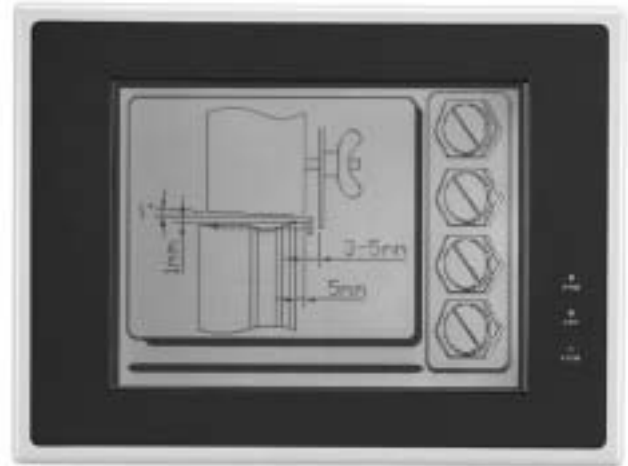


MMI-720/750

Graphic Display Panel and Touch Screen

Features

- LCD Graphic Display with Touch Panel
- 5.7" Displays, TFT Color, STN Color or Grayscale
- Connects to Today's Popular PLC's via Single Cable to Programming Port
- FREE Design Mode, Windows™ based Setup Software Included
- 24 VDC Powered



Touchscreen Display Panels

LCD with Touch Panel

The MMI-720/750 is a touch screen interface for programmable controllers. It connects directly to most PLCs and does not require the PLC to run any special program for data communication. This greatly reduces PLC programming time. The units display pictorial information, data and messages that are preloaded into it using a Personal Computer. Touch screen areas can be programmed to perform various functions. Free setup software for configuring the MMI-720/750 is included with each unit. The Easy Builder Screen Editor Software takes advantage of Microsoft Windows graphical interface and object oriented scheme. It offers fast and intuitive configuration. This simplifies application design while reducing development costs. It is designed especially for harsh working environments.

Connect directly to most PLCs

The MMI-720/750 uses each PLC's communication protocol to read or write data. It does not require the PLC to run any special program for data communication. The MMI-720/750 allows the user to optimize communications by selecting the data block size that is uploaded with each communication to the PLC. The EasyWindow utility that is provided along with EasyBuilder can be used to further monitor and tweak PLC communication efficiencies.

PLC Driver:

More supporting device drivers are being developed every day.

AB DF1	LG GLOFA Cnet
AB DH485	LG Master K
AB PLC5	Matsushita FP (Aromat)
AB Logix DF1	MITSUBISHI
DELTA DVP	MODICON MODBUS RTU
ENTERTRON MODBUS RTU	MODBUS RTU TCP/IP
FACON FB	OMRON
Fuji NB Series	SAIA PCD
GE FANUC SNP-X	Samsung SPC-10
HITACHI EH-150	Sharp JW Series
IDEC Micro ³	SIEMENS S7-200
IDEC OpenNET	SIEMENS S7/300
INDUSTRIAL INDEXING	SIMATIC TI505
SYSTEMS, INC.	Telemecanique Unitelway
Jetter Nano	Toshiba T Serial
Keyence KV-16DT	VIGOR M Series
KOYO Direct	Yokogawa PLC Series
Lenze	

More supporting device drivers are being developed every day.

General Specifications

Item	Specification
Input power	21-25 VDC, 500 mA @ 24VDC
CE	Complies with EN50081-2 and EN50082-2 standards
EMI	Complies with FCC Class A
Isolation resistance	Exceeds 50 M Ω at 500VDC
Vibration endurance	10 to 25 Hz (X,Y,Z direction 2G 30 minutes)
Environmental	NEMA 4 / IP65 front panel (when mounted with gasket seal)
Operating Temperature	32 to 113 °F (0 to 45 °C)
Operation humidity	10 to 90% RH Non Condensing
Enclosure	Plastic: Polybutylene Terephthalate (PBT) and Polycarbonate(PC)

Unit Specifications

Item	750T	750	720
LCD Display	5.7" TFT 256 color	5.7" STN 256 color	5.7" STN Dark Blue 4 color
Contrast Ratio	60:1	30:1	15:1
Brightness cd/m ²	300	150	60
Back light CCFLx1*	MTBF 40,000 hr	MTBF 25,000 hr	MTBF 15,000 hr
Resolution pixels		320(W) x 240(H)	
Pixel size (mm)		0.33(W) x 0.33 (H)	
Display area (mm)		120(W) x 90(H)	
Touch panel		4 wire resistive type	
Touch granularity		2mm grid	
Touch Feedback		Beeper and or Graphic Indicator	
Surface hardness		4H	
Processor		32 bit RISC CPU 200 MHz	
Flash Project Memory		2MB	1 MB
System Memory		4MB DRAM	
Battery Held Memory		128kB with Y2K compliant Real Time Clock/Calendar	
Compact Flash Slot		Used for project updates	Not Available
Ethernet Port		RJ-45 8 wire (10 BaseT) TCP/IP	Not Available
Parallel Printer port		Compact D-Sub 15P with Ethernet option	No printer port
Serial ports		1 RS-232 (controller port) and 1 RS-232 / RS-485 (PC & controller port)	
System diagnostic		Watch dog timer, power failure detection	
Dimensions		Bezel: 5.90 x 8.00 x 2.95 (150 x 204 x 75)	
H x W x D inches		Cutout: 5.43 x 7.56 (138 x 192)	
(H x W x D) mm			
Weight		Approx. 0.8 kg	

*Backlight: (programmable auto shutdown)

Screen editor	EasyBuilder Version 2.5.1 or later (to be run under Windows 98 / NT / 2000 / ME / XP)
No. of window	1 - 1999, limited by memory
No. of object	Up to 500 per window, limited by memory
Text strings, Tags & Labels	limited only by memory
Macro Scripts	256 maximum, limited by memory
Libraries per project	Up to 10 libraries can be attached to a project
Bitmap graphics	256 KB per graphic, limited by memory
Support PLC	Most popular PLC's
Support Printer	Simple ASCII, EPSON ESC/P2, HP PCL/(Simple page mode) or compatible

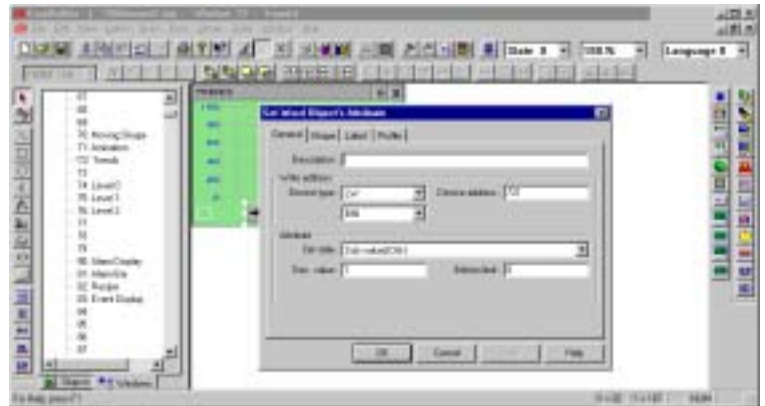
Easy Setup with EasyBuilder Software

EasyBuilder is a graphics editor software program for configuring the MMI Series. EasyBuilder can be downloaded for free from KEP's website (www.kep.com). Typical projects are composed of user defined windows. Each window is composed of a variety of elements called objects. There are drawing objects or putting static text and graphics on the window and Part objects for putting active objects on a window. PLC controlled objects can be used for window control and system functions.

Configuration of the MMI-720/750 is easy. To setup objects, select an icon from the toolbox, a dialog box appears. Fill in object attributes requested by the dialog to complete the object setup process. Move the object to the right position and drag the boundary of the object. It's a straightforward, simple, and consistent process.

Animation Tools:

- Bit Lamp – Place an indicator that is bit triggered
- Word Lamp – Place an indicator that is word triggered
- Set Bit – Set a bit
- Set Word – Set a word
- Toggle Switch – Toggle a bit
- MultiState Switch – Increment/Decrement a word
- Function Button – Perform a system operation
- Numeric Input Extend – Display/Change digital data
- Numeric Display – Display digital data
- ASCII Input Extend – Display/Change alphanumeric data
- ASCII Display – Display alphanumeric data
- X,Y Move Animation – Move an object via pixel coordinates
- Spot Move Animation – Move an object on a predefined path
- Direct Window - Popup Window on Bit
- Popup Window on Register
- Alarm Display
- Trend Graph
- XY Plot
- BarGraph
- Meter
- Scrolling Alarm
- Event Display
- Recipe Transfer
(requires option card)
- PLC Controls: Screen,
backlight, printer
- Data Transfer





Graphics can be produced by using the EasyBuilder's own set of drawing tools. You can import any 256 color BMP format graphic into EasyBuilder to customize your application. Screen Captures and Graphics may also be cut and pasted into Paintbrush for conversion to the BMP format. Libraries with over 300 commonly used graphics are included with EasyBuilder Software. These libraries can be edited and new libraries created to hold new graphics you have created.

Drawing Tools:

- Line – Draw straight lines
- Rectangle – Draw squares and rectangles
- Ellipse – Draw circles and ellipses
- Arc – Draw 90-degree arcs
- Polygon – Draw multisided objects
- Text – Place static text
- Scale – Place lines at regular intervals
- Shape – Place a static shape from a library
- Bitmap - Place a static bitmap from a library

Other convenient features include: The ability to copy windows and objects between projects. Windows can be stacked (overlapped) to reduce duplicate objects. Tags can be assigned to Data points for easy reference during project development. Labels that change depending on language use can also be incorporated into the project giving it international compatibility. Macro scripts can be triggered by bit actions to perform calculations, data manipulation and logical operations. Up to 256 scripts can be programmed into the unit. The ability to put a system bar (Taskbar) at the bottom of the screen to emulate familiar graphic interface operations.

After completing a project it can be simulated off-line to view approximately how your project will look and respond. There is also an on-line simulation. Connect the PC to your MMI unit and connect the MMI to your PLC. The MMI display is emulated on the PC screen by using the MMI as a bridge to go to your PLC. The PC will mimic exactly how the MMI will respond once the project is downloaded.

To download a project, connect the MMI-720/750 to COM1 or COM2 port of your PC using the download cable provided with the unit. Execute the download function, it will directly transfer your project data to the MMI-720/750's flash memory.

The Ethernet Option package includes expanded memory, a compact card memory slot, an additional printer port and a 10 baseT ethernet port. The compact card slot allows a user to update the project in a unit without connecting a computer or some other programming device. The printer port can be used to print out screen captures and event or alarm information. The ethernet port can be used for unit to unit communications or Modbus TCP/IP communications to controllers.

