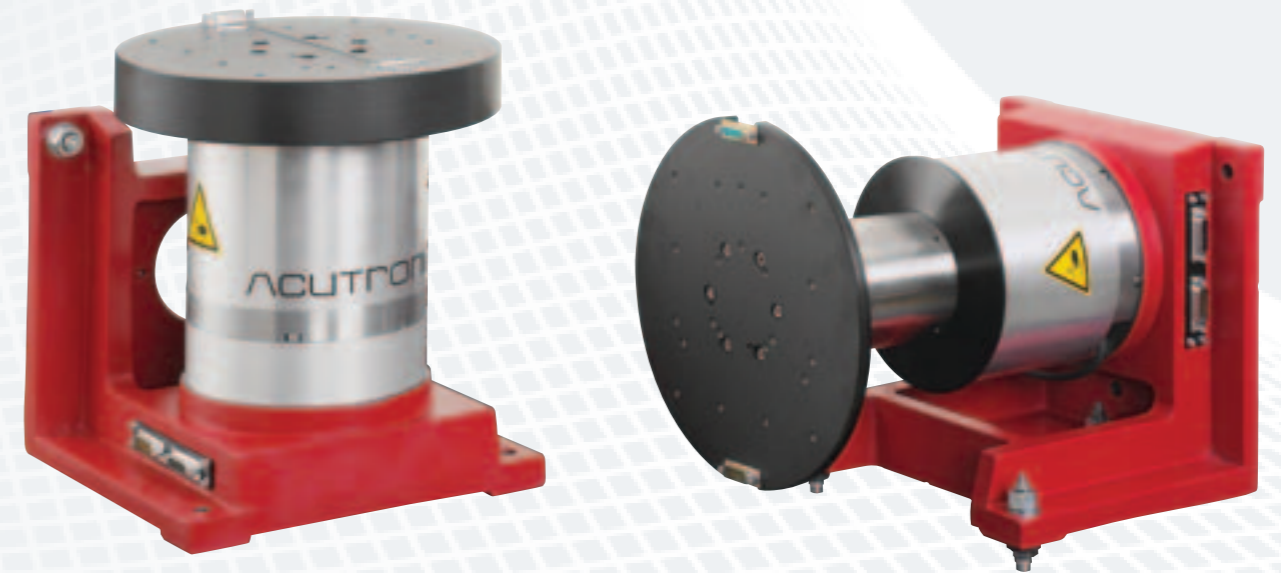




	Standard capsule All versions of AC1120S	Optional capsule All versions with option OPT011
<b>Slipping performance</b>		
Number of signal ways	30	24
Number of power ways	0	6
Total number of ways	30	30
<b>Signal ways, continuous current</b>	1,7 Amp	1,0 Amp
Max. voltage	110 VAC / 200 VDC	110 VAC / 200 VDC
Cable size	AWG 28	AWG 28
Connector type	2 x D-SUB, 15 pins	1 x D-SUB, 26 pins, high density
<b>Power ways, continuous current</b>	-	3 Amp
Cable size	-	AWG 24
Max. voltage	-	110 VAC / 200 VDC
Connector type	-	1 x D-SUB 15 pins

	Model 7004 Versions of AC1120S: V2.0, V2.1, V2.2., V2.3	Model 7021 Versions of AC1120S: V3.0, V3.1
<b>Temperature chamber performance</b>		
Limited range in use with AC1120S	-50 °C; +115 °C	-50 °C; +115 °C
Homogeneity	± 1.5 °K	± 2.0 °K
Stability	± 0.5 °K	± 0.5 °K
Heating gradient	≈ 5 °K/min	≈ 2 °K/min
Cooling gradient	≈ 4.5 °K/min	≈ 2 °K/min
<b>Chamber volume</b>	37 L	200 L
Usable dimensions (w x d x h)	300 x 290 x 350 mm	560 x 570 x 600 mm
Weight	140 kg	350 kg
Noise level	55 dB @ 2 meters	60 dB @ 1 meter
<b>Power supply</b>	1/N/PE 230VAC ±10 %, 50 Hz	1/N/PE 230VAC ±10 %, 50 Hz
Power	0,9 kW	2 kW
Current	6 A	12 A
Protection	16 A	16 A
<b>Controller</b>	MINCON/32 with Mincontrol	MINCON/32 with Color Touch Panel
Simpati software	Delivered on CD-Rom	Optional
RS232	Available	Available
Digital I/O	Not available	4 x 24 V floating
Auxiliary contact for customer use	1 x 24 V floating, 0.5 A	1 x 24 V floating, 0.5 A
<b>Ambient temperature</b>	Between +10 °C and +35 °C	Between +10 °C and +35 °C
Relative humidity	Max. 75 %	Max. 75 %
Dewpoint	Max. +20 °C	Max. +20 °C

### Inertial System Test Instruments Series AC1120S



AC1120-V1.0 vertical use

AC1120-V2.0 horizontal use (prepared for temperature chamber)

- Designed to test inertial components, instruments and MEMS sensors
- Used for development, production, in-process test, calibration and final inspection
- Simulates environmental conditions when used in combination with a thermal chamber
- Horizontal axis for accelerometer testing or roll-over sensor testing
- Precise positioning, smooth rate with zero drift and accurate instantaneous rate stability
- Easy customer software implementation
- Short, ex-stock delivery of 8 standard configurations

“ACUTRONIC is the system house for electro-mechanical motion platforms. We provide reliable solutions throughout the entire product life cycle for a broad range of customers in civil and defense markets.”

# Design, Manufacturing and Integration of Precise Motion Systems

## Major Features

The **drive assembly** is mounted on a cast iron angle bracket for use in horizontal or vertical orientation. It is equipped with a direct drive brushless motor providing high torque and smooth rates over a wide operating range.

**Table support** points are precision-machined perpendicular or parallel to the table axis. For small payloads the table can be used freestanding. High dynamic applications and/or large payloads require the table to be bolted to a rigid support surface.

A **30-way slip ring** connects the Unit Under Test (UUT) to the table base. The lines terminate in two D-SUB connectors on the table top and corresponding connectors on the table base.

The **rate table** is operated from a host computer via RS-232 or optional USB interface. Other interfaces installed are analog Inputs, digital Inputs/Outputs and CanBus. Other optional interfaces are available on request.

The **Graphical User Interface (GUI)** allows the user to select modes, command motion set points, monitor system variables, and query status. The



AC1120S GUI Layout



The AC1120S Family: the controller and the tables V1.0, V2.0 and V3.0 (from left to right)

GUI is used to customize the system configuration and to initiate tuning and calibration procedures.

**Analog signals** may be entered, scaled, and summed with the digital demands in position and rate mode of operation.

Table performance		Angular freedom	Continuous	Bandwidth (-3dB)	>150 Hz for velocity loop
<b>Payload, max. weight</b>	20 kg	<b>Position range</b>	0 to 359.999 deg	<b>Host computer interface</b>	RS-232 or USB
<b>Payload, nominal weight</b>	up to 12 kg	<b>Position slew profiling</b>	Rate, Acceleration	<b>Analog inputs</b>	2 analog inputs
<b>Payload, nominal inertia</b>	up to 0.1kgm <sup>2</sup>	<b>Position accuracy</b>	< 15 arc sec peak	<b>Digital inputs</b>	4 digital inputs
<b>Table top diameter</b>	250 mm	<b>Rate range</b>	± 3'000 °/s	<b>Digital outputs</b>	2 digital outputs
<b>Table top hole pattern</b>	16 × M6, 50 mm g rid	<b>Rate resolution</b>	0.001°/s	<b>Power supply</b>	1/N/PE 230VAC
<b>Wobble</b>	< 10 arc sec peak	<b>Rate stability (over 360°)</b>	0.001%		±10%, 50 Hz
		<b>Acceleration, no load</b>	40'000 °/s <sup>2</sup>		



AC1120S V2.1



AC1120S V2.2



AC1120S V2.3 (vertical use shown)



AC1120S V2.3 (horizontal use shown)



AC1120S V2.0 + V2.3