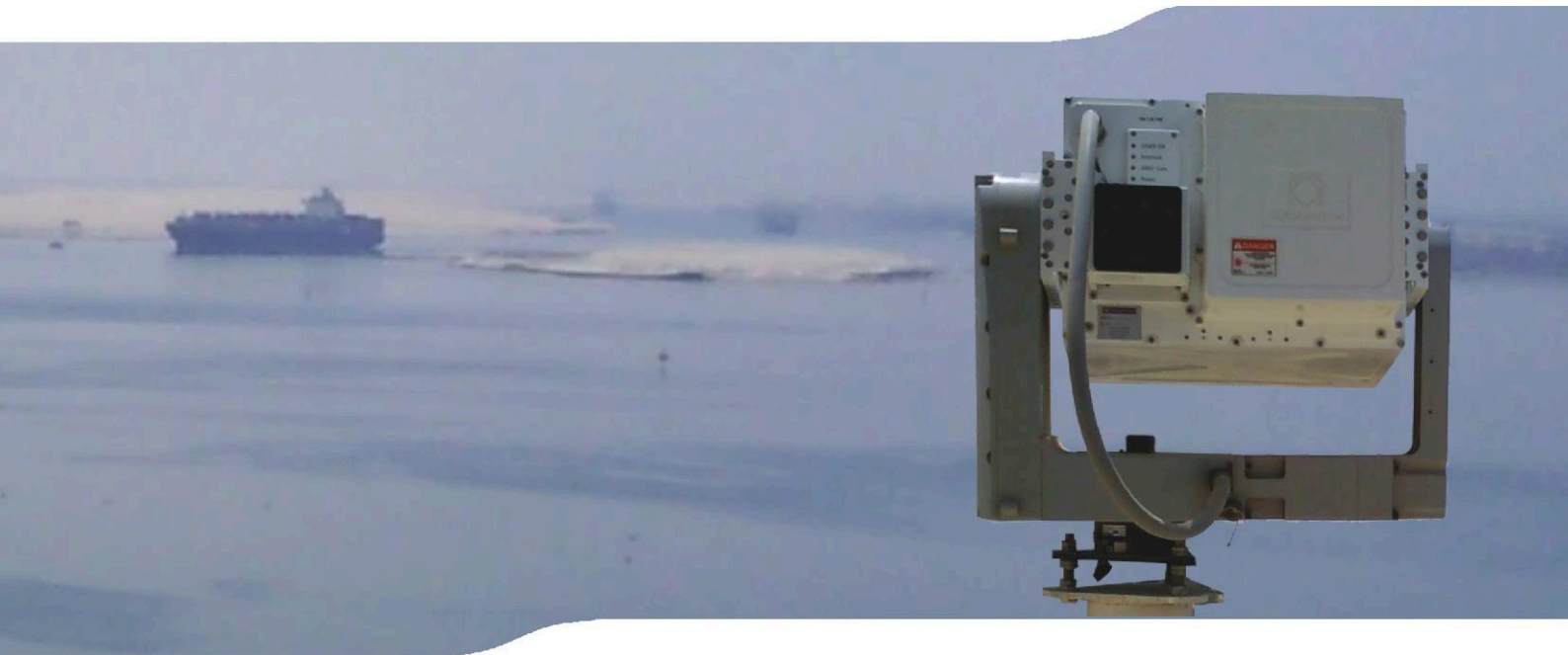


MANTIS

High Performance Motorised Pan & Tilt Head for Long Range Precision Surveillance Applications



Main Advantages & Features

- Modular unit, adaptable to suit a wide range of larger payload configurations and long range precision applications
 - Gyro stabilised option
 - Auto tracking option
 - Marine environment option
- Very rugged and compact design
- Environmentally sealed
- High accuracy
- Azimuth slipping as standard
- RS422 communications
- Precise speed control
- High axis speed (50°/s)
- Highly resistant to shock and vibration

Applications

- Fixed and mobile border surveillance
- Coastal surveillance
- Port and shipping control
- Customs and coastguard applications
- Vehicle mounted applications
- Maritime applications
- Security & perimeter defence
- Auto tracking applications
- Line of sight stabilisation

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Technical Data

Mass (Approx)*	26-31kg (57.2-68.2lbs)
Output torque* (Nominal)	100Nm
Elevation (Tilt) range	±90°
Azimuth (Pan) range	360° Slipring
User programmable software stops	Yes (In elevation)
Minimum mean velocity	0.0056°/s
Maximum mean velocity	50°/s
Positional accuracy	0.056° 1σ
Backlash	Backlash free
Operating voltage	20 - 32Vdc
Safety cut-out	Yes
Fail safe brake	Yes
Electrical connection	38999 type
Communications	Rs422
Support arm spacers	Yes Option
Marinisation	Yes Option
Stabilisation	Yes Option
Autotracking	Yes Option
Environmentally sealed	Yes
Operating temperature	-32°C to 71°C

* depends on application and configuration

Dimensions (approx)

Mantis L configuration 593H x 406W x 253D mm

Mantis U configuration** 593H x 549W x 253D mm

**Space for payload as standard is 385mm. Wider payloads are accommodated by the use of a support arm spacer.

Stabilisation performance

The stabilised Mantis is capable of stabilising to $\leq 0.067^\circ$ RMS under a disturbance of $\pm 3.5^\circ$ in a three second period with a 40kg payload, at and ambient temperature of 21°C.

The Mantis is Instro's flagship range high performance motorised pan and tilts.

Based on a rugged 'L' shaped design with a slipring assembly as standard, the Mantis can be configured to handle an extensive range of sensors and sensor suites for long range precision surveillance tasks.

The backlash free Mantis is capable of axis speeds up to 50° per second and ideally suited for homeland security in permanent installations and vehicle applications where a high degree of controllability and positional accuracy at longer ranges is required.

With the addition of a tripod mount adapter, the Mantis is equally suited to tripod mounted applications.

The Mantis is available in two standard versions. basic 'L' configuration and 'U' configuration which benefits from the addition of a support arm.

The capabilities of the Mantis motorised pan & tilt can be further extended with the addition of factory options such as gyro stabilisation, auto-tracking and support arm spaces to achieve optimum payload mass distribution.

Options

- Gyro stabilisation capability
- Auto tracking capability
- Customer tailored remote control consoles and system cabling
- Maritime colour and sealing
- Customer specific mounting brackets
- Customer specific paint colour
- Support arm spacers



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