ESERV-M12T

N-Tron Networking Series

Modbus Gateways Server

Create a seamless communications bridge to legacy Modbus RS-232, RS-422 or RS-485 networks with the ESERV-M12T Modbus Gateways server from N-TRON. The serial ports can be accessed over a LAN or WAN using Direct IP Mode connections. Supporting up to 16 masters and 32 slaves, these products feature autodetecting 10/100 copper and fiber optic options. Easy-to-use software, designed for Windows 2000, 2003 Server, XP and Vista, provides Modbus messaging priority control and allows management through multiple TCP/IP client sessions. Support for serial data rates up to 230 kbps ensures maximum network flexibility. Built for industrial environments, these tough gateways are housed in a slim IP30 DIN rail mountable case. They operate with a range of DC power supply voltages and have pluggable terminal block connectors. An external power supply (sold separately) is required.

PRODUCT FEATURES

- Ethernet Enabled Modbus RS-232/422/485
- Modbus TCP, ASCII, and RTU
- Modbus Flexibility- Serial & Ethernet, Masters & Slaves
- Modbus Messaging Priority Control
- View Messaging Status in Real Time
- Ethernet Fiber Options
- Easy Configuration Software



Specifications

Serial Technology

RS-232	TD, RD, RTS, CTS, DTR, RSR, DTD, GND
RS-485 2-Wire	Data A(-), Data B(+), GND
RS-422/485 4-Wire	TDA(-), TDB(+), RDA(-), RDB(+), GND
Serial Connector	Removable Terminal Blocks
Data Rate	up to 230.4 kbps

Network

Serial Memory	8KB per port
Network Memory	4KB
IP Port Address	5300 - Heartbeat and configuration Setting in TCP mode (paired mode) 8888 - ESERV-M12T Update
Mac Address Table	2k

Network Communications

LAN	10/100 Mbps Auto-Detecting

Network Physical Layer Standards

Ethernet	IEEE 802.3 auto detecting & auto MDI/MDX 10BaseT and 100BaseTX

Protocols

TCP, IPv4, ARP, TELNET, HTTP 1.0, ICMP/PING, DHCP/BOOTP

IP MODE	Static, DHCP
TCP	User Definable

Configuration Software

OS Compatibility	Windows 2000, 2003 Server, XP , Vista

Fiber Optic Technology

Type/Wavelength	Multi-mode / 1310nm
Output Power	-19 to -14dBm
Receive Sensitivity	~ -32dBm
Cable	62.5 / 125um
Connector	ST
Range	1.2 Miles (2km)

Other

Connection Mode	Modbus RTU Master/Slave Modbus ASCII Master/Slave
Search	Serial direct COM and Ethernet Auto Search or specific IP
Diagnostics	Display PC IP, ping save test config (text readable)
Firmware Upgrade	Web GUI through Ethernet

Power

Source	External
Input Voltage	10 to 58 VDC
Power Consumption	4.0 W
Power Connector	Removable Terminal Block
Wire Size Accepted	12 to 28 AWG

Mechanical

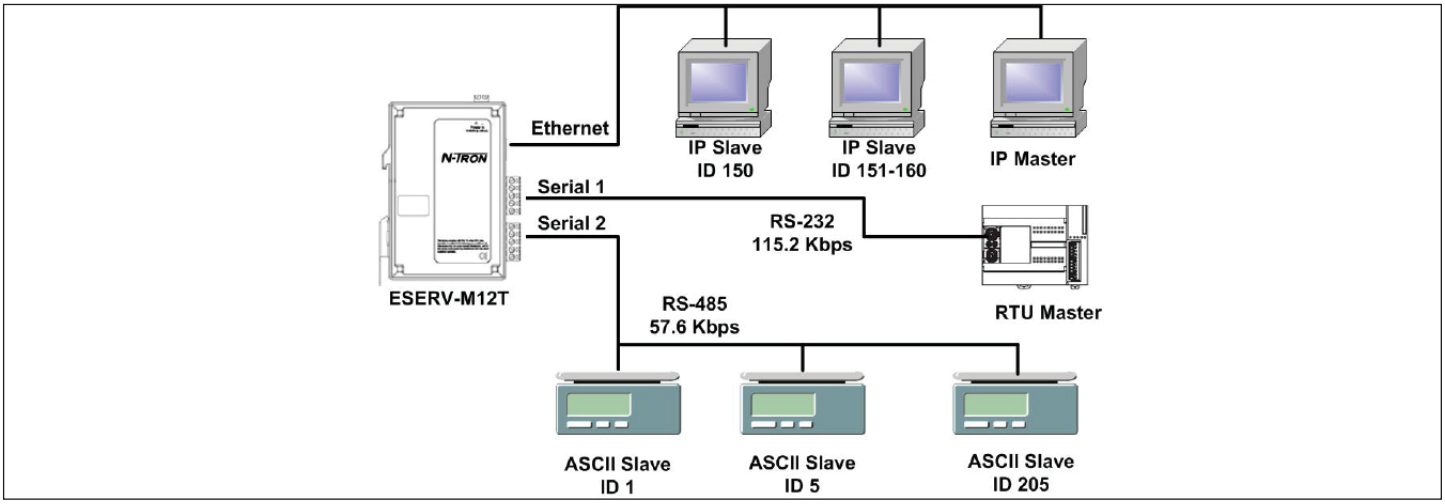
LED Indicators	Serial Port, Ethernet Link, Ready
Switches	Reset Button
Dimensions	1.2 x 3.2 x 4.7 in (3.0 x 8.1 x 11.9 cm)
Enclosure	IP 30 Plastic, 35 mm DIN Mount
Weight	0.33 lbs (149.7 g)
MTBF	132309 hours
MTBF Calc. Method	Parts Count Reliability Prediction

Environmental

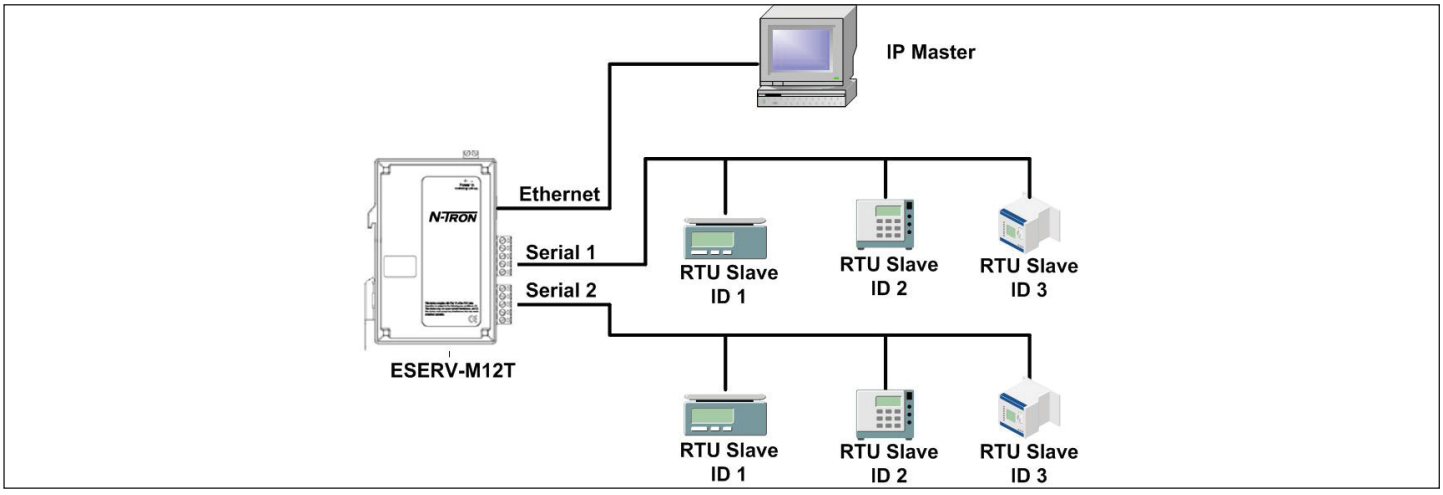
Operating Temperature	- 34 to 80°C (-29 to 176°F)
Storage Temp	- 40 to 85°C (-40 to 185°F)
Operating Humidity	0 to 95% Non-condensing

RegulatoryApprovals FCC, CE, UL 508

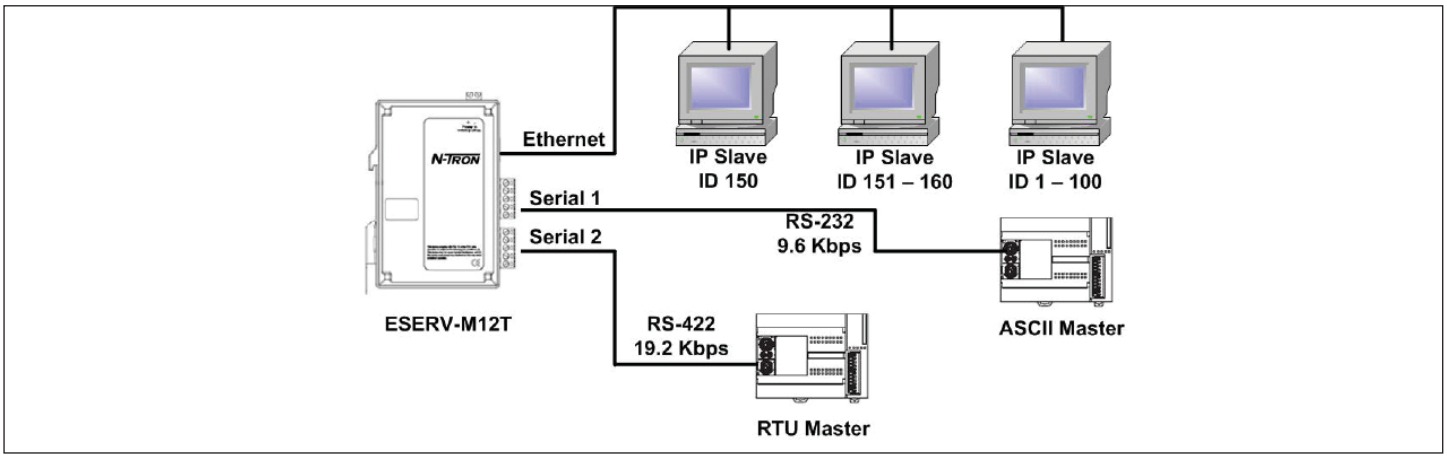
industrial networking



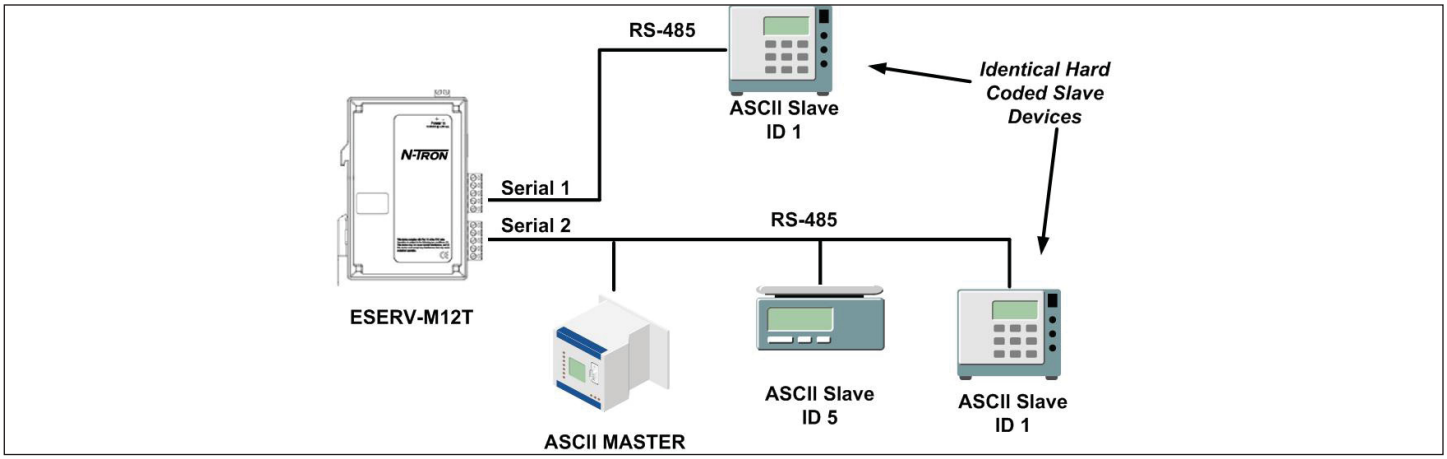
Serial Ethernet Masters - Serial Ethernet Slaves



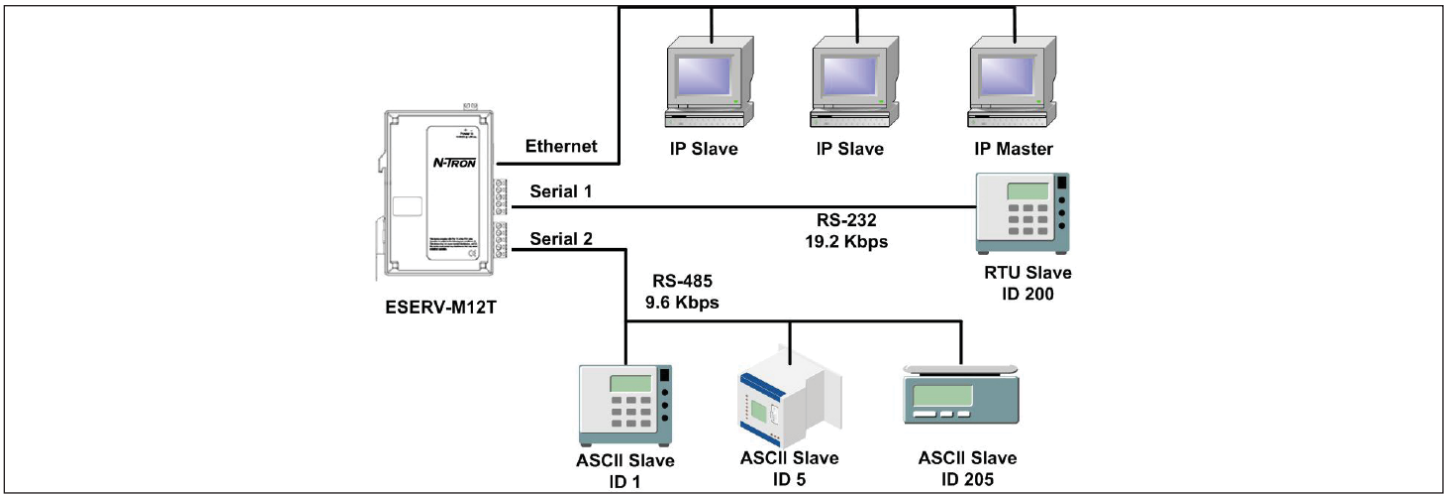
Identical Production Lines



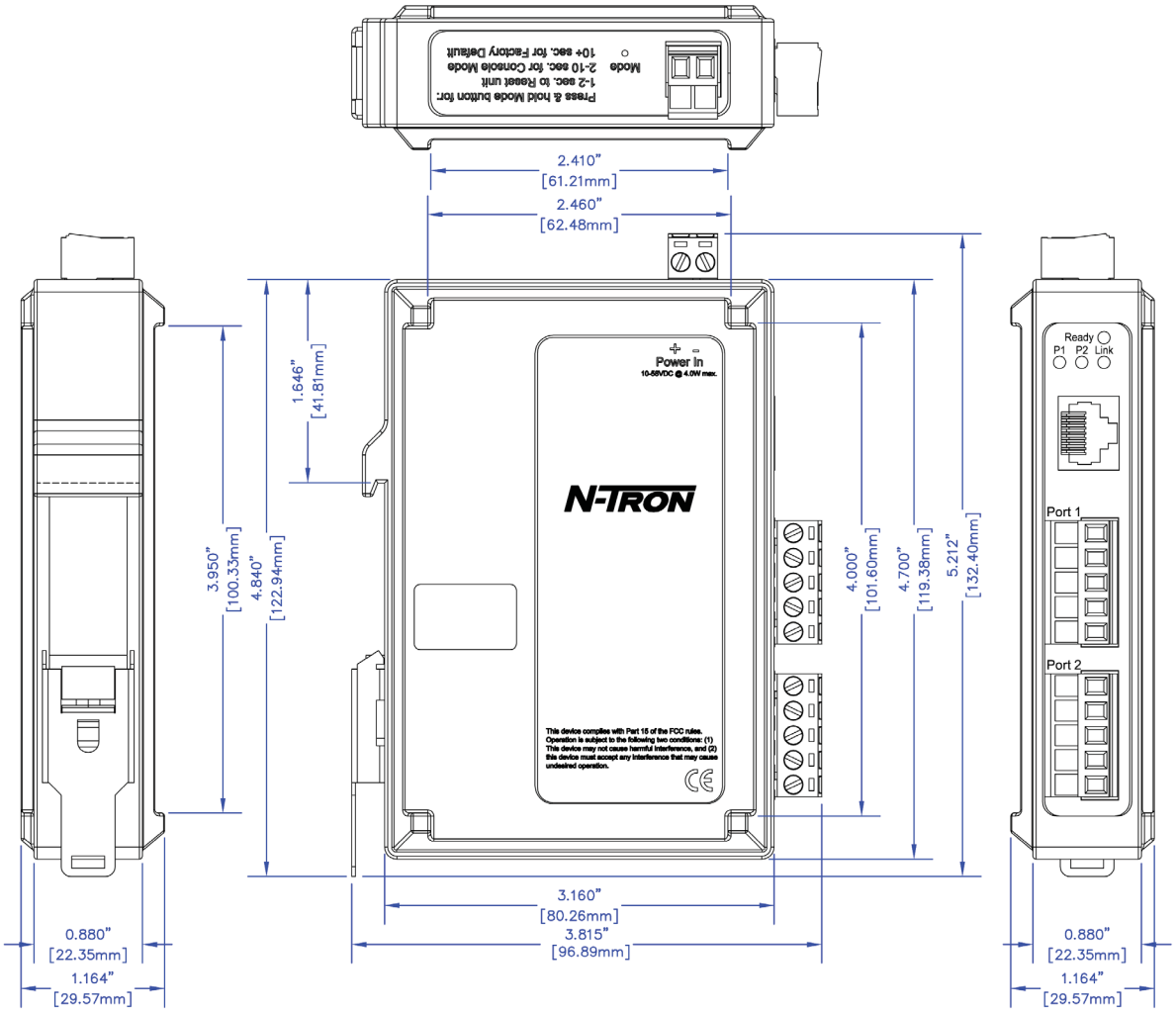
Serial Master - IP Slaves



Identical Hard Coded Slaves



Ethernet Master with Serial Slaves



Ordering Information

ESERV-M12T	Modbus Ethernet to Serial Gateway with (2) Serial ports (TB connectors); (1) Ethernet port (RJ-45)
ESERV-M12T-ST	Modbus Ethernet to Serial Gateway with (2) Serial ports (TB connectors); (1) Ethernet Multimode Fiber port (ST style connector)
NTPS-24-1.3	N-Tron Power Supply1.2 Amp @ 24VDC

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As the global experts in communication, monitoring and control for industrial automation and networking, Red Lion has been delivering innovative solutions for over forty years. Our award-winning technology enables companies worldwide to gain real-time data visibility that drives productivity. Product brands include Red Lion, N-Tron and Sixnet. With headquarters in York, Pennsylvania, the company has offices across the Americas, Asia-Pacific and Europe. For more information, please visit www.redlion.net. Red Lion is a Spectris company.

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