

LOW PROFILE YOKE POSITIONERS



The low profile yoke positioner is a lightweight, low profile positioner initially designed to remotely operate thermal and/or visible cameras mounted on vehicles to accommodate Driver Vision Enhancement (DVE) programs.

Other sensors, laser pointers/illuminators, etc. can also be mounted and deployed. Simple user interface and rapid “return to home” automatic positioning provides the quick response a driver requires in emergency situations.

A simple base mount makes deployment or relocation fast and easy. The low profile yoke positioner is highly durable yet extremely reliable in even the most harsh environments. It has been certified to withstand pressure change, extreme temperatures, exposure to solar radiation, humidity, dust and sand penetration, military ground shock and vibration levels and submission.

KEY FEATURES

- Lightweight and compact for mobile, inverted or stationary use.
- Operate remotely with ICD or optional joystick controller (CM575)
- Easily mount and remotely operate cameras, illuminators, and other sensors
- Rapid automatic “return to home” function
- Fast deployment or relocation
- Highly durable, extremely reliable in harsh environments
- Certified to military environmental test criteria
- Mil-Spec Connectors
- Tough metal housing and gearing for durability in harsh environments
- Marine configuration that meets IP-67 standards
- Thermostatically controlled heaters standard

SENSOR INTEGRATION

- Multi-Spectrum Cameras (Visible/ NIR/SWIR)
- Thermal Imagers (LWIR)
- IR and Visible Illuminators
- Laser Range Finders



LOW PROFILE YOKE

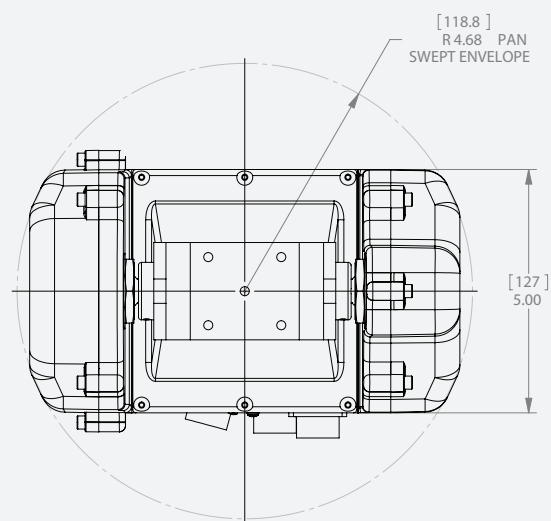
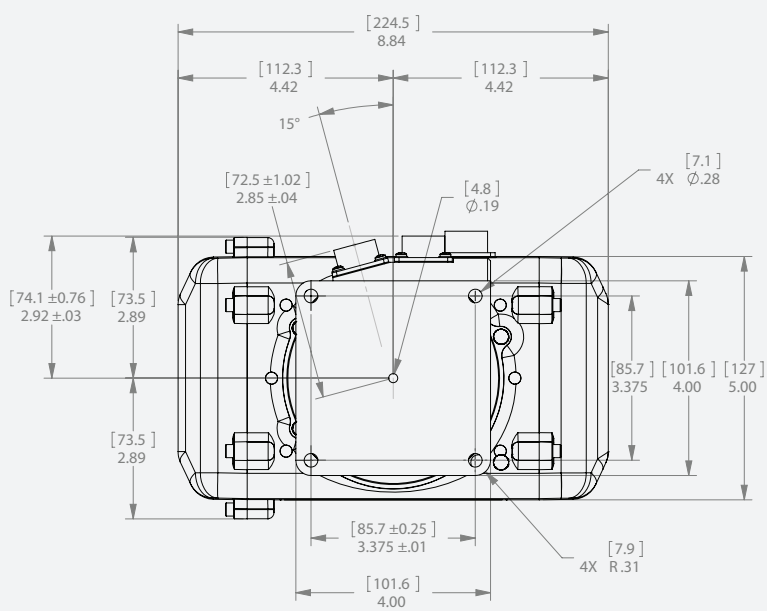
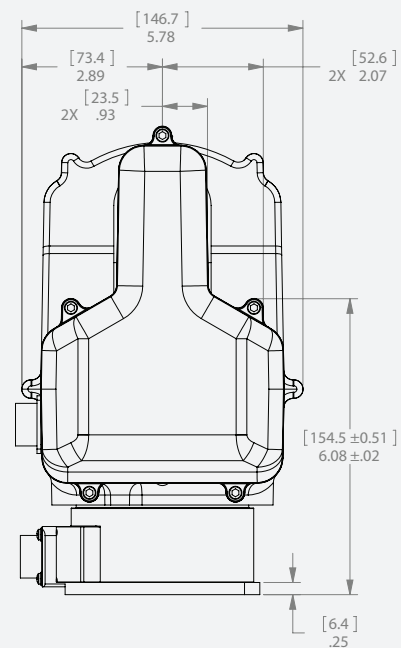
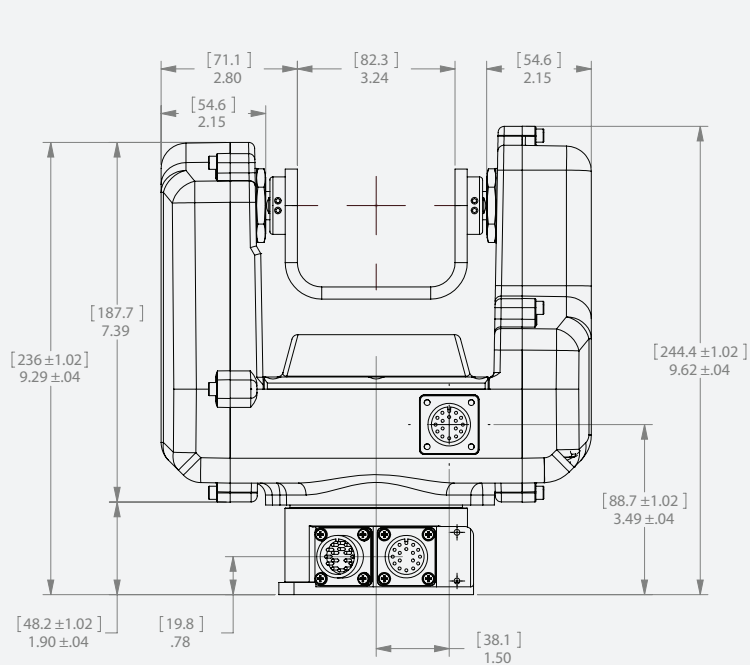
SPECIFICATIONS

Load Capacity	2.5 lb-ft
Operating Voltage Range	16 – 32 VDC (24VDC nominal)
Total Power	90 Watts (max) (motor / heater shared current) Standby power: < 0.200A at 24VDC (no heater current)
Pan-Axis Range	180° (±90°)
Pan-Axis Speed (deg/sec)	35, centering @ 45
Tilt-Axis Range	55° (+30°/-25°)
Tilt-Axis Speed (deg/sec)	35, centering @ 45
Internal Heater	Included standard, Thermostatically controlled (32° on/35° off)
Operating Temperature	Without Heater: -15°C to 55°C (5°F to 131°F) With Heater: -30°C to 55°C -22°F to 131°F
Rotational Limits	Fixed tilt hard limit, adjustable soft limits on both axes
Feedback	Magnetic Encoders (0.044° readout)
Repeatability	0.25°
Duty Cycle	20%
Motor Type/Drive	DC Brush motor drives
Communication to Pan & Tilt	RS422
Communication to Sensors	RS232
Connector Specifications	Mil-Spec grade used on all connectors
Load Connector Interfaces	1 Mil Spec on tilt table for load control, video and pass through connections 2 Mil Spec on base for power, control, video and pass through connections
Materials	Housing 6061-T6 Aluminum, stainless steel hardware, permanently sealed radial ball bearings.
Finish/Color	White powder coat paint over alodined chromate for corrosion resistance standard. Other colors available upon request
Weight	14 lbs
Dimensions	See page 3

ENVIRONMENTAL CAPABILITIES

Operational Altitude	Sea Level to 15,000 ft
Ambient Pressure Change	15,000 ft to 40,000 ft for 15 sec or less
Operational Temperatures	-37°C to 49°C (-35°F to 120°F)
Rapid Temperature Range	From 71°C to -46°C (159°F to -51°F) and from -46°C to 71° C (-51°F to 159° F)
Solar Radiation	Up to 1,120 Watts/m ²
Humidity, Sand and Dust	Operate in up to 88%
Transportation and Functional Vibration	Military Ground Levels
Shock Threshold	Functional, Weapon Firing, Transportation, Crash Safety and Ballistic

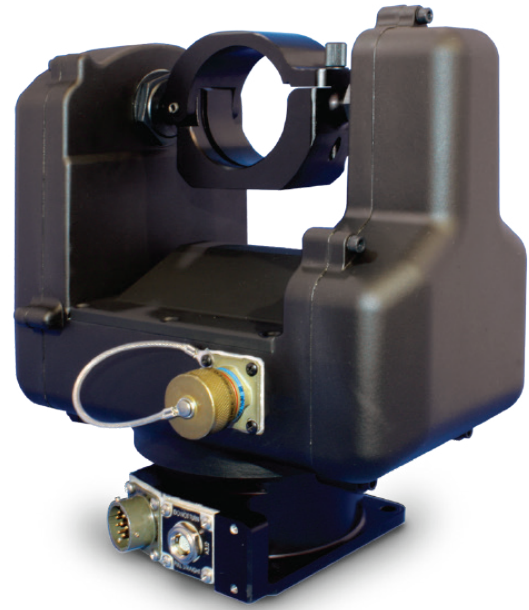
STANDARD HOUSING (CRADLE MOUNT)



Dimensions are in Inches [mm]



Cradle Mount



Clamp Mount



KEY FEATURES CM575 Controller

- Controller Module, Joystick Control, with Relay Activation.
- On/Off Switch Provides Power to the Pan/Tilt Power Relay
- Joystick with "Deadman Switch" Button
- Separate Return to Home Button
- Set Center Position Capability
- 8.99"L x 4.76"W x 2.04"H (228 x 121 x 52mm)
- Communication format: RS-422
- Cables optional Mil-Spec Connectors



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