

DATASHEET

TopDownTop™ AWL Systems

Aircraft Warning Light Retractable Systems



The Hamworthy Combustion TopDownTop™ AWL Retractable System has been developed to meet the stringent demands of the Oil & Gas industry as well as any other Industrial requirement. This produce provides a simple, reliable and cost effective means to maintain lamps mounted at high level on stacks, flare systems and structures where operation is needed in hazardous environmental conditions or where maintenance is difficult or near impossible.

For elevated flare systems, or similar structures, maintenance required on AWL lamps in many cases can only be achieved by a complete plant shutdown with the resultant loss of production. The TopDownTop™ AWL Retractable System provides the most reliable and effective maintenance solution without the need for plant shutdown.

AWL Retractable System

TopDownTop™ AWL Systems

The TopDownTop™ AWL Retractable System is supplied fully assembled. The following components are supplied for each lamp or double lamp arrangement:

- Complete Winch (optional powered)
- Internal wire rope and accessories
- Internal and external supported Trolley
- Electrical cable and connectors
- Top Rail complete with pulley and heat shield (if needed)
- Bottom Rail complete with winch flanges
- Systems suitable up to 210 metre elevation installation

The lamp unit is fixed to a trolley, which travels on a rail between grade and the top of the structure by means of a continuous wire rope. The lamp is permanently connected to the power and signal cables and does not require an electrical docking station. All parts are located at high level, requiring no regular maintenance.



A winch (manual or powered), to raise and lower the trolley, is located at ground level and can be fixed to the bottom of the rail or mounted on a separate concrete plinth. The winch operates in both directions and is fitted with a safety brake to protect equipment and personnel.

The whole system is designed to cater for any movement and expansion and can be adapted to any shape of the structure without requiring extra ground area in the customer's plant, as can happen with "rope and pulley" solutions. Hamworthy Combustion can also supply the complete engineering package, providing all necessary details for local installation.

Hamworthy Combustion is unique in being able to provide a complete turnkey solution of:

- Retractable System
- Lights
- Engineering

The system offers the following advantages over existing products:

- Quality
- Reliability
- Suitability for all lights
- Minimum plot area required (no external angled ropes)

Medium and Low-intensity, Type B Lights (HCE-AWL/MB & HCE-AWL/LB)

Following strong demand for resistant, reliable, and first class quality Aircraft Warning Lights, Hamworthy Combustion has developed a proprietary set of Medium and Low Intensity Med-B Lights, which are fully compliant with International Civil Aviation Organisation (ICAO) regulations, Annex 14, Chapter 6. Lights can be in single and double (main/standby) arrangement, and may be equipped with radiation shielding for flare applications. The quantity of lights can be configured to guarantee 360° coverage, and a photocell (sun switch) allows for automatic day/night control.

Materials have high heat resistance and the enclosure can be provided in different materials depending on applicable electrical standards and project requirements. All lights are Eex-d certified, according to ATEX, which allows safe installation in hazardous environment. Access to lamps and components is easy and maintenance of the system is guaranteed in full safety. The low power consumption, combined with the minimal wind loading and weight, make the Hamworthy Combustion lights the highest quality product for the oil & gas industry.



AWL Features Summary

Feature	Med-B Light	Low-B Light
Type	HCE-AWL/MB	HCE-AWL/LB
Standard / Protection EX	ATEX / EEx d IIC T4	ATEX / EEx d IIC T4
Ingress protection	IP65	IP65
Base material	Stainless steel 316 or G20 Cast Iron	Stainless steel 316 or G20 Cast Iron
Cover	Borosilicate Glass	Borosilicate Glass
Fresnell Lens	Glass	N.A.
Bulb type	Xenoflash	LED
Light colour	Red, as per ICAO standard for aeronautical ground lights	Red, as per ICAO standard for aeronautical ground lights
Light source life expectancy	5,000 burning hours	100,000 burning hours
Character	Flashing. 20 flashes per minute (fpm)	Steady burning
Effective intensity	2000 Cd	32 cd minimum
Vertical light distribution	According to ICAO recommendations	According to ICAO recommendations
Ambient temperature	-20° to +60°C (200°C peak)	-20° to +60°C
Operating voltage	230 /110 VAC 50/60Hz	230/110 VAC 50/60Hz
Power consumption	45W Continuous average	5W Continuous average
Cable entries	2 provided, M20x1.5mm	2 provided, M20x1.5mm
Dimensions (LxWxH)	Approx. 245 x 245 x 340 mm	Approx. 245 x 245 x 340 mm
Weight	Approx. 45 kg	Approx. 45 kg

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HAMWORTHY
COMBUSTION

Incorporating:

PEABODY ENGINEERING
AIROIL - FLAREGAS
CHENTRONICS

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