

## PTW PAN & TILT UNIT



**8.8 N-m (6.5 lb-ft) of output torque on each axis handles small loads**

**Compact size allows for use in space-restricted areas**

**Corrosion-resistant housing is ideal for use in hazardous environments**

***Dual axis pan & tilt designed for in air and shallow water harsh environment applications.***

The PTW environmental pan & tilt is completely submersible and designed with radiation tolerant components, making it an ideal positioner for nuclear and other hazardous environment applications.

The PTW provides 8.8 N-m (6.5 lb-ft) of output torque on each axis and handles payloads up to 10 pounds. Heavy-duty, synchronous 24 VAC brushless motors provide high performance as well as long term durability and reliability. It is also outfitted with adjustable external mechanical stops to limit the positioner's range of motion.

The smooth hard-anodized aluminum housing of the PTW is corrosion resistant and decontaminates easily when used in a nuclear environment. This positioner is also available with alternative housing materials including stainless steel and PET high-density plastic. Positioners with PET housings have been scientifically designed to solve corrosion problems associated with electro-cathodic protection systems and are often used in public aquarium exhibits.

*ROS has been manufacturing an array of harsh environment cameras, lights, positioners, and specialized systems designed for oceanographic, nuclear, industrial, and military applications for over 30 years.*



# PTW - Pan and Tilt Unit

## PERFORMANCE

Power:	24 VAC, 0.6 amps per axis
Torque:	6.5 lb-ft (8.8 N-m) per axis
Rotation Speed:	6.0 degrees/second (1 RPM)
Harmonic gear backlash:	0.05 degrees (3 arc minutes)
Scan Range with yoke bracket:	360 degrees pan axis, +/- 90 degrees tilt axis

## MECHANICAL

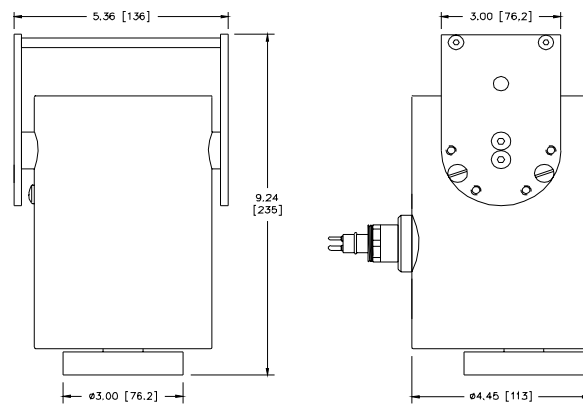
Housing Material:	Anodized 6061-T6 Aluminum	Electropolished 316 Stainless Steel	PET
Height:	235 mm (9.24 in)	235 mm (9.24 in)	235 mm (9.24 in)
Width:	136 mm (5.36 in)	136 mm (5.36 in)	136 mm (5.36 in)
Length without connector:	113 mm (4.45 in)	113 mm (4.45 in)	113 mm (4.45 in)
Output Shaft Diameter:	25.4 mm (1.00 in)	25.4 mm (1.00 in)	25.4 mm (1.00 in)
Weight in Air:	3.4 kg (7.5 lbs)	4.2 kg (9.3 lbs)	2.7 kg (6.0 lbs)
Weight in Water:	1.5 kg (3.4 lbs)	2.4 kg (5.2 lbs)	0.9 kg (1.9 lbs)
Standard Connector:	XSG-5-BCL-HP		
Housing Mounting:	Three 1/4-20 threaded holes in mounting plate		
Equipment Mounting:	Two 1/4-20 threaded holes in output tilt shaft		
Mounts:	ROS mounting plate and yoke bracket included		
External Mechanical Limits:	Adjustable limit stops on both axes		

## ENVIRONMENTAL

Operating Depth:	30 m (100 ft)
Operating Temperature:	0°C to +50°C (32°F to 122°F)
Storage Temperature:	-20°C to +60°C (-4°F to 140°F) in air
Radiation Tolerance:	1 x 10 <sup>8</sup> rad (max accumulated dose)

## ROS STANDARD PIN-OUT

- 1 - COMMON
- 2 - TILT CCW
- 3 - TILT CW
- 4 - PAN CW
- 5 - PAN CCW



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