

KPT-45 PAN & TILT UNIT

Rugged and powerful
unit for ocean depths
down to 11,000 m

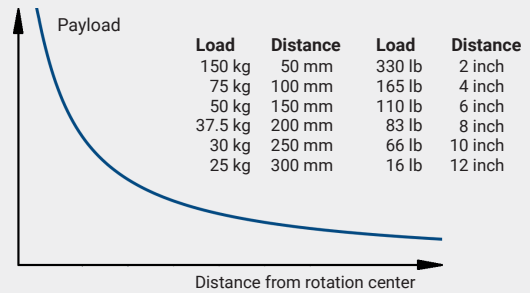


Designed for continuous hard use on Work Class ROVs at full ocean depths. Equipped with absolute position sensors there is no need to find end-stops at start-up. Withstands heavy payloads without compromising with absolute accuracy. To be connected to an external compensator.

KEY FEATURES

- Dual axis unit
- Rugged construction and mounting holes
- High torque – heavy payloads can be added
- 90 or 120 Nm units
- RS-232 or 100 Mbps Ethernet
- Absolute position sensor
- ± 0.1 deg accuracy; ± 0.01 deg on request
- 24 to 48 VDC input voltage range
- No rotating connector at unit
- External compensator interface
- Design tested to 11,500 m (36,730 ft)

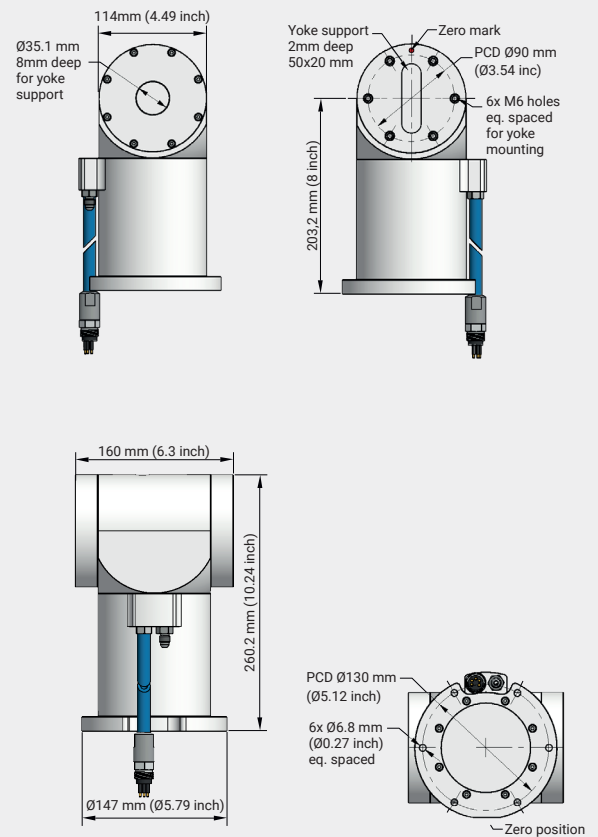
90 Nm Payload Torque diagram (in air)



SPECIFICATIONS

Electrical:	
Input Voltage	24 - 48 VDC
Drive Current	Up to 2.5 A each axis
Communication	RS-232 up to 115200 Baud rate or 100 Mbps Ethernet TCP/UDP or Modbus
Connector	Customer selectable (SubConn 5 or 8 pin standard)
Mechanical:	
Angular Limits	Pan range: $\pm 175^\circ$ Tilt range: $\pm 175^\circ$ (depending on yoke)
Angular Speed	Up to 30 deg/sec (Pan and Tilt simultaneously)
Torque @ 24VDC performance at 48VDC even better	90 Nm holding torque *) - 75 Nm (55 lb/ft) < 8 deg/sec - 60 Nm (44 lb/ft) < 15 deg/sec - 45 Nm (33 lb/ft) up to 20 deg/sec
90Nm max Payload	150 kg (330 lbs)
Absolute Position/ Step resolution	$\pm 0.1^\circ$ (0.09375°/step) or $\pm 0.01^\circ$ (0.0009375°/step) on request
Gears	Precision strain wave
Backlash	< 3 arc minutes (< 0.05°)
Compensator	External
Environmental:	
Operating Depth	Down to 11,000 m (36,100 ft)
Temperature Range	-20°C to +50°C (-4°F to +122°F) operating -30°C to +60°C (-22°F to +140°F) storage
Others:	
Size (H/W/D)	260 x 160 x 114 mm (Flange $\varnothing 147$ mm)
Materials	Hard anodized aluminum or Titanium
Weight in Air	8.8 kg (19.46 lbs) (Aluminum unit)
Weight in Water	5.4 kg (11.9 lbs) (Aluminum unit)

*) 120 Nm unit available with different gear ratio
All technical data and specification are subject to change 2023-12



Available compensator interfaces:

