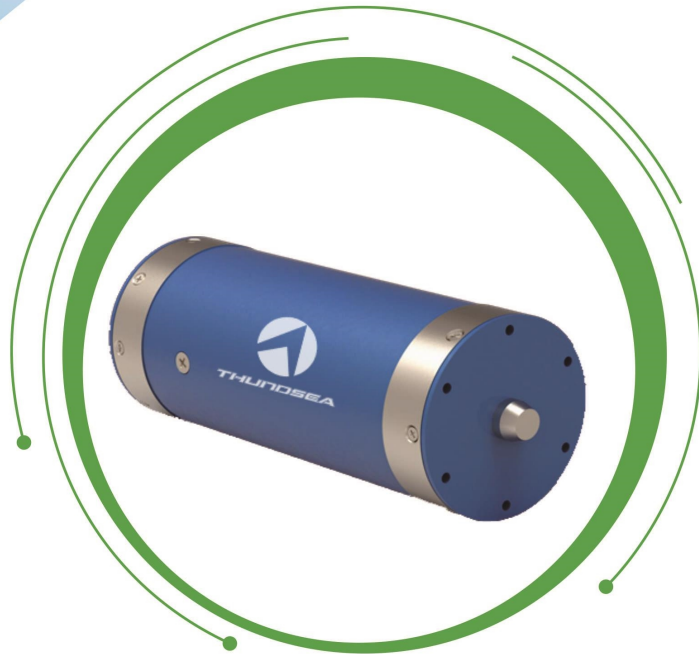


PTK-20 Pipeline Surveying use Inertial Navigation System



■ Introduction

The pipelines must be checked regularly for maintenance purpose with help of effective inspection tools searching for damage such as deformation, corrosion or leaks. With the help of our PTK-20 Inertial Measuring system, it is easy and precise to determine the exact location of the inspection tools. Attribute to its high accuracy, the scope of necessary repairs has been largely reduced, resulting in much less repair costs.

Based on Inertial Navigation Technology and FOG technology, PTK-20 consists of three fiber optic gyroscopes, three flexible accelerometers and electronic devices for signal processing. The gyroscopes are used to determine the attitude and heading and accelerometers are used to determine translational motion.

PTK-20 contains fiber optical gyroscopes (0.003-0.5 degree/h). Different precision optical gyroscopes can be chosen according to different applications. We can customize different accuracy and size on basis of customers requirements.

■ Application

- Pipling Checking
- Navigation and control for land vehicle
- Antenna stabilization and control
- UAV navigation
- Attitude and heading reference

■ Specifications

Performance	Alignment	5min
	Attitude	0.05deg, 1 σ
	Heading	0.5deg, 1 σ
Storage		$\geq 32G$
	Reading speed	USB2.0, $\geq 35Mb/s$
Accuracy	1.8m....3.6m over 1 km....2km aiding	
Measuring Range	Velocity	$\pm 400deg/s$
	Acceleration	$\pm 20g$
	Working Temp	-40 $^{\circ}C$ ~+70 $^{\circ}C$
	Storage Temp	-55 $^{\circ}C$ ~+85 $^{\circ}C$
	Vibration	0.04g ² /hz @ 20~2000hz
Environment	Shock	30g@6ms, keep accuracy; 50g@11ms, survival
	Size	$\Phi 80 \times 190$ mm
SWAP	Power supply	24VDC
	Weight	$\leq 2.5kg$
	Power consumption	$\leq 15W$
Interface	RS232, USB	