



Features

- Porting available in 1/8" BSPP or 7/16" SAE in accordance with ISO 1179 & SAE J1926-1 respectively
- Constructed from corrosion resistant materials
- Compact & lightweight @ only 1.6kg (3.52lb) in water
- Pan range of 180 degrees and a tilt range of 90 degrees

Product Overview

The HLK-21000 pan & tilt is a light duty hydraulic pan & tilt designed to work reliably on all types of submersible systems. It is ideally suited for the positioning of cameras, lights or survey equipment and can be installed to the end of camera booms for pipe inspection activities.

All hydraulic connections are ported into the rear of the body and are available in 1/8" BSPP in accordance with ISO 1179 and 7/16" SAE in accordance with SAE J1926-1.

In addition to the HLK-21000 pan & tilt unit, it can be paired with the HLK-6000 double pilot operated check valve to ensure accurate position holding of the tilt function.

The rotate function is a rack and pinion design while the tilt function is a double acting actuator. The body and bracket are manufactured of 6082 aluminium with a 50 micron hard anodized surface.

Product Specifications

General

Function	Pan & Tilt
Materials	316 Stainless Steel, 6082 Aluminium
Seal Material	Nitrile/NBR/Buna-N
Product Finish	Hard Anodised
Ports	1/8" BSPP (ISO 1179) or 7/16" SAE (SAE J1926-1)
Dimensions	(H) 212mm x (W) 108mm x (D) 57mm (8.34" x 4.25" x 3")
Weight in Air	2.2kg (4.85lbs)
Weight in Water	1.6kg (3.52lbs)
Pan Travel	180 Degrees
Tilt Travel	90 Degrees

Hydraulic Performances

Max. Working Pressure	140bar (2000psi)
Flow	3lpm Maximum (0.79gpm)
Fluid Type	Mineral: DIN 51524, ISO 11158, ISO 6743-4 Synthetic: Panolin Atlantis, HLP-Synth
Viscosity	16cSt to 220cSt. VG 22-32 Recommended
Fluid Temperature	5-60°C (41-140°F)
Cleanliness Requirements	ISO 4406:19/17/14, NAS 1638:8, AS4059:9A/8B/8C

Forces

Pan Torque	8.1Nm @ 140bar (6lbf.ft @ 2000psi)
Max. Payload	6kg (13.2lb)

Environmental

Operational Depth	3000msw (9,840ft)
Operating Temperature	5-60°C (41-140°F)
Storage Temperature	0-70°C (32-158°F)
Humidity	0% to 100% Condensing