

FF703

UV/IR Universal Test Torch

General

The FF703 is a microprocessor based flame simulator for the testing of UV or IR or UV-IR flame detectors. It eliminates the need to use a flame. This unit is designed to generate a wide range of optical output signals, including various channels of infra-red to test dual infra-red detectors. It can also emit 'flickering' infra-red signal to test for false alarms.

Flame detector characteristics

Most optical flame sensors respond to Ultra Violet (UV) and or Infra Red (IR) radiation emitted from flames during combustion. Many sensors also use flame flicker techniques to distinguish between flames and other optical false sources.

The test unit simulates the flickering flame signal by modulating the output of a filament lamp. The thermal time constant of a filament lamp prevents the generation of a perfect flame flicker signal. The slow response of the filament lamp will mean that some flame sensors may require more time to activate under test than they would with a real flame.

Operation

The unit is intended for service engineers to use when performing commissioning and routine maintenance. As the test unit does not have an (Ex) approval for hazardous areas, a permit would be required to check a detector in such areas. The service engineer could also carry a portable flammable gas alarm to indicate if the area is safe for testing.



Standard Features

- Wide spectral output - UV, Visible, Near IR, Mid-IR
- Tests many flame sensors types - UV, UV/IR, UV/IR², IR³, IR², IR
- Portable with rechargeable NiCd battery pack and charger
- Selectable optical output type
 - - Constant illumination
 - - Regular flashing sources (Range of frequencies)
 - - Irregular flickering sources (Resembling flames)
- Selectable optical output intensity with LED bar graph indication
- Range typically 3 metres and beyond
- 30 Second timeout on each test
- Auxiliary 24 VDC supply for testing

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Specifications

Electrical

Charger input voltage	85 - 265 VAC @ 47 - 440Hz
Test unit battery voltage	24 VDC NiCd
Test unit auxiliary 24 VDC output current	0.1 A max.

Physical

Physical dimensions	260 x 90 128 x 60
Net weight	1 kg
Colour	Black

Environmental

Operating temperature	-15 to +50°C
Relative humidity	95% max. noncondensing
Environment	Exd, Indoor, IS, Outdoor
IP rating	IP54
Operating temperature	-15°C to +50°C
Charger temperature	0°C to +50°C
Relative humidity	95% Non condensing
IP rating	IP54

Mechanical

Test unit housing	ABS and Noryl
Charger unit housing	94V-O polycarbonate
Colour	Black
Dimensions (l x w x d) mm	260 x 90/128 x 60
Weight	1 kg

Light source performance

Light source power	20 W max.
Beam angle	8° Cone
Spectral response	200 nm to 4.3 µm
Test range	5 m typical

Ordering Information

Part No.	Description
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