

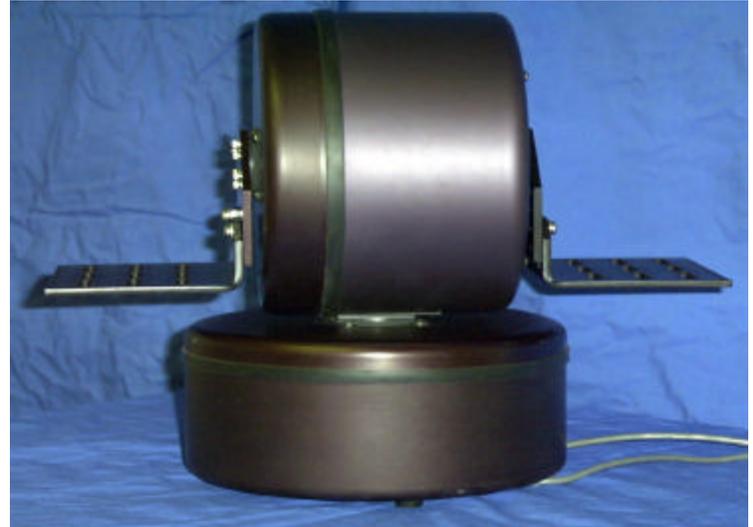
# Model 20 Stepper Pan & Tilt Gimbal



Date Revised: 25 NOV 03

## VENDOR DESCRIPTION

Lightweight, zero backlash, high-resolution, on-board 32-bit processor to control motors and payload devices including power and zoom control for cameras via computer or joystick. Easily adaptable for all types of sensors. Hollow drives allow for internal power and control cabling for multiple payloads. Model 20s have been operated on inland and marine fixed mounts as well as on HMMWVs and backhoes and internally on aircraft. Integrated sensors include EO/IR/LD, CWD, Imager IR, LRF, Uncooled IR, optics, communications antennas and many types of daylight cameras.



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Business Category: Small Business

Misc

Hardware	
Power: 16 watts, 4 watts nominal	Position Resolution: 0.01°
Weight: 13 lbs	Power: 12 to 28 volts AC or DC
Dimensions: 330mm (H) x 223mm (W) x 230mm (D)	Operating Temp.: -30°C to +70°C
Payload Capacity: 20 lbs	Interface: RS-232 or RS-485
Payload Max. Inertia: 0.16 (pan) x 0.12 (tilt) kg-m <sup>2</sup>	MTBF: >2000 hrs est.
Az / El Range: 360° / +95° to -35°	MTTR: 8 hrs avg.
Travel Rate: 60°/sec	

Options
Dual payload shelves
Increased resolution 18.18 arc sec/step
Geared 5:1 stepping motors (12°/sec max slew, 7.27 arc sec/step)
Incremental encoders 25.92 or 6.48 arc sec/bit
Coax cable installed internally to payload
Heavy-duty pan axis bearing for added stiffness