

## **Human-Machine Interface**

**Product Catalog** 



## **HT6x00 Series HMI Products**

# Open Secure Real-time

More and more customers demand of HMI products featuring powerful functions, more convenient operation, quick response speed, and lower cost. The HT6x00 series of HMI products are designed to meet customer requirements. It derives from our consistent efforts to improve HMI touch screen and represents one of the many high-performance products for industrial applications. The HT6x00 series adopts the 32-bit RISC CPU, capable of calling complicated instructions and satisfying the requirements of most customers. It can communicate directly with many PLC, while no special program is required for data transfer with these PLCs. In additional, it supports such functions as online simulation, super-large storage space for user configurations, and macros compatible with the standard C language. It can perform on-site data collection, processing, monitoring, and output in a quick, effective, and secure way.



#### Hardware Introduction

Standard Configuration | Two high-speed serial ports One USB-client port One printer port

Connected to printer with parallel port, Provide stable and smooth printing.

Supporting the connection mainstream inkjet and laser printers and mini printers.

Supporting simultaneous communications via multiple serial ports.

HT6x00 series support communication connection in RS232, RS485 and RS422 modes. The two communication ports of the standard hardware can support different PLC communication protocols at the same time and can be connected to different controllers. The two ports are completely independent. The PLC communication failure of one port will not affect the communication of the other port, featuring high reliability.

USB download greatly accelerates the download speed of user configurations.



The traditional HMI uses a serial port to download, with the maximum download speed is about 11.5K bytes/s. HT6x00 uses USB1.1 port to download data from a device, with a speed as high as 100K bytes/s, which greatly improves the configuration download speed.







Fuse to ensure the safety of machine in case of emergencies.



# Simple and user-friendly programming interface Quick to implement ideal functions

#### **Software Description**



A simple and practical platform for project design and editing

- Completing all functions from editing components library and
- simulation compilation, to download. Browse various project information and make better adjustment in

#### **Project file window**

Facilitate in modifying components library

- Click an image library file, and the user can browse and edit the
- Visual understanding of the HMI quantity used.

#### Menu bar

True color icon, visual,

and convenient navigation

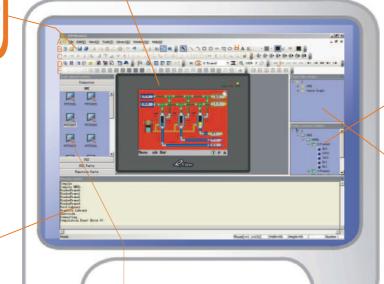
- Familiar icon style for most
- user's, easy to use.
  Simple and visual function

#### Compilation **Information** window

Display compilation progress

 After compilation display, the user can download files

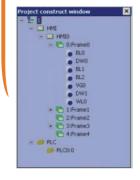




#### **Project** structure window

Master the conditions of the entire project

 Master the HMI, HMI components, and PLC type used for the entire project.



#### **Components library window**

Five components libraries, meeting design requirements







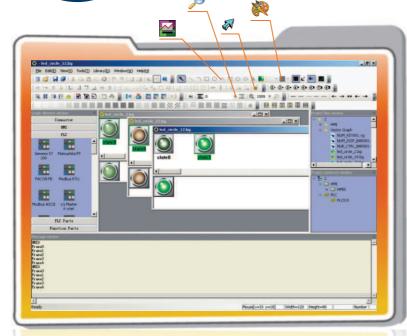




Functional components

Communication connection

# Onfiguration Design Expert



#### Completely support contrast and brightness adjustment

The contrast and brightness of the LCD are adjusted through the local bit (LB). The user can control the increase/decrease of the contrast and brightness by writing "1" into the special LB register in program, without the need to adjust them by means of jumper switch or potentiometer.

#### Rich components library resources

Facilitate in making beautiful configuration interfaces. The components libraries can meet design requirements in most cases. If a customer has special requirement, he can build own graph library with the drawing tools of the software.

#### Digital Photos/Corporate LOGO Import

The software supports the import of multiple Windows image formats, such as JPEG, GIF and BMP: bit-mapped images and vector-based images, to meet different design requirements. The user can import their own logo or other images.

#### Supporting all fonts of the Windows platform

In "graphic mode", static text can be displayed in any fonts supported by the windows system on the configuration interface. The user has more choice for fonts now.

#### Recipe editing function

Providing 256K Words recipe memory, without any loss upon power failure, facilitating the setting and modification of initial values of the equipment, capable of providing multiple different recipes for the controller.

#### Perfect event log function

It can store records of events occurred during production, without any loss upon power failure, facilitating invocation anytime; if necessary, this function can be used to learn the operational history of the equipment and improve the design of the process flow.

#### Lead true color fashion

Powerful vector graphic function, supporting drawing of arcs, sectors, scales and pointers at any angle.

Eight line width options 🔊



three-level zoom-in/zoom-out display 🔎



Supporting drawing of various vector-based image



user-defined color filling in multiple modes 📸



#### Password protection

Three different authority levels, authorized operators can execute necessary setting and operations according to their authority level. The security performance of the system is greatly enhanced.

#### Multi-language application environment

Any language supported by Windows OS can be displayed on the panel. The user can use up to 4 languages within a project, which makes it possible for global users to share their wisdom with their clients worldwide.



Bitmap image



Vector graph





Simple and efficient functions



#### Learn compiling macro commands in ten minutes

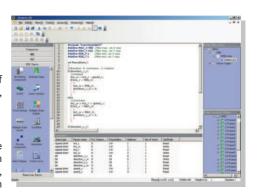
Macro codes compatible with standard C language can be triggered in multiple methods, featuring powerful function and flexible use.

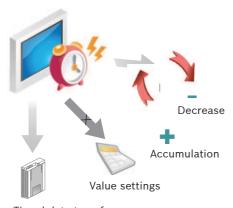
#### In the past

Most HMIs in the market use respectively defined script languages, lack of versatility, which are hard to learn since there is no sufficient reference resources, and furthermore they cannot be implanted into other HMI Panels.

#### **Present**

The HMI software provides unique macro instruction compilation fully compatible with the standard C language. If you are familiar with the C language, you can learn how to compile macro instructions in ten minutes. The rich reference documents, powerful function, and easy portability greatly enhance the macro instruction function of the HMI.





Timed data transfer Timer instruction

Powerful online networking and synchronous communication function and rapid processing speed have simplified the complicated process flow design.

#### **Powerful timer function**

- The timer of HT6x00 can implement the timing of a minimum of 100 ms, featuring accurate timing.
- Configured with multiple functions such as timed data transfer, value settings, accumulation, decrease, and timed macro instruction.
- Multiple trigger modes such as register trigger and initialization trigger, to facilitate users in implementing flexible configuration programming.

#### Customizable startup LOGO window

Different from other HMIs which do not have any screen display upon startup, the HT6x000 can immediately display a user-defined LOGO upon power-on until the configuration window finishes startup, lasting about five seconds. The user can freely edit and modify the startup window.



HT6x00 Configuration Software



Other Configuration Software

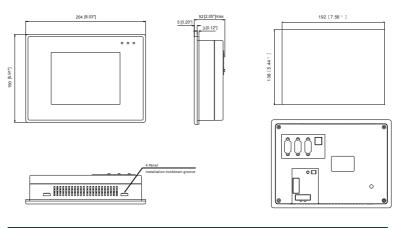


HT6800

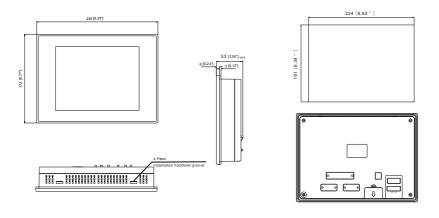
### **Technical Specification**

	HT6600L	HT6600C	HT6600T	HT68	800T	HT6A00L	HT6A00T
Surface color			Black	k De ep			Gray
Screen type	5.7" STN	5.6" TFT	5.7" TFT	8" -	ΓFT	10.4" STN	10.4" TFT
Resolution	320×240	240 320×234 320×240 640×480					•
Luminance	200 cd/m <sup>2</sup>	300 cd/m <sup>2</sup>		350 cd/m² 100 cd/r			100 cd/m <sup>2</sup>
Display color	256 G rey	rey 64K Color				256 Grey	
Back light	1C CFL 20					2C CFL	
Backlight life	10000 Hr		30000 Hr	40000 Hr	30000 Hr	20000 Hr	50000 Hr
Touch screen	4 Lines Presision Resistance Grid (Surface Handness 4H)						
CPU	200M Hz RISC						
Memory	8 MB Flash ROM + 16 M BDRAM						
Communication port	Two RS/232/485/422,0 ne USBSLAVE						
Recipe memory	128K W OR DS						
Printer port	1 DB15 1 DB25						
Power supply	21~28VDC Working Current MAX 400mA @24V Startup Current MAX 600mA@24V						
EMC compatibility	EN 50081-2 & E N5 0082-2						
FCC compatibility	FC C C lass A						
Insulation resistance	$\geqslant$ 5 OM $\Omega$ @ 5 OOV D C						
Vibration resistance	10 $\sim$ 25 Hz (X 、 Y 、 Z D irection 2 G/ 30 M inutes)						
Protective level	IP65						
Operating temperature	0 $\sim$ 45 $^{\circ}$ C						
Operational humidity	10 $\sim$ 90% RH (Non C on de nsing)						
Enclosure material	ABS						
Outline dimension	204	× 150 × 52	2 m m	235 × 172	$\times$ 53 m m	310 × 230	$0 \times 54 \mathrm{m}$ m
Cutout size	1	$92 \times 138 \mathrm{m}$	m	224 × 1	61 m m	298	< 218 m m
Weight		0.85kg		1.1	kg	1	.67kg
Cooling	Natural Air Cooling						

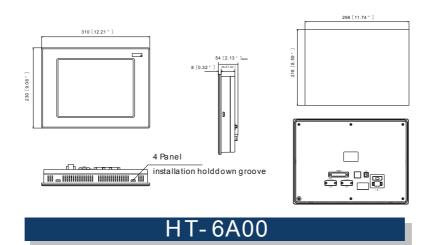
#### **Dimension**



HT-6600



HT-6800



## **TP200 Text Display Series**





TP200L is a product specially developed for low-end markets. It adopts back-lit STN LCD display with a 192 x 64 resolution of 192 x 64 pixels. It supports the display of 4 lines of characters (24 English letter per line or 12 Chinese characters). It adopts the durable thin-flim push-button switch as the customizable functional key and provides a small keypad for numeric input, which makes parameter modification convenient The programming software features powerful functions and easy operation, supports advanced functions such as XY graphs and bar graphs, or is directly embedded with BMP images. It is the best choice for low-cost Control equipment.



**TP200** 

• Display color: monochromatic

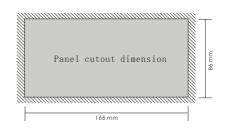
• Resolution: 192 x 64

• STN monochromatic display

#### **Dimension**







Display	4.3" STN LCD display			
Resolution	192 x 64 pixels (supporting the display of 4 lines, 24 English char per line)			
LCM life time	Greater than 50,000 hours at 252C, 65 ±10% RH			
Brightness	60 Cd/m <sup>2</sup>			
Color	Monochromatic			
Contrast	Adjustable by potentiometer			
Blacklight	Long service life yellow/green LED			
CPU	8-bit processor			
Memory	64KB Flash ROM			
COM port	COM1: PC RS232&PLC RS485/422&PLC RS232			
Function key	20 key, customizable (including 12 numeric input keys)			
Printer port	N/A			
Allowable power failure	Within 20ms			
Power source	12~24VDC±10% < 150mA @ 24VDC			
Interference immunity test	Voltage 1500Vp-p, pulse cycle 1 µs duration 1s			
Dielectric strength	500VAC (1min)			
Isolation resistance	Exceed 10 M at 500VDC			
Vibration endurance	10 to 25Hz (X, Y, Z direction, 2G, 30 mins.)			
Continuous vibration	Max. 0.5G (X,Y,Z direction)			
IP protection rating	IP65 front panel			
Operating temperature	0 ~ 50 °C			
Storage temperature	-20 °C ~ 70 °C			
Enclosure	Engineering plastic ABS			
Dimension (W x H x D)	172 x 95 x 30 mm			
Display size (W x H)	101 x 36 mm			
Panel cutout dimension	165 x 86 mm			
Cooling method	Natural cooling air			
Weight	0.3 kg			