Midsize, Programmable, Rugged Pan/Tilt Unit

The PTU-D100EX E Series supports any type of single or multi-part payload through a flexible bracketing system of top and/or side mounting. The real-time command interface supports advanced applications such as video tracking.

The PTU-D100EX E Series has been proven in a wide range of mission-critical applications for positioning of cameras, lasers, antennas, or other instruments in both fixed and mobile environments. It is designed for high duty cycles and reliable operation 24/7 in harsh all-weather environments. The low parts count, and highly integrated design provides unsurpassed system reliability.

The latest evolution of FLIR pan-tilts incorporates a powerful 32-bit core electronics platform and real-time operating system to deliver superior motion control fidelity and improve performance.

**KEY FEATURES INCLUDE:**

- Large payload capacity to 25 Lbs
- Extremely precise positioning (to 0.0075° with microstep)
- Wide range of pan speeds 0.0075°/sec to 60° for smooth, precise control
- 360-continuous pan
- Precise, real-time control of position, speed and acceleration
- Rigid worm gear design (no belts/pulleys) provides steady positioning in windy environments
- Integrated Ethernet and Web interfaces
- Increased command rates, reduced jitter
- Advanced microstep control

**OPTIONS**

- Payload brackets (top, side)
- Alternate colors/finishes
- Inertial stabilization
- Geo-pointing built in

www.flir.com/MCS
Specifications

Pan/Tilt Performance  | D100 EX-Series
---|---
Max. Payload  | 25 lb
Pan Speed Range  | 0.0075°/sec – 60°/sec
Tilt Speed Range  | 0.0038°/sec – 50°/sec
Resolution – Pan  | 0.0075° (with microstep)
Resolution – Tilt  | 0.0038° (with microstep)

Pan/Tilt Features

Tilt Range  | Programmable up to +30° to -90° from level (120° range) [up to +/-90° with side mount if specified at time of order)]
Pan Range  | Programmable up to +/- 168° or 360° continuous
100% Duty Cycle  | High duty-cycle, or 3-5 million cycles
Acceleration/Deceleration  | Programmable, on-the-fly speed and position changes

Power Requirements

Input Voltage  | Unregulated 12-30 VDC (fastest performance & torque @ 30 VDC)
Input Protection  | Over-voltage/over-current protection meets MIL-STD-1275D
Power Consumption (Measured at 30 VDC)  | 33.0W (Low move power mode), 45.0W (Regular move power mode), 63.0W (High move power mode), 3.3W (Hold power off mode)

Connections & Communications

Base Connectors  | PRIMARY: 32-pin (MIL-C-26482): Includes:
PTU-Power (3c): 9-30 VDC + shield
PTU-Control RS-232/-422/-485/Ethernet (4c): pan/tilt configuration/
control Payload Signals (9-13c)
Payload Signal Pass-Through  | 19-pin (MIL-C-26482): Includes:
Power (2c): 50 VDC max @ 3.4 a max
Video (4c): 2x Video, Serial/Aux (3-6c): RS-232/-422/-485
High-Speed Pass-Through (4c): capable of 10baseT/Custom: various (optional)
Computer Controls  | RS-232, RS-485/422, Ethernet
Control Protocols  | DP (ASCII, Binary), Pelco-D (option), Nexus-compatible

Mechanical

PTU Weight  | < 20 lb (with top bracket)
PTU Dimensions  | Pan/Tilt Only: 12.56” (h) x 7.92” (w) x 8.2” (d) (without bracket)
Payload Mounting  | Single/dual-side mount, top mount
PTU Mounting  | Pedestal
Material  | Machined & cast aluminum

Packaging & Environmental

Standards  | IP67 Certified
Operating Temperature  | -30°C to 70°C (no heaters)
Humidity  | 100% relative humidity, non-condensing
Ice (Operating)  | Sustained operation with 0.25” ice buildup
Dust/Sand (Operating)  | Sustained exposure to blowing dust/sand
Wind/Rain/Fog  | IP67
Salt Spray  | MIL-810G Salt Spray
Color/Finish  | Black anodized; custom colors/finishes available
Shock/Vibration Certifications  | MIL-STD-810G Method 514.6 Vibration, Method 516.6 Drop Test,
Method 516.6 Shock
EMI  | CE Mark and FCC Part 15, Subpart B, Class A

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16-0413-OEM-MCS-D100EX-Series