



**Intech** INSTRUMENTS LTD

# Intech Micro 2400-A16

- Up to 16 Universal Analogue Inputs.
- 4 Dedicated Digital Inputs.
- 2 Analogue 4~20mA Outputs.
- 2 Relay Outputs.

[www.intech.co.nz](http://www.intech.co.nz)

# Intech Micro 2400-A16:

## Features.

- Up to 16 Isolated Universal Analogue Inputs, with Plug In Terminals.
- Each Input Individually Selected & Scaled.
- Resolution RTD 0.01, TC 0.1.
- Isolated Input for RTD, T/C, mA, mV, V, & Pulse/Digital:
  - ◇ RTD: Pt100/Pt1000, -200~320°C to -200~800°C.
  - ◇ T/C: B, E, K, J, N, R, S, T, with CJC.
  - ◇ mA: 0~20mA, 0~2.5mA.
  - ◇ mV: -25~25mV to -200~200mV.
  - ◇ V: 0~1V to 0~15V.
  - ◇ Meter Pulses and Frequency: Max speed 2500Hz.
- Low cost Non-Isolated RTD Pt100/Pt1000 only Inputs also available.
- Four Dedicated Digital, Isolated, Optocoupler Inputs:
  - ◇ State or Count.
  - ◇ Max speed 8000Hz.
- Two Analogue, Isolated, 4~20mA Outputs.
- Two Digital, Isolated, Relay Outputs.
- Comms Ports:
  - ◇ Port 1: Isolated RS422/RS485 or Ethernet TCP/IP (option).
  - ◇ Port 2: Isolated RS232/RS485.
  - ◇ Port 3: USB programming port via **XU-USB** programming key.
- Cost Effective Radio Installation.
- Cost Effective PC or PLC AI Expansion.
- Clock/Reset Drive up to Four **2400-M-R** / **2100-M** input expansion.
- Selectable Baud Rates.
- Integral MODBUS Bridge to MicroScan data: 256 analogue (words), and 128 digital (bits).
- Embedded protocols, Auto Detecting:
  - ◇ MicroScan ASCII,
  - ◇ Modbus RTU,
  - ◇ Modbus TCP.
- Average comms message, RS232, RS422, RS485, Ethernet = 100msec.
- 4 messages required to read all inputs.
- Internal memory refresh rate for all channels = 4 secs.
- Interface for **2400-R2** (16 & 32 Relay output expansion).
- Easy Programming.
- Programmable Station Number.
- Programmable Relay States - NO or NC.
- Comms Failure Time-out Using Relay 2.
- Comms TXE Delay Programming.
- Programming Information Retained on Power Down.
- Universal AC/DC Power Supply (three options to select).
- Compact 35mm DIN Rail Mounting.
- Easy to Install.
- Low Cost.



# 2400-A16 Connection Example:

## Description.

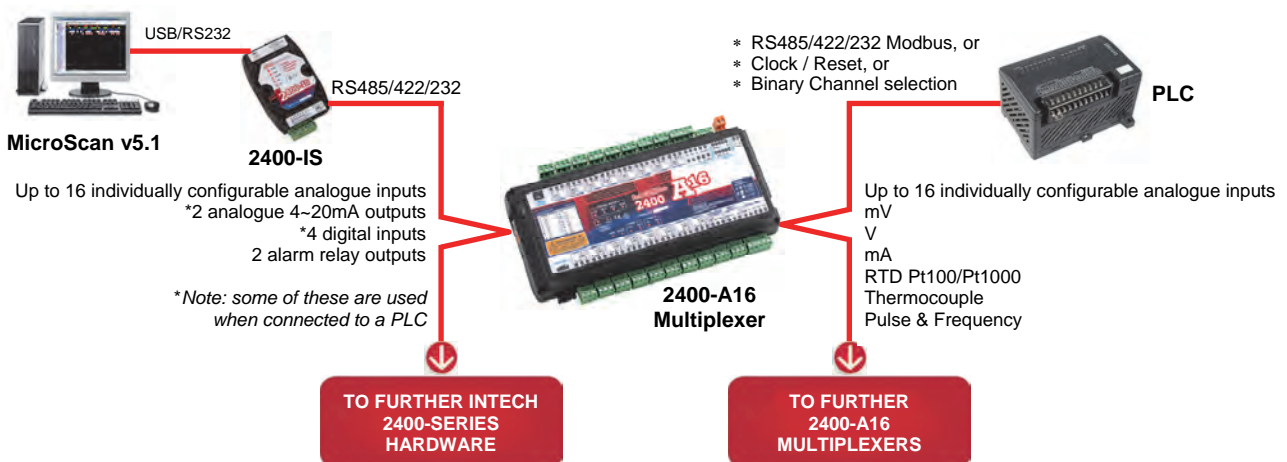
This station has all the friendly features of a monitoring station. The Isolated Universal Analogue Inputs are software programmable using the user friendly **MicroScan v5.1** or **Station Programmer** software. Each input can be configured for any of the following inputs: RTD Pt100/Pt1000, Thermocouple, mA, mV, V & Pulse/Digital. There is a convenient wide choice of spans plus Custom spans can be configured also. The accuracy does not alter when changing spans. The analogue inputs on the 2400-A16 can be expanded up to 76 using the **2400-M-R / 2100-M** Input Multiplexers.

## Connecting to MicroScan SCADA.



## MicroScan integration example.

The MicroScan system and the PLC can access the 2400-A16 multiplexer at the same time.



# Ordering Information:

All 2400-A16 stations come standard (Default ex factory calibration) with:

All Input Channels Configured to RTD Pt100 0~100°C.  
 4 Dedicated Digital Inputs.  
 2 Analogue 4~20mA Outputs.  
 2 Relay Outputs.  
 RS485 or RS232 on Comms Port 2.

ITEM	CODE		DESCRIPTION
SERIES	2400-A16-		
Input Channel Options	I16-		16 Isolated Universal Input Channels.
	I8-		8 Isolated Universal Input Channels.
	Custom-		Custom mix of Isolated and/or Non-Isolated Input Channels. Please contact Intech.
Comms Options (Port 1)	485-		Port 1 Fitted with RS422/RS485 Comms.
	NET-		Port 1 Fitted with Ethernet TCP/IP Comms.
Power Supply Options		H	85~265Vac, 95~370Vdc.
		M	24~48Vac, 17~72Vdc.
		L	10~30Vdc.

## Ordering Examples.

**2400-A16-I16-485-L:** 2400-A16 with 16 Isolated Universal Input Channels, RS422/RS485 Comms, 10~30Vdc Power Supply.

**2400-A16-I16-NET-H:** 2400-A16 with 16 Isolated Universal Input Channels, Ethernet TCP/IP Comms, 85~265Vac Power Supply.

## 2400-A16 Parts:

### 2400-A16 Input Boards:

2400-A16-NC-H:	2400-A16 with no Inputs, 85~265Vac, 95~370Vdc Power Supply.
2400-A16-NC-M:	2400-A16 with no Inputs, 24~48Vac, 17~72Vdc Power Supply.
2400-A16-NC-L:	2400-A16 with no Inputs, 10~30Vdc Power Supply.

### 2400-A16 Input Cards:

2400-IIC:	Isolated Universal Input Card for 2400-A16.
2400-NIC:	Non-Isolated RTD Pt100/Pt1000 Input Card for 2400-A16.

### RS232 Cable:

2400-RS232:	Optional 5m RS232 cable for the 2400-A16 (Comms Port 2).
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<b>XU-USB:</b>	USB Programming Key for programming 2400-A16 using Station Programmer software. (Same Key as used for programming XU Series transmitters, Z-2400-Sleeper, Z-2400-A2 Series, IN-uP4 and uP4-Din). Note: 2400-A16 can also be programmed via the Comms Ports using MicroScan v5.1 software.
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**Product Liability.** This information describes our products. It does not constitute guaranteed properties and is not intended to affirm the suitability of a product for a particular application. Due to on-going research and development, designs, specifications, and documentation are subject to change without notification. Regrettably, omissions and exceptions cannot be completely ruled out. No liability will be accepted for errors, omissions or amendments to this specification. Technical data are always specified by their average values and are based on Standard Calibration Units at 25C, unless otherwise specified. Each product is subject to the 'Conditions of Sale'.

**Warning: These products are not designed for use in, and should not be used for patient connected applications. In any critical installation an independent fail-safe back-up system must always be implemented.**