

I/A Series[®] Hardware Workstation Processor 30



The Workstation Processor 30, together with its connected peripheral devices, provides a link between the user and all system functions. It receives graphic and textual information from application processors and other system stations and generates video signals to display the information on a video monitor.

In addition to the video monitor, devices connected to the Workstation Processor 30 may include a touchscreen, a mouse or trackball, an alphanumeric keyboard, and up to two modular keyboards. These optional devices provide a means for command and data entry, display option selection, and alarm management. They connect to the Workstation Processor 30 by means of a serial peripheral bus (I/O cable).

The Workstation Processor 30 is fully compatible with associated I/A Series peripherals and display applications software. It takes advantage of 32-bit main processor and graphics processor technology for maximum display performance and applications expandability. It also incorporates more efficient and lightweight packaging (single-slot form factor), which is fully compatible with existing I/A Series enclosures.



A Siebe Group Company

FUNCTIONAL SPECIFICATIONS

Devices Served by Workstation Processor 30

COLOR VIDEO MONITOR (UP TO 1)
ALPHANUMERIC KEYBOARD (UP TO 1)
TOUCHSCREEN (UP TO 1)
MOUSE OR TRACKBALL (UP TO 1)
MODULAR KEYBOARD (UP TO 2)

Microprocessor Types

80386SX Main Processor
80387SX Numerical Processor
TMS34010 Graphics Processor

Program Memory

2M bytes

Graphics Processor Memory

512K bytes

Video Memory

512K bytes

Screen Presentation

NUMBER OF LINES AVAILABLE TO USER

24 or 48 (program selectable*)

CHARACTERS PER LINE

80

CHARACTER SIZE**

8 dots wide by 18 dots high, or 8 dots wide by

32 dots high (program selectable*)

REFRESH RATE

60 frames/s

COLORS

32 for user displays, 8 for menu bar; selectable from
a palette of over 16 million

MARKER SETS

4 sets, up to 128 markers in each set. 2 (default)

sets supplied by Foxboro, 2 can be created by user.

CHARACTER SETS

4 sets. 3 (default) sets supplied by Foxboro, 1 can be
created by user.

RESOLUTION (PIXELS)

640 horizontal, 480 vertical

Power Requirements

INPUT VOLTAGE (REDUNDANT)

39 V dc

CONSUMPTION

16 watts (maximum)

Peripheral Bus Type

Serial, EIA RS-485 compatible

Peripheral Bus Length

150 m (500 ft), maximum

Available cable lengths:

3 m (10 ft); 15 m (50 ft);

30 m (100 ft); 60 m (200 ft);

90 m (300 ft); 120 m (400 ft);

150 m (500 ft)

Video Outputs

Analog (EIA RS-170): Red, Blue, Green, Sync.

Video Cable Length

150 m (500 ft), maximum

Available cable lengths:

3 m (10 ft); 15 m (50 ft);

30 m (100 ft); 60 m (200 ft);

90 m (300 ft); 120 m (400 ft);

150 m (500 ft)

Video Isolation Requirements

When Workstation Processor 30 and the
CRT display are powered from different sources, a
video isolator, Foxboro Part No. P0960GX, must be
used in the video signal lines.

Indicators

Red and green LED's indicate operational status.

Switches

Video Image Correction Switch (Ranges: A, B, C, D),
and Video Intensity Switch (high/low) are set in
accordance with video cable length for optimum video
image integrity.

Internal Diagnostics

Self-checking performed at power-up. Runtime checks
and watchdog timer function performed during
operation.

*User-built displays can implement 48 lines.

**Includes intercharacter space and interline spacing.

ENVIRONMENTAL SPECIFICATIONS**Operating****TEMPERATURE**

0 to 60°C (32 to 140°F)

RELATIVE HUMIDITY

5 to 95% (Noncondensing)

ALTITUDE

-300 to +3000 m (-1000 to 10 000 ft)

Storage**TEMPERATURE**

-40 to 70°C (-40 to 158°F)

RELATIVE HUMIDITY

5 to 95% (Noncondensing)

ALTITUDE

-300 to 12 000 m (-1000 to 40 000 ft)

Environmental Contamination Level

Class G3 (Harsh) as defined in ISA Standard S71.04

PHYSICAL SPECIFICATIONS**Configuration**

Single-width processor module

Mass (Maximum)

1.2 Kg (2.7 lb)

Mounting

May be placed in any mounting structure slot

The Foxboro Company

33 Commercial Street
Foxboro, Massachusetts 02035-2099
United States of America
Telephone 1-888-FOXBORO
(1-888-369-2676)

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