



**Intech** INSTRUMENTS LTD

# Intech Micro 2300 Series

## I/O REMOTE STATIONS

Analogue and Digital Input/Output stations  
Examples of connectivity  
Mini packs

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

# Intech Micro 2300 series I/O Remote Stations

## Analogue and Digital Input/Output Stations Connects to MicroScan V5 Software



- Low Cost I/O Remote Stations
- MODBUS RTU with MODBUS TCP option
- MicroScan V5 Compatible—Seamless Integration
- Also ideal for use when inputs/outputs are required for a PLC and Modbus comms are available
- Plug-in connectors makes replacement easy
- Programmable Ranges within input type
- 1.0kV or greater Isolation.
- 0.2% Accuracy (12 Bit).
- Compact DIN rail mount Enclosure
- LEDs indicate I/O status plus comms and Power Supply
- Comms Fail Alarm (Optional)
- Power Supply: 24Vdc

>> [www.intech.co.nz/2300](http://www.intech.co.nz/2300)

MODEL	DESCRIPTION	
<b>2300-A8II</b>	8 x 4~20mA inputs, Isolated 1.0KV isolation between each input 0~20mA inputs programmable / 250 ohms input resistance 1.5KV isolation between inputs and power supply and comms (RS485) Power Supply = 24Vdc @ 40mA typical	4~20mA inputs Isolated
<b>2300- A8VI</b>	8 x Voltage inputs, Isolated 1.0KV isolation between each input 0~10V or 2~10V inputs programmable / 20 Kohms input resistance 1.5KV isolation between inputs and power supply and comms (RS485) Power Supply = 24Vdc @ 40mA typical	Volts inputs Isolated
<b>2300-Tc8</b>	8 x Thermocouple & mV inputs, Isolated 350V peak isolation between each input Programmable inputs type K, J, T, E, N, B, S, R Programmable mV inputs 0~50mV, -100~100mV All inputs are set to the same type 1.5KV isolation between inputs and power supply and comms (RS485) Power Supply = 24Vdc @ 40mA typical	Thermocouple & mV Isolated
<b>2300-RTD6</b>	6 x RTD inputs, Pt100, Pt1000, Ni120, Ni1000 1.5KV isolation between inputs and power supply and comms (RS485) Resolution = 0.1°C / Power Supply = 24Vdc @ 55mA typical	RTD input
<b>2300-MULTI</b>	6 x combination analogue inputs, single ended 2 x RTD inputs, 2 x 4~20mA inputs, 2 x Voltage inputs; 1 x 4~20mA output, 4 x Digital inputs, 2 x Digital outputs 1.5KV isolation between inputs and power supply and comms (RS485) Power Supply = 24Vdc @ 70mA typical Using the output types requires an independent and isolated power supply	Combination inputs and Outputs
<b>2300-D16</b>	16 x Digital inputs Input voltage: 12~24Vdc 1.5KV isolation between inputs and power supply and comms (RS485) Power Supply = 24Vdc @ 30mA typical	Digital inputs
<b>2300-RO4</b>	4 x Relay outputs Change over contacts Contact rating: 240Vac @ 0.5A 28Vdc @ 1A 1.0KV isolation between inputs and power supply and comms (RS485) One output can be dedicated to Comms Fail Alarm Power Supply = 24Vdc @ 100mA typical	Relay outputs
<b>2300-AO8I</b>	8 x 4~20mA outputs, single ended (all output negatives internally connected) 0~20mA outputs programmable 1.5KV isolation between outputs and power supply and comms (RS485) Power Supply = 24Vdc @ 18mA typical. Requires an independent and isolated power supply to power logic outputs = 24Vdc @ 175mA typical.	4~20mA outputs

### 24Vdc Instrument Quality Power Supply:

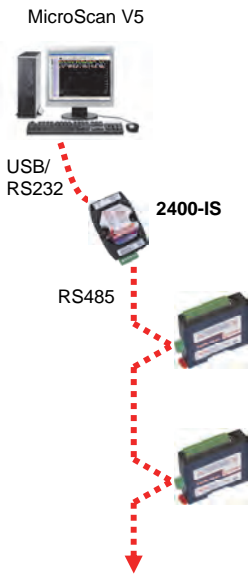
**PSW-10-F** Output Voltage: 24Vdc  
Max current: 1.0A continuous  
Input Power Supply: 100~264Vac



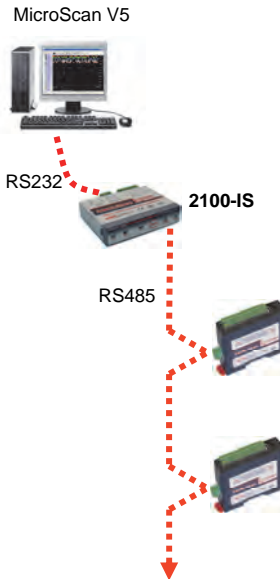
>> [www.intech.co.nz/psw-10-f](http://www.intech.co.nz/psw-10-f)

# Examples of Connectivity - RS485 Data Hi-Way

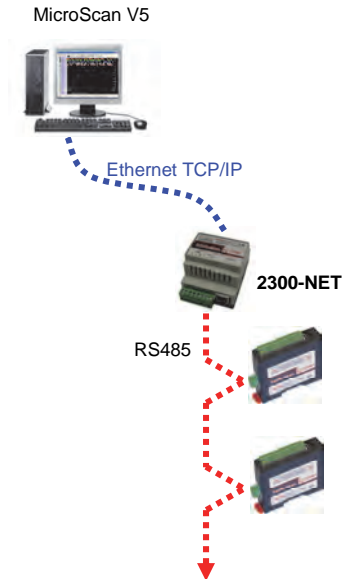
## USB/RS232



## RS232



## Ethernet TCP/IP



**Important:** The 2300-XX stations cannot share a data hi-way with the 2100-XX / 2400-XX stations and/or Shimaden Controllers.

- Comms converters from a computer to RS485 for communication to the 2300 series stations.

### USB/RS232 to RS485 Converter Isolating

MODEL	DESCRIPTION
2400-IS	<b>USB/RS232 to RS485 Isolating Converter.</b> Complete with: - USB cable (length = 1m). - RS232 cable (length = 2m). Powered via computer USB port.



>> [www.intech.co.nz/2400-is](http://www.intech.co.nz/2400-is)

MODEL	DESCRIPTION
2100-IS	<b>RS232 to RS485 Isolating converter.</b> Comms baud rate: 9600. Relay output: 1 relay, change over. Rating, 1 amp, 24Vdc. Power Supply: 9V plug pack (supplied with 2100-IS). <b>Internal audible and relay output alarm for communication failure.</b>

### RS232 converter isolating Alarm for communication failure.



>> [www.intech.co.nz/2100-is](http://www.intech.co.nz/2100-is)

- The 2300-NET converts Ethernet TCP/IP to RS485 for communication to the 2300 series stations.

### Ethernet TCP/IP to RS485 converter isolating

MODEL	DESCRIPTION
2300-NET	<b>Ethernet TCP/IP to RS485 Converter. Isolating.</b> Comms baud rate: 9600. Modbus TCP to Modbus RTU Protocol. Compact DIN rail mount enclosure.
PSW-10-F	If you require a 24Vdc power supply for the 2300-NET.



>> [www.intech.co.nz/2300-net](http://www.intech.co.nz/2300-net)

# Minipacks – Complete Chart Recorder replacement packages

## MINI PACK 8



### UP TO 8 CHANNELS OF RECORDING

Remote stations available for the following;  
milli-amps, milli-volts, Voltage, Thermocouple, RTD,  
Combination.



>> Refer pages 2/3

**SOFTWARE** - Supplied with USB Dongle.

1x **MICROSCAN V5 RECORDER R8**

**And HARDWARE**

1x **ISOLATED AUTO-DETECTING COMMS CONVERTER  
USB/RS232 to RS485 {2400-IS}**

1x **INTECH MICRO 2300 Remote Station**

c/w 1x PSW-10-F Instrument Quality Power Supply 24Vdc, 1.0A.

Specify input type when ordering: Voltage/Current/Thermocouple/RTD/Multi

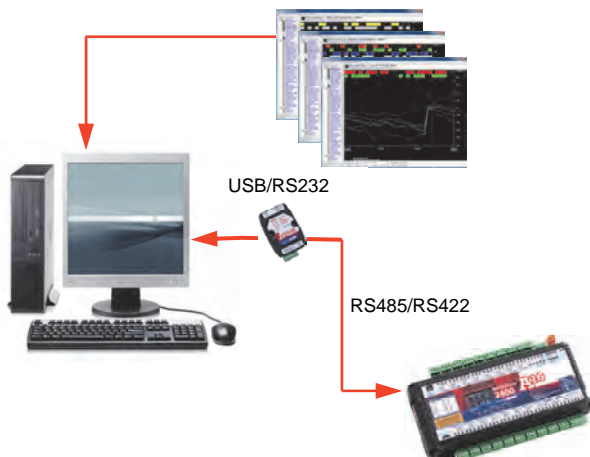
**Option 1** - If using 2300-RTD6 (6x RTD inputs).

**Option 2** - Using any other 2300 I/O remote station.

**Alarms** - 2300-RO4 - Comms fail alarm and/or Alarm outputs.

**Ethernet** - 2300-NET - Connect via Ethernet TCP/IP {no 2400-IS}.

## MINI PACK 16



### UP TO 16 CHANNELS OF RECORDING

Each input channel can be individually programmed to any of the following:  
RTD Pt100 / Pt1000, Thermocouple, milli-amps, milli-volts, Voltage,  
Pseudo Digital.

**SOFTWARE** - Supplied with USB Dongle.

1x **MICROSCAN V5 RECORDER R16**

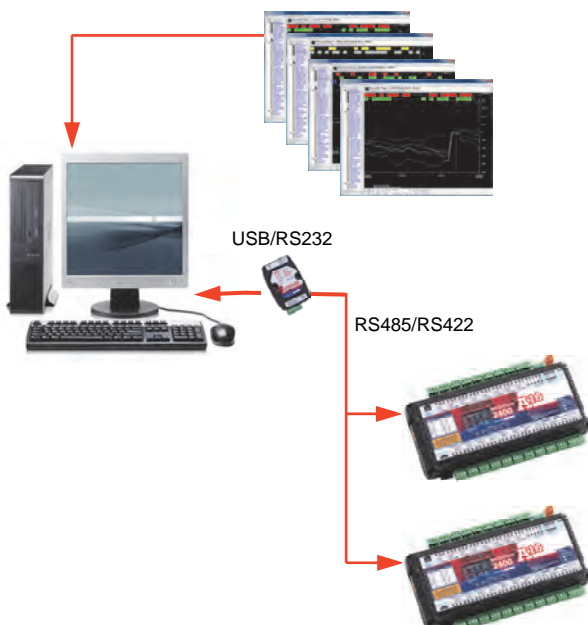
**And HARDWARE**

1x **ISOLATED AUTO-DETECTING COMMS CONVERTER  
USB/RS232 to RS485/RS422 {2400-IS}**

1x **INTECH MICRO 2400-A16-I16**

**Ethernet** - 1x 2400-A16-I16-NET - Connect via Ethernet TCP/IP {no 2400-IS}.

## MINI PACK 32



### UP TO 32 CHANNELS OF RECORDING

Each input channel can be individually programmed to any of the following:  
RTD Pt100 / Pt1000, Thermocouple, milli-amps, milli-volts, Voltage,  
Pseudo Digital.

**SOFTWARE** - Supplied with USB Dongle.

1x **MICROSCAN V5 RECORDER R32**

**And HARDWARE**

1x **ISOLATED AUTO-DETECTING COMMS CONVERTER  
USB/RS232 to RS485/RS422 {2400-IS}**

2x **INTECH MICRO 2400-A16-I16**

**Ethernet** - 2x 2400-A16-I16-NET - Connect via Ethernet TCP/IP {no 2400-IS}.