# CrystalWin

The better way to integrate your system

- ☐ Windows based, web Enabled , equipped with high level CPU, large storage and memory.
- ☐ Full range of high brightness TFT LCD displays with touch screen.
- ☐ Superior HMI development software
- ☐ Major field bus masters embedded and work with SoftPLC and SoftPID

Innovative, Economic and Powerful HMI

~ Graphic Programming Editor

E SERIES

P SERIES

CrystalWin
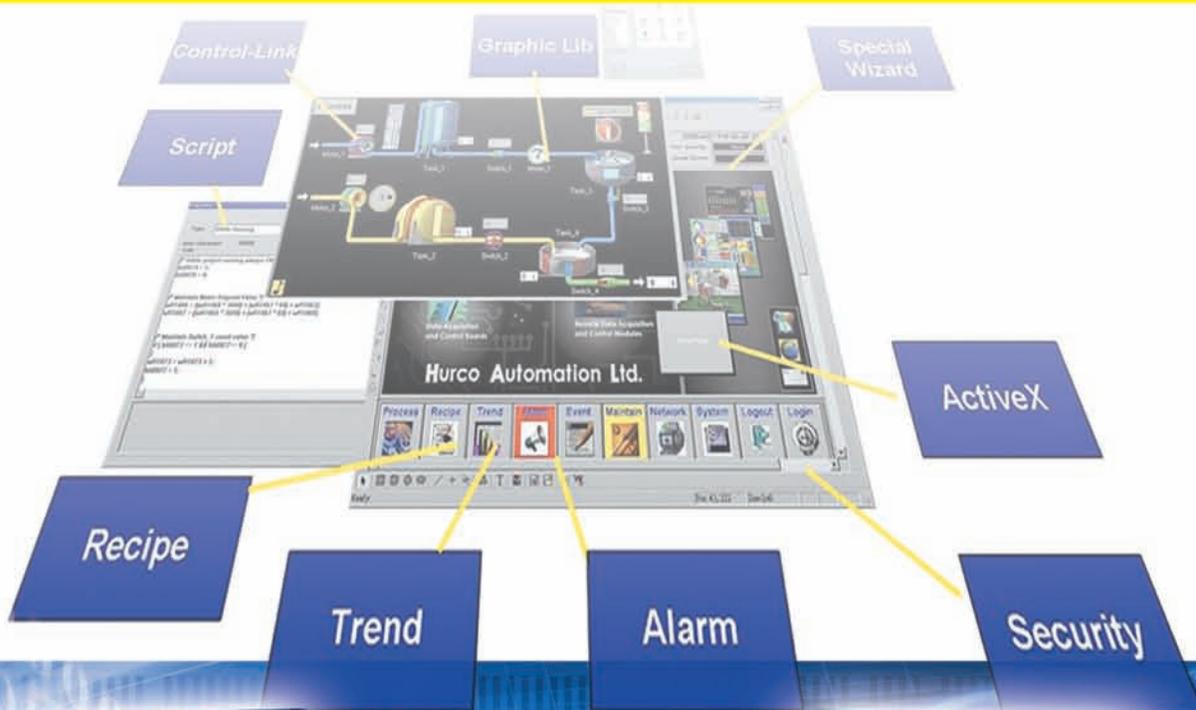
E Series
Human Machine Interfaces

E-57

- 5.7" QVGA TFT LCD
- 320 x 240 400 cd/m^2
- High Brightness LCD with Touch Screen
- RISC 32 Bit CPU
- 64 MB SDRAM
- 32 MB Flash Memory Storage
- Ethernet x 1
- USB x 2
- COM x 2 (RS232C and RS232 /Tx/Rx Signals Only)
- Audio port x1
- Panel Mount
- 230.21W x 166.8H x 56.2D
- IP65 Front

E-80

- 8" VGA TFT LCD
- 640 x 480 380 cd/m^2
- High Brightness LCD with Touch Screen
- RISC 32 Bit CPU
- 128 MB SDRAM
- 32 MB Flash Memory Storage
- Ethernet x 1
- USB x 2
- COM x 2(RS232C and RS-232 /Tx/Rx Signals Only)
- Audio port x1
- Panel Mount
- 230.21W x 166.8H x 56.2D
- IP65 Front

E-104

- 10.4" SVGA TFT LCD
- 800 x 600 450 cd/m^2
- High Brightness LCD with Touch Screen
- RISC 32 Bit CPU
- 128 MB SDRAM
- 32 MB Flash Memory Storage
- Ethernet x 1
- USB x 2
- COM x 2(RS232C and RS232 /Tx/Rx Signals Only)
- Audio port x1
- Panel Mount
- 333.6W x 286H x 82D
- IP65 Front

Option

E-57

- PC-104 Expansion Slot
- 64 MB Flash Memory Storage
- Rear Mount
- VESA Mount (75mm x 75mm)

E-80

- PC-104 Expansion Slot
- 64 MB Flash Memory Storage
- Rear Mount
- VESA Mount (75mm x 75mm)

E-104

- PC-104 Expansion Slot
- 64 MB Flash Memory Storage
- Rear Mount
- VESA Mount (100mm x 100mm)

Order Information

Model Name

- E-57-00 5.7" QVGA TFT Economic HMI
- E-57-01 5.7" QVGA TFT Economic HMI with 64 MB Flash Storage on board
- E-57-10 5.7" QVGA TFT Economic HMI with 1 PC-104 Expansion Slot on board
- E-57-11 5.7" QVGA TFT Economic HMI with 1 PC-104 Expansion Slot, 64 MB Flash Storage on board

Model Name

- E-80-00 8" VGA TFT Economic HMI
- E-80-01 8" VGA TFT Economic HMI with 64 MB Flash Storage on board
- E-80-10 8" VGA TFT Economic HMI with 1 PC-104 Expansion Slot on board
- E-80-11 8" VGA TFT Economic HMI with 1 PC-104 Expansion Slot, 64 MB Flash Storage on board

Model Name

- E-104-00 10.4" SVGA TFT Economic HMI
- E-104-01 10.4" SVGA TFT Economic HMI with 64 MB Flash Storage on board
- E-104-10 10.4" SVGA TFT Economic HMI with 1 PC-104 Expansion slot on board
- E-104-11 10.4" SVGA TFT Economic HMI with 1 PC-104 Expansion slot, 64 MB Flash Storage on board

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P Series
Human Machine Interfaces

P-57

- 5.7" QVGA TFT LCD
- 320 x 240 450 cd/m²
- High Brightness LCD with Touch Screen
- AMD Geode LX800 500MHz
- 128 MB SDRAM
- 128 MB Storage (Compact Flash)
- Ethernet x 1
- USB x 2
- COM x 2 (RS232)
- Audio port x1
- Panel Mount
- 218.4W x 176.8H x 57.5D
- IP65 Front
- PC-104 Expansion Slot

P-84

- 8.4" SVGA TFT LCD
- 800 x 600 260 cd/m²
- High Brightness LCD with Touch Screen
- AMD Geode LX800 500MHz
- 128 MB SDRAM
- 128MB Storage (Compact Flash)
- Ethernet x 1
- USB x 2
- COM x 2 (RS232)
- PS2 x 1
- Audio port x1
- Panel Mount
- 290W x 248H x 72.9D
- IP65 Front
- PC-104 Expansion Slot

P-104

- 10.4" SVGA TFT LCD
- 800 x 600 450 cd/m²
- High Brightness LCD with Touch Screen
- AMD Geode LX800 500MHz
- 128 MB SDRAM
- 128 MB Storage (DOM)
- Ethernet x 2
- USB x 2
- COM x 2 (RS232 x 1, RS232/RS485 x1)
- PS2 x 1
- Audio port x1
- Panel Mount
- 333.6W x 286H x 82D
- IP65 Front

Option

P-57

- 256MB/512MB/1GB Storage (Compact Flash)
- Rear Mount
- VESA Mount (75mm x 75mm)

P-84

- 256MB/512MB/1GB Storage (Compact Flash)
- Rear Mount
- VESA Mount (75mm x 75mm)

P-104

- PCI Expansion 2 Slots Riser card
- Nonvolatile RAM 8K bytes
- DeviceNet, CANopen, Profibus-DP, Ethernet/IP master interface
- 256MB/512MB/1GB SDRAM
- 512MB/1GB/2GB Storage (DOM)
- 2.5" 40GB IDE HDD
- Rear Mount
- VESA Mount (100mm x 100mm)

Order Information

Model Name

- P-57-10 5.7" QVGA TFT Power HMI with 1 PC-104 Expansion slot

Model Name

- P-84-10 8.4" VGA TFT Power HMI with 1 PC-104 Expansion slot

Model Name

- P-104-00 10.4" SVGA TFT Power HMI

- P-104-10 10.4" SVGA TFT Power HMI with Rise Card (Two PCI Expansion Slots)

*

All specifications and photos are subject to change without notice

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P Series
Human Machine Interfaces

USB x 1 Front

P-1121A

- 12.1" SVGA TFT LCD
- 800 x 600 450 cd/m^2
- High Brightness LCD with Touch Screen
- AMD Geode LX800 500MHz
- 128 MB SDRAM
- 64 MB Storage (DOM)
- Ethernet x 2
- USB x 2 (USB x1 Front)
- COM x 2 (RS232 x 1, RS232/RS485 x1)
- Audio port x1
- Keyboard and Mouse Port
- Panel Mount
- 333.6W x 286H x 82D
IP65 Front

P-1121C

- 12.1" SVGA TFT LCD
- 800 x 600 450 cd/m^2
- High Brightness LCD with Touch Screen
- Intel Celeron-M 600MHz
- 128 MB SDRAM
- 64 MB Storage (DOM)
- Ethernet x 2
- USB x 2 (USB x 1 Front)
- COM x 2 (RS232 x 1, RS232/RS485 x1)
- Audio port x1
- Keyboard and Mouse Port
- Panel Mount
- 333.6W x 286H x 82D
- IP65 Front

Option

P-1121A

- Rise Card (Two PCI Expansion Slots)
- Nonvolatile RAM 8K bytes
- DeviceNet, CANopen, Profibus-DP, Ethernet/IP master interface
- 256MB/512MB/1GB SDRAM
- 512MB/1GB/2GB Storage (DOM)
- 2.5" 40GB IDE HDD
- Rear Mount
- VESA Mount (100mm x 100mm)

P-1121C

- Intel Celeron-M 1GHz CPU
- Rise Card (Two PCI Expansion Slots)
- Nonvolatile RAM 8K bytes
- DeviceNet, CANopen, Profibus-DP, Ethernet/IP master interface
- 256MB/512MB/1GB SDRAM
- 512MB/1GB/2GB Storage (DOM)
- 2.5" 40GB IDE HDD
- Rear Mount
- VESA Mount (100mm x 100mm)

Order Information

Model Name

- P-1121A-00 12.1" SVGA TFT Power HMI
- P-1121A-10 12.1" SVGA TFT Power HMI with Rise Card (Two PCI Expansion Slots)

Model Name

- P-1121C-00 12.1" SVGA TFT Power HMI
- P-1121C-10 12.1" SVGA TFT Power HMI with Rise Card (Two PCI Expansion Slots)

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P-1150A

- 15" XGA TFT LCD
- 1024 x 768 350 cd/m²
- High Brightness LCD with Touch Screen
- AMD Geode LX800 500MHz
- 128 MB SDRAM
- 64 MB Storage(DOM)
- Ethernet x 2
- USB x 2 (USB x 1 Front)
- COM x 2 (RS232 x 1, RS232/RS485 x1)
- Audio port x1
- Keyboard and Mouse Port
- Panel Mount
- 420W x 320H x 82D
- IP65 Front

P-1150C

- 15" XGA TFT LCD
- 1024 x 768 350 cd/m²
- High Brightness LCD with Touch Screen
- Intel Celeron-M 600MHz
- 128 MB SDRAM
- 64 MB Storage (DOM)
- Ethernet x 2
- USB x 2 (USB x 1 Front)
- COM x 2 (RS232 x 1, RS232/RS485 x1)
- Audio port x 1
- Keyboard and Mouse Port
- Panel Mount
- 420W x 320H x 82D
- IP65 Front

Option

P-1150A

- Rise Card (Two PCI Expansion Slots)
- Nonvolatile RAM 8K bytes
- DeviceNet, CANopen, Profibus-DP, Ethernet/IP master interface
- 256MB/512MB/1GB SDRAM
- 512MB/1GB/2GB Storage (DOM)
- 2.5" 40GB IDE HDD
- Rear Mount
- VESA Mount (100mm x 100mm)

P-1150C

- Intel Celeron-M 1GHz CPU
- Rise Card (Two PCI Expansion Slots)
- Nonvolatile RAM 8K bytes
- DeviceNet, CANopen, Profibus-DP, Ethernet/IP master interface
- 256MB/512MB/1GB SDRAM
- 512MB/1GB/2GB Storage (DOM)
- 2.5" 40GB IDE HDD
- Rear Mount
- VESA Mount (100mm x 100mm)

Order Information

Model Name

- P-1150A-00 15" XGA TFT Power HMI
- P-1150A-10 15" XGA TFT Power HMI with Rise Card (Two PCI Expansion Slots)

Model Name

- P-1150C-00 15" XGA TFT Power HMI
- P-1150C-10 15" XGA TFT Power HMI with Rise Card (Two PCI Expansion Slots)

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P Series
Human Machine Interfaces

P-1170A

- 17" SXGA TFT LCD
- 1280 x 1024 300 cd/m^2
- High Brightness LCD with Touch Screen
- AMD Geode LX800 500MHz
- 128 MB SDRAM
- 64 MB Storage (DOM)
- Ethernet x 2
- USB x 2 (USB x 1 Front)
- COM x2 (RS232 x 1, RS232/RS485 x1)
- Audio port x1
- Keyboard and Mouse Port
- Panel Mount
- 470W x 380H x 99D
- IP65 Front

P-1170C

- 17" SXGA TFT LCD
- 1280 x 1024 300 cd/m^2
- High Brightness LCD with Touch Screen
- Intel Celeron-M 600MHz
- 128 MB SDRAM
- 64 MB Storage (DOM)
- Ethernet x 2
- USB x 2 (USB x 1 Front)
- COM x 2 (RS232 x 1, RS232/RS485 x1)
- Audio port x1
- Keyboard and Mouse Port
- Panel Mount
- 470W x 380H x 99D
- IP65 Front

Option

P-1170A

- Rise Card (Two PCI Expansion Slots)
- Nonvolatile RAM 8K bytes
- DeviceNet, CANopen, Profibus-DP, Ethernet/IP master interface
- 256MB/512MB/1GB SDRAM
- 512MB/1GB/2GB Storage (DOM)
- 2.5" 40GB IDE HDD
- Rear Mount
- VESA Mount (100mm x 100mm)

P-1170C

- Intel Celeron-M 1GHz CPU
- Rise Card (Two PCI Expansion Slots)
- Nonvolatile RAM 8K bytes
- DeviceNet, CANopen, Profibus-DP, Ethernet/IP master interface
- 256MB/512MB/1GB SDRAM
- 512MB/1GB/2GB Storage (DOM)
- 2.5" 40GB IDE HDD
- Rear Mount
- VESA Mount (100mm x 100mm)

Order Information

Model Name

- P-1170A-00 17" SXGA TFT Power HMI
- P-1170A-10 17" SXGA TFT Power HMI with Rise Card (Two PCI Expansion Slots)

Model Name

- P-1170C-00 17" SXGA TFT Power HMI
- P-1170C-10 17" SXGA TFT Power HMI with Rise Card(Two PCI Expansion Slots)

GPex ~ Graphic Progamming Editor

Process/Operation

GUI programmed with CONTROL LINK for simple objects, WIZARD library for complex objects and script For flow control and logic arithmetic

Recipe

"Access" compatible database which can be linked thru ODBC Easy Search, select and modify, protected by authorization level and action event record
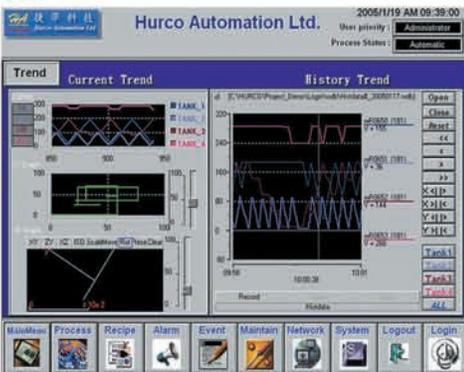
Trend

Current real-time trend in Y-T, X-Y and 3D graph and historical trend. Record data in file or playback previously recorded file

Alarm

Current alarm is real-time while history alarm shows all recorded alarms

Login

Four security levels: Administrator, System Integrator, Maintenance and End User classifications Access through surveillance or web browser

System

For use at administrator level to configure "System". Environment and includes: User manager, language setting, time set-up, printer set-up and system shutdown

Network

Transmitting or embedding ActiveX, real-time database and files through Ethernet for surveillance, local machine controls or through a web browser via intranet or internet.

(1) Surveillance

(2) Web Browser

Maintenance

Compares service hours programmed with actual hours for all major service components. Notifies operators when replacements or repairs are required.

Event

Define and record major operation activities such as mode change, recipe change, alarm clear, for later tracking and analyzing
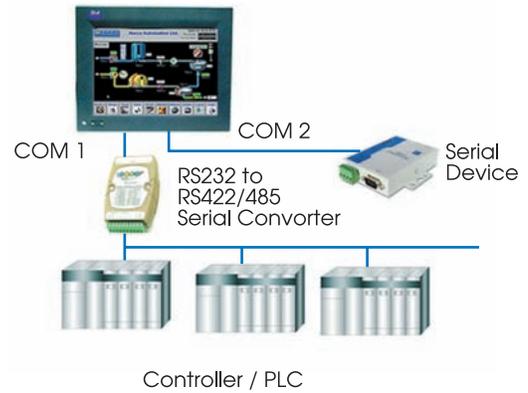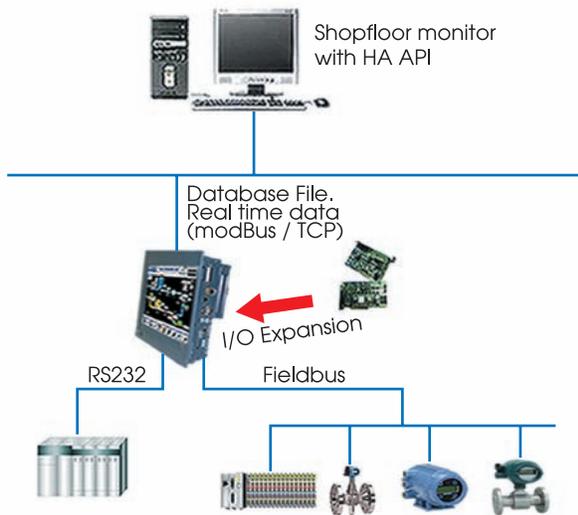
Communication Connectivity
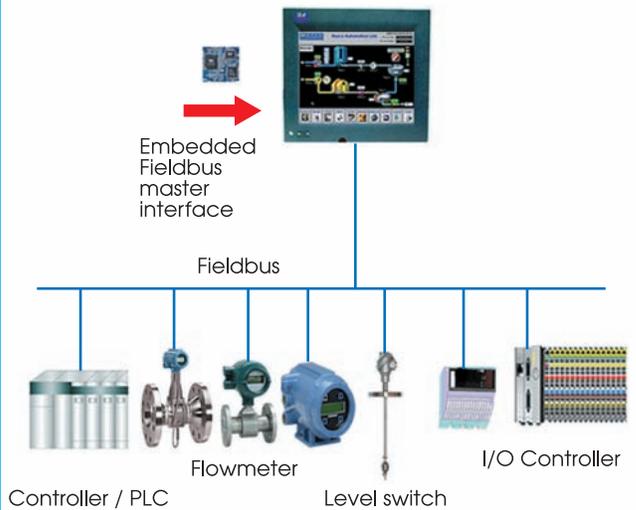
Serial Communicate (1 to 1)

COM 1
COM 2

Controller / PLC

Serial Communicate (1 to n)

COM 1
COM 2

RS232 to RS422/485 Serial Convorter

Serial Device

Controller / PLC

Machine HMI and Data Collection

Shopfloor monitor with HA API

Database File. Real time data (modBus / TCP)

I/O Expansion

RS232   Fieldbus

Fieldbus

Embedded Fieldbus master interface

Fieldbus

Controller / PLC   Flowmeter   Level switch   I/O Controller

Web Browser

Web Browser

Ethernet

COM1   COM2

Remote Monitoring

Internet

Remote Client

Shop / Plant Monitoring

Ethernet

Serial   Serial
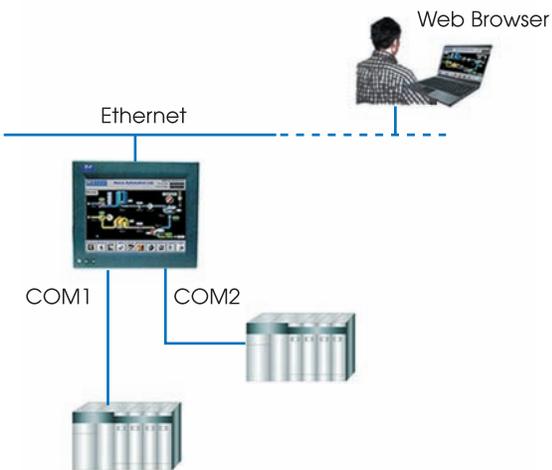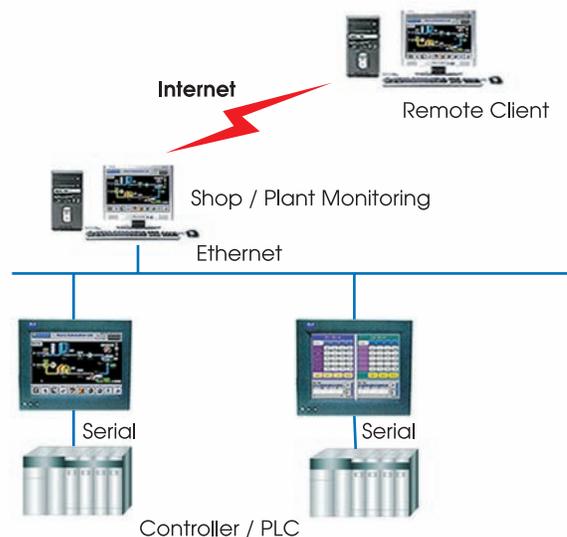
Controller / PLC

Supported PLCs/Controllers

Vender Name	Protocol	Device	Notes
Rockwell (Allen-Bradley)	DF1(Half/Full Duplex)	SLC500	
		PLC-5	
		Micro Logix 1000	
		Micro Logix 1200	
		Micro Logix 1500	
		Control Logix 5000	
	DF1 over Ethernet	SLC500	
		Control Logix 5000	
	DH485, DH+ and Remote I/O	SLC500	Without support CE O.S
		PLC-5	
		Micro Logix 1000	
		Micro Logix 1200	
		Micro Logix 1500	
	Devicenet	SLC500	
		PLC-5	
		Control Logix 5000	
		Micro Logix 1500	
	Ethernet I/P	Control Logix 5000	

Vender Name	Protocol	Device	Notes
Siemens (Simatic)	PPI	S7-200 Series	
	MPI	S7-200 Series	
		S7-200 Series	
	Profibus-DP	S7-200 Series	
		S7-300 Series	
		S7-400 Series	
		MicroMaster Series	

Vender Name	Protocol	Device	Notes
GE Fanuce	Serial Link(SNPX)	Series 90-30	
		Series 90-70	
	Serial Link(SNP)	Series 90-30	
		Series 90-70	
	Ethernet	Series 90-30	
		Series 90-70	

Vender Name	Protocol	Device	Notes
Modicon	Modbus Protocol (ASCII,RTU,TCP)	Modicon 884	
		Modicon 984	

Vender Name	Protocol	Device	Notes
FATEK	Serial Link	Facon FB Series	

Vender Name	Protocol	Device	Notes
Mitsubishi Electric	Serial 1-1 and 1- n	MELSEC-FX	
	Serial 1-N	MELSEC-A	
	Ethernet	MELSEC-QnA	

Vender Name	Protocol	Device	Notes
Fuji Electric	Serial Link	Servo Driver FALDIC (a RYS S3-RRS)	
		Servo Driver FALDIC (S3-LRS)	
	Serial Link	Inverter FRENIC 5000 G11S	
		Inverter FRENIC 5000 P11S	
	Serial Link	MICREX SX Series PLC	
	Serial Link	FLEX-PC NBX Series PLC	

Vender Name	Protocol	Device	Notes
Panasonic	Serial Link (MEWTOCOL-COM)	FP-X Series	
	Ethernet	FP-X Series	

Vender Name	Protocol	Device	Notes
Omron	Serial(HOST) Link	SYSMAC C Series PLC	
	Serial Link	Temperature Controller E5 Series	

Vender Name	Protocol	Device	Notes
Festo	Serial Link	Festo-CI	
	Ethernet	Festo-EASYIP	

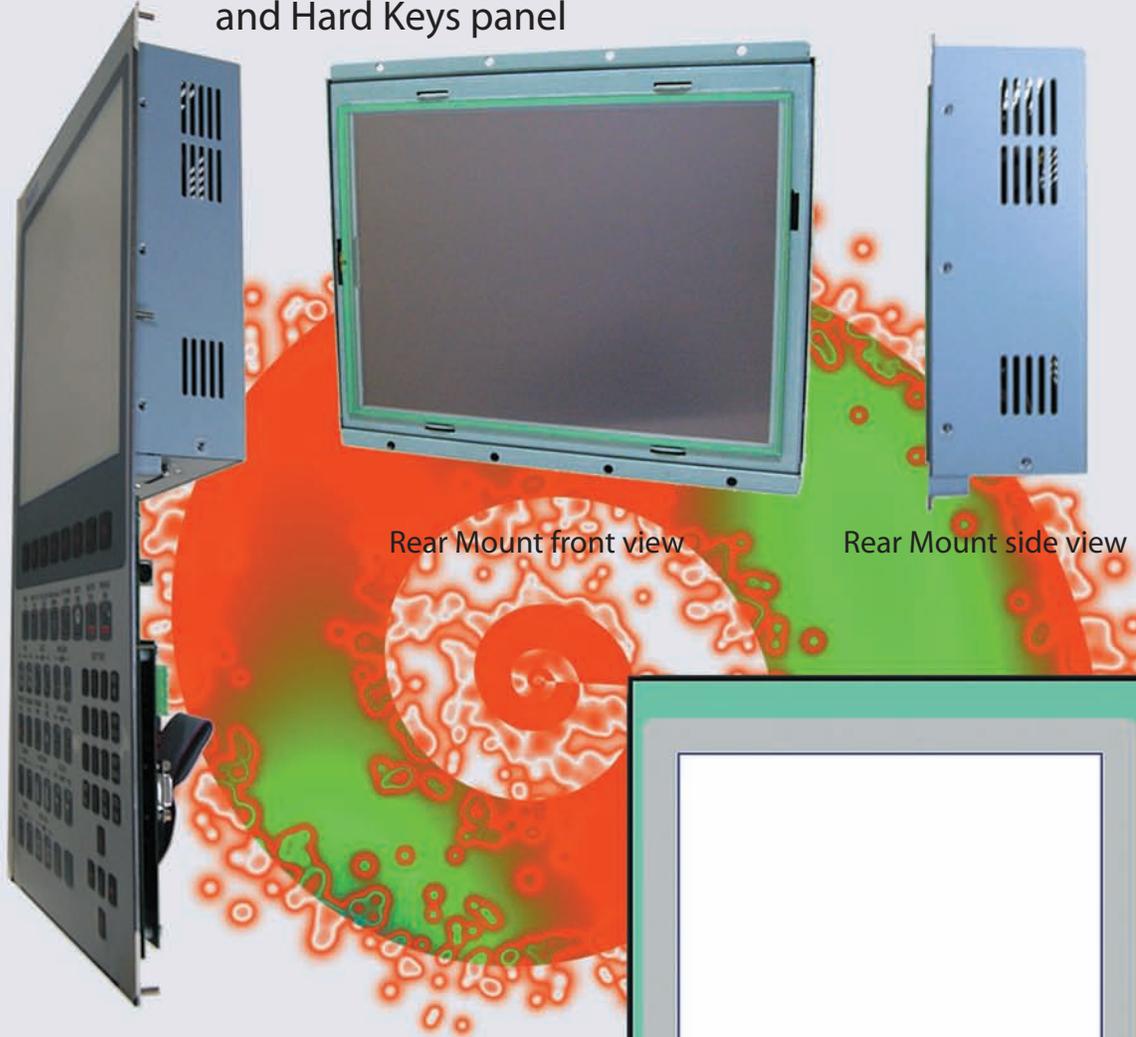* Supports all Modbus ASCII/RTU/TCP compatible devices (PLC/Controller/I/O Devices).
** Interface provide DeviceNet, CANopen, Profibus-DP and Ethernet/IP fieldbus master interface be intergrated.
*** OPC Client communication drivers accept standard OPC communication servers.

CrystalWin

Rear-Mount
Quick and Easy Integration with Custom Keypad
and Hard Keys panel

Rear Mount front view

Rear Mount side view

Rear Mounting
Easily built into your professional
panel design

ViewControls

Seamless integrating View and Controls

Superior cost/performance programmable automation control through seamless integration of display, chassis with expansion slots for additional controls options on one compact industrial platform
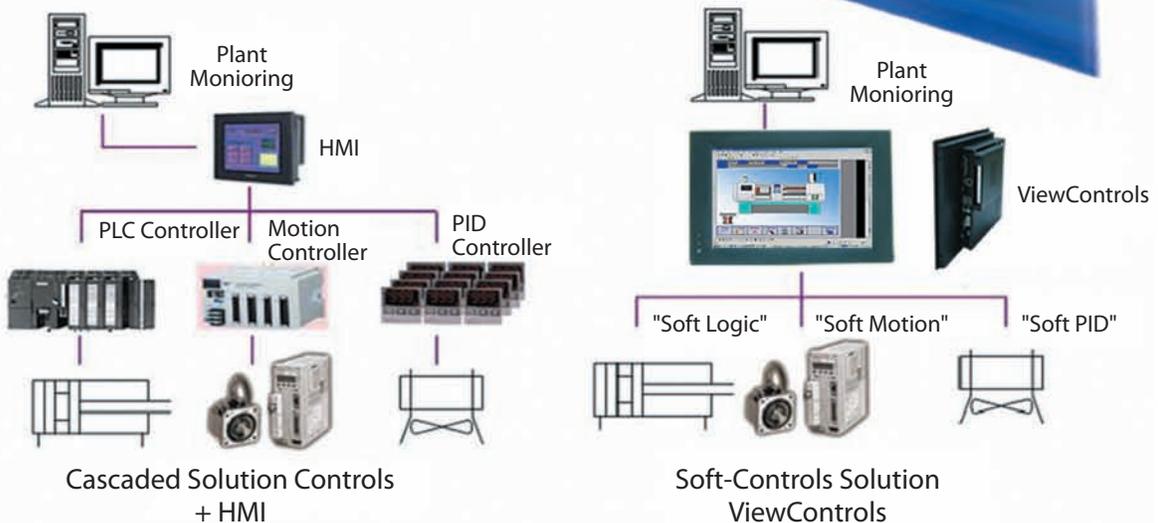
ViewControls offer I/O extension through Fieldbus communcation and PCI/PC-104 connection slots

WINPC32

A powerful, modular software development suite provides all programming requirements for any automation application!

Machine Display

SoftPID

SoftPLC

SoftMotion

Plant Monioring

HMI

PLC Controller   Motion Controller   PID Controller

Cascaded Solution Controls + HMI

Plant Monioring

ViewControls

"Soft Logic"   "Soft Motion"   "Soft PID"

Soft-Controls Solution ViewControls

ViewControls

E-Series High brightness TFT LCD display with touch screen, ranging from 5.7" to 10.4" with up to three PC104 bus I/O extensions

5.7"   8"   10.4"
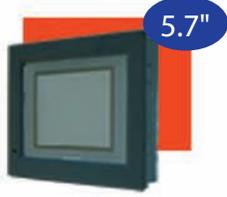
Digital I/O Board:
- PCM-8056 Isolated 32 D/I & 24 D/O with 8K bytes Nonvolatile RAM Board

Analog I/O Board:
- PCM-8182 Isolated Free-Running 8 A/D & 2 D/A Interface Board

Motion Control Board:
- PCM-8504 4-Axis Motion Control Board

Multifunction Control board:
- PCM-8633 3 Pulse Output, 2 D/A with 64 Digital I/O Motion Controls Board

P-Series High brightness TFT LCD touch screen, ranging from 12.1" to 17" with fieldbus master embedded and up to 2 PCI expansion slots

12.1"   15"   17"

Digital I/O Board:
- PCI-8064 Isolated 32 D/I & 32 D/O with 8K Bytes Nonvolatile RAM Board
- PCI-8063 Isolated 24 D/I & 16 D/O and maximum128 Remote I/O extension with 8K Bytes Nonvolatile RAM Board
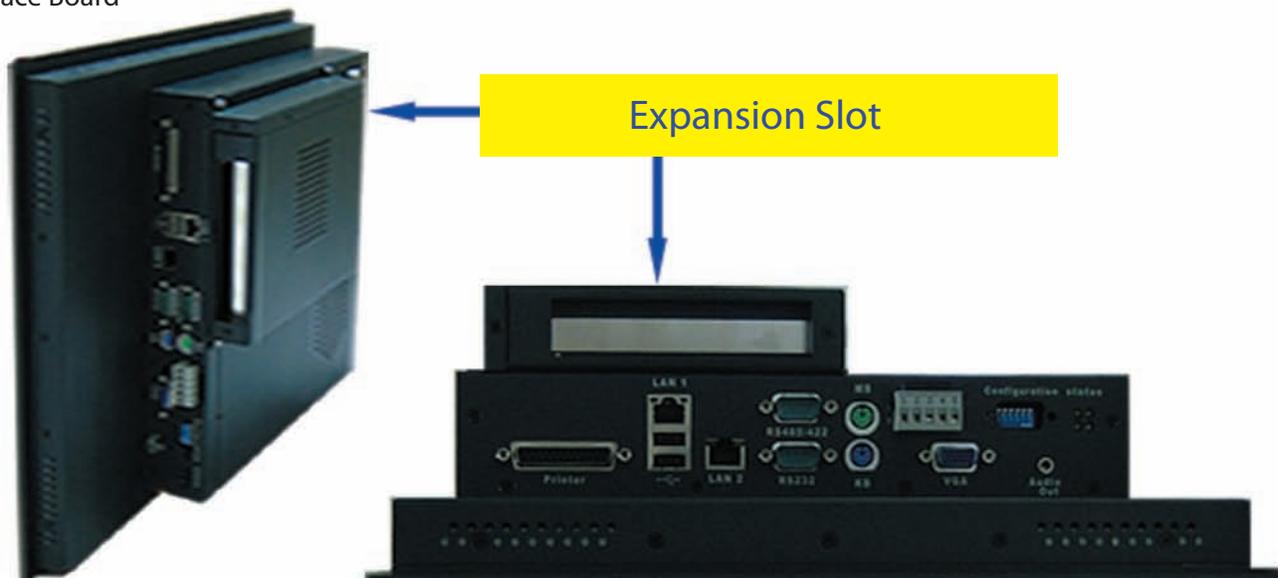
Analog I/O Board:
- PCI-8185 Isolated Free-Running 8 A/D & 4 D/A Interface Board

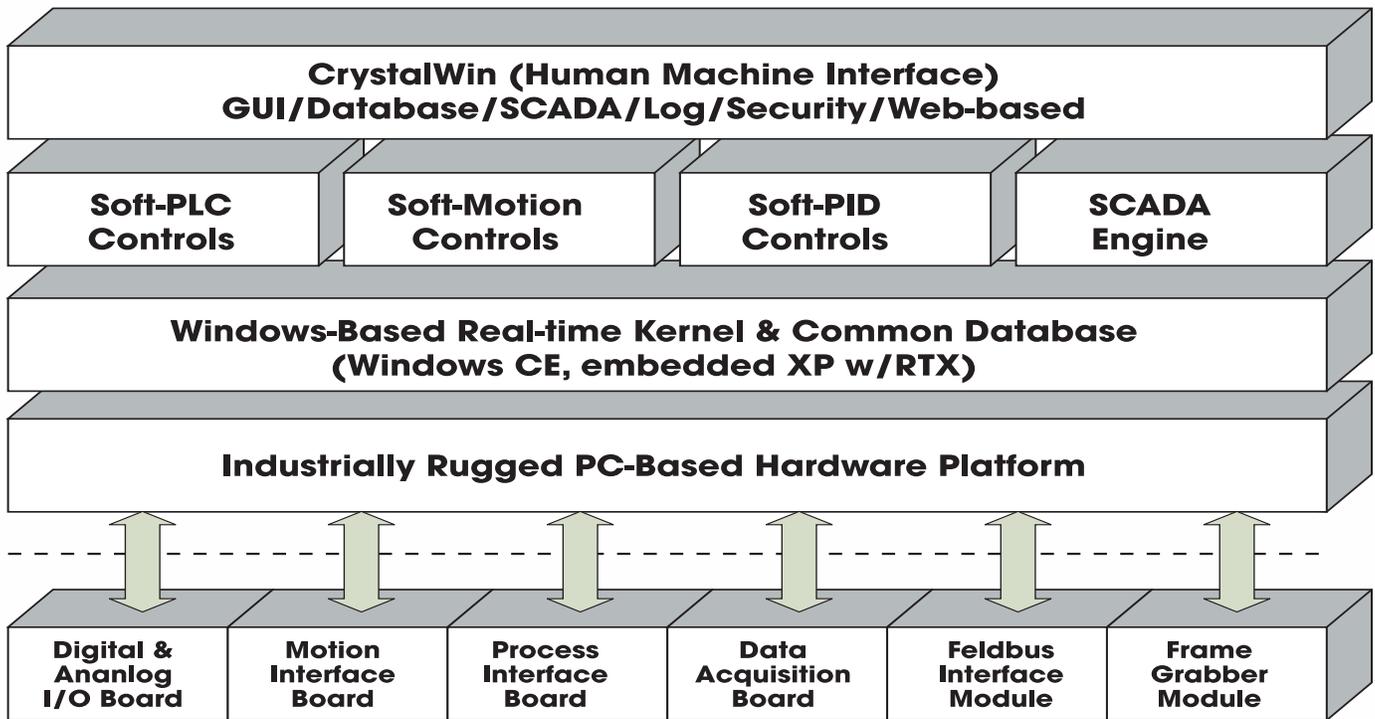**Multifunction Data Acquisition Board:**
- PCI-8283 330KS/s, Multifunction Data Acquisition Board
- PCI-8286 1MS/s, Multifunction Data Acquisition Board

Motion Control Board:
- PCI-8516 6-Axis Motion Interface Board

Expansion Slot

WINPC32 Architecture

| CrystalWin (Human Machine Interface) GUI/Database/SCADA/Log/Security/Web-based |

| Soft-PLC Controls | Soft-Motion Controls | Soft-PID Controls | SCADA Engine |

| Windows-Based Real-time Kernel & Common Database (Windows CE, embedded XP w/RTX) |

| Industrially Rugged PC-Based Hardware Platform |

| Digital & Ananlog I/O Board | Motion Interface Board | Process Interface Board | Data Acquisition Board | Feldbus Interface Module | Frame Grabber Module |

WINPC32 is a mature development environment that provides an entire software suite for system integration. The superior debugging utilities reduces development time.
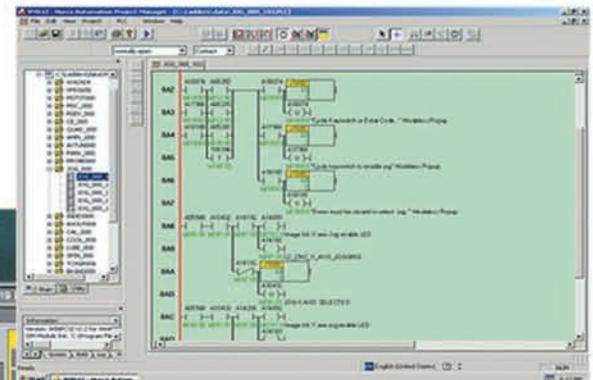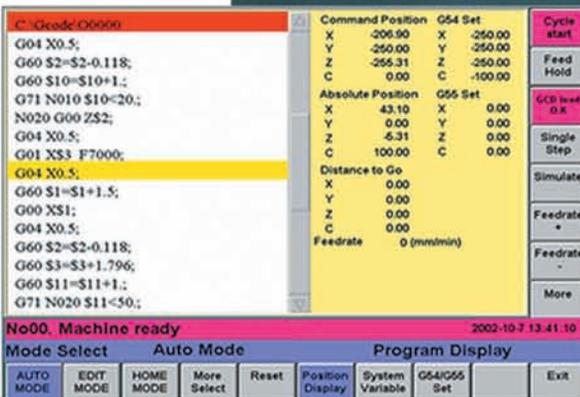

Soft-PLC

Soft-PID

Soft-Motion

CrystalWin
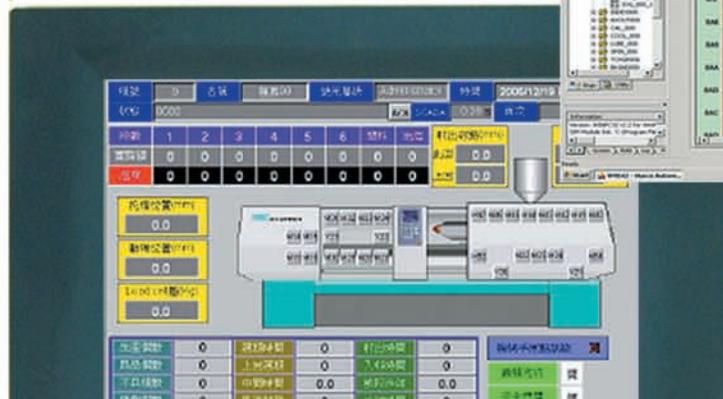
The better way to integrate your system

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