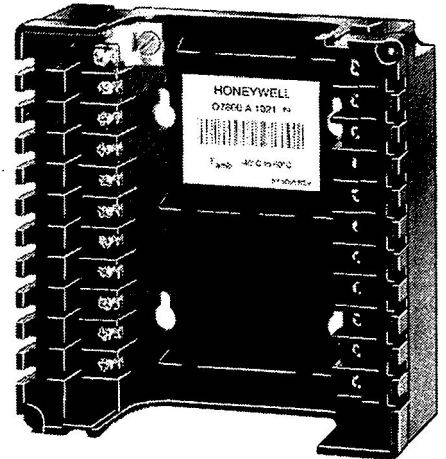


EC7800 SERIES Q7800A 22-Terminal Universal Wiring Subbase

Application

The Q7800A is a universal wiring subbase for the EC7800 SERIES Relay Modules. The universal wiring subbase provides terminals for field wiring. Knife blade terminals located on the EC7800 SERIES Relay Module engage the Q7800A bifurcated contacts to make electrical connections.

The Q7800A1021 (2-sided) subbase is available for panel mounting applications. Knockouts are provided in the back, top and bottom for conduit connections.



Specifications

WEIGHT:

Q7800A: 196 grams.

DIMENSIONS: See Fig. 1.

ENCLOSURE: NEMA 1.

APPROVALS:

To meet EN60730 approval the Q7800A subbase must be mounted in a secured panel which meets IP40 class of protection.

ACCESSORIES:

Electrical Access Slot Covers, part no. 221779.

CAUTION

Disconnect power supply before beginning installation to prevent electrical shock and equipment damage. More than one disconnect may be involved.

Follow the equipment manufacturer instructions if available; otherwise, proceed as follows below.

MOUNTING

NOTE: For installation dimensions, see Fig. 1.

1. Place the subbase in a location within the ambient temperature rating of the EC7800 SERIES Relay Module being used. Refer to the appropriate Instructions.

2. Mount the subbase in any position except horizontally with the bifurcated contacts pointing down. The standard vertical position is recommended.

3. Mount the Q7800A directly in the control cabinet. Be sure to allow adequate clearance for servicing, installation, access or removal of the EC7800 SERIES Relay Module, Keyboard Display Module, Run/Test switch, flame amplifier signal voltage probes, electrical signal voltage probes and electrical field connections.

IMPORTANT: Do not mount the wiring subbase horizontally with the bifurcated contacts pointing down.

4. For surface mounting, use the back of the subbase as a template to mark the four screw locations. Drill the pilot holes.

5. Insert the mounting screws using four M3.5 x 0.6 screws tightened securely.

Installation

WHEN INSTALLING THIS PRODUCT...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.

2. Check the ratings given in the instructions and on the product to make sure the product is suitable for your application.

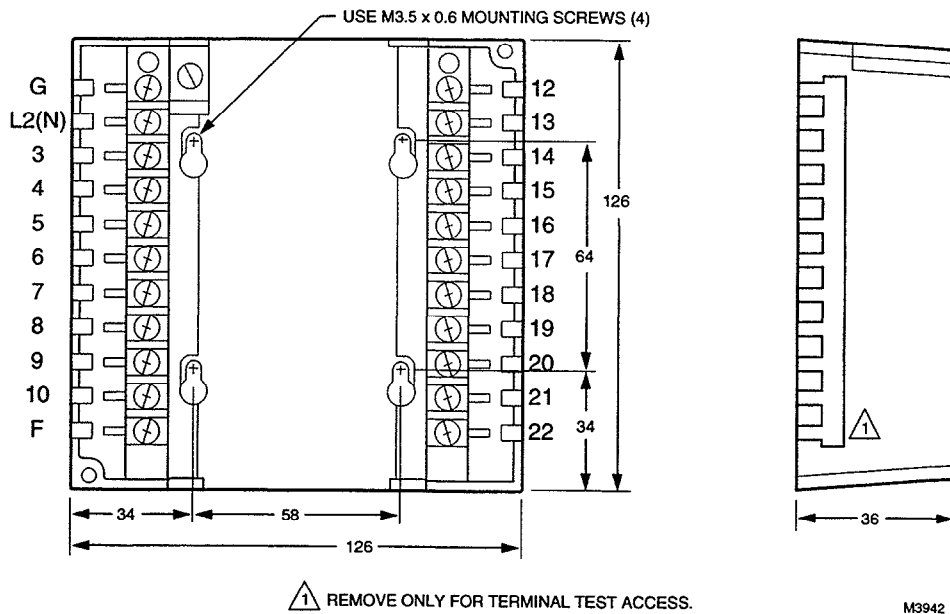
3. Installer must be a trained, experienced, Flame Safeguard service technician.

4. Disconnect the power supply before beginning installation to prevent electrical shock and equipment damage. More than one disconnect may be involved.

5. All wiring must comply with applicable local electrical codes, ordinances, and regulations.

6. After installation is complete, check out product operation as provided in these instructions.

Fig. 1—Top and front view of Q7800A1021 wiring subbase (2-sided) with dimensions in millimeters.



REMOVE ONLY FOR TERMINAL TEST ACCESS.

M3942

Wiring

1. Refer to the equipment manufacturer's wiring information and the appropriate EC7800 SERIES Relay Module Specifications for correct subbase wiring.

2. Provide overload protection and disconnect means as required. Disconnect the power supply from the main disconnect before beginning installation to prevent electrical shock and equipment damage. More than one disconnect may be involved.

3. All wiring must comply with appropriate electrical codes, ordinances and regulations.

4. For high temperature installations, use wire selected for a temperature rating above the noted maximum operating temperature. The flame detector leadwires should be moisture resistant.

- a. For the ignition leadwire, use Honeywell specification no. R1061012 Ignition Cable or equivalent. (This wire is rated at 177° C for continuous duty, and up to 260° C for intermittent use. It has been tested to 25,000 volts.)
- b. For the flame detector F leadwire, use Honeywell specification no. R1298020 or equivalent. (This wire is rated at 204° C for continuous duty. It is tested for operation up to 600 volts and breakdown up to 7500 volts.)
- c. For ignition installation in a contaminating environment, use Honeywell specification no. R1239001 High Tension Ignition Cable or equivalent. (This wire is resistant to severe conditions of oil, heat and corona, and is tested to withstand high voltages up to 25,000 Vrms in a salt bath for one minute without breakdown. It is rated at 93° C for continuous duty, and up to 177° C for intermittent use.

5. Recommended grounding practices:

- a. Each EC7800 SERIES Relay Module will have an earth ground terminal G that must be grounded to the metal control panel with wire as short as practical. Each ground wire must be capable of carrying a fault current equal to the rating of the protective fuse (20 amperes).
- b. The earth ground provides a connection between the subbase and the control panel or the equipment. The earth ground wire must be capable of conducting the current to blow the 20A fuse (or breaker) in event of an internal short circuit. The EC7800 SERIES Relay Module needs a low impedance ground connection to the equipment frame which, in turn, needs a low impedance connection to earth ground. For a ground path to be low impedance at RF frequencies, the connection must be made with minimum length conductors that have maximum surface areas. Wide straps or brackets are preferred rather than leadwires. Be careful to ensure that mechanically tightened joints along the ground path, such as pipe or conduit threads or surfaces held together with fasteners, are free of nonconductive coatings and have corrosion-protected mating surfaces.

6. Recommended wire routing for flame detector leadwires:

- a. Do not run high voltage ignition transformer wires in the same conduit with the flame detection wiring.
- b. Do not route scanner wires in the same conduit with line voltage circuits.
- c. Scanner wiring not utilizing armor cable should be enclosed in metal cable or conduit.
- d. Follow directions in the Flame Detector Instructions.

Checkout

7. Maximum wire lengths for flame detector leadwires are limited by the flame signal strength.

8. Make sure that loads do not exceed the terminal ratings; refer to the labels on the EC7800 SERIES Relay Module, or ratings in the EC7800 SERIES Relay Module Specifications.

9. Check the power supply circuit. The voltage and frequency tolerance must match those of the EC7800 SERIES Relay Module. Do not connect the EC7800 SERIES Relay Module to a power supply circuit that is subject to line voltage variations, such as would occur with on-off switching of heavy loads. A separate power supply circuit may be required for the EC7800 SERIES Relay Module. Add the required disconnect means and overload protection.

10. Check all wiring circuits according to the EC7800 SERIES Relay Module Specifications before installing the EC7800 SERIES Relay Module on the subbase.

11. Install the EC7800 SERIES Relay Module.

12. Restore power to the panel.

IMPORTANT: *Do not run high voltage ignition transformer wires in the same conduit with the flame detector wiring.*

IMPORTANT: *Make sure no subbase wiring is projecting beyond the terminal blocks. Tuck wiring in against the back of the subbase so it does not interfere with the knife blade terminals or bifurcated contacts.*

After installation, perform a complete checkout of the system. Follow information supplied by the equipment manufacturer and instructions furnished with the EC7800 SERIES Relay Module.

SERVICE NOTE: Voltage checks can be accomplished by removing the Electrical Access Slot Covers and using the electrical access slots on the sides of the Q7800A.



CAUTION

Replace Electrical Access Slot Covers after performing voltage checks or anytime they are removed.
