

# PTU-D300 FAMILY

## Options

# PTU-D300

### Dual-Side Mount Payload Bracket

The Dual-side mount configuration consists of payload mounting hubs on both sides of the PTU with an affixed top-mount platform. The hubs can accept standard and heavy-duty side-mount brackets. Dual-side mount is recommended for heavier, multi-part payloads to allow balancing of the load for best performance. The dual-side mount top assembly and hub comes installed on the PTU but does not include side-mount brackets which should be ordered separately.

### High-Speed Pan

The High-Speed Pan option provides pan velocities to 100°/second. Output torque in the pan-axis with the high-speed option is somewhat reduced in relation to the standard PTU-D300 configuration. This may result in lower payload capacities for applications requiring high acceleration and/or mounting in other than normal vertical position.

### Expanded Payload Wiring Pass-Through

The PTU-D300 includes a built-in slip ring allowing nx360-degree continuous pan. Signals are passed through from the base connector to the payload hub connector. The table at the right shows the available signals for the different options. PL02 configuration has only RS-485 host interface, an optional converter is available to provide RS-232 control.

### RF Pass-Through for Continuous Rotation Antenna Applications

The PTU-D300 is available with an RF rotary joint allowing 360-continuous rotation for antenna and other RF applications. The rotary joint provides low attenuation pass through of signals in the range DC-18GHz. Bulkhead SMA connectors are provided at the base and payload for signal connection. The RF pass through option also includes a slip ring to allow power and other signals to be passed through as well. Signals supported are shown in the table at the right.

### Bottom-Mounted Base Connector

The Base Connector of the PTU-D300 exits the rear (side) in the standard configuration. A “bottom exit” configuration is available that provides the Base Connector exiting the bottom of the pedestal (countersunk) to facilitate mounting on vehicles, pole-tops, and ships with no exposed wiring. Overall height of the PTU-D300 is 1.5” taller for the bottom-exit configuration.

### Modified Motion Ranges (limit vanes)

The PTU-D300 is available with alternate ranges of motion. See “PTU-D300 Family Motion Ranges” for details.

### Inertial Stabilization Module (ISM)

The PTU-D300 is available with inertial stabilization. See “PTU-ISM” datasheet for details.



PAYLOAD WIRING OPTIONS	PL01	PL02	RF01
PASSED THROUGH	# conductors		
Power	2	2	2
Video	4	4	4
General	3	6	2
RF			1
<b>Total</b>	<b>9</b>	<b>12</b>	<b>8</b>
SIGNALS AT PAYLOAD			
TTL Outputs	1	3	1
PTU Host Control	0	3	0
CHA/CHB Serial Control	8	0	8
BASE CONNECTOR			
RS-232 Host Control	YES	NO	YES
RS-485 Host Control	YES	YES	YES

### Other and Custom Options

The PTU-D300 is available by special order with other configurations and options including:

- Alternative slip ring for different payload pass through signals
- Customized payload brackets
- Customized wiring harnesses
- High-speed Tilt

Contact your Sales Representative for details.

# PTU-D300 FAMILY

## Accessories

## PTU-D300

### Payload Bracket (D300AC-BKT-LSTD, D300AC-BKT-HDS, D300AC-BKT-HDT)

The PTU-D300 is designed with a modular payload mounting system. The standard “L” bracket (D300AC-BKT-LSTD) can be mounted for top or side mounting of payloads. The heavy-duty bracket (D300AC-BKT-HDS (side) and D300AC-BKT-HDT (top) are gusset-reinforced and are recommended for maximal stiffness with very heavy payloads. Both standard and heavy-duty brackets can be mounted simultaneously to provide top and side mount of dual payloads.

The Payload Brackets are slotted to allow simple attachment of a variety of payloads. Hardware for attaching the Payload Bracket to the tilt hub are included.

*Note: The PTU-D300 tilt hub is designed for attaching payload enclosures directly to the unit without any bracket. For OEM applications this allows completely internal wiring to the payload.*

### Cable Harness (D300AC-CAB-25BO, D300AC-CAB-ext-XX)

The PTU-D300 has a single MIL-style (MIL-C-26482) connector on the pedestal base. All signals from the pan-tilt unit and payload pass through this connector. The Cable Harness provides a convenient breakout of these signals into separate wires that terminate to standard connectors. The Cable Harness is offered in a standard length of 25 ft. D300AC-CAB-ext-XX are extension cables with male/female connectors to allow extension of the breakout cable or mating with customer system.

### AC/DC International Power Supply (D300AC-APS-30V)

The PTU-D300 accepts 9-30VDC input for powering the pan-tilt unit. Higher voltages are recommended for larger payloads and/or faster speeds. The AC/DC International Power Supply provides a convenient 110/220VAC power source for the pan-tilt unit. Dimensions: 3.44”W x 2.01”Hx7.61”L.

### Other

The PTU-D300 is available by special order with other configurations and options including:

- Alternative slip-ring for different payload pass through signals
- Customized payload brackets
- Customized wiring harnesses
- Ethernet interface for PTU
- GPS/GEO Pointing functionality
- Stabilization

Please contact your Sales Representative for details.



# PTU-D300 FAMILY

## Motion Ranges

# PTU-D300

### Standard Ranges of Motion

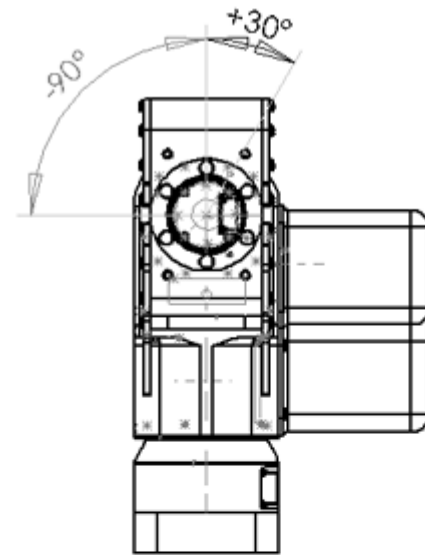
Standard pan and tilt ranges for PTU-D300 models are:

- Pan: +/- 175° (unless continuous is enabled)
- Tilt: +30/-90

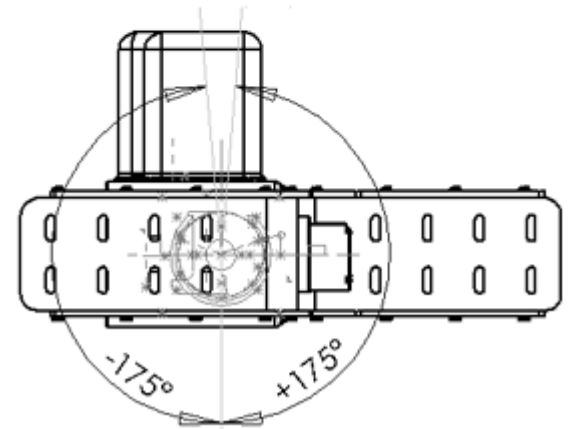
During calibration the PTU-D300 must move through the full range of motion (for details see TECH NOTE 21 “Calibration Sequence” and the PTU-D300 User’s Manual for details). The PTU-D300 model family calibrates itself automatically using an internal precision limit detection system. This limit system has a fixed range of motion, and the position of this range of motion is fixed within the total possible rotation of that axis.

### Alternative Ranges of Motion

Alternative motion ranges can be provided as a retrofit or specified at time of order for pan and/or tilt axes. The following stock alternative motion ranges are available as retrofit or at order time (additional charges may apply).



Side View



Top View

Order ID	Range (degrees)	Axis
<b>S</b>	<b>+175 / - 175</b>	<b>Pan - Standard</b>
A	+005 / -005	Pan
B	+010 / -010	Pan
C	+025 / -025	Pan
D	+030 / -030	Pan
E	+035 / -035	Pan
F	+090 / -090	Pan
<b>S</b>	<b>+030 / -090</b>	<b>Tilt - Standard</b>
A	+005 / -005	Tilt
B	+010 / -010	Tilt
C	+025 / -025	Tilt
D	+030 / -030	Tilt
E	+035 / -035	Tilt
F	+090 / -090	Tilt
G	+000 / -040	Tilt
J	+015 / -065	Tilt
L	+030 / -080	Tilt
M	+020 / -045	Tilt
X	+010 / -045	Tilt
0	+000 / -045	Tilt