

## **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

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 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 attitu-





de/ 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 traditional laser or

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-HP-T and iPEGASUS-SHP

Measured data :  $\phi_{\textbf{X}}, \phi_{\textbf{V}}, \phi_{\textbf{Z}}$  (angles around space coordinate axes)

Measuring range :  $\pm$  360 deg (any rotations in space)

Resolution : 300 µdeg

Linearity error : < 0.001 % (incertainity due to rotation, 1  $\sigma$ )

Measuring incertainity: < 0.002 deg over 1 minute of measuring

< 0.004 deg over 5 minutes of measuring < 0.005 deg over 10 minutes of measuring

Random walk / Q : < 0.0025 deg/sqrt(hr)

Random constant : < 0.003 deg/hr (-HP-T), < 0.007 deg/hr (-SHP)

Data rate : 1 ... 100 Hz via RS232 (internally 400 resp. 300 Hz)

Output : in real-time, on file, as plot, Tablet output on request (roll, pitch, yaw, time)

Power supply : 11...34 V, < 20 W Self testing : automatically

Standard System -HP-T SHP Miniature System

Mass : 6.2 kg 2.98 kg (meas. head) + separate electronics

Size : 275 x 200 x 205 mm³ 145 x 145 x 145 mm³ (meas. head)

Export Control : Standard dual use for iPEGASUS-HP-T; iPEGASUS-SHP is US ITAR controlled

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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