## 15.2.2—MicroNet Simplex Installation Notes and Warnings

**WARNING**

**The MicroNet Simplex main power supplies must have the input power removed before installing or removing.**

**This equipment is suitable for use in Class I, Division 2, Groups A, B, C, and D or non-hazardous locations only.**

**The 24/12 and 16 channel relay modules are for use in ordinary or non-hazardous locations only.**

**Wiring must be in accordance with Class I, Division 2 wiring methods and in accordance with the authority having jurisdiction.**

## 15.2.3—Installing a MicroNet Simplex Power Supply Module

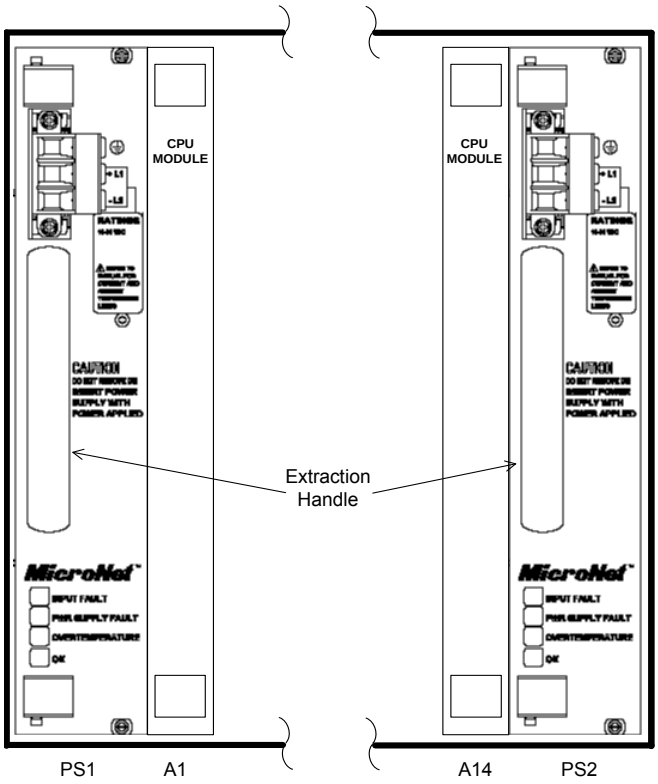


Figure 15-1—MicroNet Power Supply

**Installing a Power Supply (PS1, PS2)**

1. Be certain power to the supply being installed is disconnected. Verify that all pins in the module connectors are parallel and straight.
2. Install a new power supply by aligning the circuit board edges in the card guides, then pushing the unit into the slots until the connectors on the modules and the connectors on the motherboard make contact.
3. With even pressure exerted at the top and bottom of the supply's front panel, firmly push the unit into place. Alternatively, apply force to the extraction handle.
4. Tighten the screws that secure the module in place.

**IMPORTANT**

**If resistance is encountered when installing a module, do not force the module. Remove the module and check the connectors for bent contacts or foreign objects. Also check to ensure that the module screws are fully retracted. Forcing a module into place may break the connector or bend the securing screws.**

## 15.2.4—Installing the 16/32 Channel Relay Boxes

The system's relay boxes mount on a panel (not provided). Mount the relay boxes within the length of the provided cable from the control's main chassis, leaving adequate service loop.

1. Mark the location of the relay box and the locations of the holes to be drilled to mount it. Figures 15-2 and 15-3 are outline drawings of the relay boxes.
2. Drill and tap holes for appropriately sized hardware.
3. Place the relay box in position. Place the mounting screws into the holes that were drilled and tapped, and tighten them securely.
4. The mounting panel should be well grounded to protective earth via the cabinet structure or ground straps that are low RF impedance. Low RF impedance: length not greater than 4 times the cross-sectional circumference of the ground strap.
5. Additionally, the insulation on the cable between the FTM or relay box and the VME Module may have the insulation removed and a metal "P-clip" used around the cable to ground it within approximately 300 mm (12 inches) of the relay box connector. The requirement for implementing an additional ground is specified in 15.2.6.2 and 15.2.7.2. In all cases the labeled chassis ground connections must also be implemented.
6. If your system includes a second relay box, repeat the above steps for the second relay box.
7. After the FTM, the VME module, and the relay box(es) are installed, the cables that connect them may be installed.

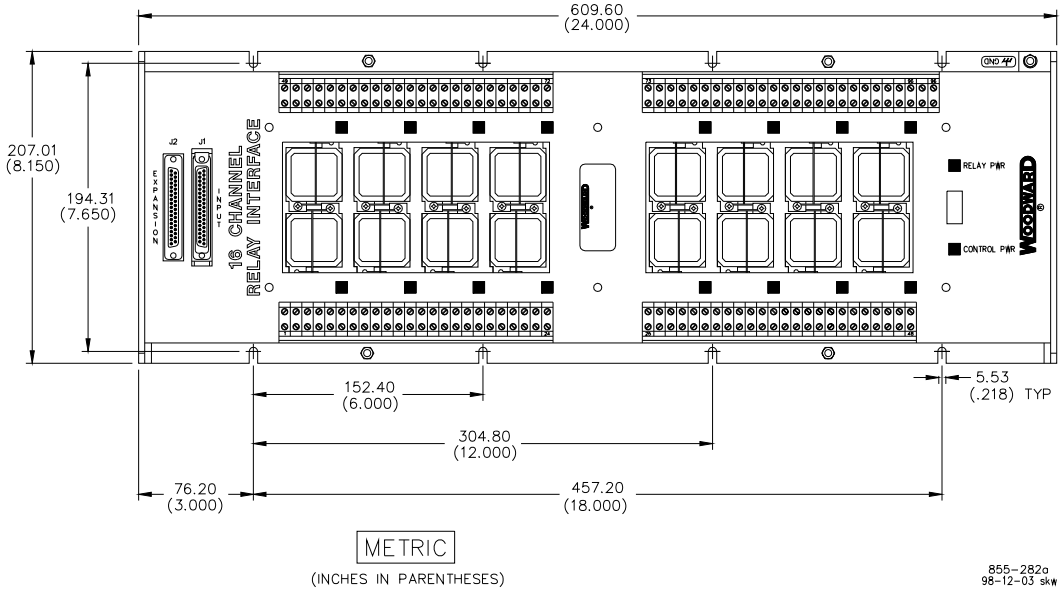


Figure 15-2—16 Channel Relay Box Outline Drawing

**Note:** For use in ordinary or non-hazardous locations only.

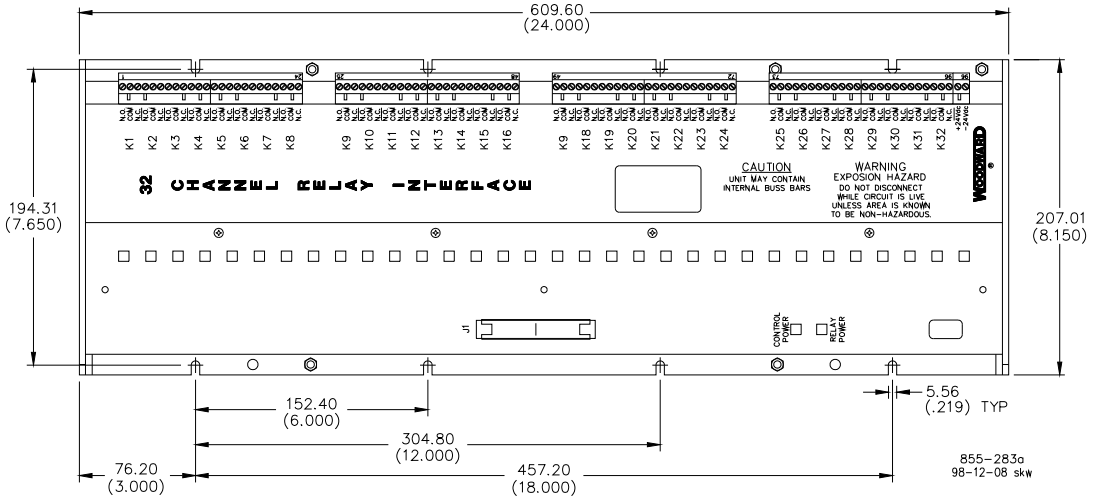


Figure 15-3—32 Channel Relay Box Outline Drawing

**Note:** Listed for use in hazardous locations (Class I, Division 2, Groups A, B, C, D)

**Conditions of UL Acceptability for 32 Channel Relay Box:**

1. The devices must be installed in compliance with the enclosure, mounting, spacing, and segregation requirements of the ultimate application.
2. The device(s) must be wired in accordance with Class I, Division 2 wiring methods and in accordance with the authority having jurisdiction.

## 15.2.5—Installing FTMs

The system's Field Terminal modules (FTMs) mount on a standard DIN (35 x 7.5) rail (not provided). Mount FTMs within the length of the provided cable from the control's main chassis, leaving an adequate service loop.

1. Cut a DIN rail strip to the desired length and mount it to a panel. Leave sufficient space between the DIN rail and other objects for accessibility.
2. Drill and tap at least two holes per 300 mm (12 in) for appropriately sized hardware, and secure the DIN rail using screws and washers.
3. The mounting panel should be well grounded to protective earth via the cabinet structure or ground straps that are low RF impedance. Similarly the DIN rail should be well grounded to the panel. Low RF impedance: length not greater than 4 times the cross-sectional circumference of the ground strap.
4. Verify that the DIN rail is at earth ground potential (connected to a panel that is at earth ground potential). If the DIN rail is not at earth ground potential, connect it to earth ground via a 4 mm² (12 AWG) green/yellow wire or braid, keeping the wire or braid as short as possible.
5. Snap the FTMs onto the DIN rail.
6. Snap ground terminals onto the DIN rail next to the FTMs. See Figure 19-7.
7. Connect a 4 mm² (12 AWG) wire between each ground terminal and the FTM earth ground terminal. Torque to 0.5 to 0.8 N·m (0.37 to 0.59 lb-ft). This wire should be kept short for optimum high frequency grounding. It must be no longer than 150 mm (6 inches) in length.

| Part No | Status | Description | Extended Description | CSA | UL | ATEX | CE (LVD) | CE (EMC) | ABS | DNV | LRS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5501-476 | ANP | MODULE | NETCON DUAL OVERSPEED | | | | | | | | |
| 5501-477 | ANP | MODULE | NETCON DUAL OVERSPEED @ 5478 HZ | | | | | | | | |
| 5501-478 | ANP | MODULE | NETCON DUAL OVERSPEED @ 5404 HZ | | | | | | | | |
| 5501-479 | ANP | MODULE | NETCON DUAL OVERSPEED @ 6160 HZ | | | | | | | | |
| 5501-502 | A | MODULE | TMR SPEED INPUT FTM | | | | | | | | |
| 5501-1428 | A | MODULE | 2CH ACTUATOR CONTROLLER (10MA) W/ FEEDBACK FAULT LATCHING | x | | x | n/a | x | x | x | x |
| 5501-1429 | A | MODULE | 2 CH ACTUATOR CONTROLLER (25MA) W/ FEEDBACK FAULT LATCHING | x | | x | n/a | x | x | x | x |
| 5501-1430 | A | MODULE | 2CH ACTUATOR CONTROLLER (50MA) W/ FEEDBACK FAULT LATCHING | x | | x | n/a | x | x | x | X |
| 5501-1431 | A | MODULE | 2CH ACTUATOR CONTROLLER (100MA) W/ FEEDBACK FAULT LATCHING | x | | x | n/a | x | x | x | x |
| 5501-1432 | A | MODULE | 2CH ACTUATOR CONTROLLER (200MA) W/ FEEDBACK FAULT LATCHING | x | | x | n/a | x | x | x | x |
| 5503-267 | A | MODULE | NETCON IIIB 3-9 PIN RT SIO W/SCREW POSTS | x | | | n/a | x | | x | |
| 5503-279 | A | BOARD | MICRONET HDVIM (AI/RTD/TC) THRU HOLE ASSY | x | | | x | x | x | x | x |
| 5503-282 | A | MODULE | FTM HDVIM (AI/RTD/TC) THRU HOLE ASSY | x | | | x | x | x | x | x |
| 5503-335 | AS | MODULE | MICRONET 5200 CPU, 400MHZ, 64MB FLASH, 128MB RAM | x | | | x | x | | x | |
| 5503-336 | AS | MODULE | MICRONET REAL-TIME NETWORK XCVR (REMOTE) | x | | | x | x | | x | |
| 5503-904 | A | MODULE | HD ANALOG I/O 12 CH 4-20MA AND 12 CH 0-5V | x | | | | | | | |
| 801-1302 | A | PCBA DWG | MICRONET DIO MODULE | | | | | | x | x | |
| 801-1306 | A | PCBA DWG | HD DISCRETE I/O FTM RELAY DRIVER (24IN / 12OUT) | | | | | | x | x | |
| 8928-096 | A | KIT | CPU EMI DB9 RS232 ADAPTOR | | | | | | | | |
| 901-1302 | A | PCBA Schematic | MICRONET DIO MODULE | | | | | | x | x | |
| 901-1306 | A | PCBA Schematic | HD DISCRETE I/O FTM RELAY DRIVER (24IN / 12OUT) | | | | | | | x | |
| 9905-678 | A | MODULE | LINKNET 6 CHANNEL 200 OHM RTD | | x | x | n/a | x | x | x | x |
| 9905-760 | A | MODULE | ASSY OF LINKNET TERMINATION | | x | x | n/a | x | x | x | x |
| 9905-966 | A | MODULE | LINKNET TC INPUT FAIL HIGH | | x | x | n/a | x | x | x | x |
| 9905-967 | A | MODULE | LINKNET TC INPUT FAIL LOW | | x | x | n/a | x | x | x | x |