

# VANTAGESUN Medium

## OVERVIEW

USA-sourced and manufactured, the highly reliable VantageSun sun sensors have decades of spaceflight heritage. This low-cost, two-axis, medium-resolution sun sensor comprises a small housing and four quadrant photodiode assembly. The housing assembly also serves as an aperture, reducing mechanical complexity and precisely masking solar light.



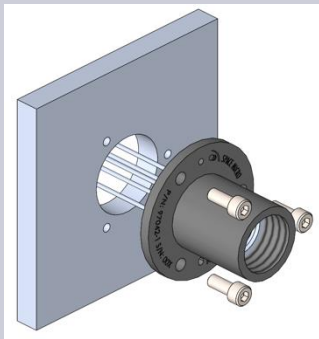
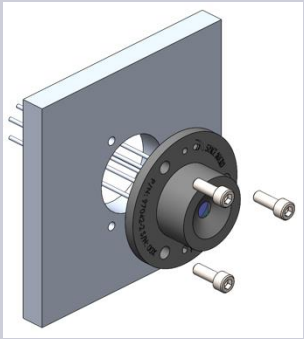
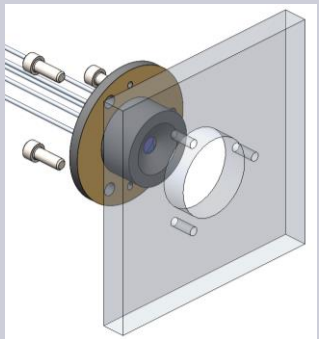
## KEY FEATURES

- 2-axis accuracy better than 1° over full FoV
- Passive device draws no power
- Low mass less than 40g for all configurations
- Long and short baffle configurations
- Calibration data provided with each sensor

## APPLICATIONS

- Attitude determination during:
  - Launch vehicle separation
  - Initial attitude acquisition
  - Emergencies and off-nominal modes
- Sun vector determination

## PRODUCT SPECIFICATIONS

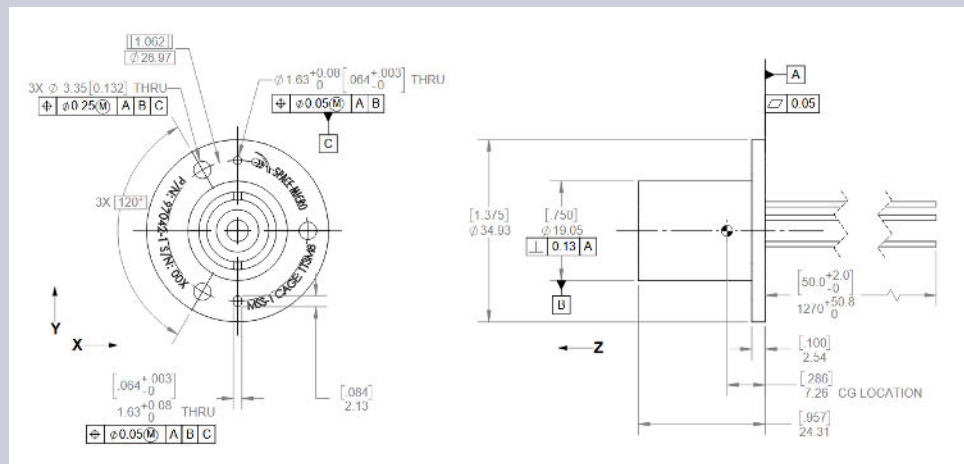
	MSS-01	MSS-02	MSS-03
<b>Field of View</b>	48° Full Angle Circular	120° Full Angle Circular	120° Full Angle Circular
<b>Accuracy</b>			
0-24° Half Angle	<0.4°	<0.6°	<0.6°
24-45° Half Angle	n/a	<0.75°	<0.75°
45-60° Half Angle	n/a	<1°	<1°
<b>Interfaces</b>	Four 0 to 4.5 mA (typical) current sources Five flying leads, 1.27m (50") length M22759/33-26 26 AWG wire		
<b>Mounting</b>			

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<b>Environment</b> Temperature Range Vibration Suitability	-40 °C to +80 °C (Operating), -60 °C to +100 °C (Storage) GFSC-STD-7000 (NASA GEVS) Acceptance Level All Orbits – LEO, MEO, GEO, Cislunar, and beyond
<b>SWaP</b> Dimensions  Mass  Power	Housing Diameter: 19.05mm Flange Diameter: 34.93mm Sensor Height: 24.31mm (MSS-01), 11.61mm (MSS-02 / MSS-03)  38.5g (MSS-01), 33.5g (MSS-02 / MSS-03) including flying leads  None required

## DIMENSIONS

**MSS-01**

**MSS-02 / MSS-03**
