FOXBORO®

I/A Series® Hardware
Application Workstation 70, Style A
Windows NT® Operating System

The Application Workstation 70 (AW70), Style A performs the tasks of:

- An entry level system, hosting Micro-I/A™ stations and/or supporting data acquisition, control, and monitoring functions related to directly connected process I/O devices

- An application platform and human interface station in an Ethernet or Nodebus-based system.

As a multipurpose workstation running the Microsoft® Windows NT operating system, the AW70, Style A, performs the execution of system applications, data acquisition and processing for a broad range of applications, file serving capabilities, and displays of graphics and text. It also interfaces with corporate communication networks at a local or worldwide level.

In addition to the processor, the AW70, Style A comes with one of several video monitors, a mouse or optional trackball, an alphanumeric keyboard, optional annunciator keyboards and an optional touchscreen.

The AW70, Style A Pentium™ III processor-based workstation features hard disk storage of 20 GB and up to 512 MB of RAM. The Enhanced Internal Device Electronics (EIDE) interface supports the following internal devices: a system hard drive, CD-ROM drive, and optional 10/20 GB tape drive. The floppy controller supports one disk drive.

Client/server communication is accomplished using the TCP/IP networking protocol.

INVENSYS™

Product Specifications

As symbolized by the **CE** logo, this workstation conforms to the applicable European Union Directives.

An Ethernet communications port allows the AW70 to interface with an information network such as TCP/IP. To interface with an I/A Series Nodebus, the AW70 requires an Ethernet interface card and a Dual Nodebus Interface twisted-pair module (TP) (DNBT) or Dual Nodebus Interface Extender Module (DNBX).

The AW70, Style A contains the following elements:

- Pentium III processor
- 128 MB RAM (expandable to 512 MB)
- Two serial interface ports for:
  - GCIO Interface
  - Dual Nodebus Interface (TP) (DNBT)
  - Dual Nodebus Interface Extender (DNBX)
  - Printers
- Parallel interface port for printer
- Internal, 3.5-inch, 1.44 MB disk drive

- Monitor (with optional touchscreen)
- EIDE Interface supporting the following internal devices:
  - One system hard drive: 20 GB
  - One CD-ROM drive
  - Optional 10/20 GB tape drive [1]
- Integrated audio and video generator
- Integrated Ethernet port
- Mouse or optional trackball
- Keyboard
- Options:
  - Internal 10/20 GB tape drive[1]
  - One PCI Ethernet adapter
  - Multi port serial expansion card (4 ports)
  - Printers (dot-matrix, InkJet™)
  - Allen-Bradley™ PKTX Interface Card for Allen-Bradley Data HighwayPlus™
  - Dual or quad monitor graphics card
  - GCIO interface with one or two annunciator keyboards and an optional touchscreen

FUNCTIONAL SPECIFICATIONS

Processor Type
  Pentium III

Program Memory
  128 MB RAM (256 MB, 384 MB or 512 MB optional)

Devices Served
  EIDE PERIPHERALS
    One internal system hard drive and the following internal devices connected to the EIDE ports: one CD-ROM drive and one 10/20 GB tape drive
  CONTROLLER PERIPHERALS
    One internal, 1.44 MB, 3.5-inch disk drive
  VIDEO INTERFACE (UP TO 4 MONITORS WITH OPTIONAL DUAL/QUAD CARD)
    Non-interlaced
      - 15-inch Color Video Monitor(a),
      - 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
      - Printer for Alarms/Text
      - Dual Nodebus Interface (TP) [DNBT]
      - Dual Nodebus Interface Extender [DNBX]
      - Optional Touchscreen
  (a) Available in Northern Hemisphere version only.

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 1280 x 1024

Video Output
  TYPE
    VGA Analog RGB with Horizontal and Vertical Sync

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

One Parallel Interface Port
  Centronics Interface for Printer

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

---

(1) One tape drive is required per I/A Series network for backup.

FUNCTIONAL SPECIFICATIONS (Cont.)

Nodebus Interface Communications
 TYPE
  IEEE 802.3 data bus and EIA RS-423 control
  bus(a)
 MAXIMUM DISTANCE FROM NODEBUS USING
 DUAL NODEBUS 10BaseT INTERFACE MODULE
 (DNBT)
  91 m (300 ft)
 MAXIMUM DISTANCE FROM NODEBUS USING
 DUAL NODEBUS INTERFACE EXTENDER
 MODULE (DNBX)
  450 m (1500 ft)

Power Requirements
 MONITOR INPUT POWER
  120 or 240 V ac, 47 to 63 Hz, auto-select
 MONITOR POWER CONSUMPTION
  300 W maximum
 MINI TOWER INPUT POWER
  115 or 220 V ac, 47 to 63 Hz, manual select
 MINI TOWER POWER CONSUMPTION
  200 W maximum

(a) Refer to PSS 21H-7B2 B4, Dual Nodebus Interface and Dual Nodebus Interface Extender, for information on how the control bus is
    used.

ENVIRONMENTAL SPECIFICATIONS

Operating
 TEMPERATURE (PROCESSOR)
  10 to 35°C (50 to 95°F)
 RELATIVE HUMIDITY (PROCESSOR)
  8% to 80%, noncondensing
 TEMPERATURE (MONITOR)
  10 to 40°C (50 to 104°F)
 RELATIVE HUMIDITY (MONITOR)
  15% to 85%, noncondensing

Storage
 TEMPERATURE (PROCESSOR)
  -40 to + 65°C (-40 to +149°F)
 TEMPERATURE (MONITOR)
  -20 to + 60°C (-4 to +140°F)
 RELATIVE HUMIDITY (MONITOR)
  5% to 95%, noncondensing

REGULATORY COMPLIANCE

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

EMC
 USA
  FCC Part 15
 CANADA
  DOC
 EUROPE
  EN50082-1, EN55011, and EN55022

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)

MINI-TOWER

Height
  444 mm (17.5 in)

Width
  206 mm (8.1 in)

Depth
  437 mm (17.2 in)

Mass
  14.3 kg (33 lbs)

15-INCH DISPLAY

Height
  381 mm (15 in)

Width
  362 mm (14.2 in)

Depth
  400 mm (15.7 in)

Mass
  14.0 kg (30.8 lbs)

Dimensions and Mass (Cont.)

17-INCH DISPLAY

Height
  430 mm (16.9 in)

Width
  427 mm (16.8 in)

Depth
  483 mm (19.0 in)

Mass1
  9 kg (41.8 lbs)

20.1-INCH FLAT LCD MONITOR

Height
  581 mm (22.9 in)

Width
  498 mm (19.6 in)

Depth
  262 mm (10.3 in)

Mass
  12.5 kg (27.6 lbs)

21-INCH DISPLAY
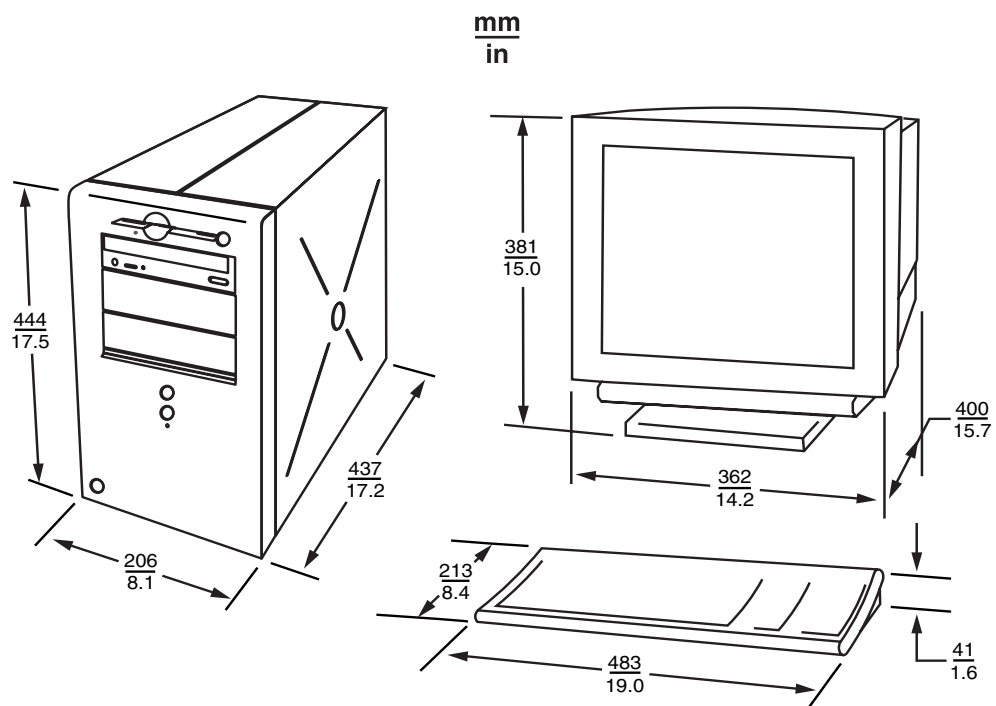
Height
  504 mm (19.8 in)

Width
  498 mm (19.6 in)

Depth
  474 mm (18.7 in)

Mass
  31 kg (68.3 lbs)

DIMENSIONS—NOMINAL (15-INCH MONITOR ONLY)

$$\frac{mm}{in}$$

$\frac{444}{17.5}$

$\frac{437}{17.2}$

$\frac{206}{8.1}$

$\frac{381}{15.0}$

$\frac{400}{15.7}$

$\frac{362}{14.2}$

$\frac{213}{8.4}$

$\frac{483}{19.0}$

$\frac{41}{1.6}$

An Invensys company