

## ▶▶▶ 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
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#### Network Physical Layer Standards

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

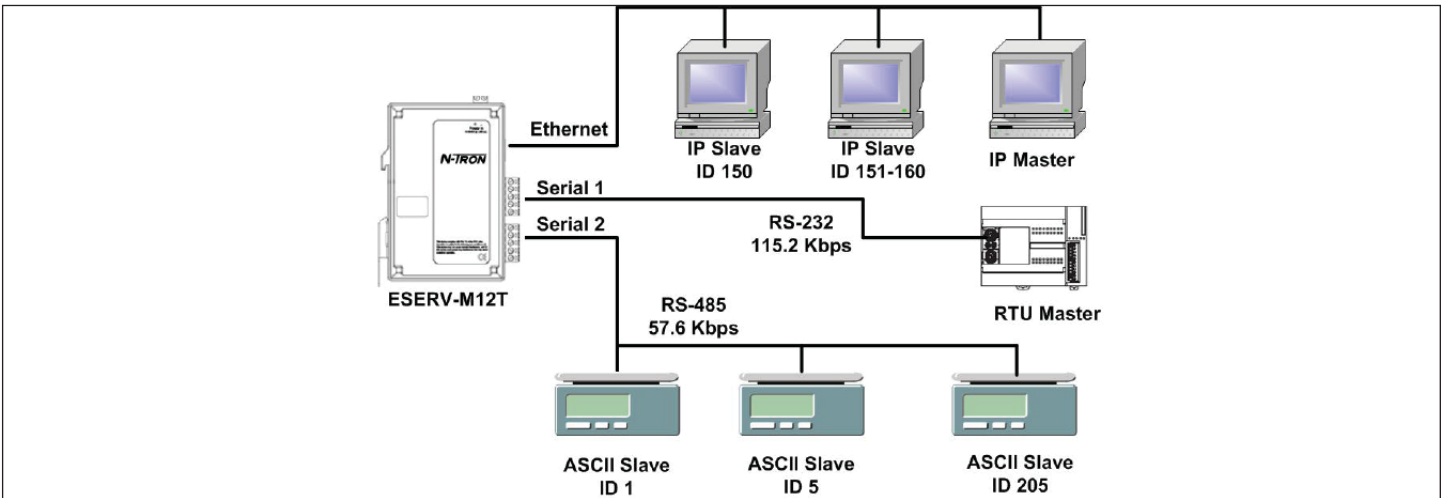
LED Indicators	Serial Port, Ethernet Link, Ready
Switches	Reset Button
Dimensions	1.2 x 3.2 x 4.7 in (3.0 x 8.1 x 11.9 cm)
Enclosure	IP 30 Plastic, 35 mm DIN Mount
Weight	0.33 lbs (149.7 g)
MTBF	132309 hours
MTBF Calc. Method	Parts Count Reliability Prediction

### Environmental

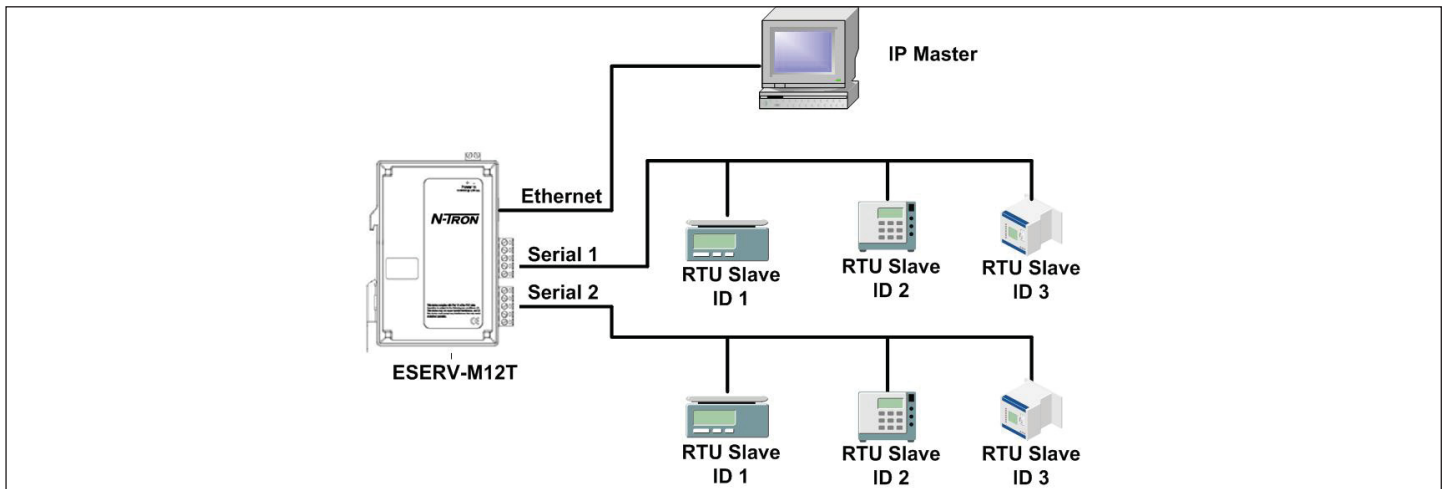
Operating Temperature	- 34 to 80°C (-29 to 176°F)
Storage Temp	- 40 to 85°C (-40 to 185°F)
Operating Humidity	0 to 95% Non-condensing

<b>Regulatory Approvals</b>	FCC, CE, UL 508
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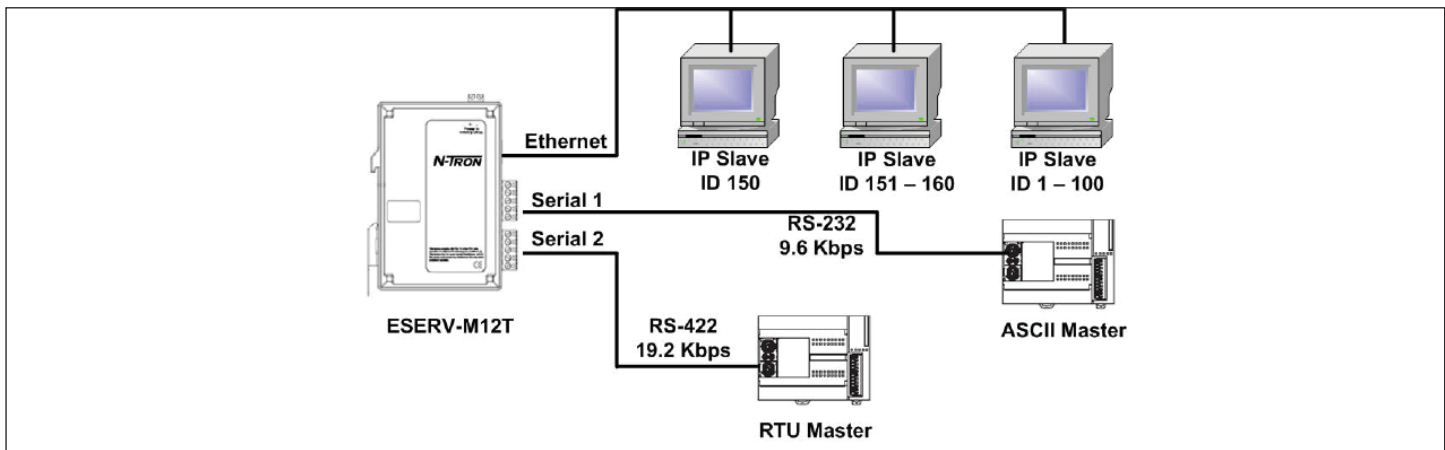
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Serial Ethernet Masters - Serial Ethernet Slaves

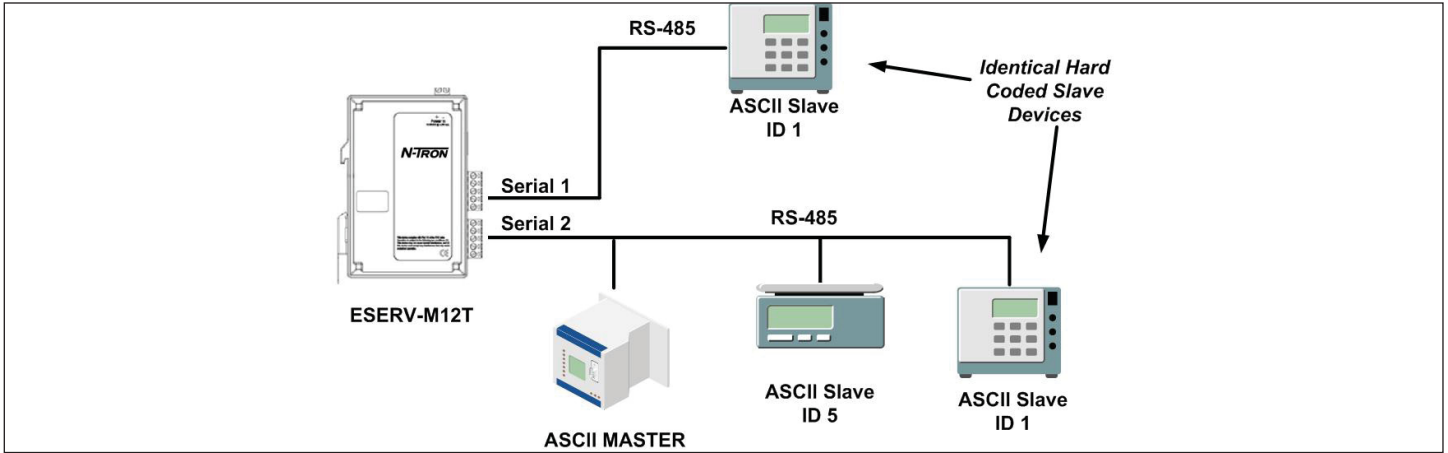


Identical Production Lines

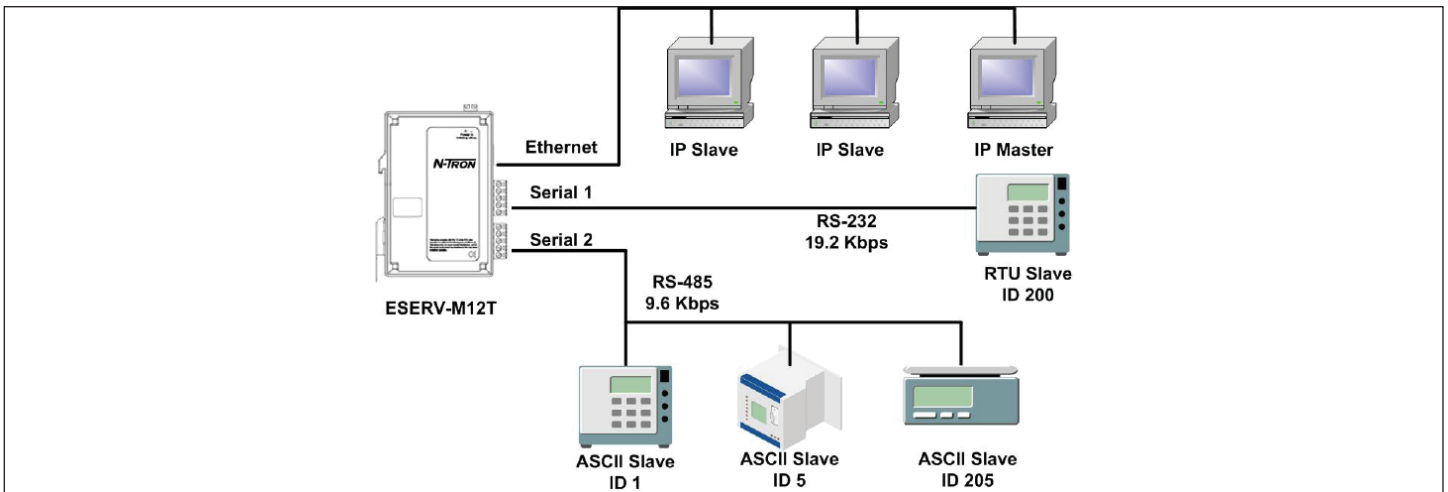


Serial Master - IP Slaves

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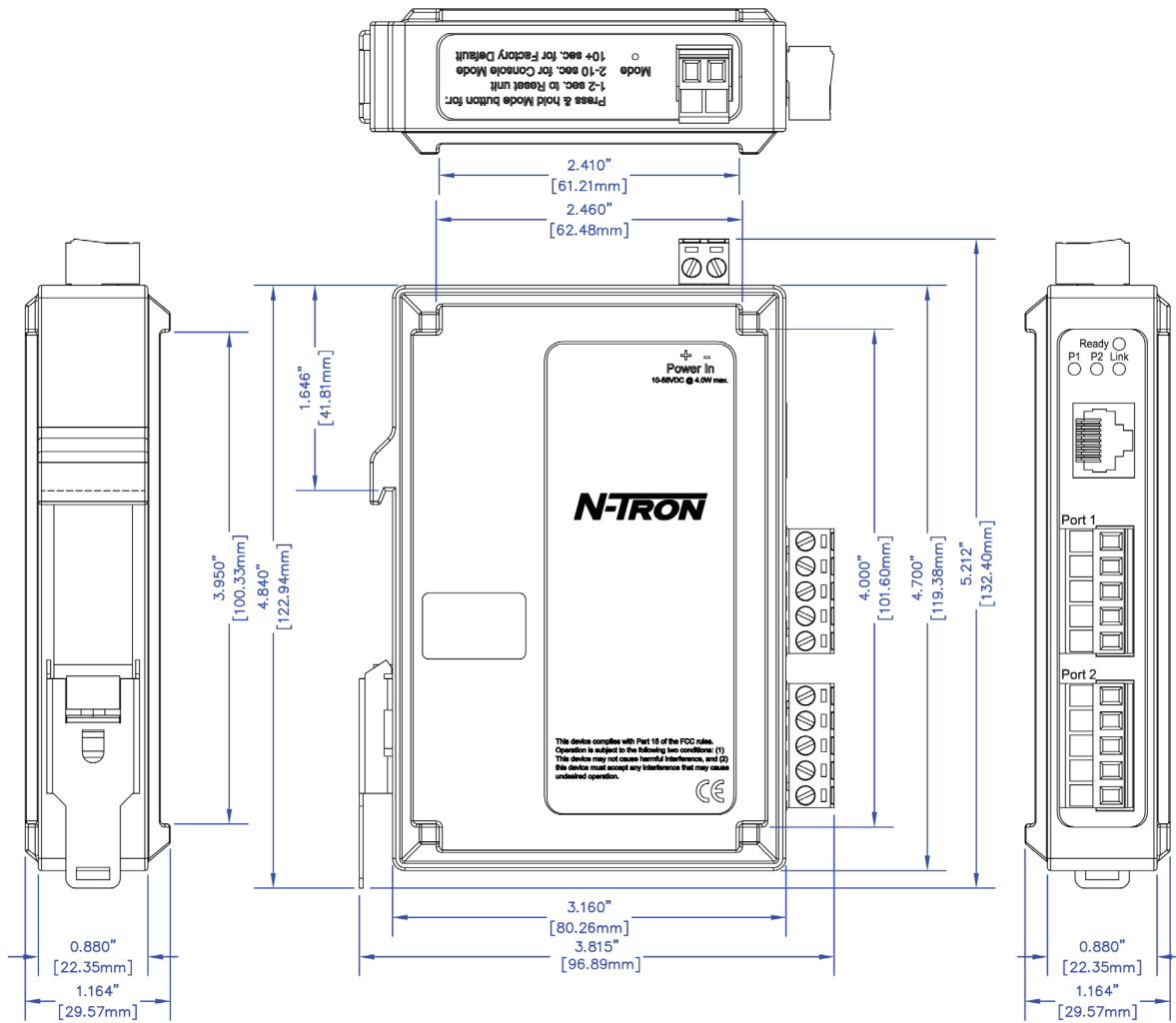


Identical Hard Coded Slaves



Ethernet Master with Serial Slaves

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## 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 Supply 1.2 Amp @ 24VDC   |



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