

PWS-SERIES – THE RATIONAL CHOICE.



The rational choice

Operator terminals matching your specific needs

The PWS-series offers valuable HMI functionality at an affordable level. The series include keypad and touch screen interfaces and is available in five different sizes from 3 to 10.4 inches. Offering three levels of functionality - Standard, Plus and Network – the PWS-series enables you to select and pay for what level of HMI technology you need.



Configuration software for the PWS-terminal

The ADP software is a versatile and intuitive HMI configuration software. It has been created with users in mind and is ideal for machine builders and system integrators. With flexible tools that allow projects to be created in minutes, ADP is the perfect software to create simple or complex projects. The configuration software is available free of charge on www.beijerelectronics.com.

Screen management

The "Screen Manager" function makes project management easy and enables the configurator to always oversee the entire project. It is possible to select between thumbnail and detailed zoomed views, allowing for dynamic screens to be created and viewed.

- Ideal for project cutting and pasting, browsing, editing and co-ordinating the operator terminal screens
- Ensures fast and easy project creation

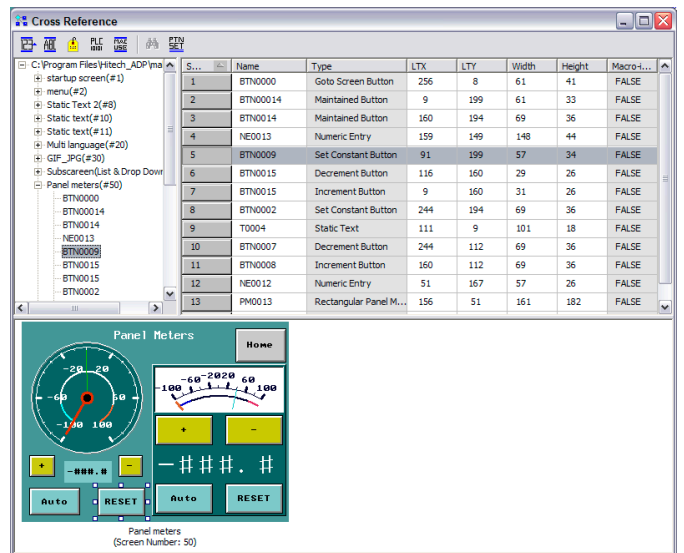
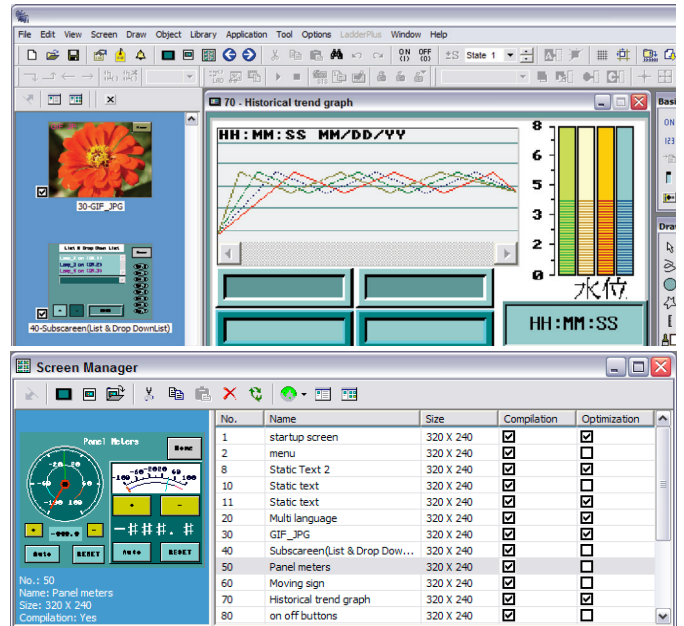
Cross references

"Cross Reference" is a feature that enables the configurator to easily handle project tags, objects and signals. These can quickly be located and listed to get an overview of where and how they are used. If data has to be changed, it can be made in the tag list and the data will then automatically be changed everywhere else in the project.

- The list has up to 3 windows, giving a complete project overview
- Sort the Cross Reference list by screen number, screen name, tag name or controller address
- Locate objects and change parameters directly from the list

All Windows™ fonts supported

Since the ADP software is based around the Windows™ operating system, a font library with up to 16 different fonts can be defined, exported and imported.



Off-line and on-line simulation

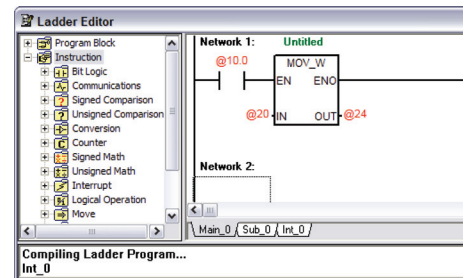
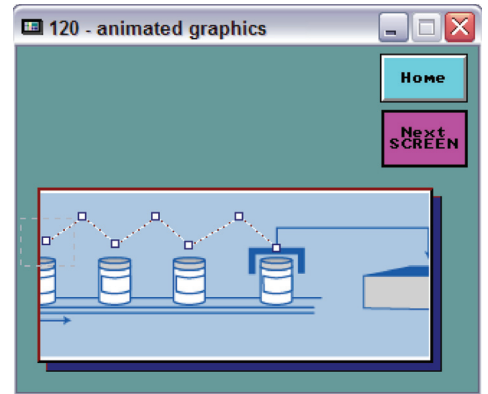
In order to save valuable time and money at on-site commissioning, The ADP software provides powerful "Off-line and On-line Simulation". This allows for the HMI project to be thoroughly tested either just on a PC, or by combining the HMI with a PC to comprehensively test HMI and controller reactions, communications etc.

- Off-line simulation allows the developer to quickly test the entire project and verify the overall functionality of screens and alarms
- On-line simulation proves the communication and the functionality of the host controller, such as a PLC or inverter

Animated graphics

The graphic handling in the PWS-series is developed with both the configurator and the user in mind. The animated graphics allow a variety of graphic possibilities with only the configurator's imagination being the limit.

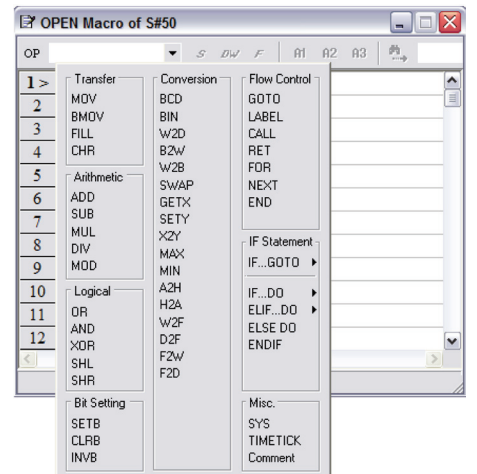
- Import graphic formats such as Bitmaps, JPEG, GIF and AutoCAD™ files (*.bmp, *.jpg, *.gif, *.dwg, *.dxf)
- Supports animated gif images for complex and flexible screen creations
- Graphics can be moved in predefined paths or freely controlled by the host controller to maximize screen space
- Scrolling text can be used allowing long text strings to be displayed



Ladder or macro functionality

The ADP software saves valuable time by providing ready-made modules for e.g. arithmetic calculations, logical operators and bit settings. These can easily be linked to each other or to other data within the project using ladder or macro functionality.

- Screen open macro
- Screen close macro
- Cyclic macro
- Initial application macro
- Clock macro
- Macros triggered by digital signals
- Sub-macros that can be triggered from other macros



PWS6300



PWS6400



PWS6500



PWS6600



PWS6620

Communication drivers

To accompany this inspiring range of HMIs is a range of free of charge communication drivers. This increasing list of drivers totals over a 100 and can be used for connecting the HMIs to various automation equipment such as PLCs, inverters, and servo controllers. Main worldwide brands such as Siemens, Omron and Allen Bradley are already included and new drivers are continuously being developed and updated.

Multi-language support

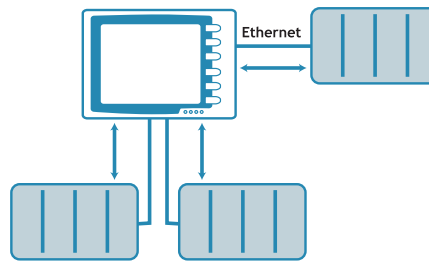
Making it easy for manufacturers who export all over the world, multi-language support allows the configurator to develop projects that can be used basically anywhere. With this setup within the HMI, to change languages is just a switch away. The language can also be changed during normal operation so that each operator can decide what language to use.

- Develop the application in up to 5 different languages
- Switch languages freely during normal operation

Multi-channel communication

Multi-channel communication is a unique feature that allows a different controller to be connected on each serial or Ethernet port. This flexible communications solution not only saves on buying multiple HMIs, but also removes the need for expensive protocol converters.

- Connect a controller to each available port either via serial or Ethernet connection
- Move values between the drivers via macros
- Use values from several controllers in calculations



File protection

Protecting the application from unauthorized upload and download is essential in today's manufacturing world. The "File Protection" feature ensures that only authorized users can access sensitive information.

- Impossible to upload the protected application from the terminal without the correct password



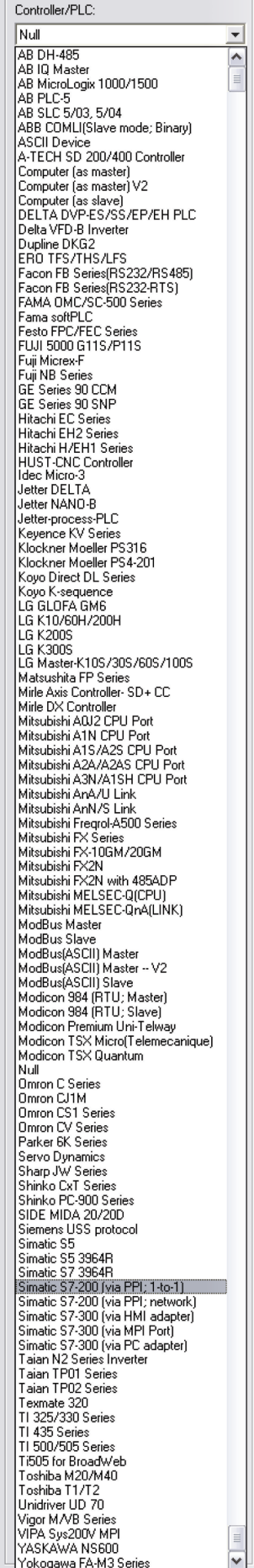
PWS6700



PWS6800



PWS6A00



The list of drivers is continuously updated.

PWS-series overview



	PWS6300-S	PWS6400F-S	PWS6500S-S	PWS6600S-S	PWS6600S-P	PWS6600S-N	PWS6600C-P	PWS6600C-N
LCD Type	Mono STN LCD	Mono STN LCD	Mono STN LCD	Mono STN LCD	Mono STN LCD	Mono STN LCD	Color STN LCD	Color STN LCD
Screen size	3" (diagonal)	3.3" (diagonal)	4.7" (diagonal)	4.7" (diagonal)	4.7" (diagonal)	5.7" (diagonal)	5.7" (diagonal)	5.7" (diagonal)
Display resolution	160 x 80	240x240	240 x 128	240 x 128	240 x 128	320 x 240	320 x 240	320 x 240
Brightness (cd/m2)	35	110	110	110	110	110	180	180
CPU	32 bits RISC	32 bits RISC	32 bits RISC	32 bits RISC	32 bits RISC	32 bits RISC	32 bits RISC	32 bits RISC
Contrast adjustment	Via VR	Via touch panel	Via touch panel	Via external keyboard (sold separately)	Via touch panel	Via touch panel	Via touch panel	Via touch panel
Display colors	16 shades of gray	16 shades of gray	16 shades of blue	16 shades of blue	16 shades of blue	16 shades of blue	256 colors	256 colors
Back light type	LED	LED	CCFT	CCFT	CCFT	CCFT	CCFT	CCFT
Back light life	50,000 hours	10,000 hours	50,000 hours	50,000 hours	50,000 hours	50,000 hours	50,000 hours	50,000 hours
Operation Status LED	PWR & COM2 LEDs	PWR & COM1 LEDs	PWR & COM1, COM2 LEDs	PWR & COM1, COM2 LEDs	PWR & COM1, COM2 LEDs	PWR, COM1, COM2, Ethernet LEDs	PWR, COM1, COM2, Ethernet LEDs	PWR, COM1, COM2, Ethernet LEDs
Touch screen	—	Analog	Analog	Via external keyboard (sold separately)	Analog	Analog	Analog	Analog
Touch screen (number of times)	—	> 1,000,000	> 1,000,000	—	> 1,000,000	> 1,000,000	> 1,000,000	> 1,000,000
Keypad	16 mechanical switches	—	—	128	—	—	—	1 Menu key and 5 user-defined function keys (F1—F5)
Application Flash ROM	4MB	4MB	4MB	4MB	4MB	4MB	4MB	4MB
RTC (w/rechargeable lithium battery)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data/Recipe	—	—	—	—	—	—	—	512KB
Data storage (CF card)	—	—	—	—	—	—	—	512KB
COM1	—	9-pin female (RS232/RS422/RS485)	9-pin female (RS232/RS422/RS485)	9-pin female (RS232/RS485)	9-pin female (RS232/RS485)	9-pin female (RS232/RS485)	9-pin female (RS232/RS485)	9-pin female (RS232/RS485)
COM2	9-pin female (RS232/RS422/RS485)	—	9-pin female (RS422/RS485)	9-pin female (RS422/RS485)	9-pin female (RS422/RS485)	25-pin female (RS232/RS422/RS485)	25-pin female (RS232/RS422/RS485)	25-pin female (RS232/RS422/RS485)
COM3	—	—	—	—	—	—	—	—
USB Host	—	—	—	—	—	—	—	—
USB Device	—	—	—	—	—	—	—	—
Multi-functional port	—	—	—	—	—	—	—	26-pin connector for printer
Ethernet	—	—	—	—	—	—	—	26-pin connector for printer
Certification	CE	CE	CE	CE	CE	CE	CE	CE
External dimensions (mm)	173.0 (W) x 105.5 (H) x 51.8 (D)	96.0 (W) x 96.0 (H) x 40.6 (D)	170.3 (W) x 102.6 (H) x 45.3(D)	170.3 (W) x 102.6 (H) x 45.3(D)	170.3 (W) x 102.6 (H) x 45.3(D)	195.0 (W) x 145.0 (H) x 59.1 (D)	195.0 (W) x 145.0 (H) x 59.1 (D)	195.0 (W) x 145.0 (H) x 59.1 (D)
Cut-out dimensions (mm)	160.8 x 93.3	89.3 x 89.3	160.7 x 93.0	160.7 x 93.0	160.7 x 93.0	185.8 x 135.8	185.8 x 135.8	185.8 x 135.8
Supply voltage	24V DC ±15 %, < 8W	24V DC ±15 %, < 4W	24V DC ±15 %, < 12W	24V DC ±15 %, < 12W	24V DC ±15 %, < 12W	24V DC ±15 %, < 20W	24V DC ±15 %, < 20W	24V DC ±15 %, < 20W
Front protection	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65
Weight (kg)	0.37	0.21	0.47	0.47	0.47	0.81	0.81	0.81

The PWS-series consists of various models and versions

PWS-6se0d-v

S: Size (Inch)

e: Enhancement model

d: Display (C: color, T: TFT, S: STN, F: FSTN)

V: Version (S: standard, P: plus, N: network)



	PWS6600T-S	PWS6600T-P	PWS6600T-N	PWS6620S-P	PWS6620S-N	PWS6620T-P	PWS6620T-N	PWS6700T-P	PWS6700T-N	PWS6800C-P	PWS6800C-N	PWS6A00F-P	PWS6A00T-P	PWS6A00T-N
LCD Type		Color TFT LCD		Mono STN LCD	Color TFT LCD	Color TFT LCD	Color TFT LCD	Color TFT LCD	Color STN LCD	Color STN LCD	Mono LCD		Color TFT LCD	
Screen size		5.7" (diagonal)		5.7" (diagonal)	7" (diagonal)	7" (diagonal)	7" (diagonal)	7" (diagonal)	7.5" (diagonal)	7.5" (diagonal)			10.4" (diagonal)	
Display resolution		320x240		320x240	800x480	800x480	800x480	800x480	640 x 480	640 x 480			640 x 480	
Brightness (cd/m2)		350		350	350	350	350	350	200	200			400	
CPU		32 bits RISC		32 bits RISC	32 bits RISC	32 bits RISC	32 bits RISC	32 bits RISC	32 bits RISC	32 bits RISC			32 bits RISC	
Contrast adjustment		—		Via touch panel	—	—	—	—	Via touch panel	Via touch panel			—	
Display colors		256 colors		16 shades of blue	64K colors	64K colors	64K colors	64K colors	64K colors	64K colors			16 shades of gray	64K color
Back light type		CCFT		CCFT	CCFT	CCFT	CCFT	CCFT	CCFT	CCFT			CCFT	CCFT
Back light life		60,000 hours		50,000 hours	60,000 hours	60,000 hours	60,000 hours	50,000 hours	58,000 hours	58,000 hours			50,000 hours	50,000 hours
Operation Status LED		PWR, COM1, COM 2, Ethernet LEDs		PWR, COM1, COM 2, Ethernet LEDs	PWR, COM1—3, Ethernet LEDs	PWR, COM1—3, Ethernet LEDs	PWR, COM1—3, Ethernet LEDs	PWR, COM1—3, Ethernet LEDs	PWR, COM1—3, Ethernet LEDs	PWR, COM1—3, Ethernet LEDs			PWR, COM1—3, Ethernet LEDs	PWR, COM1—3, Ethernet LEDs
Touch screen		Analog		Analog	Analog	Analog	Analog	Analog	Analog	Analog			Analog	Analog
Touch screen (number of times)		> 1,000,000		> 1,000,000	> 1,000,000	> 1,000,000	> 1,000,000	> 1,000,000	> 1,000,000	> 1,000,000			> 1,000,000	> 1,000,000
Keypad		1 Menu key and 5 user-defined function keys (F1—F5)		1 Menu key and 5 user-defined function keys (F1—F5)	1 Menu key and 5 user-defined function keys (F1—F5)	1 Menu key and 5 user-defined function keys (F1—F5)	1 Menu key and 5 user-defined function keys (F1—F5)	1 Menu key and 6 user-defined function keys (F1—F6)	1 Menu key and 6 user-defined function keys (F1—F6)	1 Menu key and 6 user-defined function keys (F1—F6)			1 Menu key and 7 user-defined function keys (F1—F7)	1 Menu key and 7 user-defined function keys (F1—F7)
Application Flash ROM		4MB		4MB	4MB	4MB	4MB	8MB	8MB	8MB			4MB	8MB
RTC (w/rechargeable lithium battery)		Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes
Data/Recipe		—		512KB	512KB	512KB	512KB	512KB	512KB	512KB			512KB	512KB
Data storage (CF card)		—		—	—	—	—	—	—	—			—	—
COM1		9-pin female (RS232/RS485)		9-pin female (RS232/RS485)	9-pin female (RS232/RS485)	9-pin female (RS232/RS485)	9-pin female (RS232/RS485)	9-pin female (RS232/RS485)	9-pin female (RS232/RS485)	9-pin female (RS232/RS485)			9-pin female (RS232/RS485)	9-pin female (RS232/RS485)
COM2		25-pin female (RS232/RS422/RS485)		25-pin female (RS232/RS422/RS485)	25-pin female (RS232/RS422/RS485)	25-pin female (RS232/RS422/RS485)	25-pin female (RS232/RS422/RS485)	25-pin female (RS232/RS422/RS485)	25-pin female (RS232/RS422/RS485)	25-pin female (RS232/RS422/RS485)			25-pin female (RS232/RS422/RS485)	25-pin female (RS232/RS422/RS485)
COM3		—		—	—	—	—	9-pin female (RS422/RS485)	9-pin female (RS422/RS485)	9-pin female (RS422/RS485)			—	9-pin female (RS422/RS485)
USB Host		—		1	1	2	2	2	2	2			2	2
USB Device		—		1	1	1	1	1	1	1			1	1
Multi-functional port		—		26-pin connector for printer	—	—	—	—	—	—			—	—
Ethernet		—	Yes	—	Yes	—	Yes	—	Yes	—	Yes	—	—	Yes
Certification		CE	CE	CE	CE	CE	CE	CE	CE	CE	CE	CE	CE	CE
External dimensions (mm)		195.0 (W) x 145.0 (H) x 59.1 (D)	195.0 (W) x 145.0 (H) x 59.1 (D)	195.0 (W) x 145.0 (H) x 59.1 (D)	231.0 (W) x 176.0 (H) x 46.8 (D)	231.0 (W) x 176.0 (H) x 46.8 (D)	231.0 (W) x 176.0 (H) x 46.8 (D)	231.0 (W) x 176.0 (H) x 46.8 (D)	231.0 (W) x 176.0 (H) x 46.8 (D)	231.0 (W) x 176.0 (H) x 46.8 (D)			297.0 (W) x 222.0 (H) x 52.3 (D)	297.0 (W) x 222.0 (H) x 52.3 (D)
Cut-out dimensions (mm)		185.8 x 135.8	185.8 x 135.8	185.8 x 135.8	220.8 x 165.8	220.8 x 165.8	220.8 x 165.8	220.8 x 165.8	220.8 x 165.8	220.8 x 165.8			286.0 x 211.0	286.0 x 211.0
Supply voltage		24V DC ±15 %, < 20W	24V DC ±15 %, < 20W	24V DC ±15 %, < 20W	24V DC ±15 %, < 24W	24V DC ±15 %, < 24W	24V DC ±15 %, < 24W	24V DC ±15 %, < 24W	24V DC ±15 %, < 24W	24V DC ±15 %, < 24W			24V DC ±15 %, < 30W	24V DC ±15 %, < 30W
Front protection		IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65			IP65	IP65
Weight (kg)		0.81	0.86	0.86	1.20	1.20	1.20	1.20	1.20	1.20			1.90	1.90

Standard version

Includes most software and hardware requirements for an operator terminal, such as alarm handling, Windows™ fonts, multi-language support, animated graphics and macro/ladder features.

Plus version

Has the same functionality as the Standard version as well as data/recipe handling and a communication port for a printer or external keyboard.

Network version

The network version is a Plus version with an integral Ethernet networking port.

About Hitech Electronics

Hitech Electronics has 17 years' experience of developing HMI products. The company was a pioneer in developing LCD modules and quickly spread its business into operator terminals. Today, the company has a leading position in the Asian HMI market. Since 2005, the company is part of the Beijer Electronics Group, a world-leader in HMI development.

About Beijer Electronics

Beijer Electronics HMI Products is a pioneer in connecting people with the processes they control. Our HMI solutions build on 25 years of automation knowledge, yet they handle industrial applications with everyday ease. Used with simple intuition, they set machines, information and ideas in motion.

HMI Products is part of the Beijer Electronics group, which is listed on the Stockholm Stock Exchange and based in Malmö, Sweden. The group has subsidiaries in Norway, Finland, Germany, Taiwan and the United States, as well as close relationships with OEMs, brand-label partners and distribution partners worldwide. For the representative nearest you, visit www.beijerelectronics.com.

FROM PERSON TO PROCESS.

Beijer
ELECTRONICS

www.beijerelectronics.com

Sweden (head office)	Beijer Electronics Products AB	Malmö	info@beijerelectronics.com
China	Beijer Electronics Co. Ltd.	Shanghai	info@beijerelectronics.cn
Germany	Beijer Electronics GmbH	Stuttgart Borstel	info@beijerelectronics.de
Taiwan	Hitech Electronics Corp.	Taipei	info.hmi@hitech-lcd.com.tw
USA	Beijer Electronics Inc.	Schaumburg, IL Westlake Village, CA Kernersville, NC	info.usa@beijerelectronics.com