

Eclipse Trilogy

UV Scanner

Part Number 10005156



The Eclipse Trilogy UV Scanner is a flame detector for use with T400 flame safety controls from Eclipse, Inc. for the supervision of gas flames, yellow-burning or blue-burning oil flames and for ignition spark proving.

For use with burner controls:

- Eclipse T4.. Series
- Siemens LGB2.../LGB4...with AGQ1...
- Siemens LFL...
- Siemens LFE1...
- Siemens LFE10...
- Siemens LGM... with AGQ2...

UV scanner operating mode is intermittent.

Function

With this type of flame supervision, the UV radiation emitted by gas or oil flames is used to generate the flame signal.

The radiation detector is a UV-sensitive cell with 2 electrodes, which excite when illuminated with radiation in the 190 to 270 nm range of the spectrum, thereby triggering a current in the flame detector circuit.

The UV cell does not respond to glowing firebrick in the combustion chamber or daylight.

Standards and Certificates



Conformity of EEC directives:

Electromagnetic compatibility EMC (immunity) 89/336EEC

Directives for gas fired applications 90/396EEC

Low voltage directive 73/23EEC



ISO 9001: 2000
Cert. 00739



ISO 14001: 1996
Cert. 38233



Safety Warnings

To avoid personal injury, damage to property or the facility, the following warnings must be observed.

! DANGER

- Do not open, interfere with or modify the flame detector.



WARNING

- Before performing any wiring changes in the connection area of the detector, completely isolate the equipment from the mains supply (all-polar disconnection).
- Ensure protection against electric shock hazard by providing adequate protection for the connection terminals.
- Check to ensure that wiring is in an orderly state.
- Halogen lamps, welding equipment, special lamps or ignition sparks may produce sufficient radiation for the detector's UV cell to excite. X-rays and gamma radiation can also generate erroneous flame signals.
- Fall or shock can adversely affect the safety functions of the scanner. Such units should not be put into operation, even if they do not exhibit any damage.

General Detector Data

Parameter	Specification
Average Life of UV Cell	Approximately 10000 hours. Cell life is reduced considerably at temperature 50°C or higher.
Degree of Protection	IP54 (to be ensured through mounting)
Mounting Position	Optional
Weight	Approximately 180g
Permanent Combustion Chamber Pressure	Max. 150 mbar

Environmental Conditions

Transport	IEC 721-3-2
Climate Conditions	class 2K3
Mechanical Conditions	class 2M2
Temperature Range	-20 to +60°C
Humidity	< 95% r.h.
Operation	IEC 721-3-3
Climate Conditions	class 3K5
Mechanical Conditions	class 3M5
Temperature Range	-20 to +60°C
Humidity	< 95% r.h.

NOTICE

- Condensation, formation of ice and ingress of water are not permitted.

Mounting

- Ensure that relevant national safety regulation are complied with.
- Mounting work must be carried out by qualified staff.

Installation

- Installation work must be carried out by qualified staff.
- Always run the high-voltage ignition cables separate while observing the greatest possible distance to the detector and to other cables.

Electrical Connection

It is important to achieve practically disturbance-free and loss-free signal transmission:

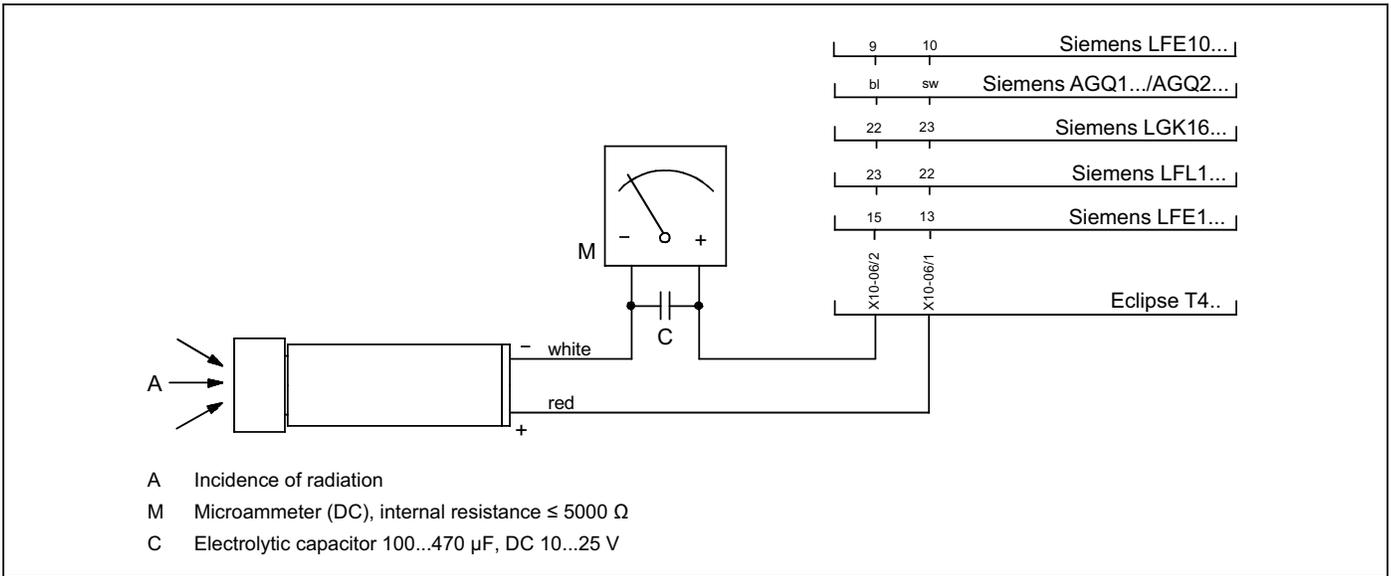
- Never run the detector cable together with other cables.
 - Line capacitance reduces the magnitude of the flame signal.
 - Use a separate cable.

Commissioning Notes

- Commissioning work must be carried out by qualified staff.
- Prior to commissioning, ensure that wiring is in an orderly state.
- Trouble-free burner operation is only ensured when the intensity of UV radiation at the detector's location is high enough for the detector's UV cell to ignite during each half wave. The intensity of UV radiation at the detector's location is checked by measuring the detector current.

Mechanical Design

Housing made of aluminum, with 3/4"-14NPSM connecting thread for fitting the detector to the burner or boiler. Connecting wires of about 1.8m length for the electrical connection. 1/2"-14NPSM thread for a fitting, required for the connection of a flexible conduit for protecting the connecting wires (1/2" conduit).



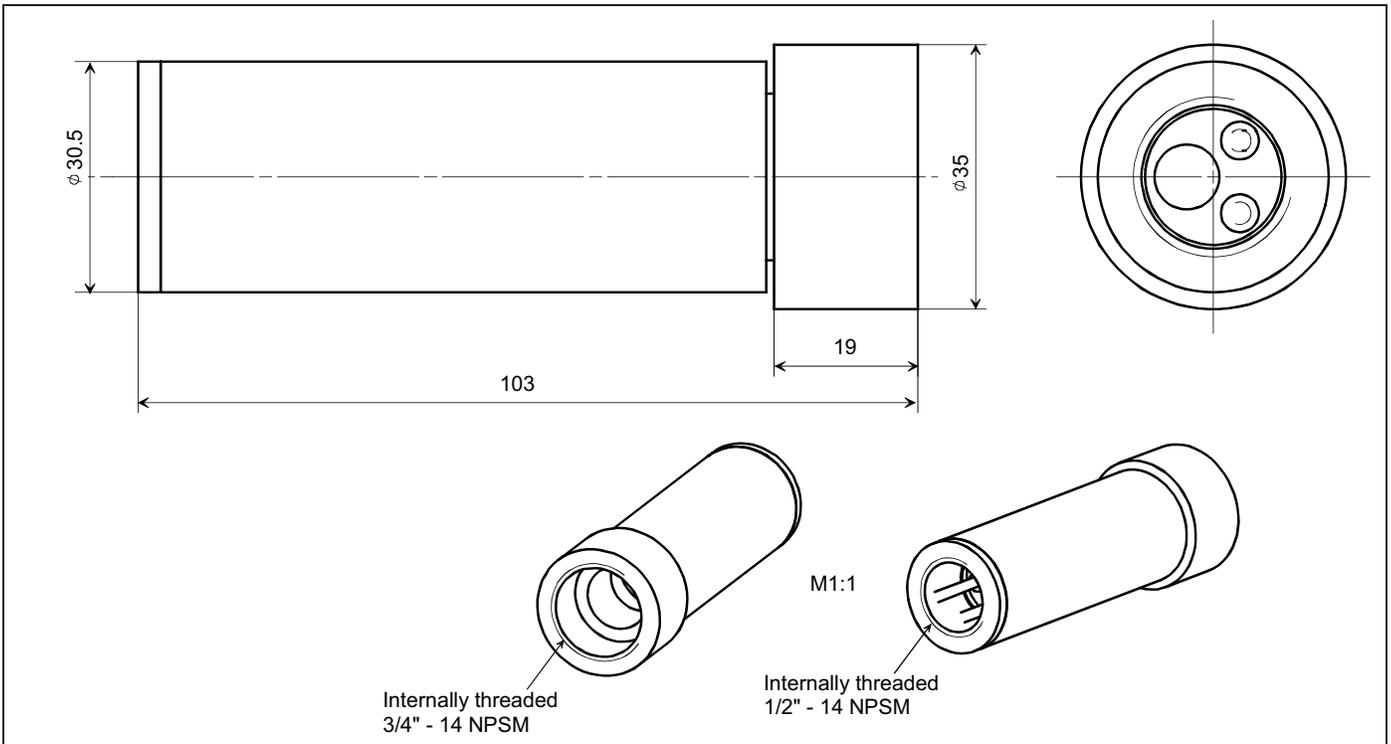
Service

- Maintenance work must be carried out by qualified staff.
- Each time a flame detector has been replaced, check to ensure that wiring is in an orderly state and make the safety check according to "Commissioning Notes".

Disposal Notes

The flame detector contains electrical and electronic components and may not be disposed of together with household waste. Local and currently valid legislation must be observed.

Dimensions (mm)





Offered By:

Power Equipment Company
2011 Williamsburg Road
Richmond, Virginia 23231
Phone (804) 236-3800
Fax (804) 236-3882

www.peconet.com