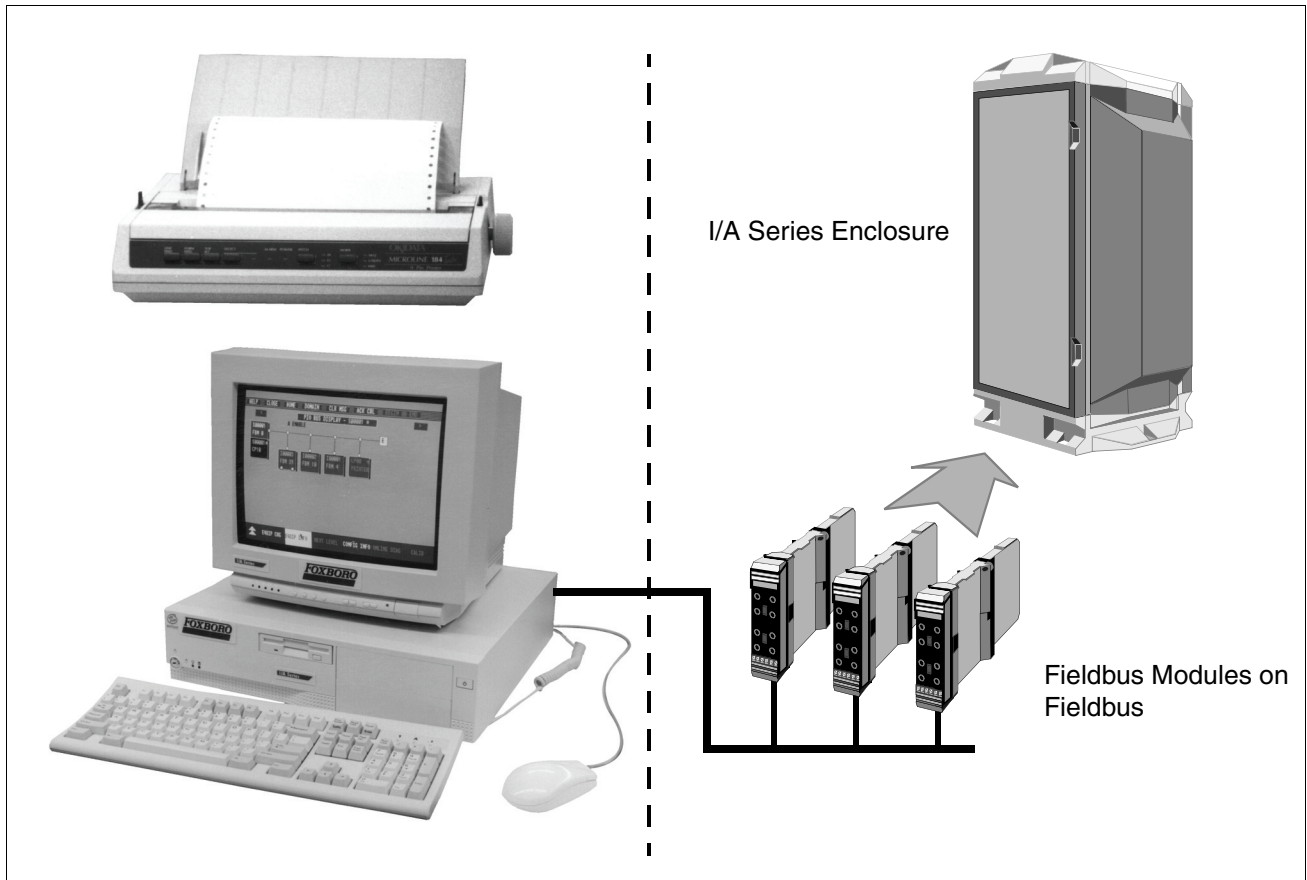


I/A Series® Hardware

Personal Workstation for Fieldbus Interface (PW-FB)



The I/A Series system supports the use of Personal Workstations (PW's) for a wide variety of functions. The Foxboro Company provides Personal Workstation based solutions, which include qualified personal computer hardware and I/A Series software packages to match the intended use and capacity of the Personal Workstation.

As a configuration smaller than an I/A Series Nodebus Control System (PW-NB), the PW-FB connected to the Fieldbus provides a low-cost system for applications with up to 48 Fieldbus Modules (FBMs). In this role the Personal Workstation functions as a Control Processor, Application Processor, and Workstation Processor simultaneously. It can perform data acquisition, as well as continuous, ladder logic, or sequential

control, via Fieldbus communications and Integrated Control Software. It is also useful for control database debugging, simulation, and training.

This configuration may be used as the first step in a phased installation of a larger I/A Series system by later addition of other components to an I/A Series Node and alteration of the role of the Personal Workstation to become a PW-NB. The PW-FB system may be used where high system availability and environmental packaging is not required.



A Siebe Group Company

Product Specifications

FIELDBUS INTERFACE

The Fieldbus, optionally redundant, and Fieldbus Modules for I/O are connected to the computer by a PW Fieldbus interface card in the Personal Workstation. The PW-FB cannot be connected to a Nodebus.

SOFTWARE

The software supplied with each personal workstation includes:

- Operating System (with Workstation Processor and Application Processor functions, and Control Processor image)
- System Monitor
- System Management Display Handler
- Display Builder, Display Configurator, and Display Utilities
- System Configurator
- Integrated Control Configurator
- Compound Summary Access
- Real-Time Relational Database
- Operator Message Interface

Optional Software that may be operated within the workstation includes:

- Historian 20 (up to 500 points)
- Mathematics Library
- Physical Properties Library
- SPC (Statistical Process Control)
- Automation Equipment Manager
- AEM Display
- Process Optimizer
- Spreadsheet
- Report Writer 20

Software languages supported are C and FORTRAN.

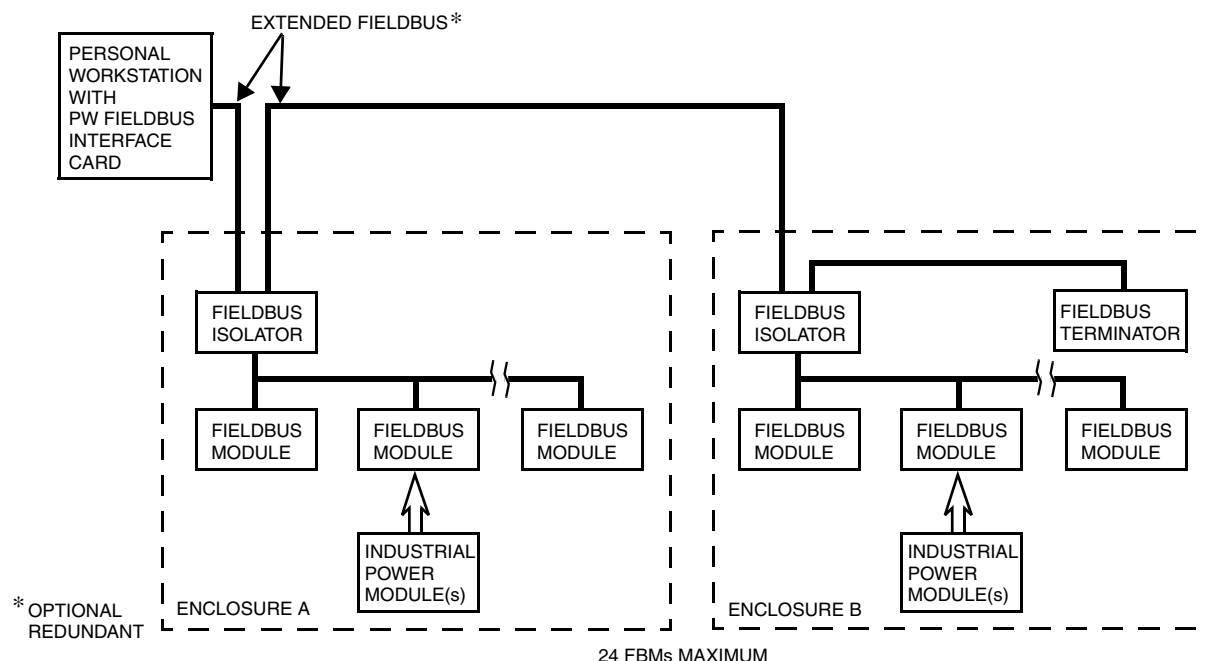


Figure 1. PW-FB Fieldbus Interface Configuration

FUNCTIONAL SPECIFICATIONS

Personal Workstation and Peripherals**FOXBORO PENTIUM**

- Intel Pentium microprocessor, 100 MHz
- 8 MB RAM
- Main processor board interfaces: VGA (video), parallel printer, serial printer, serial mouse/trackball, floppy disk
- 504 MB hard disk: IDE interface
- 1.44 MB 3.5-inch floppy disk
- 14-inch, 15-inch, 17-inch, or 19-inch VGA monitor
- Windows 95 keyboard, English language
- Annunciator and touchscreen are not available with PW systems

POINTING DEVICE

Standard serial mouse, optional trackball, or optional Industrial trackball

PRINTER

Standard dot matrix printer 80 column, optional color dot matrix printer 132 column, or color postscript printer

Block Types

The control engineer can choose from over 40 different block types in configuring the Personal Workstation. For available block types, see Product Specification Sheet entitled "Integrated Control Software."

Configurable Scan Rates(a)

0.5, 1, 2, 10, and 30 seconds
1, 10, and 60 minutes

Block Equivalents

Up to 1000 block equivalents

Process I/O Capacity**LOCAL AND EXTENDED**

48 Fieldbus Modules, maximum total for local and extended

Process I/O Communications**LOCAL FIELDBUS INTERFACE****Type**

EIA RS-485

Distance

10 m (30 ft), Personal Workstation to enclosure

Transmission Rate

268.75 Kbps

EXTENDED FIELDBUS INTERFACE**Type**

EIA RS-485

Distance

1200 m (4000 ft)

Transmission Rate

268.75 Kbps

Documentation

I/A Series Hard Copy Documentation (Electronic CD-ROM optional; requires separate Windows PC)

Power Requirements - Personal Workstation**MONITOR INPUT VOLTAGE**

120 to 240 V ac, 47 to 63 Hz, auto-switching

MONITOR POWER CONSUMPTION

100 W maximum

DESKTOP UNIT INPUT VOLTAGE

120 to 240 V ac, 47 to 63 Hz, manual switching

DESKTOP UNIT POWER CONSUMPTION

150 W maximum

(a) 0.1 sec configurable for simulation only, not on-line processing.

PHYSICAL SPECIFICATIONS - Personal Workstation

Dimensions (approximate)

KEYBOARD

Height
38.1 mm (1.5 in)

Width
457.2mm (18 in)

Depth
168.4 mm (6.63 in)

Mass
1.4 kg (3.1 lbs)

SYSTEM UNIT

Height
112 mm (4.4 in)

Width
438 mm (17.3 in)

Depth
414 mm (16.3 in)

Mass
8 kg (18 lbs)

14-INCH DISPLAY

Height
316 mm (12.44 in)

Width
348 mm (13.7 in)

Depth
371 mm (14.6 in)

Mass
11 kg (24 lbs)

15-INCH DISPLAY

Height
370 mm (14.57 in)

Width
365 mm (14.37 in)

Depth
384 mm (15.12 in)

Mass
15 kg (32 lbs)

17-INCH DISPLAY

Height
438 mm (17.24 in)

Width
418 mm (16.46 in)

Depth
469 mm (18.46)

Mass
21 kg (47 lbs)

19-INCH DISPLAY

Height
474 mm (18.8 in)

Width
474 mm (18.8 in)

Depth
502 mm (19.5 in)

Mass
30 kg (66 lbs)

ENVIRONMENTAL SPECIFICATIONS

Personal Workstation

OPERATING(a)

Temperature
10° to 35° C (50° to 95° F)

Relative Humidity
20% to 80%, noncondensing

STORAGE

Temperature
–10° to +60° C (–14° to +140° F)

Relative Humidity
10% to 90%, noncondensing

I/A Series Modules(b)

OPERATING

Temperature
0 to 60° C (32 to 140° F)

Relative Humidity

5 to 95% (noncondensing)

Altitude

–300 to +3,000 m (–1,000 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 (–1,000 to +40,000 ft)

Environmental Contamination Level

I/A Series MODULES

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

(a) Operating temperature and humidity ranges may vary with data storage media.

(b) The environmental ranges can be extended by the type of I/A Series Enclosure containing the module. Refer to applicable Product Specification Sheet (PSS) which describes the specific enclosure that is to be used.

REGULATIONS - Personal Workstation

Meets or exceeds the following requirements:

Safety

US

UL (UL Std 1950)

CANADA

CSA (C22.2 No. 950)

EUROPE

TUV(CENELEC EN60950)

EMI/RFI

US

FCC Class B

CANADA

DOC, Class B

EUROPE

EN55022, 1988; EN50082-1; 1992

SERVICES(a)

Foxboro will provide the services of a Field Service Representative to verify the correctness of the installation. This includes system power, connection of interconnecting cables, and loading of system modules and components, if required. Additionally, the Service Representative will apply power to the system and verify that the hardware and standard operating system software perform in accordance with system specifications.

A Maintenance Agreement is provided during the Standard Warranty period. Included with this agreement are telephone services and software revisions, when issued.

TRAINING(a)

"Introduction to I/A Series Small Systems" is a self-study training package designed to train plant or mill personnel in the operation and configuration of I/A Series PW-FB and PW-NB Systems. It consists of a 4-1/2 hour video program, a training manual, and software which runs on PW-FB or PW-NB Systems. The material is presented in 12 modules which can be used to train process operators, technicians, and engineering personnel.

- Exploring Personal Workstation Hardware
- I/A Series Software Terms and Concepts
- Operation of the I/A Personal Workstation
- Controlling a Process with the I/A Series Personal Workstation
- Exploring the Personal Workstation's Configuration Software
- Configuring the Process Control Subsystem
- Introduction to Group Display Configuration
- Introduction to File Utilities
- Introduction to Environment Configuration
- Introduction to Creating Process Displays
- Introduction to Historian Configuration and Report Writing
- Introduction to the I/A Series Spreadsheets

NOTE: The self-study training packages and additional training manuals must be purchased separately.

Part Numbers: B0193EW - Complete Package

B0193EY - Additional Manual

For specifications on the I/A Series enclosures, Fieldbus Modules, software, and printers, refer to the applicable I/A Series Product Specification Sheet (PSS).

(a)Details of services and/or training may vary depending on geographic location. Refer to your Sales/Service Representative for further information.

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