



Product Sheet

Multispectral Imaging System

MSIS-AGRI-1-A



MSIS-AGRI-1-A

Preliminary – specifications subject to change

Revised April 28, 2020

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1. Description

The MSIS-AGRI-1-1 is a multispectral imaging system incorporating an MSC-AGRI-1-A snapshot multispectral camera and a 4-channel LED illuminator into a single water-resistant housing. The housing provides an adjustable mount enabling the system to be pointed in increments of 4.5° around a central axis. The LED illuminator contains 16 high power LEDs arranged in a ring pattern surrounding the lens of the camera. The camera and LEDs are protected by a 5 mm thick polycarbonate window. The LEDs are arranged into 4 channels. The four LED channels are matched to the spectral transmission characteristics of the snapshot multispectral camera. Each LED channel is controlled with a strobe circuit capable of overdriving the LEDs to achieve high light output. The system is shipped with an external water-resistant control box that houses the strobe controller and an optional embedded computer system. Control of the system can be either using Windows graphical desktop application, or optional web-based interface with built in database service. A variety of SDKs are available for building custom applications. The system is CNC machined from 6061 aluminum with black anodization.

2. Specifications

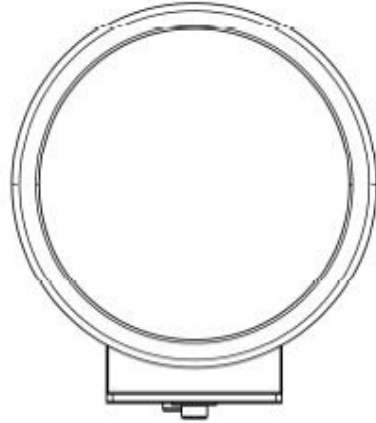
Camera	MSC-AGRI-1-A Sensor size: 1" Bands: 580 nm, 660 nm, 735 nm, 820 nm
Lens	6 mm focal length, for 1" sensor C-mount Manual iris, manual focus Locking screws
Number of LED channels	4
Number of LEDs per channel	4 (40W per channel)
LED control	Each channel controllable via serial interface and manually through front panel Strobe output from camera flashes all 4 LED channels simultaneously
LED channels	580 nm, 660 nm, 735 nm, 820 nm
Camera Triggering	Hardware – 5-24 Vdc signal, rising or falling edge, pre-wired to LED controller
Network	Wifi (IEEE 802.11ac) and 1Gb Ethernet (RJ45)
Operating System	Microsoft Windows 10, or Ubuntu 18.04
Software	2ndLook multicamera acquisition software for Windows 10, or web-based embedded solution with built-in database running on Linux.
External construction	6061 aluminum, polycarbonate, 316 stainless steel hardware, and glass-filled polymer
Surface finish	Camera head: black anodization
Power Requirement	100 - 240 VAC (250 W) Supplied with 10 foot power cord
Dimensions	Camera head: 200 mm diameter x 170 mm deep Control box: 356 mm x 305 mm x 180 mm (HxWxD)
Weight	Camera head: 2.5 kg Control box: 6 kg

3. Drawing: Camera Head

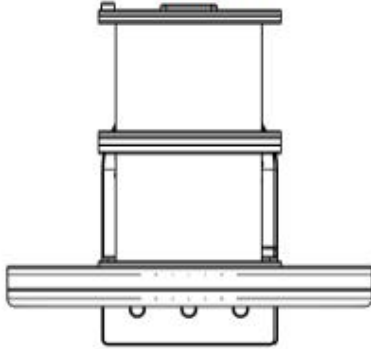
RENDERED VIEW



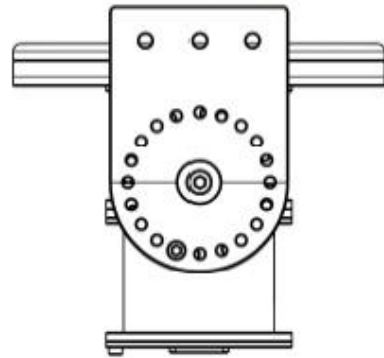
FRONT VIEW



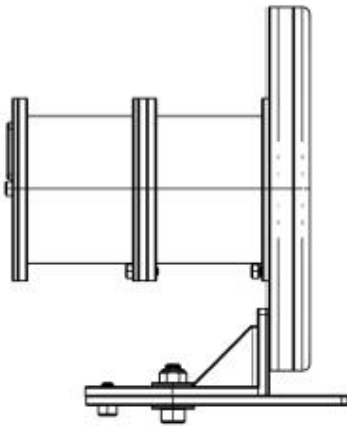
TOP VIEW



BOTTOM VIEW



SIDE VIEW



BACK VIEW

