# FOUNDATION Fieldbus Host Interfaces

## NI AT-FBUS Series, NI PCI-FBUS/2, NI PCMCIA-FBUS Series

- H1 (31.25 kb/s) interface
- 1 or 2 ports
- Intel 80386EX processor
- Yamaha YTZ420 Fieldbus interface chip
- Embedded FOUNDATION Fieldbus communications-stack software
- Transformer-isolated fieldbus connection
- Plug and Play feature (PCI-FBUS/2)

### Operating Systems
- Windows 2000/NT/XP

### Recommended Software
- LabVIEW
- Lookout
- NI-FBUS Configurator

### Other Compatible Software
- C/C++
- Visual Basic

### Driver Software (included)
- NI-FBUS Communications Manager

NEW


## PC Interfaces

National Instruments AT-FBUS, PCI-FBUS and PCMCIA-FBUS devices connect FOUNDATION Fieldbus devices to standard desktop, industrial, and notebook personal computers. AT-FBUS and PCMCIA-FBUS are available in 1 and 2-port configurations. PCI-FBUS is available in 2-port configuration. All NI H1 (31.25 kb/s) interfaces have passed FOUNDATION Fieldbus conformance testing. We include NI-FBUS Communications Manager (CM) software for Windows 2000/NT/XP with each interface. NI-FBUS CM provides a high-level interface to FOUNDATION Fieldbus devices without requiring in-depth knowledge of lower level fieldbus protocols. HMI and distributed control system (DCS) applications can use NI-FBUS CM for data collection and control on the fieldbus. With the PCI-FBUS and AT-FBUS, a desktop industrial computer can act as the host in a FOUNDATION Fieldbus system. Applications for the PCMCIA-FBUS include portable data logging and in-the-field configuration and maintenance of devices and networks.

## PC Hardware

The NI FBUS interfaces use an Intel 80386EX microprocessor to execute the fieldbus communications stack software and a Yamaha YTZ420 as the fieldbus interface chip. The connection to the fieldbus network is transformer isolated.

The AT-FBUS and PCI-FBUS use a standard DB-9 male D-Sub connector to attach to the fieldbus network.

The PCMCIA-FBUS connects to the fieldbus using a cable that provides two connectors to attach to the fieldbus network – DB-9 male D-Sub connector and Combicon-style pluggable screw terminals.

Also included is the NI-FBUS CM, a DLL that you can use with NI LabVIEW and Lookout application software products, as well as programming environments such as Microsoft Visual C++, Visual Basic. With the NI-FBUS OPC server, you can connect to a broad range of application software packages, including LabVIEW and Lookout as well as other HMI/SCADA applications with OPC client interfaces. NI-FBUS CM is designed for multiple processes and multithreaded applications. With NI-FBUS CM, your applications can access fieldbus segments connected to the computer using one or more FBUS interface boards.

## Specifications

| Interface Card | Typical Current | Maximum Current |
|---|---|---|
| AT-FBUS | 750 mA | 850 mA |
| AT-FBUS/2 | 800 mA | 900 mA |
| PCMCIA-FBUS | 500 mA | 750 mA |
| PCMCIA-FBUS/2 | 500 mA | 750 mA |
| PCI-FBUS/2 | 820 mA | 1 A |

### Physical

Dimensions

| | |
|---|---|
| AT | 10.7 by 19.1 cm (4.2 by 7.5 in.) |
| PCI | 10.7 by 17.5 cm (4.2 by 6.9 in.) |
| PCMCIA | Type II PC card |

I/O connector

| | |
|---|---|
| AT, PCI | DB-9 male per fieldbus link |
| PCMCIA | DB-9 male and Combicon terminal per fieldbus link (cable included) |

### Operating Environment

| | |
|---|---|
| Ambient temperature | 0 to 55 °C |
| Relative humidity | 10 to 90%, noncondensing |

### Storage Environment

| | |
|---|---|
| Ambient temperature | -20 to 70 °C |
| Relative humidity | 5 to 95%, noncondensing |

### Noise Emission

| | |
|---|---|
| AT, PCI, PCMCIA | FCC Class A Certified |

NATIONAL INSTRUMENTS™

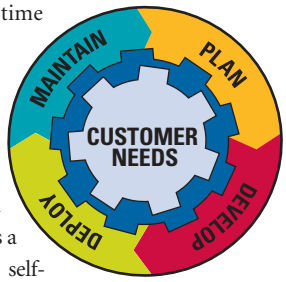
# Global Services and Support

NI has the services and support to meet your needs around the globe and through the application life cycle – from planning and development through deployment and ongoing maintenance – and tailored for customer requirements in research, design, validation, and manufacturing. We have direct operations in more than 37 countries and distributors in another 12 locations. Our local sales and support representatives are degreed engineers, ready to partner with you to find solutions that best fit your needs.

## Local Sales and Technical Support

In offices around the globe, our staff is local to the country so that you have access to field engineers who speak your language and are available to consult on your unique needs. We also have a worldwide support organization staffed with Applications Engineers trained to quickly provide superior technical assistance. Use our online Request Support interface (ni.com/support) to define your question, then speak to or e-mail an Applications Engineer, or access more than 14,000 worldwide measurement and automation professionals within NI Developer Exchange Discussion Forums. ni.com/support also provides immediate answers to your questions through self-help troubleshooting, product reference, and application development resources. For advanced technical support and software maintenance services, sign up for Premier Support, a program that provides expanded hours of support availability and expedited phone/e-mail response time (typically four business hours).

## Training and Certification




NI recognizes that both initial instruction and ongoing education contribute to your success. NI provides a variety of training alternatives, from self-paced tutorials and interactive CDs, to worldwide hands-on courses taught by experienced instructors – all designed so that you can choose how to learn about our products. Further, NI offers certifications acknowledging individual expertise in working with NI products and technologies. Visit ***ni.com/training*** for more information.

## Professional Services

Our Professional Services team consists of National Instruments Applications Engineers, NI Consulting Services, and the worldwide National Instruments Alliance Partner Program (a network of 600 independent consultants and integrators). Our Professional Services team can offer services ranging from basic start-up assistance and collaborative development with your engineers, to turnkey system integration and maintenance of your system.

NATIONAL INSTRUMENTS™
Alliance Member

In addition to our NI Alliance Partners, we have developed global relationships with many industry partners that range from computer software and hardware companies, such as Microsoft, Dell, Siemens, and Tektronix. By collaborating with these companies, you receive a complete spectrum of solutions – from components to turnkey systems. Find the Alliance partner directory at ***ni.com/alliance***

## Product Services

NI GPIB products are warranted against defects in workmanship and material for one year from the date of shipment. To help you meet project life-cycle requirements, NI offers extended warranties for an additional charge. NI provides complete repair services for our products. Express repair and advanced replacement services are also available. Or, order your software and hardware installed in PXI and PXI/SCXI™ systems with NI Factory Installation Services.

## Ordering Made Easy

Visit ***ni.com/products*** to browse product specifications, make comparisons, or access technical representatives via online chat or telephone. Worldwide customers can use a purchase order or credit card to buy in local currency and receive direct shipments from local NI offices. Our North American Customer Service Representatives are available Monday through Friday between 7 a.m. and 7 p.m. Central Time. Outside North America, please contact the NI office in your country.

## Order Status and Service Requests

National Instruments brings you real-time status on current orders at ***ni.com/status*** Similarly, find out the status of open technical support incidents or hardware repair requests at ***ni.com/support/servicereq***

NATIONAL INSTRUMENTS™

**ni.com • (800) 433-3488**

National Instruments • Tel: (512) 683-0100 • Fax: (512) 683-9300 • info@ni.com