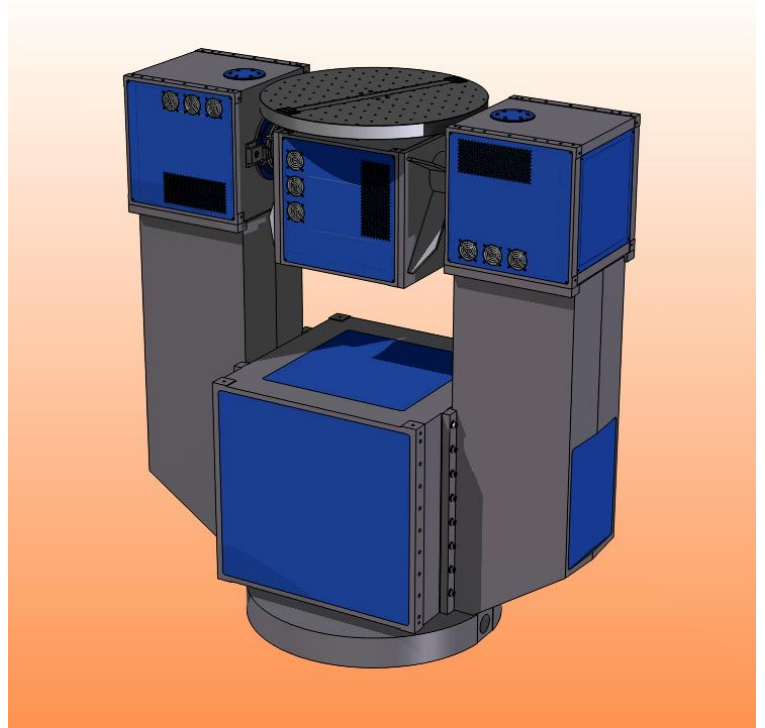


Test Fixture Series TES-39

Features

- Positioning: absolute with a Resolution of <math><0.000001\text{deg}</math>.
- Rate: no drift, good instantaneous rate stability with a Resolution of <math><0.00001\text{deg/sec}</math>
- Indexing: for tracking applications
- Analog command and optional analog readout with 14 bit resolution
- Independent position readout for safety measures



Description

The Series TES-39 Test-Fixtures offer accurate angular positioning, precise uniform rotation and angular motion profiling. All operations are commanded via the handheld paddle or by an optional host computer. The control software delivered with the instrument is based on LabView™. The fixture is designed for the testing and calibration of integrated packages and subassemblies.

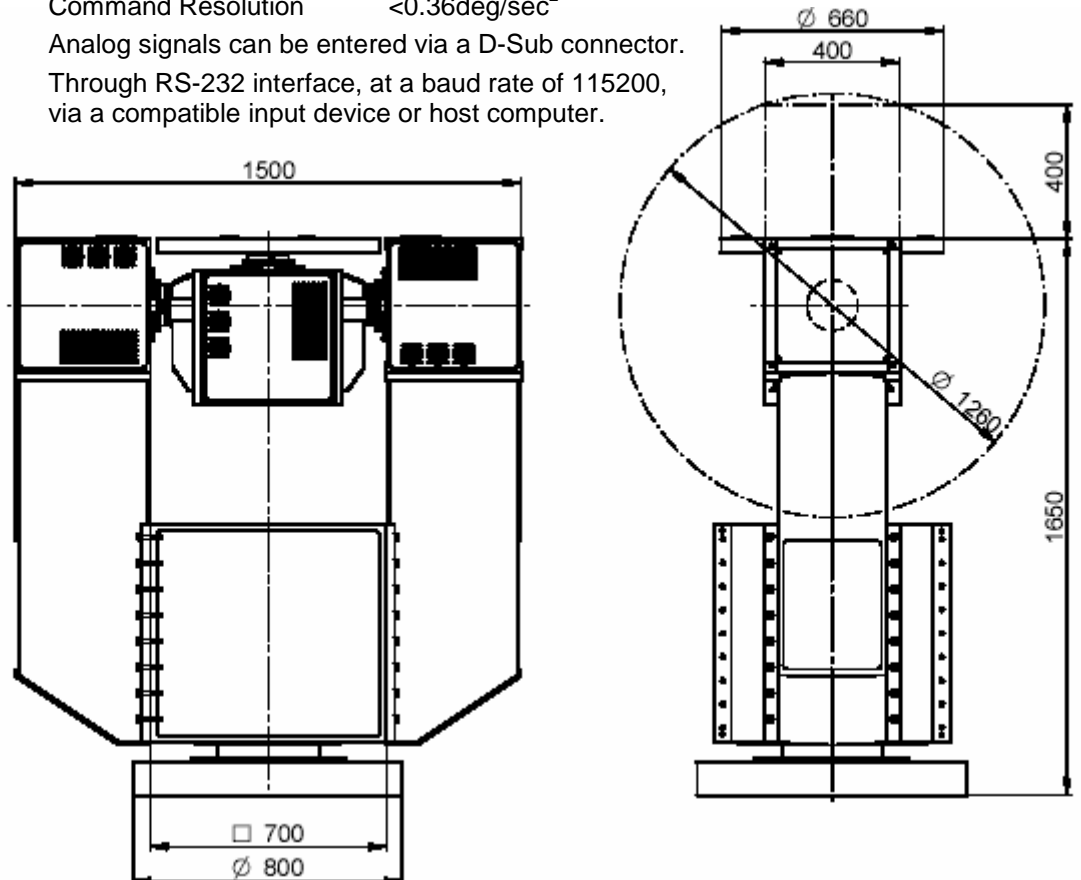
Payloads are mounted on table top platen. A pattern of threaded holes accept a variety of test loads. Electrical access to the payload is dimensioned for different power ratings and signals. The lines terminate on the platen and the base casting by D-Sub connectors.

The Series TES-39 Test-Fixture consists of modular cube assemblies with precision bearings and the required servo components. The drive module houses the direct drive brushless torquer, the high resolution encoder, the slip ring capsule, the amplifier/controller assembly and power supply. All components are interchangeable facilitating repair and spare part supply management.

Specification Summary

General Configuration	Payload nominal	400dia x 400mm cylinder, 60kg; (100kg max.)
	Sliprings to UUT	2 lines 20Amp twisted pairs 30 lines 2Amp twisted shielded pairs 21 lines 2Amp single shielded 3 lines High Speed Data lines MIL-1533
	Mounting platen	660mm dia., aluminum hard anodized with grid of threaded mounting holes, M6 with Heli-coil insert on 50mm spacing,
	Platen flatness	+/- 0.05mm
	Axis orthogonality	±5 arcsec between inner and outer axis
	Axis wobble	±3 arcsec

		<u>Inner Axis</u>	<u>Middle Axis</u>	<u>Outer Axis</u>
Dynamic	Rate	±1000deg/s	±500deg/s	±300deg/s
	Acceleration (no load)	2'500deg/s ²	2'500deg/s ²	500deg/s ²
	Torque	140Nm	280Nm	1000Nm
	Axis inertia, (no load)	3kgm ²	6kgm ²	100kgm ²
	Bandwidth (-3dB)	>30Hz	>20Hz	>20Hz
Position command	Position transducer	SIN/COS high-resolution, absolute		
	Position range	0 to 359.9999deg unlimited rotation		
	Position slew	Profiling within rate and acceleration limits		
	Position resolution	<0.0036arcsec		
	Position accuracy	<2arcsec _{RSS}		
Rate command	Position repeatability	better ±1arcsec		
	Rate slew	Profiling within acceleration and jerk limits		
	Rate resolution	<0.036 arcsec/s		
	Rate stability	0.0005% of commanded rate over one revolution		
Acceleration Control	Event pulse	1/revolution		
	Rate changes can be performed with controlled acceleration.			
	Acceleration Limit	can be set within the dynamic range		
External Analog Command Command	Command Resolution	<0.36deg/sec ²		
	Analogue signals can be entered via a D-Sub connector. Through RS-232 interface, at a baud rate of 115200, via a compatible input device or host computer.			



Contact

iMAR GmbH
Im Reihersbruch 3
D-66386 St.Ingbert
Germany
Tel: +49 68 94 96 57-0
Fax: +49 68 94 96 57-22
eMail: sales@imar-navigation.de