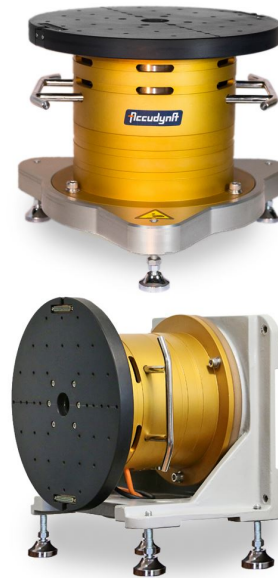


FDA -111 ■

The FDA-111 is a single-axis rate table intended for use during the development, production, in-process testing, calibration, and final inspection of inertial components and instruments, such as MEMS sensors. The product is designed with emphasis on the userfriendliness and economic pricing.

All test tables feature a highly reliable, direct-drive servo system. This system consists of a drive assembly, a servo controller and a power amplifier. The drive assembly comprises a direct-drive brushless torque motor, an optical encoder, a precision-machined tabletop, and a slip ring assembly.

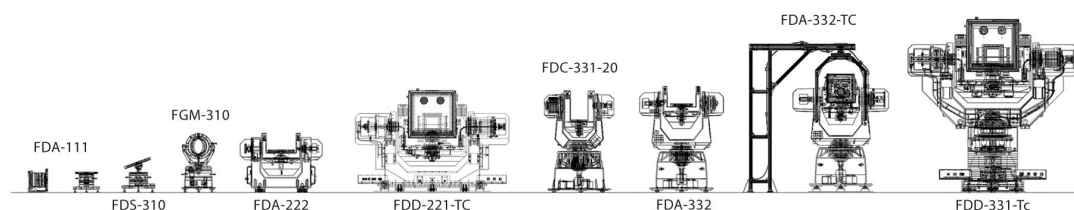


Precision, pre-loaded angular contact ball bearings permit load capacities up to 25kg. All systems are provided with required interconnecting cables and mating connectors for customer interface.

Control and readout functions are performed by the ACCUDYNA controller. The ACCUDYNA controller can be configured as determined by the customer's application. It is capable of providing position, rate and acceleration control either manually from the GUI or remotely through the RS232/RS422 computer interfaces. UDP (Up to 4 kHz) can be an option.

Available options are special slip ring configurations, custom designed table tops and environmental test chambers.

A wide range ways slip ring connects the Unit Under Test (UUT) to the table base. The lines terminate in two connectors on the table top and the corresponding connectors on the table base.

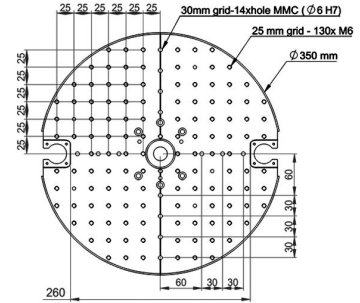


■ We can do more ::

FDA-111 PARAMETERS

UUT SPECIFICATIONS

UUT weight	Up to 25 Kg
Table top diameter	350 mm
Flatness	0.03 mm
Material	Aluminum (Hard Anodized)
Table top mounting pattern	25 mm grid M6, 14hole-MMC(ϕ 6H7)
Table top distance from floor	320 mm
Center of mass distance from floor	252 mm
Electrical lines to UUT	50 lines rated 2A, 10 lines rated 5A (Option: Up to 70 lines) With D-Sub or KPT style type connectors



SIMULATOR SPECIFICATIONS

Degrees of freedom

Angular freedom	Continuous
Direct / AC brushless motors	

Orientation error

Wobble	arcsec	< ± 2 P-P
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Position

Accuracy	arcsec	< ± 5 (Option: ± 2)
Repeatability	arcsec	< 2
Cmd. resolution	deg	0.00001

Temperature chamber (Option)

Temperature range	$^{\circ}\text{C}$	-45 to +90
Stability	$^{\circ}\text{C}$	± 1
Thermal gradient	$^{\circ}\text{C}/\text{min}$	± 3

Rate

Range	$^{\circ}/\text{s}$	± 1500
Cmd. resolution	$^{\circ}/\text{s}$	0.00001
Stability (Over 360$^{\circ}$ interval)	%	< 0.0001 (1 ppm)

Operating and physical conditions

Operating temperature	$^{\circ}\text{C}$	22 ± 2
Storage temperature	$^{\circ}\text{C}$	0 to 50
EMC/EMI considerations	According to IEC61000-5	
Rate table dimensions	mm	(H x D) 324 x 480
Rate table weight	kg	28
Power supply	Single-Phase 220[V], 10 [A]	

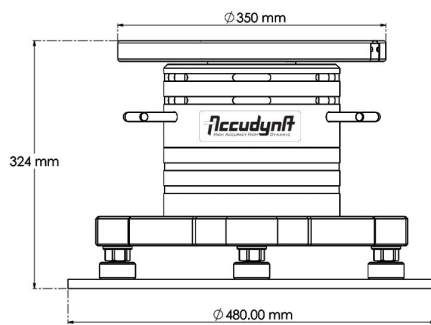
Dynamic

Maximum torque	N.m	36
Momentum inertia	kg.m ²	0.12
Bandwidth (-3db, no load)	Hz	Up to 100
Acceleration (no load)	$^{\circ}/\text{s}^2$	± 17000

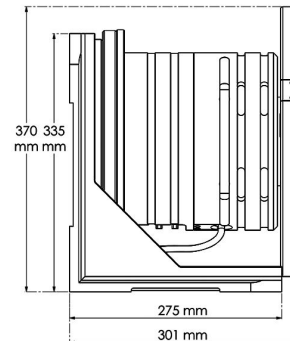
Software

Language of software	Russian or English
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Layout drawing



Triangular base setup



Square base setup

The specifications identified in this data sheet are representative of standard systems. To satisfy customer specific requirements ACCUDYNA is able to design systems with specifications that are increased or decreased relative to standard systems.