

# KPT-45 PAN & TILT UNIT

For high payload applications down to 6000m water depth



**KPT-45**

Dual axis - External compensator

## KEY FEATURES

- Dual axis unit
- Rugged construction and mounting holes
- High torque – heavy payloads can be added
- RS-232, RS-485 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
- 6,000 Meter (20,000 ft)

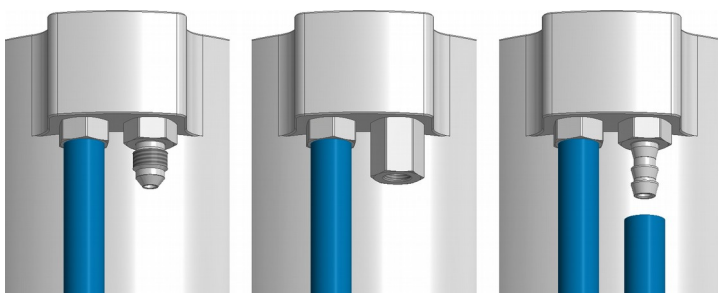
Our unit is designed for continuous hard use on Work Class ROVs.

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.

### Available compensator interfaces:



Flared JIC 37°  
Fitting

1/8" BSPP Tread

PB4 hose



**KYSTDESIGN**  
S U B - S E A T E C H N O L O G Y

# KPT-45 SPECIFICATIONS

## Electrical:

Input Voltage	24-48 VDC
Drive Current	Up to 2.5 A each axis
Communication	RS-232, RS-485 (2 wire) or 100 Mbps Ethernet
Connector	Customer selectable (Seacon 5 pin standard)

## Mechanical:

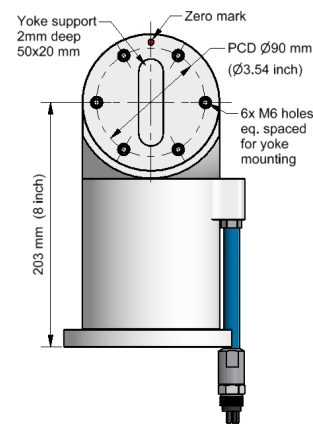
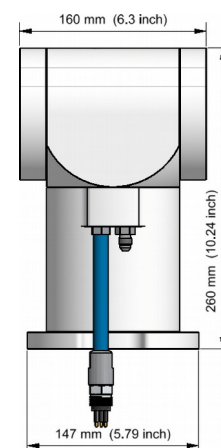
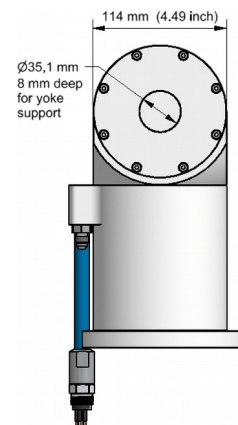
Angular Limits	Pan range: $\pm 175^\circ$ Tilt range: $\pm 175^\circ$ (depending on yoke)
Angular Speed	Up to 25 deg/sec (Pan and Tilt simultaneously)
Torque @24VDC, performance at 48VDC even better	45 Nm (33 lb/ft) up to 20 deg/sec or 60 Nm (44 lb/ft) < 15 deg/sec or 75 Nm (55 lb/ft) < 8 deg/sec
Max Payload **	100 kg (220 lbs)
Position Feedback	12 bit accuracy absolute, approx. $\pm 0.1^\circ$ 15 bit $\pm 0.01^\circ$ on request
Gears	Precision strain wave
Backlash	< 3 arc minutes (< 0.05°)
Compensator	External

## Environmental:

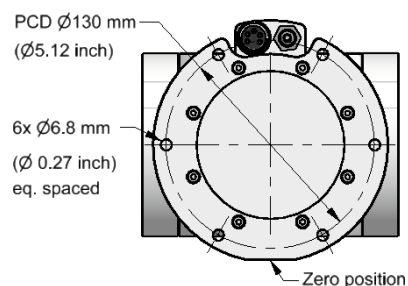
Operating Depth	Down to 6,000 m (20,000 ft)
Temperature Range	-20°C to +50°C (-4°F to +122°F) operating -30°C to +60°C (-22°F to +140°F) storage

## Others:

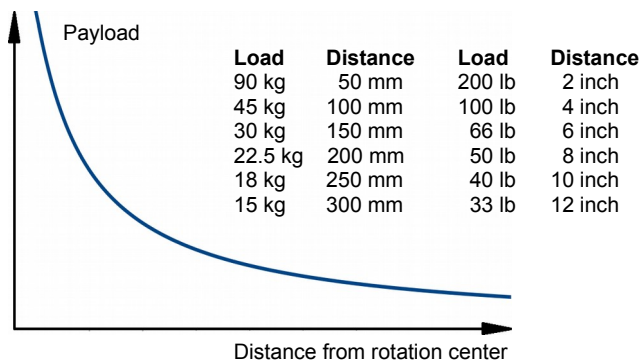
Size (H/W/D)	260 x 160 x 114 mm (Flange $\varnothing 147$ mm) 10.24 x 6.3 x 4.49 inch (Flange $\varnothing 5.79$ inch)
Materials	Hard anodized Aluminum or Titanium
Weight in Air	8.8 kg (19.46 lbs) (Aluminum unit)
Weight in Water	5.4 kg (11.9 lbs) (Aluminum unit)



Mounting holes (bottom view):



\*\* ) Payload Torque diagram (in air)



## KYSTDESIGN AS

Eikeskogvegen 80 - 5570 Akdsdal, Norway  
post@kystdesign.no - Phone: +47 52 70 62 50

www.kystdesign.no