



PTU-D47

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

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

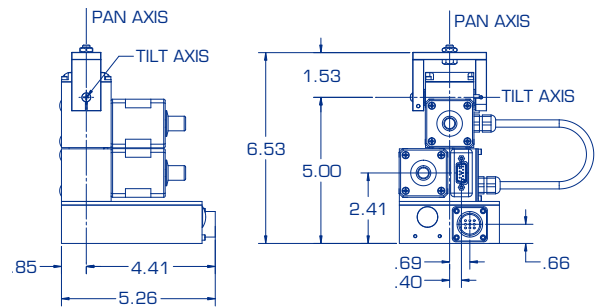
Specifications

Pan/Tilt Performance		Side Mount
Rated Payload ¹		12 lb
Max. Pan Speed ²		300°/second
Max. Tilt Speed		60°/second
Resolution – Pan		0.013°
Resolution – Tilt		0.003°
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 (Measured at 30 VDC)		13 W continuous peak (full power mode) 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		
PTU Weight		5.38 lb (2.44 kg)
PTU Dimensions		6.493" (h) x 8.397" (w) x 5.27" (d)
Payload Mounting		Side and/or top
PTU Mounting		Pedestal
Material		Machined aluminum
Packaging & Environmental		
Standards		Designed to IP66
Operating Temperature ³		-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

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

²Unloaded. Maximum speed may depend on exact payload configuration and dynamics.

³Reduced speeds may be required for low temperature operation.



SANTA BARBARA

FLIR Systems, Inc.
70 Castilian Drive
Goleta, CA 93117
USA
PH: +1 805.964.9797

BELGIUM

FLIR Systems
Luxemburgstraat 2
2321 Meer
Belgium
PH: +32 (0) 3665 5100

www.flir.com
NASDAQ: FLIR

PORTLAND

Corporate Headquarters
FLIR Systems, Inc.
27700 SW Parkway Ave.
Wilsonville, OR 97070
USA
PH: +1 866.477.3687

CHINA – SHANGHAI

FLIR Systems, Co., Ltd.
K301-302, No.26 Lane
168, Daduhe Road,
Putuo District, Shanghai
200062, P.R.China
PH: +86-21-5169 7628

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