

Ex Certified Explosion-proof Light-source

The ATI 1000Ex Light Source is the most portable certified, explosion proof, light weight fiber optic illuminator in the world.

The AT1000Ex Light-source is ideally suited for use in and around areas in which hazardous concentrations of flammable vapour, liquid or dust may be present.



White Light System.

The explosion proof system has been developed over the past 7 years. The current model has been designed, tested and certified against International standards and has been in service for nearly 3 years.

The basis of the system is an explosion proof enclosure housing a 50 watt metal-halide arc lamp that provides light at 5700 deg Kelvin (Nearly the same colour as sun light). The lamp has a rated life of 4000 Hours. The light sources can be supplied as 220-240 AC 50Hz, 110 AC 60 Hz or 12V DC.

Coupled to this is a solid core fiber optic cable which carries the light to the required work area. The ATI Solid Core polymer cable is designed to carry the maximum amount of visible light and reject as much UV and Infra Red light as possible.

This produces an intense, extremely white light for close inspection and for flood lighting in hazardous areas.

A range of clear focus and clear distribution lenses, clamps, trimmers and accessories are also available.

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INSPECTAHIRE

INSTRUMENT
COMPANY LTD

Suitable for use in

- Aircraft Maintenance areas
- Fuel Tank and Fuel Cell inspection
- Fuel cell maintenance
- Bulk Fuel Storage installations
- PetroChemical Plants
- Confined Spaces
- Organic Waste dumps and drains
- Chemical Environments
- Dust-laden atmospheres
- Abrasive Blasting
- Ship Building
- Paint Spraying
- Non-Destructive Testing

Borescope and Fiberscope compatible



Black Light System (UVA)

The black light system is based on the Explosion proof white light system but provides UVA light for Non Destructive Testing purposes. The UVA light source is coupled to a liquid light guide which is used to transport the light to the work area. The liquid light guide carries UVA light with maximum transmittance at 365nm.

The Black Light (UVA) version is fitted with a special UV lamp and UVA Band-pass filters which provide an output of UV light that far exceeds the International standards for UV Non Destructive Testing (NDT). Almost all the of the visible light is removed from this light-source.

Technical Specifications AT1000Ex Light Source

Power Supply 110v AC, 240v AC or 12v DC

Power Consumption 1.8 amps

Lamp Wattage 50 Watts

Lamp Type Metal-halide arc lamp with integral reflector

Lamp Life 4000 hours

Case Material Anodised aluminium, milled.

Weight: <8kg

Solid Core Fibre Optic Cable Available in 10mm and 15mm diam, various lengths. White Cover.

Certification

The AT1000Ex light source complies with International Standards IEC 60079.0 and IEC 60079.1 and Australian Standard AS 2380.1 and AS2380.2

Identification is as follows: Ex d IIB T3(T_{ambient} 50degC) IP65

Certificate Number: AUS Ex 01.3742X

Explanation of certification codes

Ex d Flameproof Enclosure

IIB Gas type Grouping. Covers IIA (propane) & IIB (ethylene) gases.

T3 Maximum Surface temperature

IP65 International Protection Rating

6 Complete protection against entry of dust

*5 Protection against a low pressure jet of water/liquid
from all practicable directions*

The light-source can be used with other fibre-optic or liquid light-guides to provide the illumination for rigid borescopes and for fibrescopes for the detailed internal inspection of engines, structures, pipes, vessels etc. in hazardous environments.