
	Battery (clock data backup)	Primary battery (replaceable)	●	Primary battery (replaceable)	●	Primary battery (replaceable)
Touch panel type		Resistive film (analog, single touch)	●	Resistive film (analog, single touch)	●	Resistive film (analog, single touch)
Touch panel resolution		1,024 x 1,024	●	1,024 x 1,024	●	1,024 x 1,024
Touch panel service life		1 million times or more	●	1 million times or more	●	1 million times or more
Serial		COM1 (RS-232C) COM2 (RS-422/485)	●	COM1 (RS-232C) COM2 (RS-422/485)	●	COM1 (RS-232C) COM2 (RS-422/485)
USB		USB 2.0 (Type A) x 1, USB 2.0 (mini-B) x 1	●	USB 2.0 (Type A) x 1, USB 2.0 (micro-B) x 1	●	USB 2.0 (Type A) x 1, USB 2.0 (mini-B) x 1
Ethernet		10BASE-T/100BASE-TX x 1	●	10BASE-T/100BASE-TX x 2	●	10BASE-T/100BASE-TX x 1
SD card slot		x 1	●	No	●	No
Rate Input Voltage		24V DC (Input voltage limits: 19.2~28.8Vdc)	●	24V DC (Input voltage limits: 19.2~28.8Vdc)	●	24V DC (Input voltage limits: 19.2~28.8Vdc)
External Dimensions (W x H x D)		218 x 173 x 60 mm	●	208 x 153 x 45 mm	●	169.5 x 137 x 59.5 mm

Hardware spec comparison GP-4501TW(10.4”W) vs ST-6500WA(10.1”W)

		GP-4501TW	ST-6500WA with GP-Pro EX	Remark
Display type		TFT Color LCD		●
Display size, Resolution		10.4”W, 640 x 480 pixels	10.1”W, 1,024 x 600 pixels (WSVGA)	●●
PPI (Pixel per inch)		77	118	●
Effective display area (W x H)		211.2 x 158.4 mm (33,454.08 mm ²)	222.72 x 125.28 mm (27,902.36 mm ²)	●
Display colors		65,536 colors (No blink) /16,384 colors (Blink)	16 million colors (No blink)	●●
Backlight		White LED (not user replaceable)	White LED (not replaceable)	●
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)	20,000 hours or more (before backlight brightness decreases to 50%)	●
Brightness control		8 levels (Adjusted with touch panel or software)	16 levels (Adjusted with touch panel or software)	●
Application memory	System card/ System memory	Flash EPROM	Flash EPROM	●
	Removable system	No	No	●
	Screen area	16MB	64MB	●
Backup memory	Screen area	SRAM 128KB	SRAM 320KB	●
	Variable area	No	SRAM 64KB	●
	Battery (clock data backup)	Primary battery (replaceable)		●
Touch panel type		Resistive film (analog, single touch)		●
Touch panel resolution		1,024 x 1,024		●
Touch panel service life		1 million times or more		●
Serial		COM1 (RS-232C) COM2 (RS-422/485)	COM1 (RS-232C) COM2 (RS-422/485)	●
USB		USB 2.0 (Type A) x 1 USB 2.0 (mini-B) x 1	USB 2.0 (Type A) x 1 USB 2.0 (micro-B) x 1	●
Ethernet		10BASE-T/100BASE-TX x 1	10BASE-T/100BASE-TX x 2	●
SD card slot		x 1	No	●
Rate Input Voltage		24V DC (Input voltage limits: 19.2~28.8Vdc)		●
External Dimensions (W x H x D)		315 x 241 x 56 mm	273 x 203 x 47 mm	●

Hardware spec comparison GP-4501TW(10.4”W) vs ST-6600WA(12.1”W)

		GP-4501TW	ST-6600WA with GP-Pro EX	Remark
Display type		TFT Color LCD	TFT Color LCD	●
Display size, Resolution		10.4”W, 640 x 480 pixels	12.1”W, 1,280 x 800 pixels (WXGA)	●
PPI (Pixel per inch)		77	125	●
Effective display area (W x H)		211.2 x 158.4 mm (33,454.08 mm ²)	261.12 x 163.2 mm (42,614.78 mm ²)	●
Display colors		65,536 colors (No blink) /16,384 colors (Blink)	16 million colors (No blink)	●●
Backlight		White LED (not user replaceable)	White LED (not replaceable)	●
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)	20,000 hours or more (before backlight brightness decreases to 50%)	●
Brightness control		8 levels (Adjusted with touch panel or software)	16 levels (Adjusted with touch panel or software)	●
Application memory	System card/ System memory	Flash EPROM	Flash EPROM	●
	Removable system	No	No	●
	Screen area	16MB	64MB	●
Backup memory	Screen area	SRAM 128KB	SRAM 320KB	●
	Variable area	No	SRAM 64KB	●
	Battery (clock data backup)	Primary battery (replaceable)	Primary battery (replaceable)	●
Touch panel type		Resistive film (analog, single touch)	Resistive film (analog, single touch)	●
Touch panel resolution		1,024 x 1,024	1,024 x 1,024	●
Touch panel service life		1 million times or more	1 million times or more	●
Serial		COM1 (RS-232C) COM2 (RS-422/485)	COM1 (RS-232C) COM2 (RS-422/485)	●
USB		USB 2.0 (Type A) x 1 USB 2.0 (mini-B) x 1	USB 2.0 (Type A) x 1 USB 2.0 (micro-B) x 1	●
Ethernet		10BASE-T/100BASE-TX x 1	10BASE-T/100BASE-TX x 2	●
SD card slot		x 1	No	●
Rate Input Voltage		24V DC (Input voltage limits: 19.2~28.8Vdc)	24V DC (Input voltage limits: 19.2~28.8Vdc)	●
External Dimensions (W x H x D)		315 x 241 x 56 mm	313 x 235 x 50 mm	●

SP5000 vs ST6000

Hardware spec comparison SP-5400WA (7"W) vs ST-6400WA(7"W)

		SP-5400WA		ST-6400WA with GP-Pro EX	Remark
		SP-5B10	SP-5B00		
Display type		TFT Color LCD		TFT Color LCD	●
Display size, Resolution		7"W, 800 x 480 pixels (WVGA)		7"W, 800 x 480 pixels (WVGA)	●
PPI (Pixel per inch)		133		133	●
Effective display area (W x H)		154.08 x 95.92 mm (14,779.35 mm ²)		154.08 x 85.92 mm (13,238.55 mm ²)	●
Display colors		262,144 colors (No blink) / 65,536 color (Blink) *2		16 million colors (No blink)	●●
Backlight		White LED (Not replaceable)		White LED (Not replaceable)	●
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)		20,000 hours or more (before backlight brightness decreases to 50%)	●
Brightness control		0...100 (Adjusted with touch panel or software)		16 levels (Adjusted with touch panel or software)	●
Application memory	System card/ System memory	SD Card	FLASH EPROM	Flash EPROM	●
	Removable system	Yes	No	No	●
	Screen area	64MB	64MB	64MB	●
Backup memory	Screen area	NVRAM 320KB	NVRAM 320KB	SRAM 320KB	●
	Variable area	NVRAM 64KB	NVRAM 64KB	SRAM 64KB	●
	Battery (clock data backup)	No SP5000 series can retain (backup memory) and RTC (clock data) without any batteries.		Primary battery (replaceable)	●
Touch panel type		Resistive Film (analog, single touch)		Resistive film (analog, single touch)	●
Touch panel resolution		1,024 x 1,024		1,024 x 1,024	●
Touch panel service life		1 million times or more		1 million times or more	●
Serial		COM1 (RS-232C/422/485) COM2 (RS-232C/422/485)	COM1 (RS-232C) COM2 (RS-422/485)	COM1 (RS-232C) COM2 (RS-422/485)	●●
USB		USB 2.0 (Type A) x 2 USB 2.0 (mini-B) x 1		USB 2.0 (Type A) x 1, USB 2.0 (micro-B) x 1	●
Ethernet		10BASE-T/100BASE-TX/1000BASE-T x 2	10BASE-T/100BASE-TX x 2	10BASE-T/100BASE-TX x 2	●●
SD card slot		System x 1 Storage x 1	Storage x 1	No	●
Rate Input Voltage		24V DC (Input voltage limits: 10.8...28.8 Vdc)		24V DC (Input voltage limits: 19.2~28.8Vdc)	●
External Dimensions (W x H x D)		203.6 x 148.6 x 36 mm		208 x 153 x 45 mm	●

*2: No Blink with combination of SP-5B00

Hardware spec comparison SP-5500WA (10.1”W) vs SP-5500TP (10.4”) vs ST-6500WA(10.1”W)

●: Upper compatible

●: Incompatible or Different

		SP-5500WA		Remark	ST-6500WA with GP-Pro EX	Remark	SP-5500TP	
		SP-5B10	SP-5B00				SP-5B10	SP-5B00
Display type		TFT Color LCD		●	TFT Color LCD	●	TFT Color LCD	
Display size, Resolution		10.1”W, 1,280 x 800 pixels (WXGA)		●●	10.1”W, 1,024 x 600 pixels (WSVGA)	●	10.4”, 800 x 600 pixels (SVGA) *1	
PPI (Pixel per inch)		149		●	118	●	96	
Effective display area (W x H)		216.96 x 135.6 mm (29,419.78 mm ²)		●	222.72 x 125.28 mm (27,902.36 mm ²)	●	211.2 x 158.4 mm (33,454.08 mm ²)	
Display colors		262,144 colors (No blink) / 65,536 color (Blink) *2		●●	16 million colors (No blink)	●●	16 million colors(No blink) / 4,194,304 color (Blink) *2	
Backlight		White LED (Not replaceable)		●	White LED (not replaceable)	●	White LED (Not replaceable)	
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)		●	20,000 hours or more (before backlight brightness decreases to 50%)	●	50,000 hours or more (before backlight brightness decreases to 50%)	
Brightness control		0...100 (Adjusted with touch panel or software)		●	16 levels (Adjusted with touch panel or software)	●	0...100 (Adjusted with touch panel or software)	
Application memory	System card/ System memory	SD Card	FLASH EPROM	●	Flash EPROM	●	SD Card	FLASH EPROM
	Removable system	Yes	No	●●	No	●●	Yes	No
	Screen area	64MB	64MB	●	64MB	●	64MB	64MB
Backup memory	Screen area	NVRAM 320KB	NVRAM 320KB	●	SRAM 320KB	●	NVRAM 320KB	NVRAM 320KB
	Variable area	NVRAM 64KB	NVRAM 64KB	●	SRAM 64KB	●	NVRAM 64KB	NVRAM 64KB
	Battery (clock data backup)	No SP5000 series can retain (backup memory) and RTC (clock data) without any batteries.		●	Primary battery (replaceable)	●	No SP5000 series can retain (backup memory) and RTC (clock data) without any batteries.	
Touch panel type		Resistive Film (analog, single touch)		●	Resistive film (analog, single touch)	●	Resistive Film (analog, multitouch)	
Touch panel resolution		1,024 x 1,024		●	1,024 x 1,024	●	1,024 x 1,024	
Touch panel service life		1 million times or more		●	1 million times or more	●	1 million times or more	
Serial		COM1 (RS-232C/422/485) COM2 (RS-232C/422/485)	COM1 (RS-232C) COM2 (RS-422/485)	●●	COM1 (RS-232C) COM2 (RS-422/485)	●●	COM1 (RS-232C/422/485) COM2 (RS-232C/422/485)	COM1 (RS-232C) COM2 (RS-422/485)
USB		USB 2.0 (Type A) x 2 USB 2.0 (mini-B) x 1		●	USB 2.0 (Type A) x 1 USB 2.0 (micro-B) x 1	●	USB 2.0 (Type A) x 2 USB 2.0 (mini-B) x 1	
Ethernet		10BASE-T/100BASE-TX/1000BASE-T x 2	10BASE-T/100BASE-TX x 2	●●	10BASE-T/100BASE-TX x 2	●●	10BASE-T/100BASE-TX/1000BASE-T x 2	10BASE-T/100BASE-TX x 2
SD card slot		System x 1 Storage x 1	Storage x 1	●	No	●	System x 1 Storage x 1	Storage x 1
Rate Input Voltage		24V DC (Input voltage limits: 10.8...28.8 Vdc)		●	24V DC (Input voltage limits: 19.2~28.8Vdc)	●	24V DC (Input voltage limits: 10.8...28.8 Vdc)	
External Dimensions (W x H x D)		268.5 x 198.5 x 67 mm		●	273 x 203 x 47 mm	●	272.5 x 214.5 x 67 mm	

*1: Resolution input from Box Module; 640 x 480 pixels (VGA), 800 x 600 pixels (SVGA), 1,024 x 768 pixels (XGA), 1,366 x 768 pixels (FWXGA)

*2: No Blink with combination of SP-5B00

Hardware spec comparison SP-5600TP/TA (12.1”) vs SP-5600WA(12.1”W) vs ST-6600WA(12.1”W)

Upper compatible

Incompatible or Different



		SP-5600WA		Remark	ST-6600WA with GP-Pro EX	Remark	SP-5600TP/SP-5600TA	
		SP-5B10	SP-5B00				SP-5B10	SP-5B00
Display type		TFT Color LCD			TFT Color LCD		TFT Color LCD	
Display size, Resolution		12.1”W, 1,280 x 800 pixels (WXGA)			12.1”W, 1,280 x 800 pixels (WXGA)		12.1”, 1,024 x 768 pixels (XGA) For SP-5600TP*1	
PPI (Pixel per inch)		125			125		106	
Effective display area (W x H)		261.12 x 163.2 mm (42,614.78 mm ²)			261.12 x 163.2 mm (42,614.78 mm ²)		245.76 x 184.32 mm (45,298.48 mm ²)	
Display colors		262,144 colors (No blink) / 65,536 color (Blink) *2			16 million colors (No blink)		TP: 16 million colors(No blink) / 4,194,304 color (Blink) *2 TA:262,144 colors (No blink) / 65,536 color (Blink) *2	
Backlight		White LED (Not replaceable)			White LED (not replaceable)		White LED (Not replaceable)	
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)			20,000 hours or more (before backlight brightness decreases to 50%)		50,000 hours or more (before backlight brightness decreases to 50%)	
Brightness control		0...100 (Adjusted with touch panel or software)			16 levels (Adjusted with touch panel or software)		0...100 (Adjusted with touch panel or software)	
Application memory	System card/ System memory	SD Card	FLASH EPROM		Flash EPROM		SD Card	FLASH EPROM
	Removable system	Yes	No		No		Yes	No
	Screen area	64MB	64MB		64MB		64MB	64MB
Backup memory	Screen area	NVRAM 320KB	NVRAM 320KB		SRAM 320KB		NVRAM 320KB	NVRAM 320KB
	Variable area	NVRAM 64KB	NVRAM 64KB		SRAM 64KB		NVRAM 64KB	NVRAM 64KB
	Battery (clock data backup)	No SP5000 series can retain (backup memory) and RTC (clock data) without any batteries.			Primary battery (replaceable)		No SP5000 series can retain (backup memory) and RTC (clock data) without any batteries.	
Touch panel type		Resistive Film (analog, single touch)			Resistive film (analog, single touch)		Resistive Film (analog, multitouch)	
Touch panel resolution		1,024 x 1,024			1,024 x 1,024		1,024 x 1,024	
Touch panel service life		1 million times or more			1 million times or more		1 million times or more	
Serial		COM1 (RS-232C/422/485) COM2 (RS-232C/422/485)	COM1 (RS-232C) COM2 (RS-422/485)		COM1 (RS-232C) COM2 (RS-422/485)		COM1 (RS-232C/422/485) COM2 (RS-232C/422/485)	COM1 (RS-232C) COM2 (RS-422/485)
USB		USB 2.0 (Type A) x 2 USB 2.0 (mini-B) x 1			USB 2.0 (Type A) x 1 USB 2.0 (micro-B) x 1		USB 2.0 (Type A) x 2 USB 2.0 (mini-B) x 1	
Ethernet		10BASE-T/100BASE-TX/1000BASE-T x 2	10BASE-T/100BASE-TX x 2		10BASE-T/100BASE-TX x 2		10BASE-T/100BASE-TX/1000BASE-T x 2	10BASE-T/100BASE-TX x 2
SD card slot		System x 1 Storage x 1	Storage x 1		No		System x 1 Storage x 1	Storage x 1
Rate Input Voltage		24V DC (Input voltage limits: 10.8...28.8 Vdc)			24V DC (Input voltage limits: 19.2~28.8Vdc)		24V DC (Input voltage limits: 10.8...28.8 Vdc)	
External Dimensions (W x H x D)		308.5 x 230.5 x 67 mm			313 x 235 x 50 mm		315 x 241 x 67 mm	

*1: Resolution input from Box Module; 640 x 480 pixels (VGA), 800 x 600 pixels (SVGA), 1,024 x 768 pixels (XGA), 1,366 x 768 pixels (FWXGA)

*2: No Blink with combination of SP-5B00

Hardware spec comparison SP-5500TP (10.4”) vs ST-6600WA(12.1”W)

		SP-5500TP		ST-6600WA with GP-Pro EX	Remark
		SP-5B10	SP-5B00		
Display type		TFT Color LCD		TFT Color LCD	●
Display size, Resolution		10.4”, 800 x 600 pixels (SVGA) *1		12.1”W, 1,280 x 800 pixels (WXGA)	●
PPI (Pixel per inch)		96		125	●
Effective display area (W x H)		211.2 x 158.4 mm (33,454.08 mm ²)		261.12 x 163.2 mm (42,614.78 mm ²)	●
Display colors		16 million colors(No blink) / 4,194,304 color (Blink) *2		16 million colors (No blink)	●●
Backlight		White LED (Not replaceable)		White LED (not replaceable)	●
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)		20,000 hours or more (before backlight brightness decreases to 50%)	●
Brightness control		0...100 (Adjusted with touch panel or software)		16 levels (Adjusted with touch panel or software)	●
Application memory	System card/ System memory	SD Card	FLASH EPROM	Flash EPROM	●
	Removable system	Yes	No	No	●●
	Screen area	64MB	64MB	64MB	●
Backup memory	Screen area	NVRAM 320KB	NVRAM 320KB	SRAM 320KB	●
	Variable area	NVRAM 64KB	NVRAM 64KB	SRAM 64KB	●
	Battery (clock data backup)	No SP5000 series can retain (backup memory) and RTC (clock data) without any batteries.		Primary battery (replaceable)	●
Touch panel type		Resistive Film (analog, multitouch)		Resistive film (analog, single touch)	●
Touch panel resolution		1,024 x 1,024		1,024 x 1,024	●
Touch panel service life		1 million times or more		1 million times or more	●
Serial		COM1 (RS-232C/422/485) COM2 (RS-232C/422/485)	COM1 (RS-232C) COM2 (RS-422/485)	COM1 (RS-232C) COM2 (RS-422/485)	●●
USB		USB 2.0 (Type A) x 2 USB 2.0 (mini-B) x 1		USB 2.0 (Type A) x 1 USB 2.0 (micro-B) x 1	●
Ethernet		10BASE-T/100BASE-TX/1000BASE-T x 2	10BASE-T/100BASE-TX x 2	10BASE-T/100BASE-TX x 2	●●
SD card slot		System x 1 Storage x 1	Storage x 1	No	●
Rate Input Voltage		24V DC (Input voltage limits: 10.8...28.8 Vdc)		24V DC (Input voltage limits: 19.2~28.8Vdc)	●
External Dimensions (W x H x D)		272.5 x 214.5 x 67 mm		313 x 235 x 50 mm	●

*1: Resolution input from Box Module; 640 x 480 pixels (VGA), 800 x 600 pixels (SVGA), 1,024 x 768 pixels (XGA), 1,366 x 768 pixels (FWXGA)

*2: No Blink with combination of SP-5B00

Hardware specifications SP-5700TP(15") vs ST-6700WA(15.6"W)

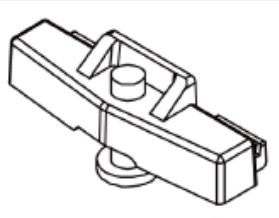
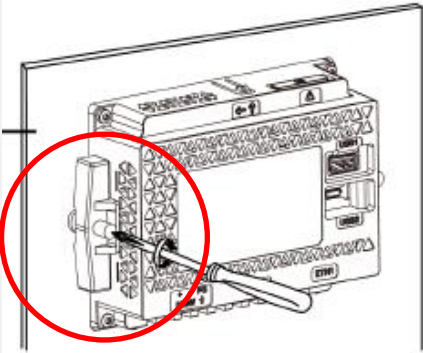
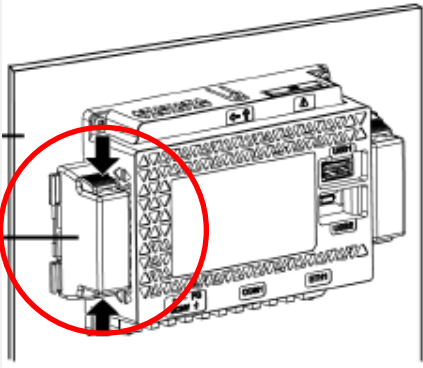
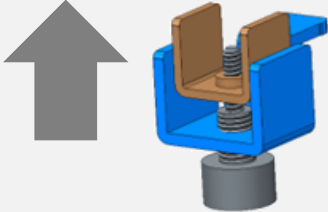
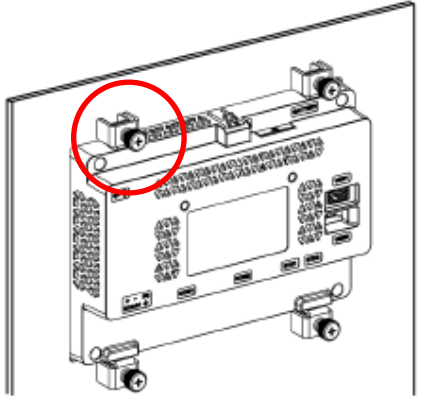
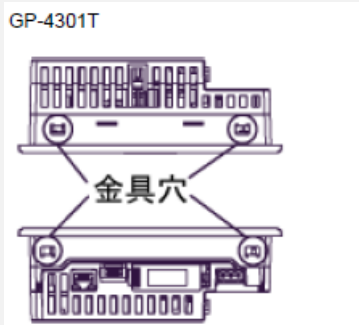
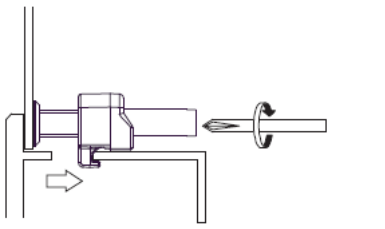
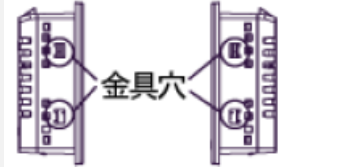
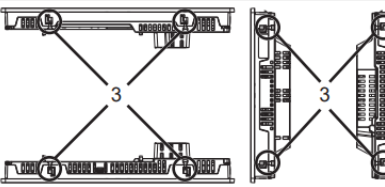
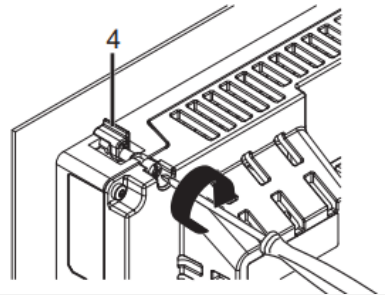
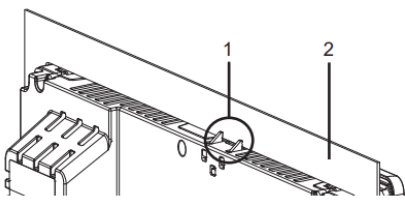
		SP-5700TP		ST-6700WA with GP-Pro EX	Remark
		SP-5B10	SP-5B00		
Display type		TFT Color LCD		TFT Color LCD	●
Display size, Resolution		15", 1,024 x 768 pixels (XGA) *1		15.6"W, 1,366 x 768 pixels (FWXGA)	●
PPI (Pixel per inch)		85		100	●
Effective display area (W x H)		304.1 x 228.1 mm (69,365.21 mm ²)		344.23 x 193.54 mm (66,622.27 mm ²)	●
Display colors		16 million colors(No blink) / 4,194,304 color (Blink) *2		16 million colors (No blink)	●●
Backlight		White LED (Not replaceable)		White LED (Not replaceable)	●
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)		20,000 hours or more (before backlight brightness decreases to 50%)	●
Brightness control		0...100 (Adjusted with touch panel or software)		16 levels (Adjusted with touch panel or software)	●
Application memory	System card/ System memory	SD Card	FLASH EPROM	FLASH EPROM	●
	Removable system	Yes	No	No	●●
	Screen area	64MB	64MB	64MB	●
Backup memory	Screen area	NVRAM 320KB	NVRAM 320KB	SRAM 320KB	●
	Variable area	NVRAM 64KB	NVRAM 64KB	SRAM 64KB	●
	Battery (clock data backup)	No SP5000 series can retain (backup memory) and RTC (clock data) without any batteries.		Primary battery (replaceable)	●
Touch panel type		Resistive Film (analog, multitouch)		Resistive film (analog, single touch)	●
Touch panel resolution		1,024 x 1,024		1,024 x 1,024	●
Touch panel service life		1 million times or more		1 million times or more	●
Serial		COM1 (RS-232C/422/485) COM2 (RS-232C/422/485)	COM1 (RS-232C) COM2 (RS-422/485)	COM1 (RS-232C) COM2 (RS-422/485)	●●
USB		USB 2.0 (Type A) x 2 USB 2.0 (mini-B) x 1		USB 2.0 (Type A) x 1 USB 2.0 (micro-B) x 1	●
Ethernet		10BASE-T/100BASE-TX/1000BASE-T x 2	10BASE-T/100BASE-TX x 2	10BASE-T/100BASE-TX x 2	●●
SD card slot		System x 1 Storage x 1	Storage x 1	No	●
Rate Input Voltage		24V DC (Input voltage limits: 10.8...28.8 Vdc)		24V DC (Input voltage limits: 19.2~28.8Vdc)	●
External Dimensions (W x H x D)		397 x 296 x 67 mm		412 x 268 x 50 mm	●

*1: Resolution input from Box Module; 640 x 480 pixels (VGA), 800 x 600 pixels (SVGA), 1,024 x 768 pixels (XGA), 1,366 x 768 pixels (FWXGA)

*2: No Blink with combination of SP-5B00

Difference in installation method



ST6000(4"W)	ST6000(except for 4"W)	GP4000T/TW	SP5000
Able to install without tool	Able to install without tool	Need tool to install	Need tool to install
There are 2 patterns for attaching 4"W model to a panel as shown below.  Fix it with the installation fastener enclosed in the package.  Fix it with tool-less spring clip. (An option to be separately purchased) *2 types of settings are possible according to the panel thickness. (1.5 to 4 mm, 4 to 6 mm)	 Fix it with the installation fastener enclosed in the package. *The screw head side is bigger than before and has a jagged pattern for anti-slipping processing. You can fasten the screw with fingers even without a cross screwdriver. (Use the screwdriver when lack of torque.)	Use a Phillips screwdriver to tighten each fastener screw.  GP-4301T  GP-4201T	Use a Phillips screwdriver to tighten each fastener screw.  15" model: Top-2, Bottom-2, Right-2, Left-2 12" model or smaller: Top-2, Bottom-2, Right/Left-None

Software comparison ST6000 vs GP4000 vs SP5000



Software feature comparison – Display / External Storage

Display	ST-6000 EX	GP-4000T	GP-4000 TW	SP-5000	Remark
Screen Area (Unit: byte)	64M	32M*	16M*	64M	*GP-4501TW/4401WW/4301T/4201T: 16M *GP-4301TW/4201TW/411*T: 8M
Portrait Installation	○	○	○	○	
Function Expansion Memory	—	—	—	—	
Installing the USB/RS-422/485 Conversion Adapters	○	○	○	○	
MAC Address Display	○	○*	○*	○	*Except for GP-4201TW/4115T/4116T

External Storage	ST-6000 EX	GP-4000T	GP-4000 TW	SP-5000	Remark
CF Card	—	—	—	—	
SD Card	—	○	○*	○	*Except for GP-4301TW/4201TW/4201T/411*T ST6000 Series do not have SD Card slot.
CFast Card	—	—	—	—	
USB storage	○	○	○	○	
FTP server	○	○*	○*	○	*Except for GP-4201TW/4115T/4116T



Software feature comparison – System Settings

System Settings	ST-6000 EX	GP-4000T	GP-4000 TW	SP-5000	Remark
Drawing in 256 colors	○	○	○	○	
Reverse Display	—	○*	○	—	This function is not used nowadays. *Except for GP-411*T
Faded Color Blink	—	○*	○	○*	This function is not used nowadays. *Except for SP-5B00/GP-411*T
Synchronize Text Display with Text Table	○	○	○	○	
Time Zone settings	—	—	—	○	
Detect Backlight Burnout	—	—	—	—	
Dimmer settings	○	○	○	○	
2-point touch / Multitouch	—	Only Matrix model	—	○	
Display the SD/USB Removal Icon	○	—	○	○	
Screen Capture	○	—	○	○	
SRAM Auto Backup	—	○*	○*	○	*Except for GP-4301TW/4201TW/4201T/411*T ST6000 Series do not have SD/CF card slots.
Image Font	○	○	○	○	
Bitmap Font	○	○	○	○	
Standard Font	○	○	○	○	

Alternative solution proposal:

- Use Larger Backup memory on ST6000/STM6000
- Use USB memory stick
- Use Network storage

If SD card is mandatory, wait for GP6000 or ST-6500T**



Software feature comparison – Device/PLC Communication / Transfer

Device/PLC Communication	ST-6000 EX	GP-4000T	GP-4000 TW	SP-5000	Remark
Number of Devices/PLCs that can communicate simultaneously	2	4*	2	4	*GP-411*T:2
Specify Indirect Device	○	○	○	○	
Import Device/PLC tags	○	○	○	○	
Ethernet Multilink	○	○*	○*	○	*Except for GP-4201TW/4115T/4116T
Device Monitor	○	○	○	○	
Ladder Monitor	—	—	—	—	

Transfer	ST-6000 EX	GP-4000T	GP-4000 TW	SP-5000	Remark
Network Transfer	○	○	○*	○	*Except for GP-4201TW/4115T/4116T
Modem Transfer	—	○	○	○	This function is not used nowadays
SIO Transfer (COM Connection)	—	○	○	○	This function is not used nowadays
Memory loader feature	○	○	○	○	
CF/SD Card Connection	—	○*	○*	○	*Except for GP-4301TW/4201TW/4201T/411*T ST6000 Series do not have SD/CF card slots.
Connection Key	○	○	○	○	



Software feature comparison – Common Settings 1/2

Common Settings	ST-6000 EX	GP-4000T	GP-4000 TW	SP-5000	Remark
Change Backlight Color	—	—	—	—	
Clock Update Settings	○	○	○	○	
Start Screen Settings	○	○	○	○	
Date format on CSV file output	○	○	○	○	
Divide destination folders by file numbers	○	○	○	○	
Increase Alarm Type [Extended] settings and Text Table index numbers	—	○	—	○	Basic HMI do not support this advanced feature.
Alarm Message Multiple Line Display	○	○	○	○	
Attach Data Value to Operation Log	○	○	○	○	
Changing passwords at run time (CSV file)	○	○	○	○	
Changing passwords at run time (password change screen)	○	○	○	○	
Append Date/Time to CSV File Name	○	○	○	○	
Transfer sampling CSV file to FTP	○	○*	○*	○	*Except for GP-4201TW/411*T
Transferring sampled data to the cloud	○	○	○*	○	*Except for GP-4201TW/4115T/4116T



Software feature comparison – Common settings 2/2

Common Settings	ST-6000 EX	GP-4000T	GP-4000 TW	SP-5000	Remark
Indirectly specify Sampling Frequency and Alarm Settings	○	○	○	○	
Sampling data/Enhanced recipe data format co-exist	○	○	○	○	
Create a recipe (CSV data) index file at runtime	○	○	○	○	
Enhanced Recipes	○	○	○	○	
Extended Script copy file function	○	○	○	○	
Global Trigger	○	○	○	○	
Movie record/play feature	—	—	—	—	
Use Image unit	—	Only GP-4621T/4521T	—	—	
Sound Output Feature	—	—	—	○*	*Except for SP-5B00
AUX	—	—	—	○*	*Except for SP-5B00
Retentive Variables Function	○	○*	—	○	*Except for GP-411*T



Software feature comparison – Parts

Parts	ST-6000 EX	GP-4000T	GP-4000 TW	SP-5000	Remark
Selector List	○	○	○	○	
XY Graph	—	○	○	○	Basic HMI do not support this advanced feature
Picture Display [CF Image Display] / [SD Image Display] for showing JPEG files	—	○*	○*	○	*Except for GP-4301TW/4201TW/4201T/4115T/4116T ST6000 Series do not have SD/CF card slots)
Indirectly specify a block of Alarm parts	○	○	○	○	
Special Data Display [File Manager] sort function and default path	○	○	○	○	
Special Data Display [File Manager] copy file to FTP	○	○*	○*	○	*Except for GP-4201TW/4115T/4116T
Message Display's Bulletin Message	○	○	○	○	
Image Sensor Display	—	○*	○*	○	*Except for GP-4201TW/4115T/4116T Basic HMI do not support this advanced feature
Animation	○	○	○	○	
Alarm History Message Flow Display	○	○	○	○	
Alarm History / Sampling Data / Enhanced Recipe Data Refine Search / Sort Function	—	○	—	○	Basic HMI do not support this advanced feature
Alarm Analysis Function	—	○	—	○	Basic HMI do not support this advanced feature



Software feature comparison – Logic / Network

Logic	ST-6000 EX	GP-4000T	GP-4000 TW	SP-5000	Remark
Logic Program Operation	○	○	○	○	
I/O Driver	—	—	—	○*	*Except for SP-5B00
Function Block	○	○	○	○	

Network	ST-6000 EX	GP-4000T	GP-4000 TW	SP-5000	Remark
RPA Function	—	○*	○*	—	*Except for GP-4301TW/4201TW/4301T/4201T/411*T This function is not used nowadays.
GP-Viewer EX	○	○*	○*	○	*Except for GP-4201TW/4115T/4116T
Web Server	—	○*	○*	○	*Except for GP-4201TW/4115T/4116T With this feature cannot pass Cyber Security criteria.
Camera-Viewer EX	—	—	—	—	
Pro-face Remote HMI	○	○*	○*	○	*Except for GP-4201TW/4115T/4116T
E-mail	○	○*	○*	○	*Except for GP-4201TW/411*T
GP Remote Printer Server	○	○*	○*	○	*Except for GP-4201TW/4115T/4116T
Pro-face Connect (models you can register as SiteManager)	○	○*	○*	○	*Except for GP-4201TW/411*T
Pro-Server EX	○	○*	○*	○	*Except for GP-4201TW/4115T/4116T



Software feature comparison – USB Device

Input Equipment / Peripheral Equipment (USB Device)	ST-6000 EX	GP-4000T	GP-4000 TW	SP-5000	Remark
USB Keyboard	○	○	○	○	
EZ Illuminated Switch	○	○	○	○	
EZ Tower Light	—	○	○	○	
EZ Numpad	○	○	○	○	
EZ Fingerprint Recognition Unit	○	○	○	○	
EZ LAN Adapter	—	○*	○*	—	*Except for GP-4201TW/411*T 2 Ethernet as standard (4"W has only one Ethernet port but better spec than GP42TW w/o Ethernet port)

Certification comparison ST6000 vs GP4000 vs SP5000

Supported certifications

*Certifications for hazardous locations & marine are not supported. From hardware re-positioning point of view, it is enough for Basic HMI.
If the customer requires these Certifications, please consider using the STM6000 Series. (ATEX/IECEX planned to be supported at the end of 2022. Not support KCs and NEPSI)



Certification	ST6000 EX	GP-4000T / TW	SP-5000	SP-5000TA/SP-5B00
CE (EN61000-6-4, EN61000-6-2, EN61131-2)	O	O	O	O
UL/cUL	O (UL61010-2-201) (CSA C22.2 No.61010-2-201)	O (UL508) (CSA C22.2 No.142)	O (UL61010-2-201) (CSA C61010-2-201)	O
UL/cUL Class 1, Div. 2	X*	O (ANSI/ISA12.12.01) (CSA C22.2 No213)	O (ANSI/ISA12.12.01) (CSA C22.2 No213)	O
ATEX (Zones 2/22, equipment category 3 Gas Dust)	X*	O	O	O
IECEX (Zones 2/22, equipment category 3 Gas Dust)				
KCs	X*	O	O	X
NEPSI	X*	O	O	X
RCM (C-Tick)	O	O	O	O
EAC (GOST-R)	O	O	O	O
RoHS for EU	O	O	O	O
RoHS for China	O	O	O	O
REACH	O	O	O	O
CCC exemption *apply for CCC	-	-	-	-
KC	O	O	O	O
Marine (DNV-GL, ABS, LR, BV, NK, RINA, CCS)	X*	DNV-GL, ABS, LR, BV, NK, RINA, CCS	O	X
WEEE	O	O	O	O

