PTU-E46

Miniature Computer-Controlled Pan/Tilt Unit

The PTU-E46 family of miniature pan/tilt units provide fast, precise positioning in an extremely small and lightweight package. They are fully computer-controlled and offer programmability of speed, acceleration, power, and other parameters. The included controller, with built-in RS-232, Ethernet, and RS-485 interfaces, handles precise kinematic motion control according to user-set parameters. The PTU-E46 units accept ASCII and binary command formats and is networkable. Commands can be sent at high speeds for demanding applications, such as laser scanning and video tracking.

KEY FEATURES INCLUDE:

- Precise control of position, speed, and acceleration at low cost

- Simple to use from any RS-232 terminal or web browser

- Small form factor (<5.2″ tall and <3 lb)

- Single DC power input suited for battery operation

- Rigid worm gear design; no belts/pulleys· ASCII command mode for simplicity; binary commands available for high-performance

NEW FEATURES

- Built-in Ethernet interface (web or TCP/IP)

- Built-in geo-pointing (GPM)

- Increased command rates

- PTU-SDK (software development kit) supported

- Pelco-D supported
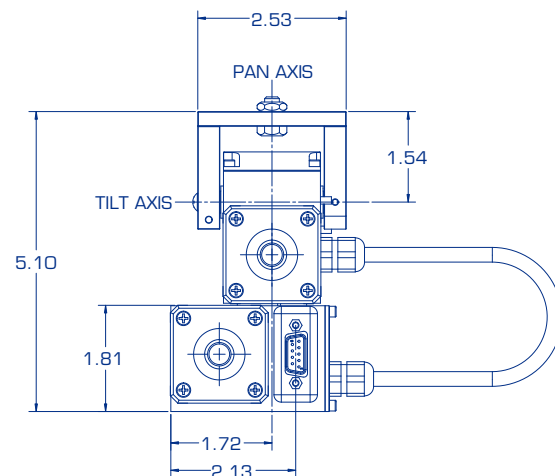
- Backwards compatible with D46

OPTIONS

- International AC/DC Power Supply

- Weatherization for outdoor use

- Nodal (gimbal) - payload aligned to motion axes

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Specifications

Pan/Tilt Performance	PTU-E46-17	PTU-E46-70	PTU-E46-17P70T
Rated Payload	6 lb (2.72 kg)	9 lb (4.08 kg)	9 lb (4.08 kg)
Max. Unloaded Speed (@ 30 VDC)	300°/second	60°/second	Pan: 300°/second Tilt: 60°/second
Resolution	0.013°	0.003°	Pan: 0.013° Tilt: 0.003°
Pan/Tilt Features			
Tilt Range	-47° to +31° from level (78° range) with limits disabled for 80° down (111° range)		
Pan Range	+/- 159° (+/- 180° with extended range mode enabled)		
Min. Pan Speed	<min. resolution>/second		
Min. Tilt Speed	<min. resolution>/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	12-30 VDC unregulated (fastest performance and torque @ 30 VDC)		
Power Consumption (Measured at 30 VDC)	13 W continuous peak (full power mode) 6 W continuous peak (low power mode) 1 W continuous peak (holding power off mode)		
Connections & Communications			
Host Interface	RS-232 (DB-9 female connector) RS-422/-485 (RJ-12connector), Ethernet		
Networking	Control of multiple pan/tilt units from one or more host computers. Multi-drop RS-485 network using RJ-12.		
Control Protocols	DP (ASCII, Binary), Pelco-D		
Mechanical			
PTU Weight	3 lb		
PTU Dimensions	3" (h) × 5.13" (w) × 4.25" (d)		
Payload Mounting	Hole for 1/4-20 screw standard. Camera mounting plate removes for easy customizing.		
PTU Mounting	Bottom or front 1/4-20 mounting		
Controller Weight	8 oz		
Controller Dimensions	1.25" (h) × 3.25" (w) × 4.5" (d)		
Packaging & Environmental			
Standards	Designed to IP65 (head only, with weatherized)		
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	IP65		
Color/Finish	Black anodized		
EMI	CE Mark and FCC Part 15, Subpart B, Class A		

*Reduced speeds may be required for low temperature operation.

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