

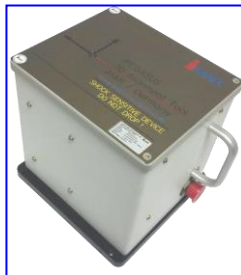
iPEGASUS

Surveying and Transfer Alignment of Shafts, Navigation Systems, Communication and Radar Antennas, Guns or Fire Control Systems on Naval Vessels and Lesure Yachts

With increasing accuracy requirements for the alignment of navigations sensors, antennas, guns, electro/optic equipment or engine shafts, transfer alignment has gotten of significant importance during the last couple of years in marine maintenance tasks. For this iMAR provides iPEGASUS, a patented highly precise inertial measurement system, which allows to transfer a three dimensional attitude/ heading information relative to a reference orientation with an accuracy of up to 0.01° .

The system works without external aid and is easy to handle for everybody, where only one single employee is necessary for operation. Thus the measurement time for performing a transfer alignment or surveying is reduced dramatically compared to tra-

ditional laser or camera based systems. iPEGASUS is a handy tool which generates up to 300 measurements per second, shows results on screen and plots a protocol designed for your application.



The transfer alignment can be done typically within few minutes and iPEGSUS provides online data during the adjustment of the device to be aligned. Using two iPEGASUS in differential mode allows furthermore the transfer alignment of fire-control systems and guns even on moving naval vessels without any need to go back to the dry dock or to the harbor.

Technical Data of iPEGASUS models Economy Precision / High Precision / Ultra High Precision:

Measured data	: $\varphi_x, \varphi_y, \varphi_z$ (angles around space coordinate axes)
Measuring range	: ± 360 deg (any rotations in space)
Resolution	: 300 μ deg
Linearity error	: < 0.001 % (incertainty due to rotation, 1σ)
Measuring incertainty	: < 0.02 / 0.001 / 0.0005 deg over 1 minute of measuring < 0.04 / 0.002 / 0.001 deg over 5 minutes of measuring < 0.05 / 0.003 / 0.002 deg over 10 minutes of measuring
Random walk / Q	: < 0.05 / 0.003 / 0.0018 deg/sqrt(hr)
Random constant	: < 0.1 / 0.003 / 0.002 deg/hr
Data rate	: 1 ... 100 Hz via RS232 (internally 300 Hz)
Output	: in real-time, on file, as plot, Tablet output on request (roll, pitch, yaw, time)
Power supply	: 11...34 V
Self testing	: automatically

	iPEGASUS Standard System	iPEGASUS SHP Miniature System
Mass	: 6.2 kg	2.98 kg (meas. head)
Size	: approx. 275 x 200 x 205 mm ³	approx. 145 x 145 x 145 mm ³ (meas. head)

The iPEGASUS is in operation worldwide at weapon manufacturers, helicopter and aircraft manufacturers and many armed forces (Rheinmetall, Oerlikon Contraves, Westland Agusta, BAe British Aerospace, UK MoD, German MoD (Naval Weapons), Turkish ArmedForces etc.) as well as with industrial roller alignment service providers.

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