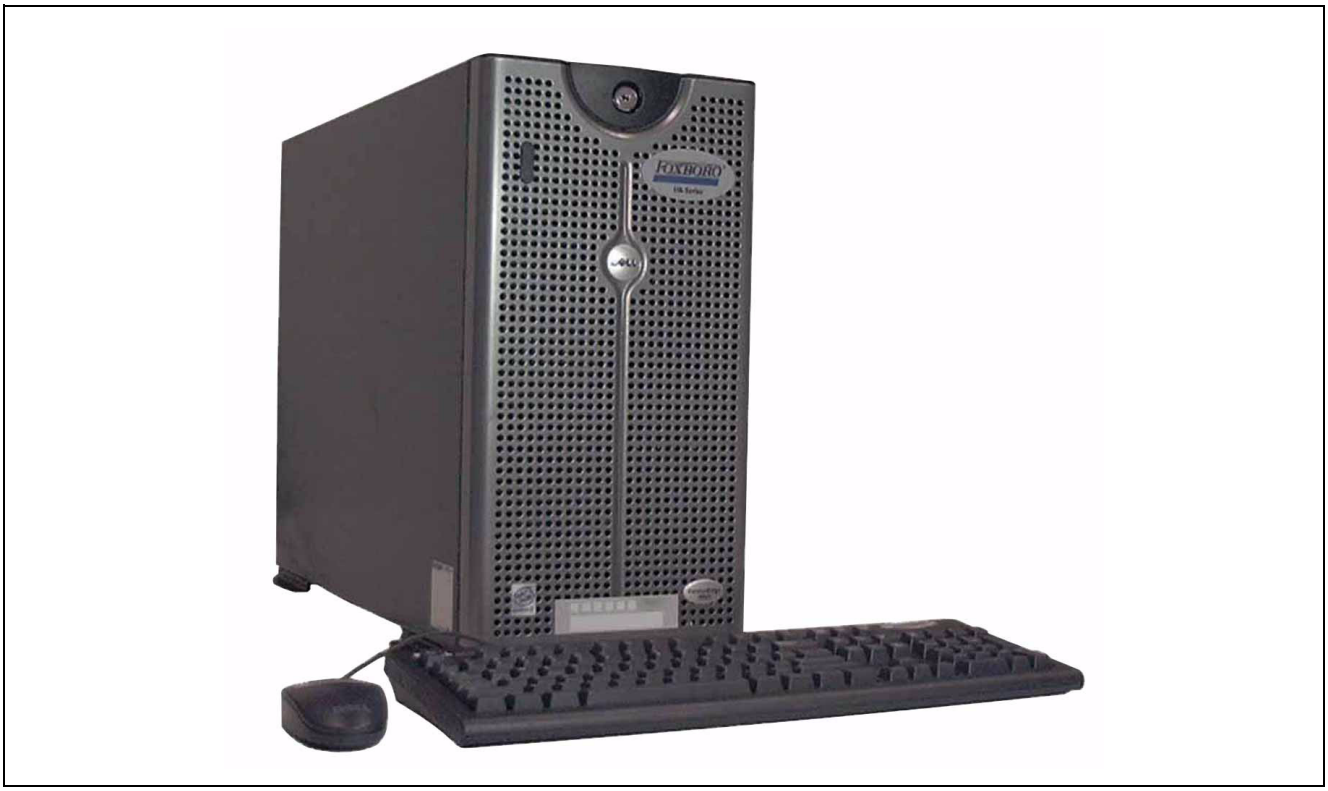
FOXBORO®

PSS 21H-4U5 B4

I/A Series® Hardware
Model P95 Workstation Server for Windows®
Windows NT® Server 4.0, Terminal Server Edition



The Model P95 Workstation, is a server-class processor running the Microsoft Windows NT Server 4.0, Terminal Server Edition operating system. It can be purchased with either AW70, WP70, or model coded software license functionality. Refer to PSS 21S-1B4 B3 for a description of this functionality. The AW70 functionality supported by the Model P95 Workstation is a subset in that it does not include support for all the I/O options, such as the Fieldbus interface (PCFB) or the Allen-Bradley® interface (PKTX).

The Model P95 Workstation offers:

- A premium level system with high-end processor speed, up to 6 GB of memory, optional internal Redundant Array of Independent Disks (RAID), up to six internal SCSI hard drives, and redundant hot-swap power supplies
- Hosting of control stations and/or supporting data acquisition, and monitoring functions
- An application platform and human interface station in an Ethernet or Nodebus-based system
- The ability to support viewing of I/A Series applications from remote client stations over local area networks (LANs) and dial-up connections.

NOTE

Model P95 Workstations with remote clients should not be used as replacements for dedicated multiple I/A Series AW70 and WP70 stations because of single-point-of-failure and performance considerations. When remote client stations are totally dependent on applications running in the Model 95 Workstation, a failure or shutdown of the Model 95 Workstation may affect all these remote stations as well. Also, due to the variability of demand that can be placed on the Model 95 Workstation by remote client sessions, the performance of the applications running on the Model 95 Workstation may not be as deterministic as on a dedicated single-user workstation.

As a multipurpose workstation server running the Windows NT Server 4.0, Terminal Server Edition operating system, the Model P95 Workstation supports hosting I/A Series control stations, data acquisition and processing related to a broad range of applications, file serving capabilities, and the display of graphics and text. It also interfaces with corporate communication networks at a local or worldwide level.

In addition to the processor, the Model P95 Workstation can be ordered with one of several video monitors, a mouse or optional trackball, an alphanumeric keyboard, and optional annunciator keyboards and touchscreen.

The Model P95 Workstation is a Pentium® III based server with hard disk storage options up to 108 GB and up to 6 GB of ECC RAM. The Small Computer System Interface (SCSI) supports a system disk, expansion disks, an optional internal 10/20 GB tape drive, and RAID1 or RAID5 hard drive arrays. Client/server communications are accomplished using the TCP/IP networking protocol.

NODEBUS AND NETWORK CONNECTIONS

The Model P95 Workstation can be connected to an I/A Series Nodebus, to an I/A Series Ethernet-based control network, or to a generic Ethernet-based information network. The Ethernet communications port, integrated on the processor motherboard, can be used for connecting to standard Ethernet networks. An optional Ethernet adapter card is required in conjunction with either a Dual Nodebus 10BaseT Interface (DNBT) module or a Dual Nodebus Interface Extender (DNBX) module to connect to an I/A Series Nodebus.

MODEL P95 OPTIONS

The Model P95 Workstation contains the following elements:

- Pentium III Processor
- 512 MB ECC RAM default, expandable to 6 GB ECC RAM
- Two serial interface ports supporting:
  - GCIO interface
  - Dual Nodebus Interface (Twisted Pair [TP]) (DNBT)
  - Dual Nodebus Interface Extender (DNBX)
  - Printers
- Parallel interface port for printer
- Internal SCSI supporting the following internal devices:
  - Up to 6 disk drives: 18 GB each
  - Optional internal 10/20 GB tape drive
  - Optional internal RAID1 or RAID5 drive configurations
  - Internal EIDE CD-ROM drive
- Internal 3.5-inch, 1.44 MB disk drive
- Sound card
- Integrated video generator
- Integrated 10/100BaseT Ethernet port
- Mouse or optional trackball
- Keyboard
- Redundant hot-swap power supplies.

The Model P95 Workstation offers the following options:

- Internal 10/20 GB tape drive
- One Ethernet adapter card
- Multi-port serial card
- Dual or quad monitor graphics card
- RAID1 or RAID5 internal hard drive arrays
- Modem (up to four-ports)
- External SCSI interface card.

The Model P95 Workstation also supports the following peripherals:

- Monitors (with optional touchscreen)
- Printers
- GCIO interface with one or two annunciator keyboards and an optional touchscreen controller
- External AIT 25/50 GB tape drive.

MOUNTING OPTIONS

The Model P95 Workstation can be mounted as part of a Foxboro Modular Industrial Console (MIC) in the turret section, on the straight section, or on the desk/printer table. It can also be placed in commercially available enclosures that have provisions for adequate ventilation and cooling to ensure the ambient temperature inside the enclosure does not exceed 95°F.

NOTE

Enclosures must accommodate a depth of at least 27 in (685 mm) to allow space for cables at the back of the unit. Because of their depth, the Server 70 units cannot be mounted in the standard Foxboro enclosures, such as the Industrial Enclosure 32, Metal Enclosure 32, and Modular Industrial Workstations.

The Model P95 Workstation unit can be located at distances up to 100 ft from the monitor using cables available from The Foxboro Company. These cables include support for the video, audio, keyboard, and mouse signals, as well as the serial port connection for the GCIO devices (touchscreen and annunciator keyboards). Note that there is no support for remote diskettes or CD-ROM drives.

As symbolized by the **CE** logo, the Model P95 Workstation conforms to the applicable European Union Directives.

FUNCTIONAL SPECIFICATIONS

Processor Type
Pentium Class III

Memory
512 MB ECC RAM standard (1 GB, 2 GB,4 GB, or 6 GB ECC RAM optional)

Internal Diagnostics
Self-checking performed at power-up. Run-time checks can be performed during operation.

Screen Presentation
REFRESH RATE
Up to 75 Hz
COLORS
256
RESOLUTION (PIXELS)
Up to 1600 x 1200

Video Output
TYPE
Analog RGB with Horizontal and Vertical Sync

Two Serial Interface Ports
TYPE
EIA RS-423 (RS-232-C compatible)

Devices Served
SCSI PERIPHERALS
One internal system disk drive, up to 5 optional internal expansion disk drives, one CD-ROM drive, one optional internal 10/20 GB tape drive connected to the SCSI port, and internal RAID1/5 hard drive arrays
CONTROLLER PERIPHERALS
One internal 1.44 MB, 3.5-inch disk drive
VIDEO INTERFACE (UP TO 4 MONITORS WITH DUAL/QUAD CARD)
Non-interlaced
– 17-inch Color Video Monitor(a),
– 20.1-inch Flat LCD Monitor, or
– 21-inch Color Video Monitor
INTERFACES TO EXTERNAL DEVICES
– Mouse or Optional Trackball (PS/2 bus)
– Alphanumeric Keyboard
– Annunciator and/or Annunciator/Numeric Keyboards (one or two) attached through a GCIO Interface

Devices Served (Cont.)
– Printers
– Dual Nodebus Interface (Twisted-Pair) [DNBT]
– Dual Nodebus Interface Extender [DNBX]
– Optional Touchscreen
– Optional SCSI card w/external 68-pin Ultra160 SCSI (LVD) port (required for external RAID option and external AIT tape drive)

One Parallel Interface Port
Centronics interface for printer

Nodebus Interface Communications
TYPE
IEEE802.3 data bus and EIA RS-423 control bus(b)
MAXIMUM DISTANCE FROM NODEBUS USING DUAL NODEBUS 10BaseT INTERFACE MODULE (DNBT)
100 m (300 ft)
MAXIMUM DISTANCE FROM NODEBUS USING DUAL NODEBUS INTERFACE EXTENDER MODULE (DNBX)
450 m (1500 ft)

Ethernet Interface Communications
PCI Ethernet card providing connection to Ethernet data bus (AUI, 10Base2/5, 10/100BaseT)
Integrated Ethernet Port (10/100BaseT)

Dial-up Communications
PCI modem card (up to four ports)
V.90, 56 Kbps data rate (actual speeds may vary)

Power Supplies
Redundant hot-swap 3X300 W auto switching input power supplies with separate two power cords

Power Requirements
MINI TOWER INPUT POWER
115 to 230 V ac nominal, 50 to 60 Hz, auto select
MINI TOWER POWER CONSUMPTION
600 W maximum

Cooling
Hot swap/redundant I/O and processor fans
Each redundant power supply contains 2 fans

(a) Available in Northern Hemisphere version only.
(b) Refer to PSS 21H-7B2 B4, Dual Nodebus Interface and Dual Nodebus Interface Extender, for information on how control bus is used.

ENVIRONMENTAL SPECIFICATIONS

Processor Operating
TEMPERATURE
10 to 35 °C (50 to 95°F)
RELATIVE HUMIDITY
8% to 80%, noncondensing

Processor Storage
TEMPERATURE
-40 to + 65 °C (-40 to +149 °F)
RELATIVE HUMIDITY
5% to 95%, noncondensing

Processor Environmental
LOCATION
The processor and keyboard are UL/UL-C listed as suitable for use in ordinary locations and meet ordinary safety standards for fire and shock hazards.
CONTAMINATION
Class G1 (Mild) as defined in ISA Standard S71.04

REGULATORY COMPLIANCE

Safety Certifications
USA
UL (UL Std 1950)
CANADA
CSA (CSA C22.2 No. 950)
EUROPE
TUV (CENELEC EN60950)

EMC
CANADA
DOC
EUROPE
CE EN55022, EN50082-1

PHYSICAL SPECIFICATIONS

Dimensions and Mass
KEYBOARD
Height
41.0 mm (1.6 in)
Width
483 mm (19.0 in)
Depth
213 mm (8.4 in)
Mass
1.8 kg (4.0 lbs)

Dimensions and Mass
MINI TOWER
Height
466 mm (18.4 in)
Width
267 mm (10.5 in)
Depth
623 mm (24.5 in)
Mass
40.8 kg (90 lbs) maximum

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