

External 24 Vdc Power Supply Guidelines For Micrologic X.0 A/P/H Trip Units

Retain for future use.

NOTE: The 24 Vdc (E1, E2) power supply for the communication bus **must** be separate from the external 24 Vdc power supply module for the Micrologic trip units (F1-, F2+).

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E.
- This equipment must only be installed and serviced by qualified electrical personnel.
- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors and covers before turning on power to this equipment.

Failure to follow these instructions will result in death or serious injury.

Recommended Power Supplies and Characteristics

Table 1: Recommended Power Supplies

Input	Catalog Number
24–30 Vdc	685823
48–60 Vdc	685824
125 Vdc	685825
110–130 Vdc	685826
200–240 Vdc	685827
380–415 Vdc	685829

Table 2: External 24 Vdc Power Supply Characteristics

Rated Output Current	1 A
Rated Voltage	24 Vdc
Overall Accuracy	± 5% Vn
Ripple	200 mV peak to peak
Noise	200 mV peak to peak
Voltage Output Variation Limit	21.6 V < V _{out} < 26.3 V
Capacitive Load	500 µF
Input/Output Capacitive Load	150 pF max.

Connection

The maximum length for each conductor supplying power to the trip unit or M6C module is 10 m (32.8 ft.)

- Do not ground F2+, F1–, or power supply output:
 - The positive terminal (F2+) on the trip unit must not be connected to earth ground.
 - The negative terminal (F1–) on the trip unit must not be connected to earth ground.
 - The output terminals (– and +) of the 24 Vdc power supply must not be grounded.
- Reduce Electromagnetic Interference:
 - The input and output wires of the 24 Vdc power supply must be physically separated as much as possible.
 - If the 24 Vdc power supply wires cross power cables, they must cross perpendicularly. If this is not physically possible, the power supply conductors must be twisted together.
 - Power supply conductors must be cut to length. Do not loop excess conductor.
- Use only one 24 Vdc power supply for each Micrologic trip unit.
- Connect external 24 Vdc power supply only per the following wiring diagrams.

Wiring Diagrams

Figure 1: Power Supply Wiring for Micrologic Trip Unit Only

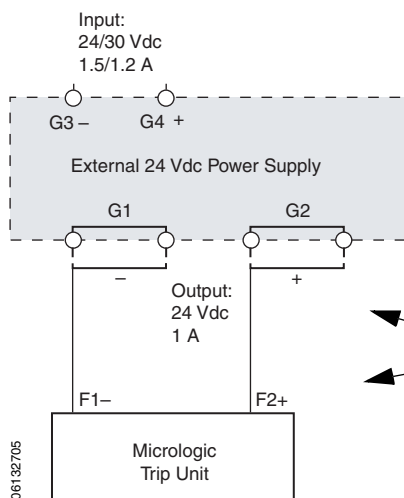
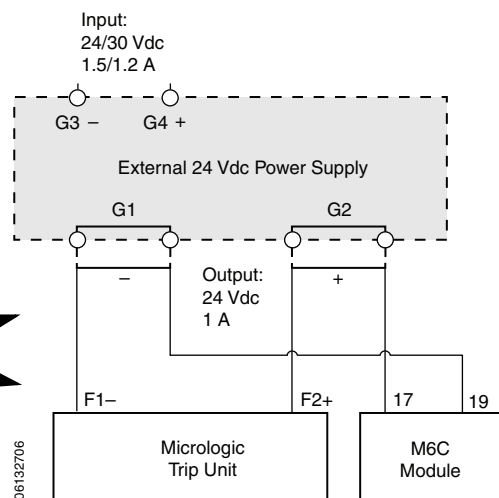


Figure 2: Power Supply Wiring for Micrologic Trip Unit and M6C Module



Important!
Do not ground power supply output, F1–, or F2+.

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Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

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