

H-series HMI panels



Operator panels to match your specific needs

The H-series operator panels offer three levels of functionality, allowing you to select the exact level of HMI that you need.

The rational choice

Operator panels matching your specific needs

The H-series offers valuable HMI functionality at an affordable price. The series includes keypad and touch screen interfaces and is available in seven different sizes from 3 to 10.4 inches. Offering three levels of functionality - Standard, Plus and Network - the H-series enables you to choose the specific technology and price of the HMI that's right for you.



Configuration software for the H-panel

H-Designer is a versatile and intuitive HMI configuration software. It was 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, H-Designer is the perfect software to create simple or complex projects. The configuration software is available in four different menu languages: English, German, Spanish and French. You can download the H-Designer free of charge on www.beijerelectronics.com.

Off-line and on-line simulation

To save valuable time and money with on-site commissioning, H-Designer 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 carry out a comprehensive test of the 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 tests the communication and functionality of the host controller, such as a PLC or inverter

Screen management

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

- Ensures fast and easy project creation
- Familiar Windows™ environment and fonts
- Ideal for project cutting and pasting, browsing, editing and coordinating the operator panel screens

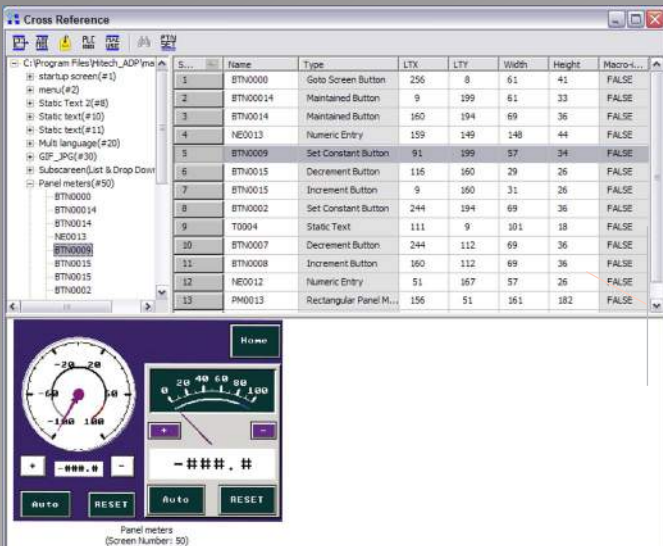
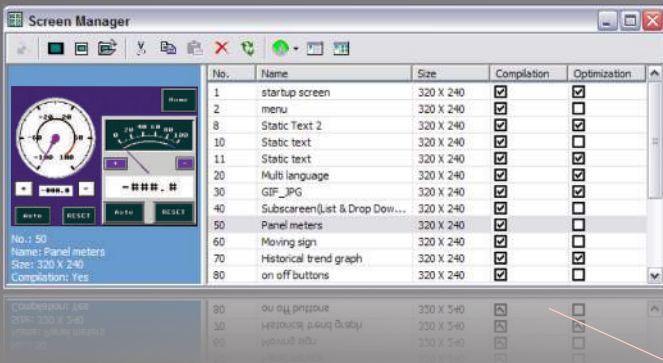
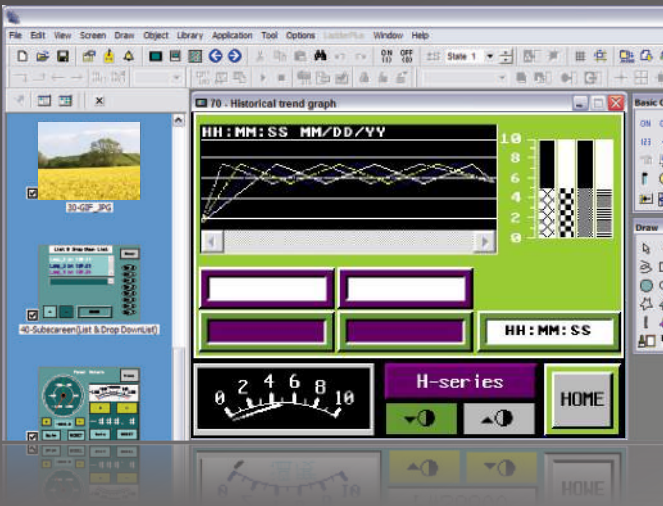
Cross references

Cross Reference is a feature that enables the developer 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 changed in the tag list and the data will then automatically be changed everywhere else in the project.

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

All Windows™ fonts supported

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



Animated graphics

The graphics handling in the H-series is developed with both the developer and the user in mind. The animated graphics allow a variety of graphic possibilities limited only by the developer's imagination.

- Scrolling text can be used, allowing long text strings to be displayed
- 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

Ladder or macro functionality

H-Designer 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 from other macros

Message Library

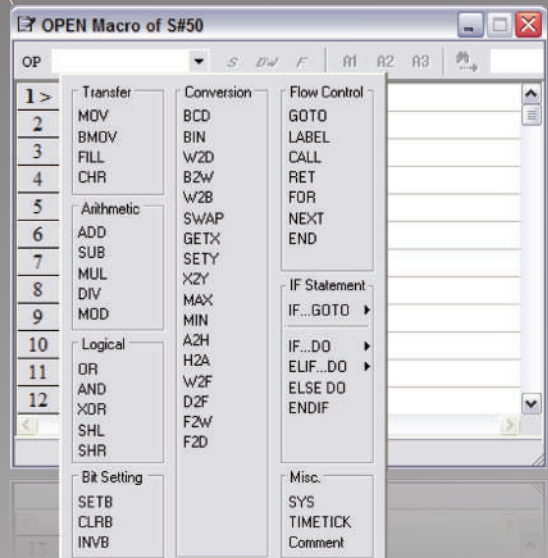
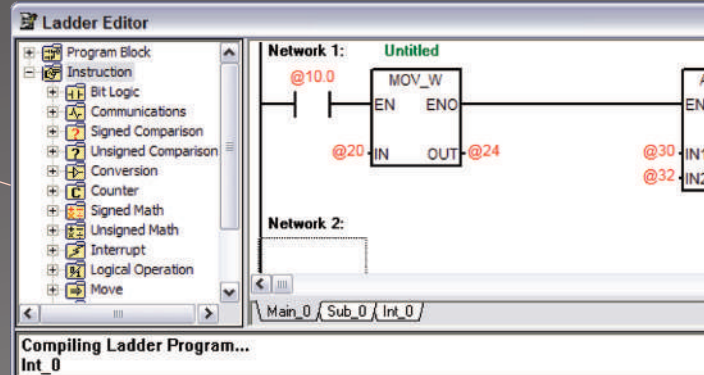
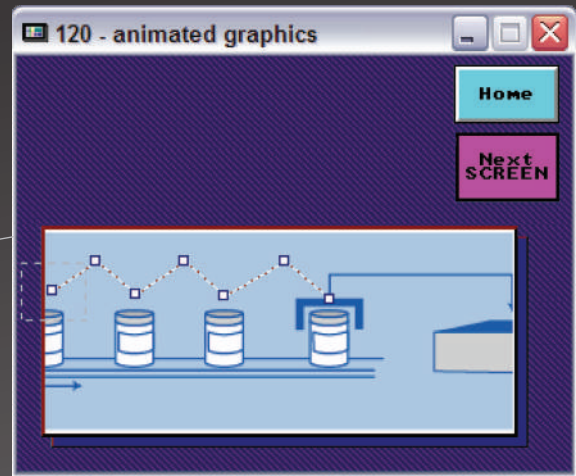
The message library enables setting up pre-defined messages connected to internal variables or PLC registers. The pre-defined messages can be used to display, e.g. error messages or sequences in a process.

- 32 user-defined message libraries
- 512 message lines in each library
- 40 characters of user-defined language and fonts in each line

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 panel without the correct password



Alarm setup

Alarms are easily managed in the alarm setup function. Alarms can be divided into three groups to make it easy for the operator to identify urgency and priority. Alarms can be stored in the internal memory or on an external device such as a CF-card or USB memory stick.

- Supports up to three alarm groups for different controller connections
- Five languages possible for each alarm text, with easy import/export from/to MS Excel for translations
- Alarms can be printed or stored for viewing on a PC

Time Channels

Time channels is a function for setting and resetting digital devices in relation to the time, for example to turn on/off fans or lighting. Four time intervals can be set up for each device, and time channels are set up in 7-day periods.

- Four time intervals for each device

Multiple Languages support

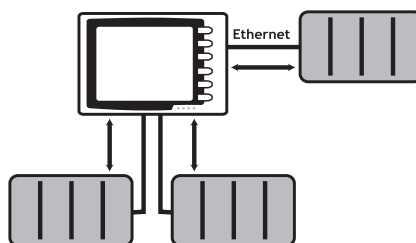
Making it easy for manufacturers who export all over the world, multiple languages support allows the developer to create projects that can be used basically anywhere. With this setup contained in the HMI, to change languages is just a switch away. Languages can also be changed during normal operation so that each operator can choose which language to use.

- Switch languages freely during normal operation
- Applications with up to 5 different languages

Multi-channel communication

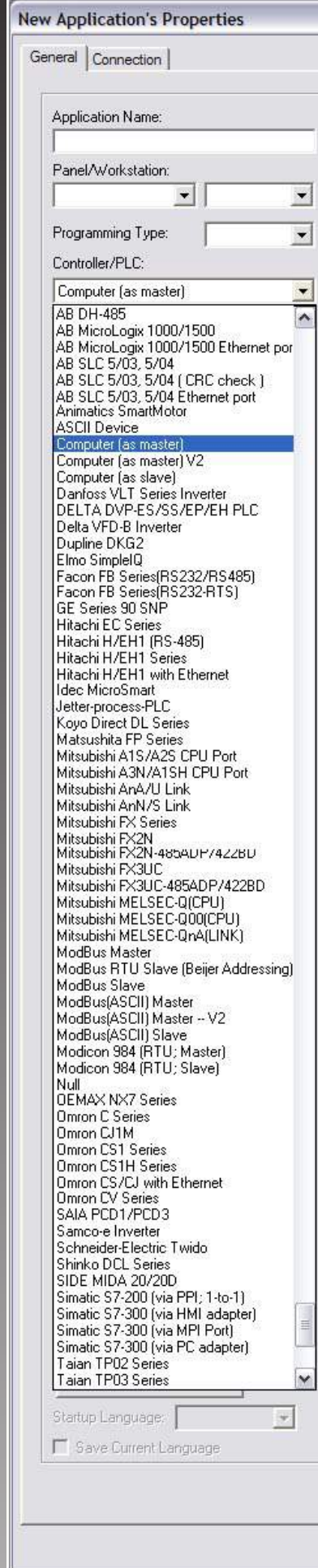
Multi-channel communication is a unique feature that allows a different controller to be connected on each serial or Ethernet port. This flexible communications solution not only saves on buying multiple HMIs, but also removes the need for expensive protocol converters.

- 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



Communication drivers

Accompanying this inspiring HMI range is a selection of free of charge communication drivers. This ever-increasing selection contains over 100 drivers 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.





	H-K30m-S	H-T40m-S	H-T40m-P	H-T50b-S	H-T60b-S	H-T60t-S
LCD Type	Mono STN LCD	Mono FSTN		Mono STN LCD	Mono STN LCD	Color TFT LCD
Screen size	3" (diagonal)	3.3" (diagonal)		4.7" (diagonal)	5.7" (diagonal)	
Display resolution	160 x 80	240 x 240		240 x 128	320 x 240	
Brightness (cd/m2)	36	90		110	110	300
CPU	32 bits RISC	32 bits RISC		32 bits RISC	32 bits RISC	
Contrast adjustment	Via VR	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	256 colors
Back light type	LED	LED		CCFL	CCFL	LED
Back light life	50,000 hours	10,000 hours		50,000 hours	50,000 hours	30,000 hours
Operation Status LED	PWR, COM2 LEDs	PWR, COM1 LED's		PWR, COM1, COM2 LEDs	PWR, COM1, COM2, Ethernet LEDs	
Touch screen	—	Analog		Analog	Analog	
Touch screen (number of times)	—	> 1,000,000		> 1,000,000	> 1,000,000	
Keypad	16 mechanical switches	—		—	1 Menu key and 5 user-defined function keys (F1–F5)	
Application Flash ROM	4 MB	4 MB		4 MB	4 MB	
RTC (with rechargeable battery)	Yes	Yes	8 kB	Yes	Yes	
Data/Recipe	—	—		—	—	—
Data storage (CF card)	—	—		—	—	—
COM1	—	9-pin female (RS232/RS422/RS485)		9-pin female (RS232/RS485)	9-pin female (RS232/RS485)	
COM2	9-pin female (RS232/RS422/RS485)	—		9-pin female (RS422/RS485)	25-pin female (RS232/RS422/RS485)	
COM3	—	—		—	—	
USB Host	—	—		—	—	
USB Device	—	—		—	—	
Multi-functional port	—	—		—	—	—
Ethernet	—	—		—	—	—
Network interface unit	—	—		—	LonWorks	
Certification	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 (L) x 102.6 (H) x 44.6 (P)	195.0 (W) x 145.0 (H) x 59.1 (D)	
Cut-out dimensions (mm)	160.8 x 93.3	90.0 x 90.0		160.7 x 93.0	185.8 x 135.8	
Supply voltage	24V DC ±15 %, < 8W	24V DC ±15 %, < 8W		24V DC ±15 %, <12W	24V DC ±15 %, < 20W	
Front protection	IP65 /NEMA 4	IP65/NEMA 4		IP65/NEMA 4	IP65 /NEMA 4	
Weight (kg)	0.65	0.23		0.47	0.81	

The H-series consists of various models and versions

H-T50d-Ve T: Type (T: Touch K: Key) S: Size (Inch) d: Display (c: color t: TFT m: mono b: blue mode)
V: Version (S: standard P: plus N: network) e: Enhancement (e: USB & CF)



	H-T60b-Pe	H-T60b-Ne	H-T60t-Pe	H-T60t-Ne	H-T70t-Ne	H-T80c-Ne	H-T100t-Ne
LCD Type	Mono STN LCD	5.7" (diagonal)	Color TFT LCD	Color TFT LCD	7" (diagonal)	Color STN LCD	Color TFT LCD
Screen size		320x240			800x480	640 x 480	640 x 480
Display resolution		110	300		250	350	350
Brightness (cd/m2)		32 bits RISC			32 bits RISC	32 bits RISC	32 bits RISC
CPU		Via touch panel			—	Via touch panel	—
Contrast adjustment		16 shades of blue	64 K colors		64 K colors	64 K colors	64 K colors
Display colors		CCFL	LED		CCFL	CCFL	CCFL
Backlight type		50,000 hours	30,000 hours		30,000 hours	45,000 hours	50,000 hours
Backlight life		PWR, COM1, COM 2, Ethernet LEDs			PWR, COM1—3, Ethernet LEDs	PWR, COM1—3, Ethernet LEDs	PWR, COM1—3, Ethernet LEDs
Operation Status LED		Analog			Analog	Analog	Analog
Touch screen		> 1,000,000			> 1,000,000	> 1,000,000	> 1,000,000
Touch screen (number of times)		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 7 user-defined function keys (F1—F6)	1 Menu key and 7 user-defined function keys (F1—F7)
Keypad		4 MB			8 MB	8 MB	8 MB
Application Flash ROM		Yes			Yes	Yes	Yes
RTC (with rechargeable battery)		512 kB			512 kB	512 kB	512 kB
Data/Recipe		Yes			Yes	Yes	Yes
Data storage (CF card)		9-pin female (RS232/RS-485)			9-pin female (RS232/RS-485)	9-pin female (RS232/RS-485)	9-pin female (RS232/RS-485)
COM1		25-pin female (RS232/RS-422/RS-485)			25-pin female (RS232/RS-422/RS-485)	25-pin female (RS232/RS-422/RS-485)	25-pin female (RS232/RS-422/RS-485)
COM2		—			9-pin female (RS422/RS-485)	9-pin female (RS422/RS-485)	9-pin female (RS422/RS-485)
COM3		1			2	2	2
USB Host		1			1	1	1
USB Device		—			—	—	—
Multi-functional port		Yes	—	Yes	—	—	—
Ethernet		—	—	—	—	—	—
Network interface unit		CE			CE	CE	CE
Certification		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)	297.0 (L) x 222.0 (H) x 52.3 (P)
External dimensions (mm)		185.8 x 135.8			220.8 x 165.8	220.8 x 165.8	286.0 x 211.0
Cut-out dimensions (mm)		24V DC ±15 %, < 20W			24V DC ±15 %, < 24W	24V DC ±15 %, < 24W	24V CC ±15 %, < 24W
Supply voltage		IP65 /NEMA 4			IP65 /NEMA 4	IP65 /NEMA 4	IP65/NEMA 4
Front protection		0.81			1.20	1.20	1.90
Weight (kg)							

H-T60 enhanced

H-T80

H-T70

H-T100

Standard version

Includes most software and hardware requirements for an operator panel, such as alarm handling, Windows™ fonts, multiple languages support, animated graphics and macro/ladder features.

Plus version

Has the same functionality as the Standard version as well as data/recipe handling, message library, time channel and a communication port for a printer.

Network version

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

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. Intuitive and simple, they set machines, information and ideas in motion.

Beijer Electronics has close relationships with OEMs, brand-label partners and distribution partners worldwide and is part of Beijer Electronics Group, which is active within HMI, industrial data communications and automation. The Beijer Electronics Group has subsidiaries in Scandinavia, the Baltics, Germany, France, UK, USA, Taiwan and China. For the representative nearest you, please visit our website.



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