



WHITE-RODGERS

3098-134 & 3098-156

Standard Replacement
Mercury Flame Sensor
INSTALLATION INSTRUCTIONS

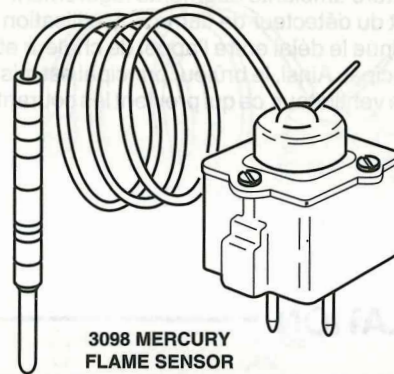
Operator: Save these instructions for future use!

FAILURE TO READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLING OR OPERATING THIS CONTROL COULD CAUSE PERSONAL INJURY AND/OR PROPERTY DAMAGE.

DESCRIPTION

The 3098-134 and 3098-156 Mercury Flame sensors are designed as universal replacements for types currently used on cycling pilot ignition systems. They will replace sensors used in "thermocouple" type (slip-in) pilot burners. The bulbs on both flame sensors have additional grooves to accept retaining clips (C-rings) allowing them to replace most existing sensors.

The 3098 Flame Sensors are SPDT (single-pole double-throw) devices, with switchcases designed to plug into cycling pilot gas valves. These flame sensors should not be used in appliances other than those listed in the cross reference.



3098 MERCURY
FLAME SENSOR

PRECAUTIONS

If in doubt about whether your wiring is millivolt, line, or low voltage, have it inspected by a qualified heating and air conditioning contractor or licensed electrician.

Do not exceed the specification ratings.

All wiring must conform to local and national electrical codes and ordinances.

This control is a precision instrument, and should be handled carefully. Rough handling or distorting components could cause the control to malfunction.

⚠ WARNING

Do not use on circuits exceeding specified voltage. Higher voltage will damage control and could cause shock or fire hazard.

⚠ CAUTION

To prevent electrical shock and/or equipment damage, disconnect electric power to system at main fuse or circuit breaker box until installation is complete.

Shut off main gas to heating system until installation is complete.

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

Following installation or replacement, follow appliance manufacturer's recommended installation and/or service instructions to insure proper operation.

ATTENTION!

This product contains mercury. There will not be any exposure to mercury under normal conditions of use. This product may replace a unit which contains mercury. Do not open mercury cells. If a cell becomes damaged, do not touch any spilled mercury. Wearing nonabsorbent gloves, take up the spilled mercury with sand or other absorbent material and place into a container which can be sealed. If a cell becomes damaged, the unit should be discarded. Mercury must not be discarded in household trash. When this unit or the unit it is replacing is to be discarded, place in a suitable container and return to us.



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Printed in U.S.A.

PART NO. 37-3600C
Replaces 37-3600B

9711

SPECIFICATIONS

Type 3098-134 is equipped with a "high-mass" element, and is used in applications where a medium sensor response time (typically 45 to 60 seconds) is desired.

Type 3098-156 contains a "low-mass" element, and is used in applications where a short response time (usually between 30 to 45 seconds) is required.

In general, consideration for response time is based on whether or not the control system uses some form of pre-purge or fan delay timer. Systems using delay timers may require the use of the low-mass 3098-156 so that the element responds to the pilot before the delay time has elapsed.

This is especially true in cases where roof-top units are equipped with delay timers and are subjected to low ambients (20°F or less). The low ambient slightly increases the "heat-up time" for the flame sensor. The use of the 3098-156 reduces the time lag between the original call for heat and the time the main burner comes on. This causes main burner operation to occur shortly before the system blower comes on, preventing cold air drafts on start up.

Electrical Rating: 3 Amps @ 24 VAC
1 Amp @ 120 VAC
0.5 Amps @ 240 VAC

Switch Action: SPDT

Capillary Length: 48 Inches

Sensing Bulb Type: Universal Replacement Thermocouple "slip-in"

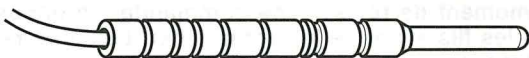
Terminal Designations: 2 - Normally Open
3 - Normally Closed
4 - Common

INSTALLATION

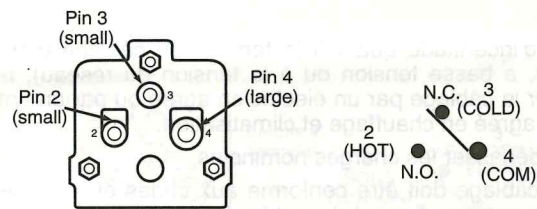
⚠ CAUTION

To avoid personal injury and/or property damage, shut off gas and electric to heating system until installation is complete.

1. Turn off gas and power until replacement is complete.
2. Remove defective flame sensor from pilot burner and unplug from gas valve.
3. Align tip of defective flame sensor with tip of replacement. Do not uncoil capillary of new flame sensor.



4. Note the location of the C-rings on the defective sensor bulb and install C-rings on the replacement in the same locations.
5. Insert replacement sensor in pilot burner. Uncoil only enough capillary to allow sensor to be installed. Be sure new sensing bulb is in the same position as the unit it is replacing.
6. Carefully uncoil capillary of new sensor by grasping capillary at switchcase and sensing bulb, then "stretch" coil until switchcase reaches gas valve plug. Carefully align switchcase with gas valve socket and plug flame sensor into valve.
7. Turn on gas and power. Cycle system a number of times to insure proper operation.



Internal Schematic

MERCURY FLAME SENSOR CROSS REFERENCE

OEM MODEL NO.	WHOLESALE REPLACEMENT	OEM MODEL NO.	WHOLESALE REPLACEMENT
3098-1	3098-134	3098-136E1	3098-134
3098-111	3098-134	3098-136E2	3098-156
3098-117	3098-135	3098-137	None
3098-120	3098-135	3098-139	None
3098-122	3098-156	3098-140	3098-140
3098-124	3098-156	3098-141	3098-134
3098-126	3098-156	3098-142	3098-156
3098-127E1	3098-134	3098-143	3098-156
3098-127E2	3098-156	3098-144	3098-156
3098-130	3098-156	3098-147	3098-134
3098-131	3098-156	3098-148	None
3098-134	3098-134	3098-149	3098-156
3098-135	3098-135	3098-153	3098-156

Contact the O.E.M. (Original Equipment Manufacturer) for replacements not listed in cross reference