

Glide Path Indicator

Product GPI H20001-00-006 / Naval Applications



The Glide Path Indicator (GPI) guides the pilot safely to the heli port from approx. 5 NM distance emitting a defined light beam. It consists of three different beam sectors: (1) a steady green sector in the middle indicating the right approach angle, (2) a yellow slow flashing sector on top indicating being too high and (3) a red, fast flashing bottom sector warning the pilot of flying dangerously low. Angles, flash rates and beam colours can be modified according to customer requirements. When used under Night Vision Goggle (NVG) mode, the sectors will be green, blinking at different rates. For redundancy reason, the light beam is generated by two independent light sources. Two inertial measurement units (IMUs) and powerful servo actuators compensate ship's roll and pitch up to $\pm 45^{\circ}$, irrespectively of the helicopter approach heading. Due to the built in IMUs the GPI aligns automatically after installation to its horizontal position, no interface to external gyro is needed. To align towards the helicopter's path of approach, the azimuth angle is set by a servo motor, monitored from the control panel.

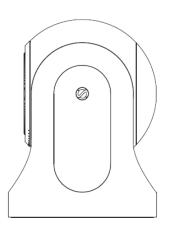
System integrity and operational reliability is monitored by multiple sensors measuring temperature, humidity, and electric current. These internal electronics provide constant monitoring of the GPI status and ensure that degradations and failures can be detected generally before such event. Easily exchangeable standard dry agent cartridges provide effective absorption of residual humidity.

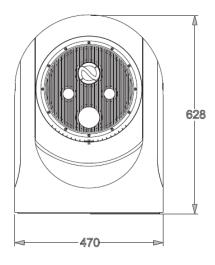
Benefit of the electronic features is granted in combination with Optonaval's software suite Albatross, starting with the module AlbaNavy. Please refer to the relevant Software Documentation.



PRODUCT SPECIFICATION

ELECTRICAL SPECIFICATION		
Supply voltage	48 V DC	
Power	480 W	
OPERATING CONDITIONS		
Ambient temperature	-32°C to 45°C	
Ingress protection level	IP66	
Shock	acc. to MIL-STD-810H / 10G	
Vibration	acc. to MIL-STD-810H	
EMC	acc. to MIL-STD-461G	
NVIS	acc. to STANAG 1236	
MECHANICAL SPECIFICATION		
Dimensions	Ø470×628 mm	
Weight	approx. 49 kg	
Stabilization accuracy	±0,3°	
Housing colour	RAL 7000, 80% gloss grade	
Housing material	sea water resistant aluminium alloy	
Surface coating	anodized & powder coated	
Front glass material	mineral glass	
OPTICAL/LIGHT SPECIFICATION		
Light source	2 × LED Light Engine RGB	
Light colour	STANAG1236 type FYGR or customer specific	
Beam angle	38° horizontal (19° PS & SB) 5° vertical (YE, high) 3° vertical (CGN, command) min. 3,5° vertical (RD, low)	
Beam intensity	2 x min. 100 cd (each sector)	
CONNECTION & CONTROL SPECIFICATION		
Power supply / Data cable	VG	
Controls	MODBUS RTU	





SPECIAL FEATURES

✓	Redundant light sources
✓	Redundant inertial measurement units integrated
✓	Self-aligned, no external gyro interface
✓	Maximized roll and pitch compensation
✓	Dimmable
✓	Suitable for the use of Night Vision Goggles (NVG)
✓	Health monitoring and reporting
✓	Smart weight saving cabling
✓	Integrated in Albatross software suite
✓	Comprehensive service package and ILS support available