



L4029E,F Limit Controls

INSTALLATION INSTRUCTIONS

APPLICATION

The L4029E,F provides high limit cutout with manual reset in warm air or air conditioning systems. In warm air systems, the L4029E,F may be used as secondary high limits for positive burner shutdown on fan failure, or on reverse airflow in counterflow furnaces. The limits may also be used to detect heat from a fire in air conditioning or ventilation ducts and shut off air circulation to contain the fire. The L4029E comes with case and cover, the L4029F without case and cover. Both mount directly to the ductwork.

between filter(s) and blower where the circulation of air is not restricted by baffles. Do not permit element guard to touch filter or other internal parts.

The maximum ambient temperature of the selected location should not exceed 190 F at switch, 350 F at bimetal.

INSTALLATION

! CAUTION

1. Installer must be a trained, experienced service technician.
2. Disconnect power before connecting wiring to prevent electrical shock and equipment damage.

Location

L4029E or F should be mounted where element can respond quickly to air temperature changes in the system. In a ventilating or air conditioning installation, the safety control is normally installed with element just upstream of fan. Where there is no intake duct, the L4029E or F may be mounted on a suitable bracket so the air entering the fan is drawn across the element. In a downflow furnace installation, locate the L4029E or F

Mounting

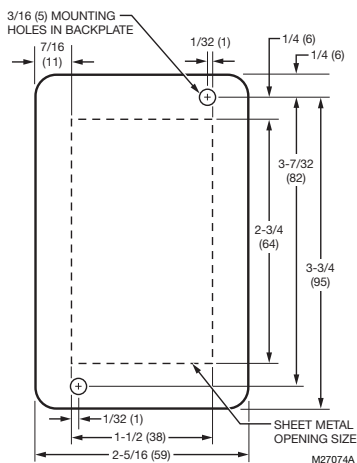


Fig. 1. Mounting and case dimensions in inches for L4029E.

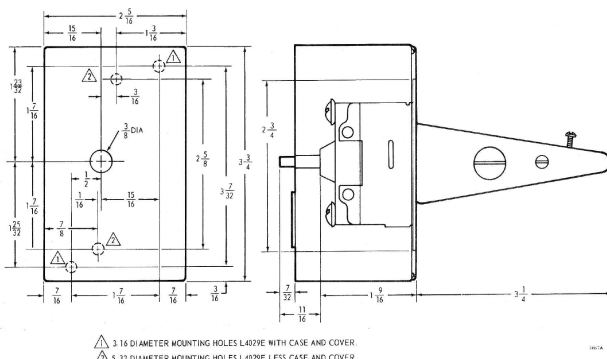


Fig. 2. Control dimensions.



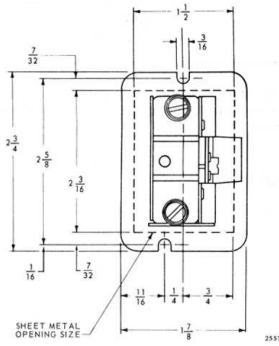


Fig. 3. Mounting and backplate dimensions in inches for L4029F.

At selected location, cut a hole in sheet metal to clear element guard, and drill holes for mounting screws. Remove cover (L4029E), insert element into hole, and fasten control securely with screws.

WIRING

CAUTION

Disconnect power before making wiring connections to prevent electrical shock and equipment damage.

All wiring must agree with local electrical codes and ordinances. See typical connections below.

Loads connected to the control terminals must not exceed the following electrical ratings (in amperes):

Table 1. Electrical Ratings.

	30 VAC	120 VAC	240 VAC
Full Load	2	10	5
Locked Rotor	—	60	30

0.25 amp full load at 0.25 to 12VDC.
1600 VA maximum connected load.

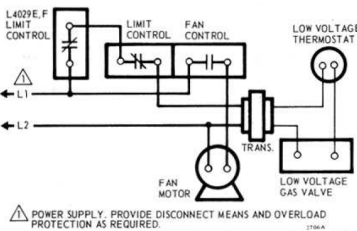


Fig. 4. Typical diagram of L4029E or F in gas-fired downflow furnace circuit.

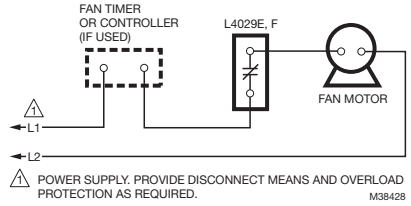


Fig. 5. Typical diagram of L4029E or F in ventilating fan circuit.

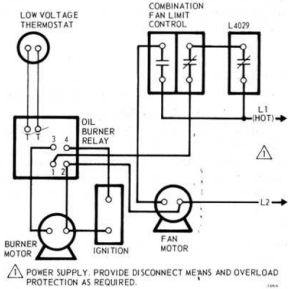


Fig. 6. Typical diagram of L4029E or F in oil-fired downflow furnace circuit.

CHECKOUT

There are no field adjustments to make on the L4029E or F.

To Reset

When the temperature has dropped approximately 25 degrees (F) below cutout point, push and release the button protruding through the cover.

1. If the limit control should require servicing or replacement, be sure to order by model number.
2. Never use a lighted match to heat the bimetal element for checking the operation.
3. Limit controls do not require lubrication.

Before leaving the job, check the installation as follows:

1. Disconnect the fan from its power supply.
2. Turn on the burner by operating the thermostat.
3. The L4029 will shut off the burner when the plenum temperature reaches the limit setting of the control.
4. If the L4029 fails to shut off the burner, check the installation and wiring carefully. Retest. If control still fails to shut off burner, replace control.



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