MESOTECH INTERNATIONAL

Ambient Light Sensor

MT-AL0001

The Airport Weather Advisor® Ambient Light Sensor (AWA-ALS) is specifically designed to measure background luminance in Mesotech's Runway Visual Range (RVR) systems. Airport personnel can use its output to assess day and night conditions and to calculate the illumination threshold in visual range determination. The ALS is usually installed near the airport runway and attached to the visibility sensor. The equipment is constructed with corrosion-resistant materials and can withstand the harshest weather conditions.

The ALS output is a continuous analog signal proportional to light level or a serial digital message. This output connects to a Mesotech data collection platform (DCP). The range is 0.5 to 10,000 foot-lamberts. The ALS includes extensive self-diagnostics for the processor, memory, heater, and window fouling conditions.

The ALS consists of a weatherproof optical head assembly with interface cable assembly. The head assembly mounts outdoors on a 25 to 50 mm pole using mast clamps, typically at a tilt angle of 3° to 6° above the horizon. The ALS includes both a window/hood and electronic heaters for low temperature and blowing precipitation conditions.

Technical Specifications

Detector:	Silicon photodiode
Active area:	14.8 mm^2
Temperature coeff:	<0.1% / °C
Peak response:	555 nm, photometric
Filter:	IR rejection
Luminance range:	0.5 to 10,000 ft-L
Field of view:	6 degrees
Operating temperature:	-55°C to +60°C
Relative humidity:	0 to 100%
Output:	0-1, 0-5, 010 V (analog) 300-19200 bps (serial)
Power	
Supply interface:	1 W at 12 VDC
No dew heater:	11 W at 24 VDC
Dimensions	
Head assembly:	5" x 3" x 2" (12 cm x 7.5 cm x 6 cm)
Mounting:	Mast clamp
Weight:	1.1 Kg (2.5 lbs)

Ordering Options

Background luminance and ambient light sensor.

The MT-AL0001 Ambient Light Sensor is an excellent choice for aviation use.

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