

# PRODUCT DATASHEET

## Lightning Arrestor SHERIFF



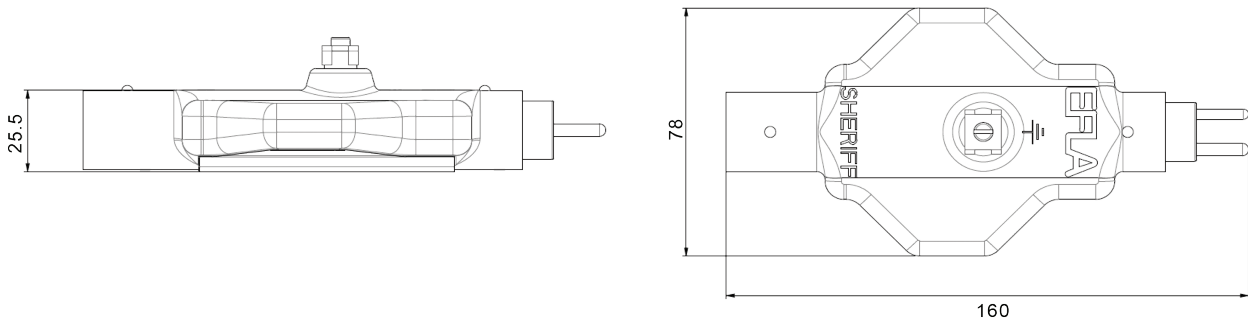
Sheriff is designed to be connected to Aeronautical Ground Lighting (AGL) circuits, helidecks and helipads to provide protection to the secondary circuits against damaging over voltages and currents caused for example by direct lightning strikes, inducted voltages from both primary and secondary sides of the circuit. The used encapsulation material has excellent chemical, electrical, weathering, and environmental resistance.

Standard secondary max. voltage (rms) 190 Vac (note: FAA AC 150-5345-47 max. open circuit voltage 135 V rms for 200 W transformers), V peak 275 V. The max current rating 20 Aac and the frequency 50/60 Hz. Protection circuit compliance requirements determined in ITU-T (CCITT) K. 12, IEEE C62.31.

- Minimizes the amount of broken equipment when lightning hits
- A retrofit component that can be added to a secondary circuit afterwards
- Increases runway and taxiway uptimes as less replacement of lighting fixtures is needed
- Enables the work force to be used in other operation than maintenance
- Increases cost-efficiency by increasing the lifetime of the lighting fixtures
- A unique component that brings additional protection for the secondary circuit
- A cost-effective way to minimize the risk of lightning damage to the series circuit



## Outline Dimensions



**Notice:** sheriff is equipped with earthing connector. It has to be always grounded by connecting it using continuity for example wire/conductor into ground potential.

Insufficient ground contact will prevent the unit from operating correctly.

## Electrical characteristics

Operational voltage	Max. 190 Vac rms
Operational peak voltage	Max. 275 Vac
Operational frequency	50/60 Hz
Power consumption at 6.6 A ac	2 W
Voltage drop at 20 A dc	220 mV
Plug	L-823 Style 1
Receptacle	L-823 Style 7
Earthing contact	M5 Brass screw terminal according to EN61823
DC discharge voltage at 100 V/s	Min. 275 Vdc Max. ~415 Vdc
Insulation resistance (IR) 100 V	$> 10^9 \Omega$
Capacitance	1 MHz $< 5$ pF
Impulse discharge current (Line to ground)	20,000 A, 8/20 $\mu$ s $> 10$ operations 4,000 A, 10/350 $\mu$ s $> 10$ operations 8,000 A, 8/20 $\mu$ s $> 10$ operations 12,000 A, 10/350 $\mu$ s $> 10$ operations
Operating and storage temperature	-40 °C to +85 °C
Drop test (from 2 m 10 times)	Pass

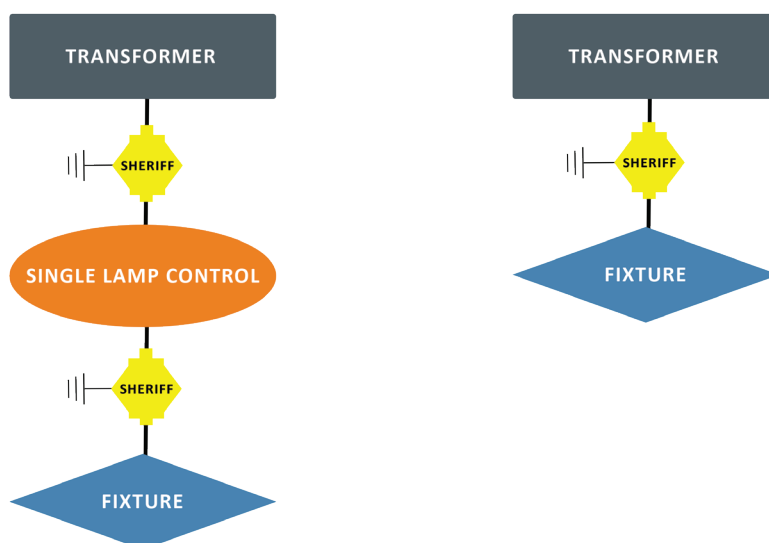


## Dimensions and connections

Height (H)	40mm (1.6")
Length (L)	160mm (6.3")
Width (W)	80mm (3.2")
Colour	Yellow
Male connector	FAA L-823 Style 1
Female connector	FAA L-823 Style 7
Earthing connector	M5 Brass Screw terminal according to EN61283

## Sheriff will do the job

The Sheriff can be installed in various points in the secondary circuit to provide additional protection against lightning. The Sheriff should be grounded to the counterpoise.



## Inspector – portable tester at your service

The operational status of the Sheriff can be verified by a portable tester. The tester is easy to use, battery operated and handheld. The interval of testing the operational status should be according to the local conditions.



EFLA is the world's leading supplier of seamless power and communication products for airfield ground lighting circuits. With more than 30 years experience in the field, it develops, manufactures and sells globally-certified series isolation transformers, connector kits and prefabricated cable leads. The company's components meet the highest qualifications in materials and electrical design to withstand challenging installation in underground pits and cans and direct underground installation. Headquartered in Porvoo, Finland, EFLA supplies products to international airports around the world.