



### Outdoor Miniature Pan-Tilt Unit

Rugged, Compact, Precise

#### Fully Integrated, Computer-Controlled Positioning

The PTU-D48 is a family of integrated computer-controlled pan-tilt units designed for intelligent positioning and control of camera, laser, antenna, and other payloads to 15 lbs. It is a fully integrated design with single weatherized connection for power, control, and camera/payload signals. Its compact size and light weight make it ideal for mast/pole mount and vehicle applications. Payloads can be side and/or top mounted. The PTU-D48 withstands high duty-cycles and offers long-life in harsh all-weather environments. Key features include:

- Positions any payload: IP cameras, antennas, lasers
- Smooth, repeatable motion and rigid design provides steady images in windy environments
- Powerful command set supports real-time detection and tracking applications: absolute angle, relative angle, velocity control, geo-pointing (lat/lon) with GPM option, continuous velocity control
- Solid and vibration-tolerant for vehicle applications
- Wide-range of speeds (< 0.006°/sec. to 100°/sec.)
- Extremely precise positioning (0.006°) allows translating object positions to map coordinates accurately
- Single connector for all video, control, power
- Flexible payload mounting (top and/or side)
- Integrated controller - no other electronics box required
- Computer interface via RS-232/485 or Ethernet (option)
- Fully sealed for outdoor applications (IP67)



#### Applications

- Perimeter surveillance
- Automated antenna pointing
- Harbor / Port monitoring
- Laser ranging systems
- Video detection & tracking
- Industrial automation
- Vehicle surveillance systems
- Law Enforcement
- Force Protection



## General Features

- Rigid worm gear design. No belts/pulleys.
- Solid and vibration-tolerant
- Single connector for all video, control, power
- Flexible payload mounting (top and/or side)
- Integrated controller - no external box
- Precise control of position, speed & acceleration
- FCC and CE Mark certified
- Single DC power input

## Options

- Side-mount payload brackets
- Geo-Pointing Module (Part# PTU-DGPM)
- Ethernet/IP Interface Module (Part# PTU-DGPM)
- Payload pass-through wiring

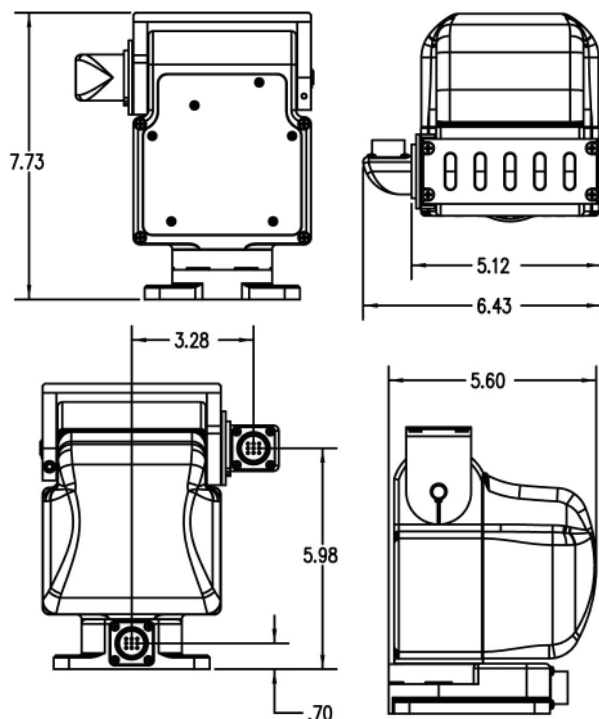
## Pan-Tilt Performance

	Side Mount	Top Mount
Max Payload	15 lbs	10 lbs
Max Pan Speed <sup>a</sup>	100°/second	100°/second
Max Tilt Speed	50°/second	50°/second
Resolution - Pan	0.006°	0.006°
Resolution - Tilt	0.003°	0.003°

<sup>a</sup> Unloaded. Max speed may depend on exact payload configuration and input voltage.

## Pan-Tilt Features

Tilt Range	+30° to -90° from level (120° range)
Pan Range	+/- 220° (440° range)
Duty Cycle	Up to 100% duty cycle
Acceleration/Deceleration	Trapezoidal. On-the-fly speed and position changes



All units in inches

## Power Requirements

Input Voltage	Unregulated 12-30VDC (fastest performance & torque @ 30VDC)
Power Consumption (Measured at 30VDC)	54 W continuous peak (high-power mode) 40 W continuous peak (regular-power mode (default)) 1 W continuous peak (holding power off mode)

## Connections & Communications

Base Connector	PRIMARY: AMP (MIL-C-26482). Includes: PTU-Power (3C) - 9-30VDC + shield PTU-Control (7C) - RS-232(3C) and RS-485 (4C)
Payload Signal Pass Through (option)	Power (2C): 30VDC max @ 3A Video-1 (2C): NTSC/PAL/RS-170 Video-2 (2C): NTSC/PAL/RS-170 Other (3-6C): 30VDC max @ 1A Connector: AMP (MIL-C-26482)
Computer Controls	RS-232 standard; RS-485 with networking
Control Protocols	DP (ASCII, Binary)

## Mechanical

Weight	8.75 lbs. (9.25 lbs. with top bracket)
Dimensions	7.7" H x 5.1" W x 5.6" D (no payload connector)
Payload Mounting	Side and/or Top
PTU Mounting	Pedestal mount
Material	Machined aluminum

## Packaging & Environmental

Standards	Designed to IP67
Operating Temperature	-30°C to 70°C
Non-Operating Temperature	-30°C to 70°C
Humidity	100% relative humidity, non-condensing
Dust/Sand (Operating)	Sustained exposure to blowing dust/sand
Wind/Rain/Fog	IP67
Salt Spray	Sustain operation in salt spray environments
Color/Finish	Black anodized
EMI	CE Mark and FCC Part 15, part B Class B



**Kane Computing Ltd**  
**7 Theatre Court, London Road,**  
**Northwich, Cheshire, CW9 5HB, UK.**  
**Tel: +44(0)1606 351006**  
**Fax: +44(0)1606 351007/8**  
**Email: sales@kanecomputing.com**  
**Web: www.kanecomputing.co.uk**