

# Model PTU-D47

## Outdoor Pan/Tilt Unit

Compact, Precise, Integrated

### Fully-Integrated, Computer-Controlled Positioning

The PTU-D47 computer-controlled pan/tilt is compact, lightweight, versatile, and field-proven across hundreds of applications. It offers a low-cost, off-the-shelf solution for positioning camera, laser, antenna, or other payloads up to 12 pounds. It features a fully-integrated, mil-style controller with a single weatherized connection for power and pan/tilt control, as well as payload signal management (optional) in outdoor fixed and mobile applications. The side-mount bracket allows positioning payloads for a lower center-of-gravity, and for mounting multiple payloads (top and side).



### Key features include:

- Positions any payload: IP cameras, antennas, lasers
- Smooth, repeatable motion provides steady images in windy environments
- Solid and vibration-tolerant for vehicle-mounted applications
- Rigid worm gear design; no belts/pulleys
- High holding torque (no sag when powered off)
- Wide range of pan speeds (< 0.01°/sec. to 300°/sec.)
- Extremely precise positioning (0.01°) allows translating object positions to map coordinates accurately
- Integrated controller - no other electronics box required
- Flexible payload mounting (top and/or side)
- Single connector for all video, control, power interfaces
- Precise control of position, speed, and acceleration
- Simple control from host computer via RS-232/-485
- Fully sealed for outdoor/marine applications (IP66)
- CE Mark certification

### Applications

- Perimeter surveillance
- Automated antenna pointing
- Vehicle camera systems
- Laser ranging systems
- Video detection and tracking
- Industrial automation
- Law enforcement
- Force protection

### Options

- Geo-Pointing Module: powerful command set supports real-time detection and tracking applications including absolute angle, relative angle, velocity control, geo-pointing (lat/lon); continuous velocity control
- Ethernet/IP Interface Module
- Payload wiring: flying leads from base to payload



Surveillance



Military



Remote Sensing



Robotics



Maritime



Antennas



Motion Control Systems

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## Technical Specifications

### Pan/Tilt Performance (Standard)

	Side Mount
Rated Payload <sup>1</sup>	12 lb
Max. Pan Speed <sup>2</sup>	300°/second
Max. Tilt Speed	60°/second
Resolution - Pan	0.013°
Resolution - Tilt	0.003°

<sup>1</sup>Side-mounted payload assumes COG < 1" from tilt axis.

<sup>2</sup>Unloaded. Maximum speed may depend on exact payload configuration and dynamics.

### Pan/Tilt Features

Tilt Range	-47° to +31° from level (78° range)
Pan Range	+/- 159° (+/- 180° with extended range mode)
Min. Pan Speed	.003°/second (with microstepping)
Min. Tilt Speed	.013°/second
Duty Cycle	Up to 100% duty cycle, or 3-5 million cycles
Acceleration/Deceleration	On-the-fly speed and position changes

### Power Requirements

Input Voltage	Unregulated 12-30 VDC (fastest performance & torque @ 30 VDC)
Power Consumption	13 W continuous peak (full power mode) (Measured at 30 VDC) 6 W continuous peak (low power mode (default)) 1 W continuous peak (holding power off mode)

### Connections & Communications

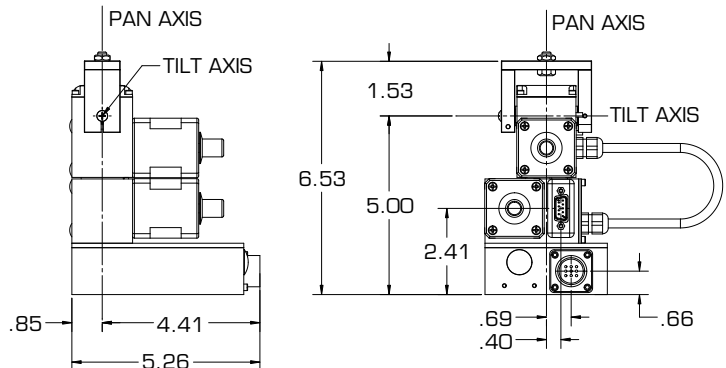
Base Connectors	Power (2c): 30 VDC max. @ 2 A max. Video (2c) Communications (4c): RS-232/-422
Payload Signal Pass-Through	Power (2c): 30 VDC max. @ 3 A max. Video (4c): 2x Video or 1x Ethernet (10baseT) Other (2c): 30 VDC max. @ 1 A max.
Computer Controls	RS-232 standard; Built-in multi-drop RS-485 networking
Control Protocols	DP (ASCII, Binary)

### Mechanical

Weight	5.38 lb (2.44 kg)
Dimensions	6.493"(h) × 8.397"(w) × 5.27"(d)
Payload Mounting	Side and/or top
PTU Mounting	Pedestal
Material	Machined aluminum

### Packaging & Environmental

Standards	Designed to IP66
Operating Temperature	-20°C to 60°C
Humidity	100% relative humidity, non-condensing
Dust/Sand (Operating)	Sustained exposure to blowing dust/sand
Wind/Rain/Fog	IP66
Color/Finish	Black anodized
EMI	CE Mark and FCC Part 15, Subpart B, Class A



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