

# Ethernet-to-serial

## Serial Communications

### Blue Heat/Net Features

- Two, four or eight RS-232 or software selectable RS-232/422/485 serial ports
- Industrial temperature range -40°C to 85°C (2 port models)
- Configure over serial interface or Telnet, or via a user-friendly web browser interface
- Programmable embedded Linux core
- Free Software Development Kit for software customization
- Power over Ethernet (PoE) available on 2 port models
- DIN Rail mounting option for all DB-9 models
- Auto-sensing 10Base-T, 100Base-TX Ethernet LAN interface
- Software selectable line bias and termination on RS-422/485 ports
- Data communications speeds up to 460.8 Kbps (RS-422/485 and 2 port RS-232/422/485)
- Supports Raw TCP and PPP server and client modes
- RoHS compliant models available



### Specifications

|                               |   |
|-------------------------------|---|
| <b>Number of ports</b>        | 2, 4 or 8   |
| <b>Electrical Interface</b>   | 2 port models: 2 ports RS-232 or 2 ports switchable RS-232/422/485<br>4 port models: 4 ports RS-232 or 4 ports switchable RS-232/422/485<br>8 port models: 8 ports RS-232 or 8 ports switchable RS-232/422/485  |
| <b>LAN Interface</b>          | 10Base-T, 100Base-TX Ethernet (auto-sensing)  |
| <b>Memory</b>                 | ColdFire CPU features 16MB SDRAM, 2MB Flash (4/8MB available), 66 MHz   |
| <b>Control Signals</b>        | RS-232: DTR, DSR, RTS, CTS, TxD, RxD, RI*, DCD, GND<br>RS-422/485: TxD+/-, RxD+/-, CTS+/-, RTS+/-, SR<br>*DB-9 version only   |
| <b>Baud Rates</b>             | 50 bps to 460.8 Kbps<br>(custom baud rates also available)  |
| <b>Protocols</b>              | IP, TCP, UDP, ARP, RARP, TFTP, DHCP, BootP, HTTP, Telnet, ICMP, PPP   |
| <b>Configuration</b>          | Web browser (HTTP), Telnet console or serial utility  |
| <b>Dimensions</b>             | 2 port models: Length: 4.55 in/11.56cm<br>4 and 8 port RJ-45: Length: 7.25 in/18.42 cm<br>4 and 8 port DB-9: Length: 9.61 in/24.41 cm<br>Width: 4.50 in/11.68 cm Width: 5.25 in/13.36 cm Width: 5.25 in/13.34 cm<br>(with flange mounts) Height: 1.35 in/3.43 cm Height: 1.69 in/4.29 cm<br>Height: 1.35 in/3.43 cm |
| <b>Power Requirements</b>     | 4 and 8 port models: 110/120V AC, 50/60 Hz, 5V DC power adapter<br>8 port DB-9 models: 9 - 30V DC power input via screw terminal Phoenix connector<br>2 port models: 5 - 30V DC input via DC power connector<br>Power over Ethernet (PoE) option<br>110/120V AC, 50/60 Hz, 5V DC power adapter                      |
| <b>Connectors</b>             | RS-232: 8 pin RJ-45 connector or DB-9 connector<br>RS-232/422/485: DB-9 connector<br>LAN: RJ-45 connector   |
| <b>Environmental</b>          | 2 port models: Industrial Temperature range of -40°C to 85°C (-40°F to 185°F)<br>4 and 8 port models: Temperature range of 0°C to 70°C (32°F to 158°F)  |
| <b>Surge Suppression</b>      | EN61000-4-2 ESD EN61000-4-3 EMC EN61000-4-4 EFT   |
| <b>Regulatory Approvals</b>   | FCC Class A, Part 15  ICES-003  Industry Canada  EN 55022, EN 55024   |
| <b>Software Compatibility</b> | Windows 2000/XP, Linux, QNX4, QNX6<br>(Contact Connect Tech for the most recent list)   |

The Blue Heat/Net enables you to connect any of your RS-232 or RS-422/485 serial devices directly to your Ethernet LAN. This gives you remote access to any serial device, reduces cabling costs and simplifies future installations and upgrades. It also frees your devices from a physical PC connection, offering greater flexibility in location.

Based on the robust uClinux (Linux embedded operating system) the Blue Heat/Net can be programmed with application-specific protocols, or the user can work with the variety of protocols available on the supplied firmware.

The Blue Heat/Net can be configured and controlled via serial interface, or remotely via Telnet or web-based HTTP. With the option to boot from on-board Flash memory or a network location, updating devices in the field can be done from one central location.

All Connect Tech products are covered by a Lifetime Warranty and no-charge technical support.



**Connect Tech Inc.**  
Industrial Strength Communications

42 Arrow Road  
Guelph, ON, Canada  
N1K 1S6  
www.connecttech.com

Phone: 1-519-836-1291  
Toll free (in North America): 1-800-426-8979  
Fax: 1-519-836-4878  
Email: sales@connecttech.com

# Blue Heat/Net

## Applications

The Blue Heat/Net can network-enable any of your legacy serial devices, giving you the power to remotely control your serial devices from any work station connected to your Ethernet LAN, or the Internet. This eliminates the need for a dedicated PC, cutting equipment expenses, cabling needs, and the time required to maintain and collect information from individual workstations.

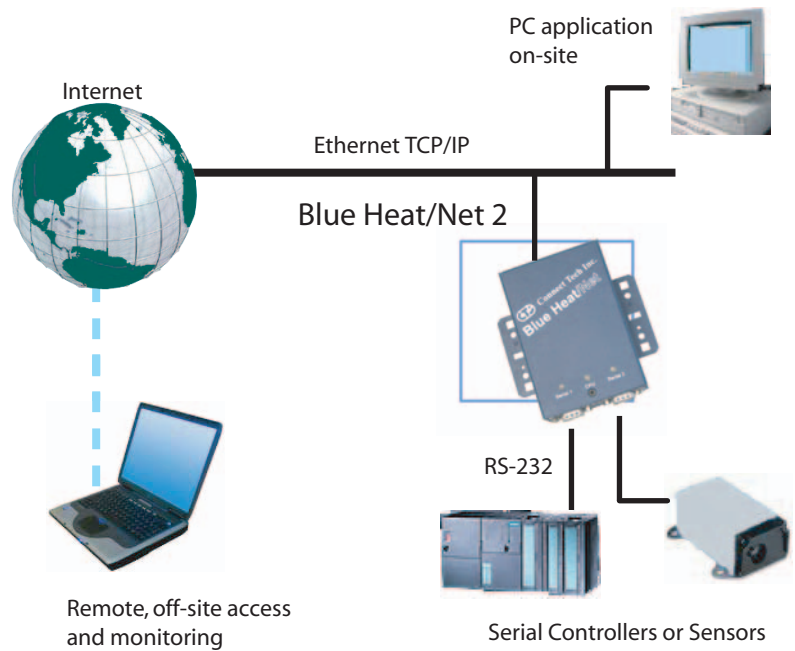
An embedded uClinux core (a Linux embedded operating system) and a free Software Development Kit (SDK) offer the ability to program your own unique protocol and upload that protocol to the Flash memory.

All DB-9 models can be DIN rail mounted. The 2 port Blue Heat/Net is specifically designed for the harsh conditions of the factory floor. Compact and rugged, it operates in an Industrial Temperature range of -40°C to 85°C, and includes multi-mode DC power or Power over Ethernet (PoE).

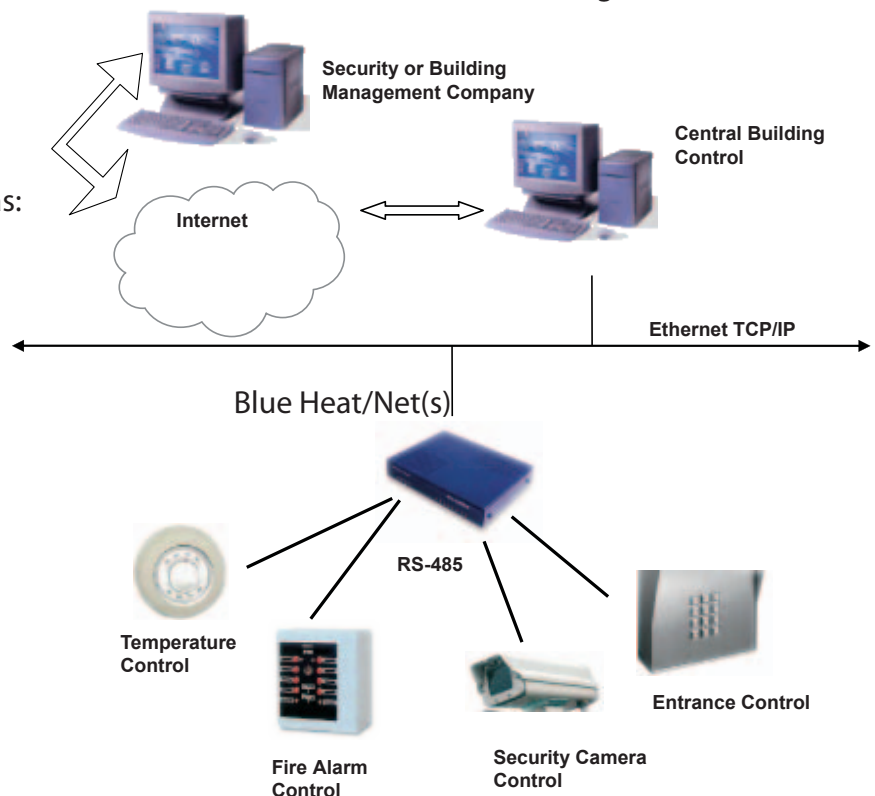
Available in 2, 4 and 8 port solutions, the Blue Heat/Net is well suited for applications such as:

- Manufacturing/Industrial Automation
- Point-of-Sale/Retail
- Building Automation
- Transportation Stations
- Patient monitoring systems
- Process Control
- Any application requiring communication via TCP/IP Ethernet with serial devices that do not have built-in network ports.

## Industrial Automation and the Blue Heat/Net 2



## Blue Heat/Net in Building Automation



**Connect Tech Inc.**  
*Industrial Strength Communications*

42 Arrow Road  
Guelph, ON, Canada  
N1K 1S6  
[www.connecttech.com](http://www.connecttech.com)

Phone: 1-519-836-1291  
Toll free (in North America): 1-800-426-8979  
Fax: 1-519-836-4878  
Email: [sales@connecttech.com](mailto:sales@connecttech.com)