Foxboro Evo™ Process Automation System

Product Specifications

Foxboro®

by Schneider Electric

PSS 31H-4M92

Model M92 (P0928KK) Workstation with Windows® 7 Professional Operating System

Critical software processes are often placed onto stand-alone workstations, with redundancy provided through replicating that configuration. This permits continued plant operation during maintenance as well as in the unusual event of a workstation failure. The compact format of the Magelis M92 workstation permits much better use of plant physical volume. Its industrial design supports 24/7 operation at 40 DegC.

OVERVIEW

The Model M92 workstations can be used with Foxboro Evo™ Control Core Services software as well as Foxboro Evo Control Software, and can also provide a platform for Foxboro®, third-party, and user-written applications.

As multi-purpose workstations running Windows 7 64-bit operating systems, these workstations support execution of system applications, data communications for a broad range of applications, file serving capabilities, and the display of graphics and text. The stations also interface with corporate networks at a local or worldwide level.

The Magelis workstations support a mouse, a QWERTY keyboard, and two monitors. They also feature 4 GB of RAM memory and support an internal DVD+RW drive.

Client/server communication is accomplished using the TCP/IP networking protocol plug in PCIe network adapter card.

The variable speed fan allows the use of the device in a control room environment (noise reduction).

As indicated by the CE logo, the Magelis workstations conform to the applicable European Union directives.

Workstation Security

Foxboro Evo workstations support optional product features that allow customers to meet plant requirements for enhanced workstation security. Plant requirements for enhanced Foxboro Evo workstation security can be met through a combination of new product security enhancements as well as implementing best security policies, practices, and procedures.

The Foxboro Evo workstation enhanced product security requirements are supported in two broad categories, namely, workstation software including passwords and workstation platform hardening.

Workstation software:

- Changeable log-on passwords
- Individual user passwords
- Password lock-out after a user-configurable number of unsuccessful log-in attempts and secured mechanisms to reset login
- Password aging that requires password change on a periodic basis
- Password support of alphanumeric and symbol characters as per Microsoft convention
- Password file protection
- User accounts for Microsoft Windows 7-based workstations managed from a central location through Microsoft Domains and Active Directory
- User account creation, deletion and modification tracking
- User logon/ logoff tracking
- Least privilege file and account access
- Necessary system services running in non-admin accounts where possible
- Security patches from software suppliers including Microsoft supported including patch status reporting
- Anti-virus software including malware protection and Anti-Spyware software support. For a full listing of supported endpoint protection features, refer to *Symantec Endpoint Protection* (PSS 31S-4SYMANTC).

Workstation Platform Hardening:

- Unnecessary services, software, and programs are not installed
- Unneeded software ports disabled
- Documentation on how to re-enable services and ports where required by special circumstances
- Secure BIOS changes.

FEATURES

The Model M92 workstations, available with a Foxboro Evo S10 software license, can:

- Host Foxboro Evo control stations
- Support data communications to directly connected process I/O devices
- Serve as an application platform
- Serve as a human to machine interface (HMI) station

M92 WORKSTATION

Model M92 Configuration

The Model M92 workstation includes the following elements:

- Intel i3-2120 dual-core processor running at 3.3GHz
- 4GB DDR3 RAM
- 500GB HDD 24/7
- One optical DVD-RW drive
- 300 Watt power supply
- Three user exchangeable fans with speed control
- Three copper Ethernet 10/100/1000 Mbps ports
- Two RS-232 ports
- Two USB 2.0 ports
- Four USB 3.0 ports
- One VGA video port with up to 2048x1536 resolution at 75 Hz
- One DVI video port with up to 1920x1200 resolution at 60Hz
- USB Keyboard
- USB Mouse
- Symantec End Point Protection

FUNCTIONAL SPECIFICATIONS

Processor Type
Intel i3-2120 dual-core

Memory
4 GB DDR-3 RAM standard

Devices Served

PERIPHERALS
One 500 GB SATA hard drive, and DVD+RW (SATA)

VIDEO DISPLAYS (UP TO 2)
23-inch LCD USB Touchscreen Monitor
23-inch LCD Monitor
40-inch LCD Overview Monitor.

INTERFACES TO EXTERNAL DEVICES
USB
Mouse
QWERTY keyboard
Single optional touchscreen
External speakers
Serial
Customer-supplied serial devices

Internal Diagnostics
Self-checking is performed at power-up.

Video

OUTPUT TYPE
One VGA
One DVI

Video (Cont.)

SCREEN PRESENTATION
Refresh Rate
VGA 75 Hz
DVI 60 Hz
Resolution
VGA Up to 2048 x 1536
DVI Up to 1920 x 1200

Ethernet Interface Communications
Two onboard integrated 10/100/1000 NICs and one plug in 10/100/1000 PCIe NIC, for a total of three network connections.

Redundant Control Network Interface Communications

TYPE
IEEE 802.3 data bus and EIA RS-232 control bus

Power Requirements

INPUT VOLTAGE
240 V ac (nominal) @ 8.0 A, auto select
47 to 66 Hz Operating Line Frequency Range

POWER CONSUMPTION
300 W maximum output power supply

Part Number
P0928KK

ENVIRONMENTAL SPECIFICATIONS

Processor Operating

TEMPERATURE
Degree of Protection, IP20 IEC 60529
0° to 40°C (32° to 104°F) at sea level,
IEC 60068-2-2

RELATIVE HUMIDITY
10 to 95% relative humidity (Rh), 40°C (158°F), non-condensing, IEC 60068-2-78

MAXIMUM VIBRATION AND SHOCK
Random (operating): 0.002 G2/Hz; 1 Gr ms; 5...500 Hz; 1 hour per axis (X,Y,Z), IEC 60068-2-6
Shock 10 g (With 11 ms duration, half sine wave, IEC 60068-2-27

ALTITUDE
3050 m (10,000 ft). This value may be limited by the type and number of options installed.

Processor Storage

TEMPERATURE
-40° to 70°C (-40° to 156°F). Maximum rate of change is 20°C/hr (36°F/hr).

RELATIVE HUMIDITY
10 to 95% relative humidity (Rh), 60°C (140°F), noncondensing.

MAXIMUM VIBRATION
19.6 m/s2 (2 gn); 5...500 Hz; 1 octave / min; 1 hour per axis (X, Y, Z)

ALTITUDE
-16 to 10,600 m (-50 ft to 35,000 ft)
Maximum allowable altitude change rate is 457 m/min (1500 ft/min)

REGULATORY COMPLIANCE

Agency Certifications

Schneider Electric submitted this product for independent testing and qualification by third-party agencies. These agencies have certified this product as meeting the following standards.

Underwriters laboratories Inc., UL 60950-1, 2nd edition, and CSA C22.2 N° 60950-1-07, information technology equipment.

Schneider Electric is in the process of certifying compliance with the following standards.

EAC Eurasian conformity. Refer to product markings.

CCC China compulsory product certification. Refer to product markings.

Compliance Standards

Schneider Electric tested this product for compliance with the following compulsory standards.

UNITED STATES:

Federal communications commission, FCC Part 15

EUROPE: CE

Directive 2006/95/EC (Low voltage)
Directive 2004/108/EC (EMC)
EMI: EN55011 (Group 1, Class A), EN 61000-6-4
Information technology equipment: EN 60950-1
EMS: EN 61000-6-2

Qualification Standards

Schneider Electric voluntarily tested this product to additional standards. The additional tests performed, and the standards under which the tests were conducted, are identified in environmental characteristics.

Hazardous Substances

This product is compliant with:

WEEE, Directive 2012/19/EU
RoHS, Directive 2011/65/EU
RoHS China, Standard SJ/T 11363-2006
REACH regulation EC 1907/2006

End of Life (WEEE)

The product contains electronic boards. It must be disposed of in specific treatment channels. The product contains cells and/or storage batteries which must be collected and processed separately, when they have run out and at the end of product life. Refer to the section maintenance to extract cells and batteries from the product. These batteries do not contain a weight percentage of heavy metals over the threshold notified by European Directive 2006/66/EC.

PHYSICAL SPECIFICATIONS

Dimensions

PROCESSOR

Height
88.4 mm (3.48 in)
Width
426.4 mm (16.79in)
Depth
566.3 mm (22.29 in)

Mounting

Tabletop, Metal Enclosure (1000x1000 mm)
19” Rack Mounting Kit available

Weight

14.5kg (40 lbs)

ADDITIONAL TECHNICAL INFORMATION

The technical characteristics of the devices described in this document also appear online at the Schneider Electric website.

To access this information online, proceed as follows:

1. Go to the Schneider Electric home page www.schneider-electric.com.
2. In the Search box, type the reference of a product or the name of this product HMIRSUH3A3701. Do not include blank spaces in the model number/product range.

   To get information on grouping similar modules, use asterisks (*).
3. If you entered a reference, go to the HMIRSUH3A3701 Product data sheets search results and click the reference that interests you.

   Depending on the size of your screen, you may need to scroll down to see the data sheet.

To save or print a data sheet such as a .pdf file, click Download HMIRSUH3A3701 product data sheet.

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