

by Schneider Electric



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Business Hours: Monday - Friday 8.30am - 6.15pm

Smart Portal SP5000 SERIES



Connecting information and people for optimal communication

With increasingly sophisticated machine performance; production management and predictive maintenance utilizing operation data; and the growing popularity of the cloud, big data is coming to the manufacturing shop floor.

Pro-face has realized unprecedented connectivity in the new SMART PORTAL, creating a new interface designed firmly with the future in mind.

The SP5000 series allows a huge variety of data to be downloaded to SMART PORTAL and transmitted in an optimal format to those who need it.

SMART PORTAL connects information and people for optimal communication

Valuable information in the right format



Having more information is not necessarily better than having less. Value is created when the right information reaches the right people in the right format.

Bring your factory closer to your office



By segmenting the network, SMART PORTAL makes it possible to connect factories and offices while ensuring the highest security.



Simple to use —any time, any place



Overseas production and the diversification of market needs have increased the need for efficient machine setup and maintenance.

Check out the Movies

These movies will give you more information about SMART PORTAL concepts and benefits.



SMART PORTAL links two previously



Shop Floor Network Connect various devices on your shop floor with programless.

separate worlds





maintenance.



Accurately convey vital information in the right way at the right time.

Case 1 High performance HMI

Provide real-time response

Improves rendering performance and achieves real-time response. With high-speed processing ensuring high-speed rendering, SMART PORTAL replaces devices that have suffered from unsatisfactory response speed in the past.

Case 2 Application PC

Use as a built-in application PC

SMART PORTAL can be used in environments where PCs have been built into machines to allow the use of Windows applications. Dedicated apps can be used on the SMART PORTAL.

Case 3 Maintenance PC

Use as a maintenance PC

Manuals and all kinds of development tools can be saved in SMART PORTAL. There is no need to take a PC down to the factory every time maintenance work needs to be done.

Case 4 Data Collection PC

Use as a data collection PC

Separate IP addresses can be allocated for SMART PORTAL's two Ethernet ports. A network with the highest security can be built between the office and the factory. In addition, collected data can be stored on NVRAM to protect from data loss.

$\textbf{Display} \times \textbf{Box module design provides}$

With a selection of six displays and two boxes available, there are twelve SMART PORTAL combinations
 Modular design allows the display to be attached to and detached from the box, making it possible



flexible functionality and size

to choose from.

to replace only parts that need replacing

Open Box Able to run a variety of Windows applications on WES7. (equipped with HMI Runtime standard) Model No. SP-5B40 Back Side Interfaces Serial Ethernet USB (Type A) USB (mini-B) USB (Type A) DVI-D AUX AUDIO Input x2 ×1 ×1

Further extend functionality

HMI Screen Editor and Logic Programming Software

GP-Pro EX



Intuitive operation reduces development time required for screen creation.

Remote Monitoring Software for Mobile

Pro-face Remote HMI

2

CFast/ SD Card Slot

Set up screens by simply inserting a CFast (Open Box) or SD card (Power Box). No need for a separate PC.







USB Solutions **EZ** Series



Extend functionality simply via a single USB cable.

ack Side Interface		
al la		
USB (mini-B)	AUX	

Model No. SP-5B10

Power Box

Solid box achieves high-speed processing and fast display.

 $\times 1$

Ethernet Serial ×2 ×2

USB (Type A)

USB (mini-B) ×1

Ba

x2

Display Module SP5000SERIES



Model: PFXSP5700TPD

Model: PFXSP5660TPD Model: PFXSP5600TPD Model: PFXSP5500TPD

Model: PFXSP5600WAD Model: PFXSP5500WAD Model: PFXSP5400WAD

The power consumption or weight for the combined unit equals each sum of power consumption or weight of the two modules.

Model Number Configuration



■Display Specifications

		Premium	n Display			Advanced Display		
	SP-5700TP	SP-5660TP	SP-5600TP	SP-5500TP	SP-5600WA	SP-5500WA	SP-5400WA	
Display Type				TFT color LCD				
Display Size	15″	12	2″	10″	12" wide	10" wide	7" wide	
Resolution	1,	1,024 x 768 pixels (XGA)			1,280 x 800 p	800 x 480 pixels (WVGA)		
Auto Scaling		Ye	es			-		
Effective Display Area	W304.1 x H228.1mm (W11.97 x H8.98 in.)	W245.8 x H184.3mm (W9.68 x H7.26 in.)		W211.2 x H158.4mm (W8.31 x H6.24 in.)	W261.1 x H163.2mm (W10.28 x H6.43 in.)	W217.0 x H135.6mm (W8.54 x H5.34 in.)	W154.1 x H95.9mm (W6.06 x H3.78 in.)	
Display Colors		16millio	n colors		262,144 colors			
Backlight		White LED (Not use	r replaceable. When	replacement is require	ed, contact your local Pro-face distributor.)			
Backlight Service Life	50),000 hours or more ((continuous operation	n at 25 °C [77 °F] be	efore backlight brightr	ness decreases to 50%	b)	
Brightness Control			0100 (Adj	usted with touch pane	l or software)			
Brightness Sensor		Ye	es			-		
Front USB Interface		Ye	es		-			
Touch Panel Type		Resistive Film (an	alog, multi-touch)	Resistive Film (analog)				
Touch Panel Resolution				1,024 x 1,024				
Touch Panel Service Life				1 million times or mor	e			

■Electrical Specifications

		Premium	n Display		Advanced Display				
	SP-5700TP	SP-5660TP	SP-5600TP	SP-5500TP	SP-5600WA SP-5500WA		SP-5400WA		
Rated Input Voltage	1224 Vdc								
Input Voltage Limits	10.828.8 Vdc								
Voltage Drop		12Vdc: 1.25ms or less 24Vdc: 5ms or less							
* P 1 V Max	22W	23W	21W	15W	11.5W	8.5W	6.5W		
When power is not supplied to devices via front USB	19W or less	20W or less	18W or less	12W or less	-				
When screen turns off the backlight (Standby Mode)	6W or less	8W or less	6W or less	6W or less	2.5W (2W or less			
Generation When screen backlight 20%	11W or less	13W or less	11W or less	8W or less	6W or less	5W or less	4W or less		
In-Rush Current				30A or less					
Voltage Endurance		1,0	000 Vac, 20 mA for 1	minute (between cha	rging and FG termina	ls)			
Insulation Resistance			500 Vdc, 10 M Ω or n	nore (between chargir	ng and FG terminals)				

*1 Power Consumption for Display Module only .

Display Module

Environmental Specification

		Premium	n Display	Advanced Display					
	SP-5700TP	SP-5660TP	SP-5600TP	SP-5600TP SP-5500TP		SP-5500WA	SP-5400WA		
Surrounding Air Temperature		060 ° C (32140 ° F)							
Storage Temperature			-2	060 °C (-4140 °	F)				
Surrounding Air and Storage Humidity		10%90% RH (Non condensing, wet bulb temperature 39 $^{\circ}$ C [102.2 $^{\circ}$ F] or less)							
Dust			0.1 mg/m3 (10-7	oz/ft3) or less (non-	conductive levels)				
Pollution Degree	For use in Pollution Degree 2 environment								
Corrosive Gases	Free of corrosive gases								
Atmospheric Pressure (Operating Altitude)		8001,114 hPa (2,000 m [6,561 ft] or lower)							
Vibration Resistance		IEC/EN 61131-2 compliant 59 Hz Single amplitude 3.5 mm (0.14 in.) 9150 Hz Fixed acceleration: 9.8 m/s2 X, Y, Z directions for 10 cycles (approx. 100 min.)							
Shock Resistance	IEC/EN 61131-2 compliant 147 m/s2, X, Y, Z directions for 3 times								
Noise Immunity			-	: 1,000 Vp-p Pulse me: 1 ns(via noise sin					
Electrostatic Discharge Immunity			Contact Discharge I	Method: 6 kV (IEC/EN	61000-4-2 Level 3)				

■Interface Specification

		Premium	n Display	Advanced Display			
	SP-5700TP	SP-5660TP	SP-5600TP	SP-5500TP	SP-5600WA	SP-5500WA	SP-5400WA
Wireless LAN	-	Yes	-	-		-	
		Connector: USB	2.0 (Type A) x 1,				
USB (Type A) *2	Power Supply Voltag	ge: 5Vdc ±5%, Maxir Transmission Dist	num Current Supplied ance: 5m (16.4 ft)		-		
USB (mini B)	Connector: USB 2.0 (mini B) x 1						
038 (11111 B)	M	aximum Transmission	Distance: 5m (16.4		-		

*2 When using the Display Module with the Power Box, you can connect only one of each type of USB device, such as one USB flash drive, one transfer cable, or one bar code reader. If you connect multiple devices that are the same type, only the first device will work.

■Wireless LAN (Only for SP-5660TP) *3 *4

Standards	IEEE802.11b/IEEE802.11g/IEEE802.11n				
Frequency bandwidth	2.4 GHz				
Channel bandwidth	20 MHz				
Channel	Access Point mode*5: 111 ch Client mode*6: rth America US: 111 ch Japan JP: 113 ch Europe EU: 113 ch Korea KR: 113 ch China CN: 113 ch Taiwan TW: 111 ch				
Transmission speed	IEEE802.11b: max 11 Mbps IEEE802.11g: max 54 Mbps IEEE802.11n: max 72.2 Mbps				
Action mode	Client mode/Access Point mode				
Communication mode	Infrastructure				
Network authentication	Open, WPA-Personal, WPA2-Personal				
Data encryption	WEP (128 bit) (Open)*7 AUTO/TKIP (WPA-Personal) AES (WPA2-Personal)				
Maximum client connections	10				
Connection angle and distance	Only the display side is connectable. The enabled connectivity angle and distance depend on your operating environment, applications to be used, and a communication target device. Be sure to conduct operation check including directionality in your operating environment before use.				

*3 For the Wireless LAN, please use in a combination with the Open Box module.

*4 Do not use wireless LAN, please use in a combination with the Open Box module.
*4 Do not use wireless communication to control machinery. Wireless communication system design must take into account the possibility of communication interference.
*5 In Access Point mode, IEEE802.11d is not supported.

*7 In Access Point mode, WEP is not supported. *7 In Access Point mode, WEP is not support.

■Structural Specification

		Premium	n Display		Advanced Display					
	SP-5700TP	SP-5660TP	SP-5600TP	SP-5500TP	SP-5600WA	SP-5500WA	SP-5400WA			
Grounding		Functional grounding: Grounding resistance of 100 Ω , 2 mm2 (AWG 14) or thicker wire, or								
Grounding		y	our country's applicat	ole standard (same for	FG and SG terminals).				
Cooling Method				Natural air circulation	1					
Structure *8		ng a factory-installed It USB cover option (F (Indoor Us is product when prop the front par	PFXZCDCVUS1): IP66 e Only)/13 erly installed in an en	* on the front nane	F, TYPE 4X (Indoor U I when properly instal					
External Dimensions	W397 x H296 x D67 mm (W15.6 x H11.7 x D2.64 in.)		1 x D67 mm 9 x D2.64 in.)	W272.5 x H214.5 x D67 mm(W10.73 x H8.44 x D2.64 in.)	W308.5 x H230.5 x D67 mm (W12.15 x H9.07 x D2.64 in.)	W268.5 x H198.5 x D67 mm (W10.57 x H7.81 x D2.64 in.)	W203.6 x H148.6 x D36 mm (W8.02 x H5.85 x D1.42 in.)*9			
Panel Cut Dimensions *10	W383.5 x H282.5mm	W301.5 x H	W301.5 x H227.5mm		W295 x H217mm	W255 x H185mm	W190 x H135mm			
Weight *11	4.5kg以下	3.2kg	则以下	2.7kg以下	3kg以下	2.5kg以下	1.2kg以下			

*8 The front face of this product, installed in a solid panel, has been tested using conditions equivalent to the standards shown in the specification.

*9 When combined with Box Module, the depth is 67mm (2.64 in.).
 *10 For dimensional tolerance, everything +1/-0 mm (+0.04/-0 in.) and R in angle are below R3 (R0.12 in.)
 *11 Weight for Display Module only

Display Module - Premium Display SP5000SERIES

SP-5700TP mm [in.] ∢ 67► [2.64] [0.26] 383.5 (+1/-0) 397 6.7 [15.63] [15.1(+0.04/-0)] \$310. (1) [11.12(+0.04/ 2) 296 11.65 (4) Panel thickness area: 1.6...5 [0.06...0.2] *12 (6) (5) (1) Brightness Sensor (2) Front USB Cover (3) USB (Type A) Interface (4) USB (mini-B) Interface (5) Status LED (6) Power Supply Connector SP-5660TP / SP-5600TP 67 [2.64] [0.26] 6.7 301.5 (+1/-0) [11.87(+0.04/-0) 315 [12.40] +0.04(3) (4) 241 96(φ. Panel thickness area: 1.6...5 [0.06...0.2] *12 (6) (5) (1) Brightness Sensor (2) Front USB Cover (3) USB (Type A) Interface (4) USB (mini-B) Interface (5) Status LED (6) Power Supply Connector SP-5500TP 140245 _____ [2.64] 67 [0.26] 6.7 259 (+1/-0) 10 [10.2(+0.04/-0 214.5 [8.44] 0+ [7.91(Panel thickness area: 1.6...5 [0.06...0.2] *12 (5) (6) (1) Brightness Sensor (2) Front USB Cover (3) USB (Type A) Interface (4) USB (mini-B) Interface (5) Status LED (6) Power Supply Connector

External Dimensions/Parts Identification/Panel Cut Dimensions

*12 Even if the installation wall thickness is within the recommended range for the "Panel Cut Dimensions", depending on wall's material, size, and installation location of this product and other devices, the installation wall could warp. To prevent warping, the installation surface may need to be strengthened.

Display Module - Advanced Display SP5000SERIES

External Dimensions/Parts Identification/Panel Cut Dimensions



*13 Even if the installation wall thickness is within the recommended range for the "Panel Cut Dimensions", depending on wall's material, size, and installation location of this product and other devices, the installation wall could warp. To prevent warping, the installation surface may need to be strengthened.

Box Module





SP-5B40 Model: PFXSP5B40

SP-5B10 Model: PFXSP5B10

SP5000 Series is a combined unit of Display Module and Box Module. The power consumption or weight for the combined unit equals each sum of power consumption or weight of the two modules.

■ Model Number Configuration

Box Module										
PFXSP5 <u>B**</u>	В		(1)	Type BOX		40 10		(2) Class Open Power		
Coated models are also available.										
Display Module				×						
PFXSP5****D	(3) 7) Size 15"	(4) Wi 60	ireless LAN Yes	(5) I T	Resolution TFT	Р	(6) Touch Panel Premium (Multi)	(7) Pc	wer Supply
(3) (4) (5)(6)(7)	6 5 4	12" 10" 7"	00	-	W	Wide TFT	A	Advanced		DC
	-									

Electrical Specifications

	•	Open Box	Power Box	
	SP-5B40		SP-5B10	
Rated Input Voltage		12Vdc (Supply from Display Module)		
	Max	35W	25W	
Power Consump- tion*1	When power is not supplied to external devices	22.5W or less	12.5W or less	

*1 Power consumption for Box Module only

Environmental Specifications

	Open Box	Power Box					
	SP-5B40	SP-5B10					
Surrounding Air Temperature	060 °C (3	060 ° C (32140 ° F)					
Storage Temperature	-2060 ° C (-4140 °F)					
Surrounding Air and Storage Humidity	10%90% RH (Non conden 39 ° C [102.2						
Dust	0.1 mg/m3 (10-7 oz/ft3) or	less (non-conductive levels)					
Pollution Degree	For use in Pollution D	egree 2 environment					
Corrosive Gases	Free of corr	osive gases					
Atmospheric Pressure (Operating Altitude)	8001,114 hPa (2,000 m [6,561 ft] or lower)						
Vibration Resistance	IEC/EN 61131-2 compliant 59 Hz Single amplitude 3.5 mm (0.14 in.) 9150 Hz Fixed acceleration: 9.8 m/s2 X, Y, Z directions for 10 cycles (approx. 100 min.)						
Shock Resistance	IEC/EN 61131 147 m/s2, X, Y, Z di						
Noise Immunity	Noise Voltage Pulse Dura Rise Tim (via noise :	tion: 1 μs ie: 1 ns					
Electrostatic Discharge Immunity	Contact Discharge Method : 6k	V (IEC/EN 61000-4-2 Level 3)					

Box Module Specifications

SP5000SERIES

Memory

	Open Box	Power Box
	•	
	SP-5B40	SP-5B10
Application Momony	Screen Size: 64MB *CFast card	Screen Size: 64MB *SD card
Application Memory	Free Space: About 5GB *2	Free Space: None
Backup Memory	NVRAM	320KB
Control Memory	-	64KB

*2 You can install the applications you have used. As for hardware specifications, the CPU is Intel® Atom™ E6x0 1.3GHz (Single core/Dual thread)' and the main memory is 'DDR2 SDRAM 2GB'. For the other hardware specifications, refer to "SP5000 Series Open Box Reference Manual".

Interface Specifications

	Open Box	Power Box				
	SP-5B40	SP-5B10				
Serial Interface COM1	Parity: None, odd, or even, Data Transmis	: 7 or 8 bits, Stop Bit: 1 or 2 bits sion Speed: 2,400 (1,200) \sim 115,200bps Sub 9 pin (plug)				
Serial Interface COM2	RS-232C/422/485, Data Length: 7 or 8 bits Stop Bit: 1 or 2 bits Parity: None, odd, or even Data Transmission Speed: 2,400(1,200)115,200 bps Connector: D-Sub 9 pin (plug)	RS-232C/422/485, Data Length: 7 or 8 bits Stop Bit: 1 or 2 bits Parity: None, odd, or even Data Transmission Speed: 2,400(1,200)115,200 bps, 187,500bps (MPI) Connector: D-Sub 9 pin (plug)				
USB (Type A) Interface *3	Connector: USB2.0 (Type A) x 3 Power Supply Voltage: 5Vdc ±5% Maximum Current Supplied: 500mA /port, 1A total for 3 ports Maximum Transmission Distance: 5m	Connector: USB2.0 (Type A) x 2 Power Supply Voltage: 5Vdc ±5% Maximum Current Supplied: 500mA / port Maximum Transmission Distance: 5m				
USB (mini-B) Interface	Connector: USB 2.0 (mini-B) x 1, Maxin	num Transmission Distance: 5m (16.4 ft)				
Ethernet Interface	10BASE-T/10	EE802.3u/IEEE802.3ab, 0BASE-TX/1000BASE-T ar jack (RJ-45) x 2				
SD Card Interface	SD Card Slot (Storage) x 1	SD Card Slot (System) x 1 SD Card Slot (Storage) x 1				
CFast Card Interface	CFast Card Slot (System) x 1 CFast Card Slot (Storage) x 1	-				
Video Interface	DVI-D OUT Connector: DVI-D 24 pin (socket) x 1	-				
Sound Input Interface	Sound Input: MIC or LINE input (software switch) Connector: MINI-JACK Ø3.5 x 1	-				
Sound Output Interface		d Load: 8Ω, Frequency : 1kHz) I load: 10kΩ or more rminal block (AUX) x 1				
AUX Input /Output Interface	Rated Voltage: 24Vdc, Ra	Alarm Output / Buzzer Output Rated Voltage: 24Vdc, Rated Current: 50mA or less Connector: 2-piece terminal block x 1				

*3 When using the Display Module with the Power Box, you can connect only one of each type of USB device, such as one USB flash drive, one transfer cable, or one bar code reader. If you connect multiple devices that are the same type, only the first device will work.

■Structural Specifications

	Open Box	Power Box
	SP-5B40	SP-5B10
Cooling Method	Natural air circulation	
External Dimensions *4	W188 x H131 x D45 mm	
	(W7.4 x H5.16 x D1.77 in.)	
Weight *4	0.9kg (1.98 lb) or less	

*4 External Dimensions and Weight for Box Module only

External dimensions/Parts Identifications



(1)Auxiliary Output/Speaker Output Interface (AUX) (2)DVI-D Output Interface (3)AUDIO Input Interface (LIN/MIC) (4)Status LED (5)Card Access LED (6)USB (Type A) Interface (7)USB (mini-B) Interface (8)Expansion Unit Interface Cover (EXT) (9)Storage Card Cover (10)System Card Cover (11)USB (Type A) Interface (12)Ethernet Interface (ETH1) (13)Ethernet Interface (ETH2) (14)Serial Interface (COM1) (15)Serial Interface (COM2)

(1)Auxiliary Output/Speaker Output Interface (AUX) (2)Status LED (3)Card Access LED (4)USB (mini-B) Interface (5)Expansion Unit Interface Cover (EXT) (6)Storage Card Cover (7)System Card Cover (8)USB (Type A) Interface (9)Ethernet Interface (ETH1) (10)Ethernet Interface (ETH2) (11)Serial Interface (COM1) (12)Serial Interface (COM2)



by Schneider Electric



Intimacy Connect intimately with our customers and stakeholders

Innovation Provide benefits to our customers through innovation

Interaction

Enhance customer experience through positive interaction

A WARNING

HAZARD OF OPERATOR INJURY, OR UNINTENDED EQUIPMENT DAMAGE Before operating any of these products, be sure to read all related manuals thoroughly. Failure to follow these instructions can result in death, serious injury or unintended equipment damage.

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