GN Electronics Q-Flame Tester

Model 5004-04MS

Connects between any burner control and the burner itself Check burner controls, temperature controls, actuators & more

Features:

- Universal UV, IR, FR Tester
- 4 to 20mA Generator & Meter
- 4 to 20mA Level adjust
- **Signal Sensitivity Adjustment**
- **Know real flame levels**
- **Trouble shoot sensing problems**
- Helps eliminate electrical interference
- Compare sensor types
- **Compare control sensitivity**
- Speeds burner adjustment
- **Reduces downtime**
- **Settable Alarm Output**
- **Built-in Audible alarm**
- Visual Indication at burner
- **Optional remote LCD display**
- **Low Cost**

Description

The 5004-04MS is a Micro-Computer Based flame rod, IR or UV scanner flame signal meter, which will indicate a relative flame level intensity to verify adequate signal for a flame safeguard system.

This is very useful for determining the scanner-viewing angle and burner adjustments.

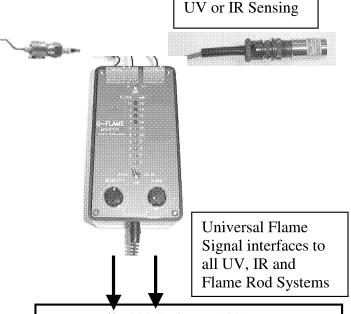
The unit has its own UV and IR sensing elements, which is inserted into the sensor port or a sight tube on a burner. The flame level will be indicated with the number of LED lights illuminated on the front of the unit.

In addition to these features the Q-Flame generates a flame signal relative to the input detected. This signal will interface to any UV, IR and Flame Rod amplifiers

Specifications:

Power: One-9V Battery (12VDC Ext) Temperature range: 0°F to 120°F

Indicator Accuracy: 5% Case Material: Phenolic Flame Rod Sensing



Honeywell 7800 Series, RA890s etc Protection Controls- S100 Flame Pak Fireye- E100, MicroM, etc Siemens- LFL, etc Eclipse 5600 Series, 6000 and 6500 Series

It also functions as a current loop checker. It provides a variable 4-to 20-milliamp-output level and can read 4 to 20 milliamp at 10 signal levels indicated by lights on the front.

The 5004-04MS also has a built-in alarm buzzer that will sound when the flame signal reaches the trip level set by the operator. With this feature the operator does not need to be continually watching the indicators to know the flame level has reached an adequate flame signal.

The unit is powered by 1 standard 9-volt battery. It can also be powered externally. It has 2 separate connector terminals for wire connections

Note: The Q-Flame is part of the Quanta-Flame family of products Quanta-Flame is a registered trademark of GN Electronics Inc

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Description

The 5004-04FS is a multifunctional tester that simulates flame rod or UV scanner flame signals to all the major brands of combustion controls.

It also functions as a current loop checker. It provides a variable 4-to 20-milliamp-output level and can read 4 to 20 milliamp at 5 signal levels indicated by lights on the front. This is an ideal tool for troubleshooting combustion control systems including the temperature control loop and actuator.

The unit is powered by 2 standard 9-volt batteries and has 2 separate connector terminals for wire connections. One connector is for the milliamp output and input functions. The other connector is for the flame simulation function.

Two control knobs allow continuous adjustment of the milliamp output level and the flame signal intensity. A battery light illuminates when the switch is on and the battery power is sufficient for proper operation. The Flame Rod function does not use the batteries.



Specifications:

Power:

Temperature range:

Milliamp indicator Accuracy

Maximum Current Loop Resistance

Current Loop input Resistance:

Dimensions:

Weight:

Case Material:

Two 9V Batteries

0°F to 120°F

5%

300 Ohms for 20 milliamps

250 Ohms

4"L x 2 7/8"W x 2 2/16"D

10 ounces

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Current Operation



Milliamp Output (current source)

Connect wires from the +mA terminal to the device + input connector and the -mA terminal to the device -input connector. Be sure all external wires are disconnected from the device. Turn the selector switch to the OUT position (left). Adjust the 4-20mA OUT knob while observing the 5 signal level lights. When finished testing, turn the switch to the center off position to prevent battery drain.

Milliamp Input (current read)

Connect wires from the –IN terminal to the device + output connector and the +IN terminal to the device - output connector. Turn the selector switch to the IN position (right). Adjust the device and observe the 5 signal level lights. The light will turn on when the device current is equal or above the light value.



Warning: Flame simulation must only be used for troubleshooting and testing by trained and qualified technicians experienced in combustion control. The flame simulator must not be used for the operation of the burner.

Flame Simulation



Flame Rod Simulation

Connect wires from the COM terminal to the flame amplifier common or earth connector and the UV/FR terminal to the flame amplifier flame rod connector. Be sure all external flame sensor wires are disconnected from the flame amplifier. Keep the switch in the center FR position and adjust the FLAME SIGNAL knob until the flame amplifier responds

UV Scanner Simulation

For Fireye, Siemens/Landis, PCI, Eclipse controls: Connect wires from the COM terminal to the flame amplifier common connector and the UV/FR terminal to the flame amplifier UV connector. Be sure all external flame sensor wires are disconnected from the flame amplifier. Turn the selector switch to either UV position (right or left) and adjust the FLAME SIGNAL knob until the flame amplifier responds.

For Honeywell: The connection polarity must be reversed so that the UV/FR terminal attaches to the G connection and the COM terminal attaches to the UV input connection.

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