

# KPT-20 PAN & TILT UNIT.

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

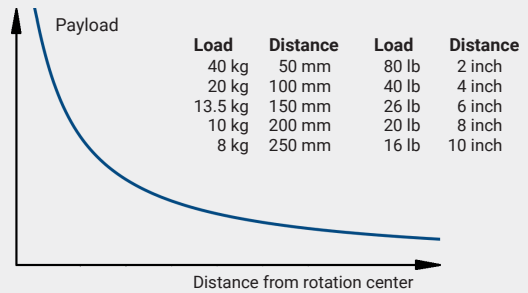


Designed for continuous hard use on Work Class ROVs at full ocean depths. Equipped with absolute position sensors there is no need to find end-stops at start-up. Withstands heavy payloads without compromising with absolute accuracy. To be connected to an external compensator.

## KEY FEATURES

- Compact dual axis unit
- Rugged construction and mounting holes
- High torque – heavy payloads can be added
- 22 Nm (16.2 lb/ft) holding torque
- RS-232 or 100 Mbps Ethernet
- Absolute position sensor
- $\pm 0.1$  deg accuracy;  $\pm 0.01$  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)

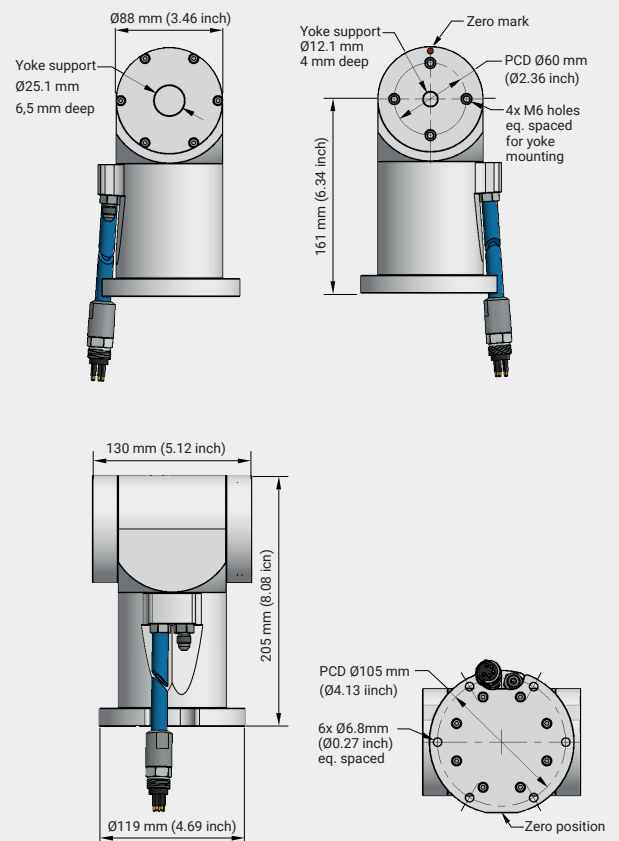
Payload Torque diagram (in air)



## SPECIFICATIONS

<b>Electrical:</b>	
Input Voltage	24 - 48 VDC
Drive Current	Up to 1.5 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)
<b>Mechanical:</b>	
Angular Limits	Pan range: $\pm 175^\circ$ Tilt range: $\pm 175^\circ$ (depending on yoke)
Angular Speed	0.5 to 40 deg/sec (Pan and Tilt simultaneously)
Torque @ 24VDC	22 Nm (16.2 lb/ft) holding torque 20 Nm (14.75 lb/ft) at full speed
Max Payload	50 kg (110 lbs)
Absolute Position/ Step resolution	$\pm 0.1^\circ$ (0.09375°/step) or $\pm 0.01^\circ$ (0.009375°/step) on request
Gears	Precision strain wave
Backlash	< 3 arc minutes (< 0.05°)
Compensator	External
<b>Environmental:</b>	
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
<b>Others:</b>	
Size (H/W/D)	205 / 130 / 88 mm (Flange $\varnothing 119$ mm)
Materials	Hard anodized aluminum (Titanium on request)
Weight in Air	4.6 kg (10.14 lbs) (Aluminum unit)
Weight in Water	3.2 kg (7.05 lbs) (Aluminum unit)

All technical data and specification are subject to change 2023-12



### Available compensator interfaces:

