PointScan/441™
RS-232 to RS-485 Converter Module

Features

- **Connects directly to a PC's RS-232 port with no jumpers to set**
- **Four ports support "star" configurations with multiple RS-485 networks**
- **Supports expansion up to 128 PointScan/100 series modules**
- **57,600 max baud rate**
- **3 km (2 mile) max cable distance**
- **Two-wire isolated party-line wiring**
- **Employ easy-to-use and inexpensive (shielded) twisted pair cabling**
- **MODBUS ASCII/RTU and PointScan protocols**
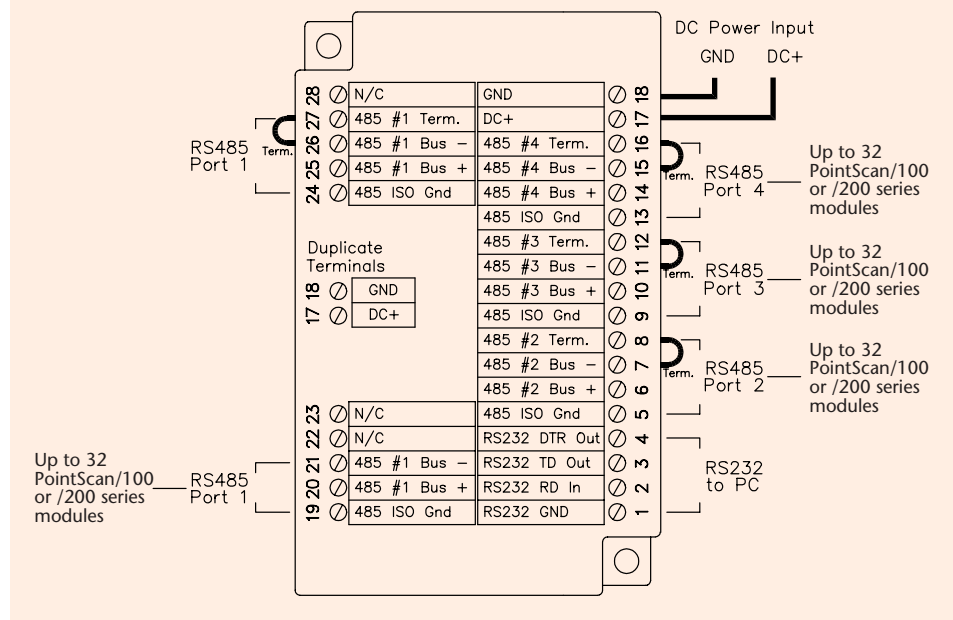- **1200 Vrms isolation for protection and increased signal integrity**

The PointScan/441™ module is used to connect up to 128 PointScan/100™ series modules to a PC's standard RS-232 port. It connects directly to any standard (PC) RS-232 port eliminating the need for any add-on communication boards. Network and module configuration software is shipped free with the module, and greatly simplifies the installation task. Once configured, the module transparently manages communications between the master controller (PC) and the I/O modules.

RS-232 Wiring. Two wiring options are provided. RS-232 signals can be connected to the screw terminal(s) on the PointScan/441's base or a standard null modem cable can be connected to the DB9 connector on the module's front-panel. To simplify module wiring and communications, the PointScan/441 manages its own data flow timing and does not utilize hardware hand shaking or XON/XOFF control. The DTR output is permanently tied high, and the RS-485 transmit enable signal is generated automatically.

Use the PointScan/441 to connect up to 128 PointScan/100 series I/O to a master controller (PC) via a standard RS-232 port
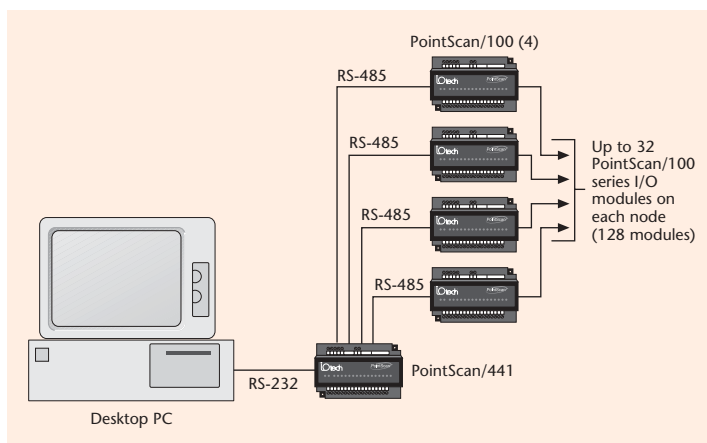

PointScan/441 Wiring Diagram

PointScan/441™

Specifications & Ordering Information

The PointScan/441 RS-232 to RS-485 converter allows four RS-485 nodes (128 modules, 32 per node) to be connected to one RS-232 port

Specifications

Modules Supported: All PointScan/100 (Ethernet) series modules
Max Baud Rate: 57,600 baud
Protocols Supported: MODBUS ASCII / RTU and PT-bus
Wiring Configuration: RS-485 two-wire isolated party line
Isolation (RS-485 to RS-232): 1200 Vrms 1 minute*
RS-485 Ports: 4
Max RS-485 Cable Distance: 3 km**
Operating Temperature Range: -30° to +70°C
Storage Temperature Range: -40° to +85°C
Humidity (Non-Condensing): 5 to 95%
Flammability (Module Plastic): UL 94V-0 materials
Electrical Safety: UL 508, CSA C22.2/14; EN61010-1 (IEC1010), CE
EMI Emissions: FCC part 15, ICES-003, Class A; EN55022, CE
EMC Immunity: EN50082-1 (IEC801-2, 3, 4) CE
Surge Withstand: IEEE-472 (ANSI C37.90)
Vibration: IEC68-2-6
Hazardous Locations: UL 1604, CSA C22.2/213-M1987, (Class I, Div 2, Groups A, B, C, D), EN50021 (zone 2)

Ordering Information

Description	Part No.
RS-232 to RS-485 converter module	PointScan/441

For complete information on accessories and cables, visit
www.iotech.com/acc

Related Products

Hardware
PointScan/443	p. 268

Software
KEPServerEX	p. 271
KEPServerEX Lite	p. 271

* RS-485 ports are group isolated from incoming power and the RS-232 port
** RS-485 distance is limited by baud rate and cable quality

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