

# KPT-45-I PAN & TILT UNIT

For high payload applications down to 500m water depth



## KPT-45-I

Dual axis - Internal compensator

## KEY FEATURES

- Dual axis unit with internal compensator
- Rugged construction and mounting holes
- High torque – heavy payloads can be added
- 90 or 120 Nm units
- 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
- Max depth 500 Meter (1,500 ft)

The KPT-45-I with its rugged design and internal compensator is designed for continuous hard work.

Equipped with absolute position sensors there is no need to find end-stops at start-up.

Withstands heavy payloads without compromising with absolute accuracy.

Easy to check functionality of compensator and refilling.

# KPT-45-I 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 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
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	Internal oil filled diaphragm

## Environmental:

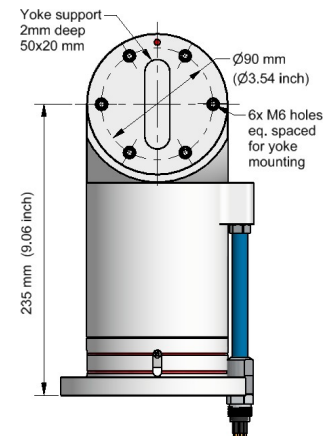
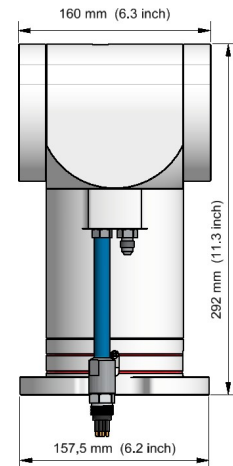
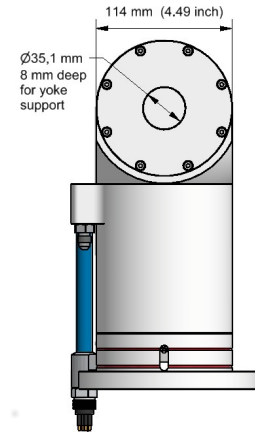
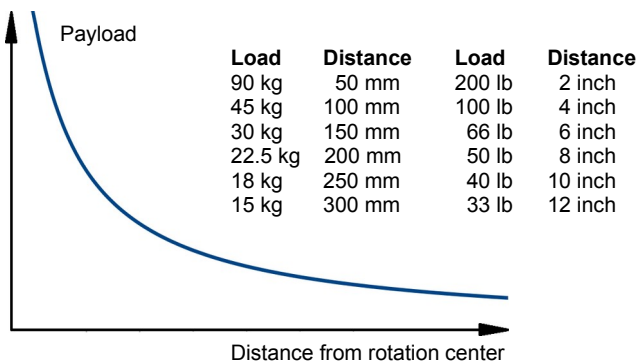
Operating Depth	Down to 500 m (1,500 ft.) as the volume of the compensator is not big enough to compensate for pressure and temperature changes for bigger depths.
Temperature Range	-20°C to +50°C (-4°F to +122°F) operating -30°C to +60°C (-22°F to +140°F) storage

## Others:

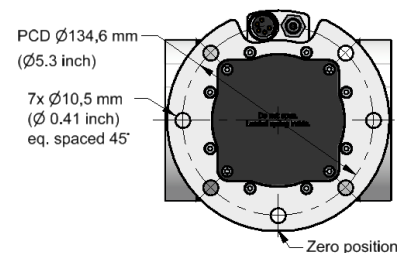
Size (H/W/D)	292 x 160 x 114 mm (Flange $\varnothing 157.5$ mm) 11.3 x 6.3 x 4.49 inch (Flange $\varnothing 6.2$ inch)
Materials	Hard anodized Aluminum Titanium on request
Weight in Air	9.6 kg (21.1lbs) (Aluminum unit)
Weight in Water	6.2 kg (13.7 lbs) (Aluminum unit)

\*) 120 Nm unit available with different gear ratio

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



Mounting holes (bottom view):



## KYSTDESIGN AS

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

www.kystdesign.no