

H-SERIES - THE RATIONAL CHOICE.



FROM PERSON TO PROCESS.

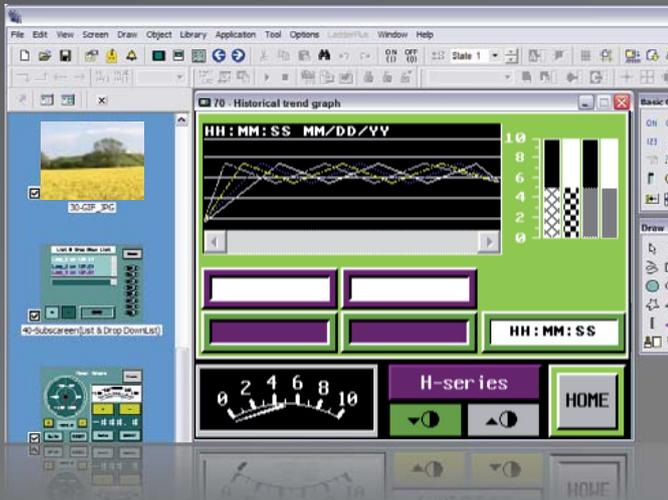
**Beijer**  
ELECTRONICS

# The rational choice

## Operator panels matching your specific needs

The H-series offers valuable HMI functionality at an affordable level. The series include 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 select and pay for the exact level of HMI technology you need.



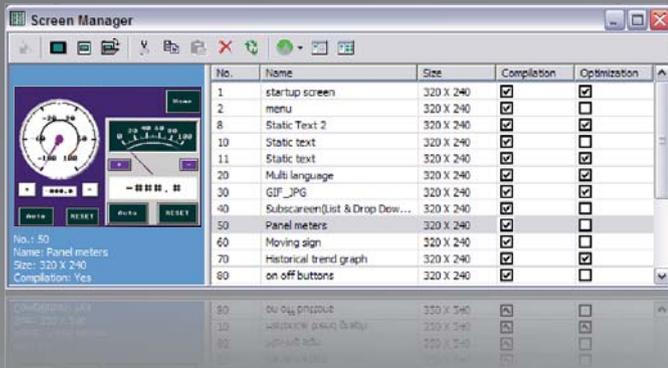


## Configuration software for the H-panel

H-Designer 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, 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](http://www.beijerelectronics.com).

## Screen management

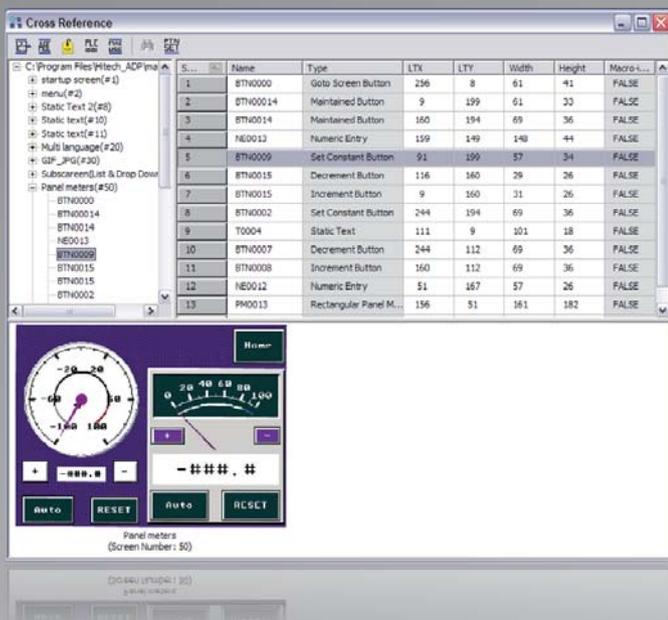
The "Screen Manager" function makes project management easy and enables the configurator to constantly oversee the entire project. It is possible to select between thumbnail and detailed zoomed views, allowing for dynamic screens to be created and viewed.



- 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 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 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

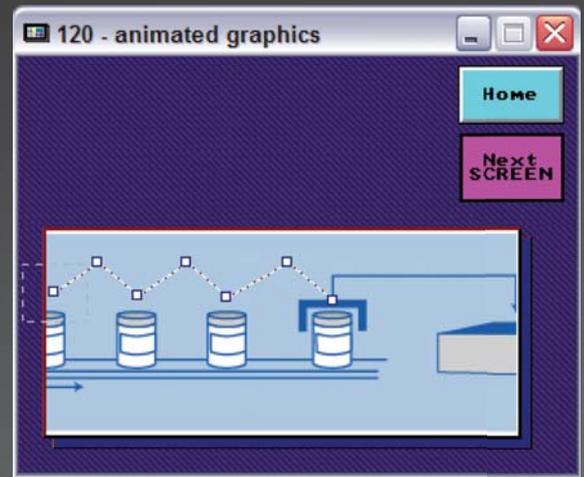
## All Windows™ fonts supported

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 graphic handling in the H-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 as the only limit.

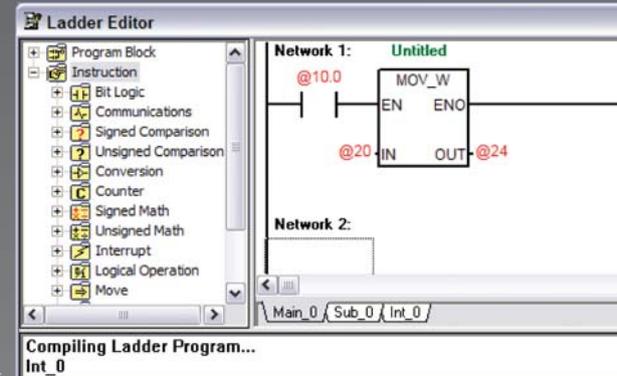
- Scrolling text can be used, allowing long text strings to be displayed
- Import graphic formats such as Bitmaps, JPEG, GIF and AutoCAD™ files (\*.bmp, \*.jpg, \*.gif, \*.dwg, \*.dxf)
- Supports animated gif images for complex and flexible screen creations
- Graphics can be moved in predefined paths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



## Off-line and on-line simulation

In order 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 on 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 proves the communication and the functionality of the host controller, such as a PLC or inverter



## 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



## Communication drivers

To accompany this inspiring HMI range, 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

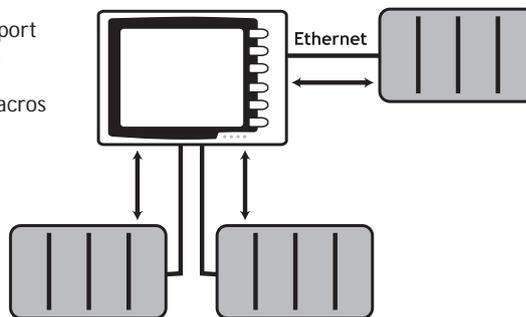
Making it easy for manufacturers who export all over the world, multi-language support allows the configurator to develop projects that can be used basically anywhere. With this setup contained in the HMI, to change languages is just a switch away. Languages can also be changed during normal operation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



## 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

New Application's Properties

General | Connection

Application Name:

Panel/Workstation:

Programming Type:

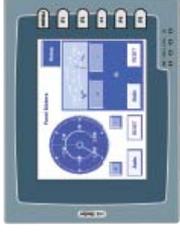
Controller/PLC:

Computer (as master)

- AB DH-485
- AB MicroLogix 1000/1500
- AB MicroLogix 1000/1500 Ethernet port
- AB SLC 5/03, 5/04
- AB SLC 5/03, 5/04 (CRC check)
- AB SLC 5/03, 5/04 Ethernet port
- Animatics SmartMotor
- ASCII Device
- Computer (as master)
- Computer (as master) V2
- Computer (as slave)
- Danfoss VLT Series Inverter
- DELTA DVP-ES/SS/EP/EH PLC
- Delta VFD-B Inverter
- Dupline DKG2
- Elmo SimpleIQ
- Facon FB Series(RS232/RS485)
- Facon FB Series(RS232-RTS)
- GE Series 90 SNP
- Hitachi EC Series
- Hitachi H/EH1 (RS-485)
- Hitachi H/EH1 Series
- Hitachi H/EH1 with Ethernet
- Idec MicroSmart
- Jetter-process-PLC
- Koyo Direct DL Series
- Matsushita FP Series
- Mitsubishi A1S/A2S CPU Port
- Mitsubishi A3N/A1SH CPU Port
- Mitsubishi AnA/J Link
- Mitsubishi AnN/S Link
- Mitsubishi FX Series
- Mitsubishi FX2N
- Mitsubishi FX2N-485ADP/422BU
- Mitsubishi FX3UC
- Mitsubishi FX3UC-485ADP/422BU
- Mitsubishi MELSEC-Q(CPU)
- Mitsubishi MELSEC-Q0Q(CPU)
- Mitsubishi MELSEC-QnA(LINK)
- ModBus Master
- ModBus RTU Slave (Beijer Addressing)
- ModBus Slave
- ModBus(ASCII) Master
- ModBus(ASCII) Master -- V2
- ModBus(ASCII) Slave
- Modicon 984 (RTU; Master)
- Modicon 984 (RTU; Slave)
- Null
- OEMAX NX7 Series
- Omron C Series
- Omron CJ1M
- Omron CS1 Series
- Omron CS1H Series
- Omron CS/CJ with Ethernet
- Omron CV Series
- SAIA PCD1/PCD3
- Samco-e Inverter
- Schneider-Electric Twido
- Shinko DCL Series
- SIDE MIDA 20/20D
- Simatic S7-200 (via PPI; 1-to-1)
- Simatic S7-300 (via HMI adapter)
- Simatic S7-300 (via MPI Port)
- Simatic S7-300 (via PC adapter)
- Taian TP02 Series
- Taian TP03 Series

Startup Language:

Save Current Language

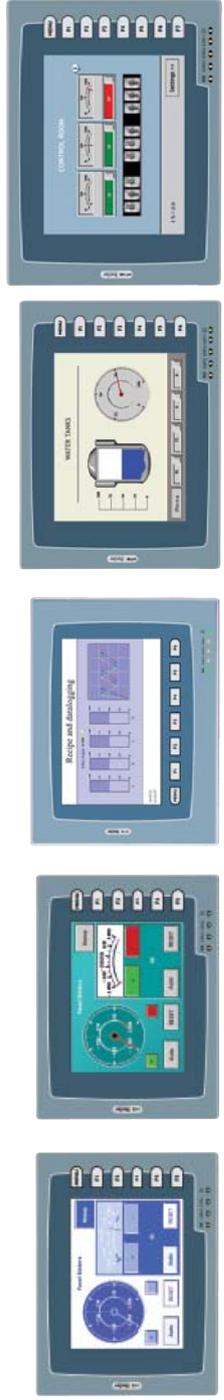


	H-K30m-S	H-T40m-S	H-T40m-P	H-T50b-S	H-T60b-S	H-T60t-S
LCD Type	Mono STN LCD	Mono FSTN		Mono STN LCD	Mono STN LCD	Colour TFT LCD
Screen size	3" (diagonal)	3.5" (diagonal)		4.7" (diagonal)	5.7" (diagonal)	
Display resolution	160 x 80	240 x 240		240 x 128	320 x 240	
Brightness (cd/m <sup>2</sup> )	36	90		110	110	300
CPU	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 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		CCFT	LED	LED
Back light life	50,000 hours	40,000 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	Analog
Touch screen (number of times)	—	> 1,000,000		> 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	4 MB
RTC (with rechargeable battery)	Yes	Yes		Yes	Yes	Yes
Data/Recipe	—	—	8 KB	—	—	—
Data storage (CF card)	—	—		—	—	—
COM1	—	9-pin female (RS232/RS422/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)	25-pin female (RS232/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	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 69.1 (D)	195.0 (W) x 145.0 (H) x 69.1 (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	185.8 x 135.8
Supply voltage	24V DC ±15 %, < 8W	24V DC ±15 %, < 8W		24V DC ±15 %, 12 W	24V DC ±15 %, < 20W	24V DC ±15 %, < 20W
Front protection	IP65 /NEMA 4	IP65/NEMA 4		IP65/NEMA 4	IP65 /NEMA 4	IP65 /NEMA 4
Weight (kg)	0.65	0.23		0.47	0.81	0.81



The H-series consists of various models and versions

**H-TS0d-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	Color TFT LCD	Color STN LCD	Color TFT LCD
Screen size		320x240		7" (diagonal)	7" (diagonal)	7.5" (diagonal)	10.4" (diagonal)
Display resolution		320x240		800x480	800x480	640 x 480	640 x 480
Brightness (cd/m <sup>2</sup> )	110		300	250	250	350	350
CPU		32 bits RISC		32 bits RISC	32 bits RISC	32 bits RISC	32 bits RISC
Contrast adjustment	Via touch panel					Via touch panel	
Display colors	16 shades of blue		64 K colors	64 K colors	64 K colors	256 colors	64 K color
Backlight type	LED			CCFT	CCFT	CCFT	CCFT
Backlight life	50,000 hours		30,000 hours	30,000 hours	30,000 hours	45,000 hours	50,000 hours
Operation Status LED	PWR, COM1, COM 2, Ethernet LEDs		30,000 hours	PWR, COM1-3, Ethernet LEDs			
Touch screen	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
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 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)
Application Flash ROM	4 MB		4 MB	8 MB	8 MB	8 MB	8 MB
RTC (with rechargeable battery)	Yes		Yes	Yes	Yes	Yes	Yes
Data/Recipe	512 kB		512 kB				
Data storage (CF card)	Yes		Yes	Yes	Yes	Yes	Yes
COM1	9-pin female (RS232/RS485)		9-pin female (RS232/RS485)				
COM2	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
USB Device	1		1	1	1	1	1
Multi-functional port							
Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Network interface unit							
Certification	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)	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 (L) x 222.0 (H) x 52.3 (P)
Cut-out dimensions (mm)	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	286.0 x 211.0
Supply voltage	24V DC ±15 %, < 20W		24V DC ±15 %, < 20W	24V DC ±15 %, < 24W	24V DC ±15 %, < 24W	24V DC ±15 %, < 24W	24V CC ±15 %, < 24W
Front protection	IP65 /NEMA 4		IP65 /NEMA 4	IP65 /NEMA 4	IP65 /NEMA 4	IP65 /NEMA 4	IP65/NEMA 4
Weight (kg)	0.81		0.81	1.20	1.20	1.20	1.90

**Standard version**

Includes most software and hardware requirements for an operator panel, such as alarm handling, Windows<sup>SM</sup> 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.

**Network version**

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

H-T60 enhanced

H-T80

H-T70

H-T100

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.

Beijer Electronics HMI Products 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 with subsidiaries in Scandinavia, the Baltics, Germany, France, UK, USA, Taiwan and China. For the representative nearest you, please visit our website.



## FROM PERSON TO PROCESS.

### HEAD OFFICE

#### SWEDEN

Beijer Electronics Products AB  
Box 426  
201 24 Malmö, Sweden  
Telephone +46 40 35 86 00  
Fax +46 40 93 23 01  
info@beijerelectronics.com  
www.beijerelectronics.com

### SUBSIDIARIES

#### GERMANY

Elektronik-Systeme Lauer GmbH & Co. KG  
Kelterstraße 59  
72669 Unterensingen, Germany  
Telephone +49 70 22/ 96 60 - 0  
Fax +49 70 22 / 96 60 - 103  
info@lauer-hmi.com  
www.lauer-hmi.com

#### USA

Beijer Electronics Inc.  
939 N. Plum Grove Road, Suite F  
Schaumburg IL 60173, USA  
Telephone +1 847 619 6068  
Fax +1 847 619 6674  
info.usa@beijerelectronics.com  
www.beijerelectronics.us

#### CHINA

Beijer Electronics Co. Ltd.  
Room 201, Building B, No. 1618,  
Yishan Road, Shanghai 201103, China  
Telephone +86 21 6145 0400  
Fax +86 21 6145 0499  
info@beijerelectronics.cn  
www.beijerelectronics.cn

#### TAIWAN R.O.C.

Hitech Electronics Corp.  
7 & 8 F, No 108 Min-Quan Road.  
Shin-Tien, Taipei Shien, Taiwan, R.O.C.231  
Telephone +886-2-2218-3600  
Fax +886-2-2218-9547  
hmi@hitech-lcd.com.tw  
www.hitechsite.com

**Beijer**  
ELECTRONICS