

IntechMicro 2300 series I/O Remote Stations & PLC

Stand-alone Analogue and Digital Input/Output stations - low cost - Connects to MicroScan V5 software



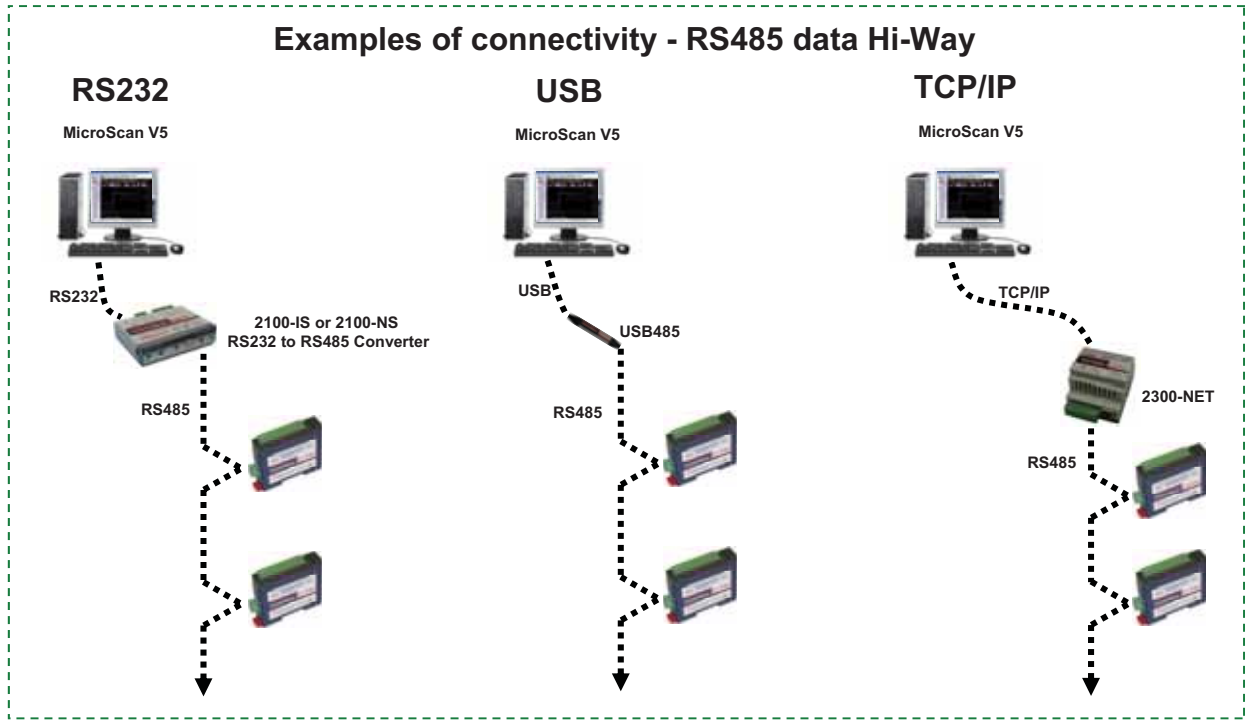
- ◆ Low Cost I/O Remote Stations.
- ◆ Modbus.RTU with Modbus.TCP option.
- ◆ MicroScan V5 Compatible—Seamless Integration.
- ◆ Also ideal for use when inputs/outputs are required for a PLC and Modbus comms are available.
- ◆ Plug-in connectors makes replacement easy.
- ◆ Programmable Ranges within input type.
- ◆ 1.0 kV 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

MODEL	DESCRIPTION	PRICE	
2300-A8I	8 x 4~20mA inputs, single ended (all input negatives internally connected). 0~20mA inputs programmable. 250 ohms input resistance. 1.5KV isolation between inputs and power supply and comms (RS485). Power Supply = 24Vdc @ 30mA typical. Requires an independent and isolated power supply to power logic inputs.	\$395.00	4~20mA inputs Commoned
2300-A8II	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.	\$575.00	4~20mA inputs Isolated
2300-A8VI	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.	\$575.00	Volts inputs Isolated
2300-Tc8	8 x Thermocouple & mV inputs, Isolated 350V peak isolation between each input. Programmable inputs type K, J, T, E, N, B, S, R, with CJC. Programmable mV inputs 0~50mV, -100~100mV. 1.5KV isolation between inputs and power supply and comms (RS485). Power Supply = 24Vdc @ 40mA typical.	\$575.00	Thermocouple & mV Isolated
2300-RTD6	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.	\$455.00	RTD input
2300-MULTI	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.	\$575.00	Combination inputs and Outputs
2300-D16	16 x Digital inputs. Input voltage: 12~24Vdc. 1.5KV isolation between inputs and power supply and comms (RS485). Power Supply = 24Vdc @ 30mA typical.	\$300.00	Digital inputs
2300-RO4	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.	\$285.00	Relay outputs
24Vdc Power Supply Options:			
PSW-2-F	Output Voltage: 24Vdc. Max current: 200mA continuous. Input Power Supply: 85~265Vac/dc.	www.intech.co.nz/psw-2-f	\$98.00
PSW-10-X	Output Voltage: 24Vdc. Max Current: 1 Amp continuous. Input Power Supply: 100~264Vac.	www.intech.co.nz/psw-10	\$188.00



PSW



◆ The 2100-IS and 2100-NS convert RS232 from a computer to RS485 for communication to the 2300 series stations.

MODEL	DESCRIPTION	PRICE
2100-IS	RS232 to RS485 Isolating converter. Comms baud rate: 9600. Relay output: 1 relay, change over. Rating, 1 amp, 24Vdc. Power supply: 9V plug pack (supplied with 2100-IS). Internal audible and relay output alarm for communication failure.	\$486.00

RS232 converter isolating Alarm for communication failure.

www.intech.co.nz/2100-is



2100-IS

MODEL	DESCRIPTION	PRICE
2100-NS	RS232 to RS485 converter kit. Non-isolating. Comms baud rate: 9600. Power supply: 9 volt plug pack (supplied with 2100-NS).	\$286.00

RS232 converter kit non isolating

www.intech.co.nz/2100-ns



2100-NS Kit.

MODEL	DESCRIPTION	PRICE
USB485	USB to RS485 converter. Non-isolating. Powered from computer USB powered port. 3m length. Note: Only use for temporary monitoring, for industrial environments we recommend using a physical RS232 connection.	\$286.00



USB to RS485 converter

www.intech.co.nz/usb485

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

MODEL	DESCRIPTION	PRICE
2300-NET	Ethernet TCP/IP to RS485 Converter. Isolating. Comms baud rate: 9600. Power supply: 24Vdc. Modbus.TCP to Modbus.RTU Protocol. Compact DIN rail mount Enclosure.	\$430.00
PSW-2-F	If you require a 24Vdc Power supply for the 2300-NET.	\$98.00

TCP/IP to RS485 converter isolating



2300-NET

www.intech.co.nz/2300-net

Digital I/O station

Intech Micro 2100 – Series.
Data high-way remote stations.

- ◆ **Remote station** with 12 digital inputs and 12 relay outputs.
- ◆ Each input is user selectable in MicroScan software to any of the following:
on/off state, flow rate and totalising, counting.
- ◆ Comms - RS485 or RS422 selectable, RS232 optional.
- ◆ Radio modem compatible.
- ◆ DIN rail mount.

www.intech.co.nz/2100-d



2100-D

MODEL	DESCRIPTION	PRICE
2100-D	Digital input/output remote station. <u>Digital inputs:</u> 12 opto isolated, 5~30Vdc, 500Hz max. (max count: 16383, then resets). <u>Relay outputs:</u> 12 relays. Rating, 2 amp, 30Vdc / 250Vac. (10 c/o and 2 n/o contacts). <u>Power supply:</u> 85~264Vac/dc or 23~90Vdc, selectable. 10~28Vac/dc, optional. <u>Comms:</u> Isolated RS485 (2 wire), RS422 (4 wire), selectable. RS232, optional. <u>Baud rate:</u> 9600, 4800, 2400, selectable.	\$878.00
OPTIONS		
2100-D-RS232	RS232 option fitted to 2100-D. (Supplied with 5 metres cable).	N/C
2100-D-L	Power supply of 10~28Vac/dc fitted.	\$75.00

Relay expansion unit

- ◆ The 2100-R2 plugs into either the 2100-A16 or the 2100-A4 to expand the number of relay outputs.
- ◆ 16 relay outputs. Can use 2x 2100-R2 with the 2100-A16 (rev 1.3) for a total 32 relay outputs!
- ◆ DIN rail mount.

www.intech.co.nz/2100-r2



2100-R2

MODEL	DESCRIPTION	PRICE
2100-R2	Relay output expansion unit. <u>Relay outputs:</u> 16 relays, change over contacts. Rating, 2 amp, 30Vdc / 230Vac. <u>Power supply:</u> 85~264Vac/dc or 23~90Vdc, selectable. 10~28Vac/dc, optional.	\$785.00
OPTION		
2100-R2-L	Power supply of 10~28Vac/dc fitted.	\$75.00

**Intech Micro 2100 – Series.
Data high-way remote stations.**

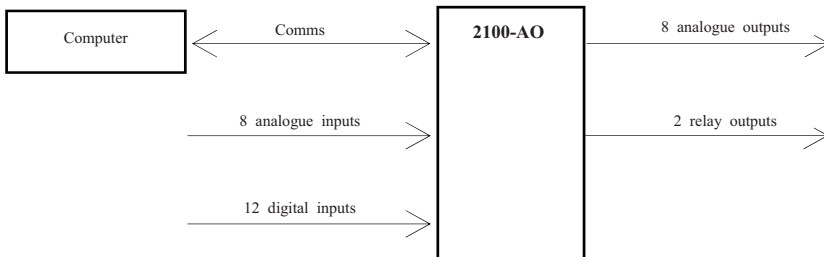
- ◆ **Remote station with:**
 - 8 analogue outputs.
 - 8 analogue inputs.
 - 12 digital inputs.
 - 2 relay outputs.
- ◆ **Comms - RS485 or RS422 selectable, RS232 optional.**
- ◆ **12 bit resolution.**
- ◆ **Universal ac/dc power supply.**
- ◆ **Radio modem compatible.**
- ◆ **Easy programming by MicroScan maps.**
- ◆ **Programmable station number.**
- ◆ **Four of the digital inputs are user selectable in MicroScan software to any of the following:**
 - on/off state,
 - flow rate and totalising,
 - counting (max 50 Hz).

www.intech.co.nz/2100-ao



2100-AO

MODEL	DESCRIPTION	PRICE
2100-AO	<p>Analogue and Digital I/O remote station.</p> <p>Analogue input and output.</p> <p>Digital input and relay output.</p> <p><u>Analogue input ranges:</u> mA. 0~20mA, 4~20mA. Selectable. volts. 0~10Vdc, 2~10Vdc. Factory option.</p> <p><u>Analogue output selectable ranges:</u> mA. 0~20mA, 4~20mA. Selectable. volts. 0~10Vdc, 2~10Vdc. Factory option.</p> <p><u>Digital inputs:</u> 12 opto isolated, 5~30Vdc. 4 of which can be used for counting. (50 Hz max). (max count: 16383, then resets).</p> <p><u>Relay outputs:</u> 2 relays. Rating, 2 amp, 30Vdc / 250Vac. (n/c or n/o contacts, select).</p> <p><u>Power supply:</u> 85~264Vac/dc or 23~90Vdc, selectable. 10~28Vac/dc, optional.</p> <p><u>Comms:</u> Isolated RS485 (2 wire), RS422 (4 wire), selectable. RS232, optional.</p> <p><u>Baud rate:</u> 9600, 4800, 2400, selectable.</p>	\$1200.00
OPTIONS		
2100-AO-RS232	RS232 option fitted to 2100-AO. (Supplied with 5 metres cable).	N/C
2100-AO-L	Power supply of 10~28Vac/dc fitted.	\$75.00



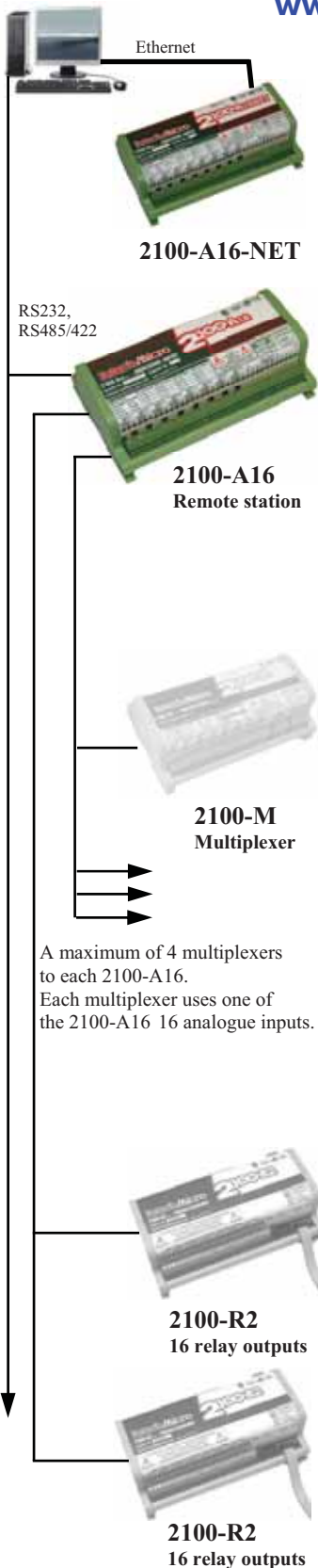
Typical connection for 2100-AO unit.

Analogue input station

**Intech Micro 2100 – Series.
Data high-way remote stations.**

- ◆ Each input is user selectable in MicroScan software to any of the following:
Thermocouple, RTD, mA, mV, volts.
- ◆ 16 analogue differential inputs, (RTD single ended).
- ◆ 4 digital inputs, for counting or on/off status.
- ◆ 2 relay outputs, for control or alarm functions.
- ◆ 2 analogue outputs.
- ◆ Comms – RS485 or RS422 selectable, Modbus.RTU Standard, RS232 / Ethernet TCP/IP optional.
- ◆ Input expansion, up to four 16 input 2100-M units.
- ◆ Output expansion, up to two 16 relay 2100-R2 units.
- ◆ Radio modem compatible.
- ◆ 16 resident ‘computer free’ on board controllers.
- ◆ Use with the two on board relays or the 2100-R2 unit.

www.intech.co.nz/2100-a16



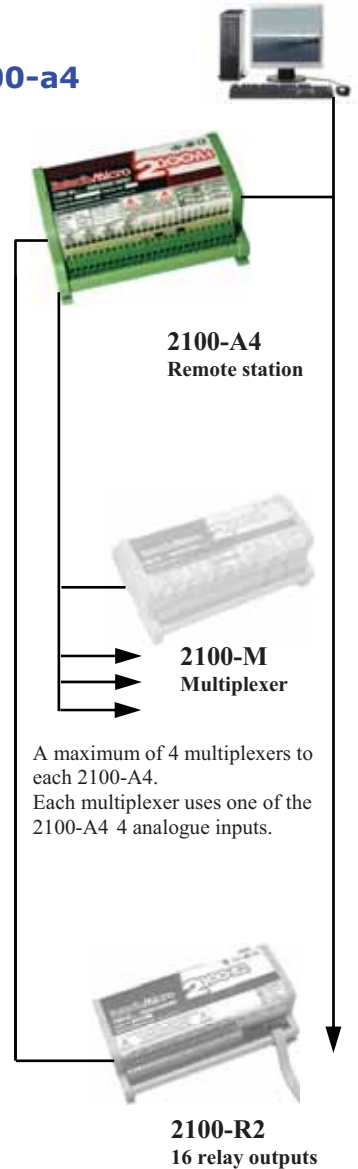
MODEL	DESCRIPTION	PRICE
2100-A16	<p>Analogue input remote station. 16 channels.</p> <p><u>Analogue input ranges:</u> scaled within the following span limits:</p> <p>mV. 0~25mV to ±500mV. volts. 0~1Vdc to ±15Vdc. mA. 0~1mA to ±100mA (4~20mA default). RTD. 0~25°C to -200~850°C. Pt100/Pt1000 selectable. Thermocouple. RTD inputs must be either Pt100 or Pt1000 not a mixture. K, J, N, T, R, S, B, E, with CJC. Range must be within -200~0~1800°C.</p> <p><u>Resolution:</u> 16 bit. <u>Differential:</u> 18 volts maximum. <u>Digital inputs:</u> 4 opto isolated, 5~30Vdc, 50Hz max. max count, 16383 and rolls over. <u>Analogue outputs:</u> 2 channels. (Not available when Multiplexers are connected). 4~20mA, 0~20mA. Selectable. 0~10Vdc, 2~10Vdc. Factory option. <u>Relay outputs:</u> 2 relays, n/o contacts, Rating, 1 amp 30Vac/dc. 85~264Vac/dc or 23~90Vdc, selectable. <u>Power supply:</u> 10~28Vac/dc, optional. (Refer below). <u>Comms:</u> Isolated RS485 (2 wire), RS422 (4 wire), select. Modbus.RTU standard. RS232 / Ethernet TCP/IP optional. (Refer below). <u>Baud rate:</u> 9600, 4800, 2400, selectable. <u>Control:</u> Set points and hysteresis values for the 16 resident on board controllers are downloaded from the MicroScan mimic package software and held in permanent memory.</p>	\$1348.00
OPTIONS		
2100-A16-NET	Analogue input remote station fitted with Ethernet TCP/IP connection. MicroScan.TCP & Modbus.TCP protocols. www.intech.co.nz/2100-a16-net	\$360.00
2100-A16-RS232	RS232 option fitted to 2100-A16. (Supplied with 5 metres cable).	N/C
2100-A16-L	Power supply of 10~28Vac/dc fitted.	\$75.00
Expansion notes		
Input	<p>Input expansion: This is a standard feature. Supports up to four 2100-M multiplexers. <i>The two analogue outputs are not available with this option.</i></p>	
Output	<p>Output expansion: Supports up to two 2100-R2 relay output modules. This unit allows the station to ‘stand alone’ as a 16 channel controller for a combination of (on/off or heat/cool) control and alarm functions. The heat/cool option utilises 2 relays per channel. The 2100-A16 (rev 1.3) can now support 16 heat/cool controllers. For this, 32 relay O/P’s are required.</p>	

**Intech Micro 2100 – Series.
Data high-way remote stations.**

- ◆ Each channel can be any of the inputs and any of the ranges shown below by programming on board links and software selection.
- ◆ 4 analogue inputs, single ended, 12 bit resolution.
- ◆ 4 digital inputs, for counting or on/off status.
- ◆ 4 relay outputs, for control or alarm.
- ◆ 2 analogue outputs.
- ◆ Comms – RS485 or RS422 selectable.
- ◆ Input expansion, up to four 2100-M multiplexers.
- ◆ Output expansion of one 2100-R2 (16 relays).
- ◆ 4 resident ‘computer free’ on board controllers.
- ◆ Radio modem compatible.

www.intech.co.nz/2100-a4

MODEL	DESCRIPTION	PRICE
2100-A4	<p>Analogue input remote station. 4 channels.</p> <p><u>Analogue input selectable ranges:</u></p> <p>mV. 0~75mVdc, 0~150mVdc, 0~300mVdc. volts. 0~2.5Vdc, 0~5Vdc, 0~10Vdc. mA. 0~10mA, 0~20mA, 4~20mA. Pt100. -50~140°C, -50~350°C, -50~850°C. Thermocouple. K, J, N, T, E, with CJC. Range must be within 100~1300°C.</p> <p><u>Tx supply:</u> 20Vdc, 80mA. <u>Digital inputs:</u> 4 opto isolated, 5~30Vdc, 50Hz max. max count, 16383 and rolls over. <u>Relay outputs:</u> 4 relays, c/o contacts, Rating, 2 amp, 30Vdc / 250Vac. <u>Analogue outputs:</u> 2 channels: Selectable: 4~20mA, 0~20mA, 0~10Vdc, 2~10Vdc. <u>Power supply:</u> 85~264Vac/dc or 23~90Vdc, selectable. <u>Comms:</u> Isolated RS485 (2 wire), RS422 (4 wire), selectable. <u>Baud rate:</u> 9600, 4800, 2400, selectable. <u>Control:</u> Set points and hysteresis values for the 4 resident on board controllers are downloaded from the MicroScan mimic package software and held in permanent memory.</p>	\$940.00



Mini packs

www.intech.co.nz/minipack

Complete Chart Recorder replacement packages

UP TO 8 CHANNELS OF RECORDING

Remote stations available for the following:

milli-amps, milli-volts, Voltage, Thermocouple, RTD, Combination.

Refer pages 22/23.

SOFTWARE - Supplied with USB Dongle.

1x **MICROSCAN V5 RECORDER LITE 8.**

And **HARDWARE**

1x **COMMS CONVERTER RS232 to RS485 {2100-NS} or USB to RS485 {USB485} (for temporary monitoring only [specify converter type when ordering, RS232 is default].**

1x **INTECH MICRO 2300 Remote Station c/w PSW-2-F Power Supply 24Vdc, 200mA.**

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

Option 1 - If using 2300-RTD6 (6x RTD inputs). **Price = \$2085.00**

Option 2 - If using 2300-A8I (8x 4-20mA inputs Non-isolated). **Price = \$2055.00**

Note: Option 2 (2330-A8I) requires an independent and isolated power supply to power logic inputs.

Option 3 - Using any other 2300 I/O remote station. **Price = \$2195.00**

Upgrade - 2300-RO4 - Comms fail alarm and/or Alarm outputs. **add \$285.00**



MINI PACK 8

UP TO 16 CHANNELS OF RECORDING

Each input channel can be individually programmed to any of the following:

Pt100 or# Pt1000, Thermocouple, milli-amps, milli-volts, Voltage.

SOFTWARE - Supplied with USB Dongle.

1x **MICROSCAN V5 RECORDER LITE 16.**

And **HARDWARE**

1x **COMMS CONVERTER RS232 to RS485 {2100-NS} or USB to RS485 {USB485} (for temporary monitoring only [specify converter type when ordering, RS232 is default].**

1x **INTECH MICRO 2100-A16-X (RS485/RS422).**

PRICE \$3170.00

Upgrade - 1x 2100-IS - Isolated comms converter with Alarm output. **add \$200.00**

Ethernet - 1x 2100-A16-NET - Connect via Ethernet TCP/IP. **add \$150.00**



MINI PACK 16

* **2100-A16** RS422 available with 2100-NS/IS RS232 converter only.
2100-A16 RTD inputs must be either Pt100 or Pt1000 not a mixture.

UP TO 32 CHANNELS OF RECORDING

Each input channel can be individually programmed to any of the following:

Pt100 or# Pt1000, Thermocouple, milli-amps, milli-volts, Voltage.

SOFTWARE - Supplied with USB Dongle.

1x **MICROSCAN V5 RECORDER LITE 32.**

And **HARDWARE**

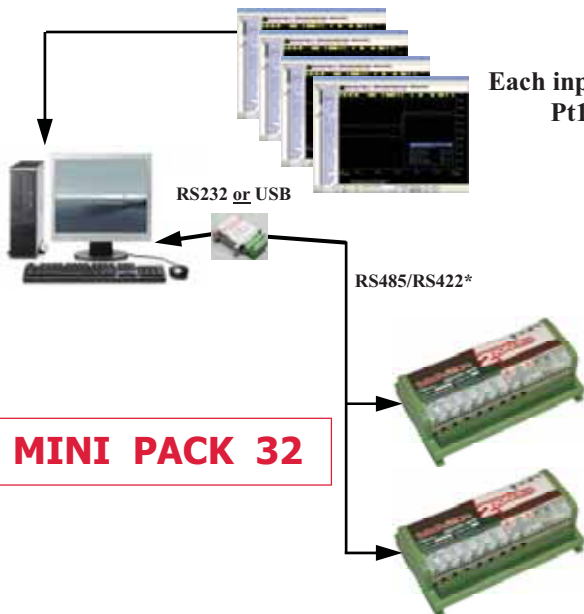
1x **COMMS CONVERTER RS232 to RS485 {2100-NS} or USB to RS485 {USB485} (for temporary monitoring only [specify converter type when ordering, RS232 is default].**

2x **INTECH MICRO 2100-A16-X (RS485/RS422).**

PRICE \$4700.00

Upgrade - 1x 2100-IS - Isolated comms converter with Alarm output. **add \$200.00**

Ethernet - 2x 2100-A16-NET - Connect via Ethernet TCP/IP. **add \$300.00**



MINI PACK 32

SCHMATIC LAYOUT

