Our new standard compact vibration generator system is able to cover various type of test.
The compact vibration generator systems, the 9514 Series, communize the major components for the vibration generator. In addition, standard specifications, increased payload specifications, through type specifications, and heat resistant specifications can apply to this system, so this enables these high-performance vibration generators to be used in various purposes. These systems also have the extensibility to handle rattle noise measurements and other required specifications, and have the capability of performing various kinds of test by combining peripheral equipment.

9514-A Series
All-weather Type used in Workspace of Environmental Chamber

9514 Series

9514 Series Specifications

Model		9514-AN/SD	9514-AB/SD	9514-AN/AS	9514-AB/AS
Type		Standard	High Force:500N	Integrated Pneumatic Support Large Displacement30mm$_{p\text{-}p}$	Integrated Pneumatic Support Large Displacement30mm$_{p\text{-}p}$ High Force500N
Rated force	N	300	500	300	500
Frequency range	Hz	5 to 5k	5 to 5k	5 to 3k	5 to 3k
Max. acceleration	m/s^2	250	416.7	230.8	384.6
Max. velocity	m/s	1.2	1.2	1.2	1.2
Max. displacement	mm$_{p\text{-}p}$	15(★1)	25	30	30
Axial Resonance		More than 4350Hz	More than 4350Hz	More than 3600Hz	More than 3600Hz
Moving Element	kg	1.2	1.2	1.3	1.3
Armature Material		Aluminum	Aluminum	Aluminum	Aluminum
Suspension &Guide		Half Loop Flexure Sleeve Shaft	Half Loop Flexure Sleeve Shaft	Pneumatic Payload Support Roller Bearing and Sleeve Shaft	Pneumatic Payload Support Roller Bearing and Sleeve Shaft
Stiffness	N/mm	25.0(★1)	25.0	—	—
Armature Size	mm	ø75	ø75	ø75	ø75
Maximum Payload	kg	12	12	12	12
Thrust Axis		Vertical	Vertical	Vertical	Vertical
Stray Field		Less than 3mT(★2)	Less than 3mT(★2)	Less than 3mT(★2)	Less than 3mT(★2)
Field Power		Permanent Magnet	Permanent Magnet	Permanent Magnet	Permanent Magnet
Operating Environment	℃	−10 to +40 w/o dewdrop	−10 to +40 w/o dewdrop	−10 to +40 w/o dewdrop	−10 to +40 w/o dewdrop
Cooling		Natural	Forced air(Blower)	Natural	Forced air(Blower)
Dimensions	mm	283W × 270H × 205D	283W × 270H × 205D	283W × 276H × 205D	283W × 276H × 205D
Mass	kg	25	26	27	27
Matched Amplifier		373-A	375-D	373-A/Z12	375-D
Blower		—	Yes	—	Yes
Accessory		—	—	● Air Pump ● Midpoint Adjuster Block	● Air Pump ● Midpoint Adjuster Block
Option		Accelerometer Counter Mass(★3) Isolation (Rubber) Pad	Accelerometer Counter Mass(★3) Isolation (Rubber) Pad	Accelerometer Counter Mass(★3) Isolation (Rubber) Pad	Accelerometer Counter Mass(★3) Isolation (Rubber) Pad

Model		9514-AN/MD	9514-AB/WF	9514-AB/AW	
Type		Modal Analysis	High Frequency	All-weather Type used in Workspace of Environmental Chamber	
Rated force	N	300	500	300	500N
Frequency range	Hz	5 to 2.5k	5 to 10k	5 to 3.0k	5 to 3.0kHz
Max. acceleration	m/s^2	300	277.7	250.0	416.7m/s2
Max. velocity	m/s	1.2	1.2	1.2	1.2
Max. displacement	mm$_{p\text{-}p}$	15	20(★1)	10	10mmp-p
Axial Resonance		More than 3600Hz	More than 6500Hz	More than 4300Hz	More than 4300Hz
Moving Element	kg	1.0	1.8	1.2	1.2
Armature Material		Aluminum	Aluminum	Aluminum	Aluminum
Suspension &Guide		Half Loop Flexure Sleeve Shaft	Half Loop Flexure Sleeve Shaft	Half Loop Flexure Sleeve Shaft	Half Loop Flexure Sleeve Shaft
Stiffness	N/mm	25.0	28.0	30.0	30.0
Armature Size	mm	ø50	ø75	ø83	ø83
Maximum Payload	kg	8.0	12	10	10
Thrust Axis		Vertica(l Any direction by using flexure)	Vertical	Vertical	Vertical
Stray Field		Less than 3mT(★2)	Less than 3mT(★2)	Less than 3mT(★2)	Less than 3mT(★2)
Field Power		Permanent Magnet	Permanent Magnet	Permanent Magnet	Permanent Magnet
Operating Environment	℃	−10 to +40 w/o dewdrop	−10 to +40 w/o dewdrop	− 40 to +125(less than 98%RH)	
Cooling		Natural	Forced air(Blower)	Forced air(Blower)	Forced air(Blower)
Dimensions (★4)	mm	283W × 270H × 205D	283W × 270H × 205D	382.5W × 205H × 333.5D	
Mass	kg	26	26	31	31
Matched Amplifier		373-A/Z13	375-A/Z22	373-FW	375-D
Blower		—	—	Yes	Yes
Accessory		Collet-and-chuck Set(ø1.0, ø1.5, ø2.0, ø2.35, ø3.0)	—	Built-in Accelerometer Model : 731-B, T-wrench (M5)	
Option		Accelerometer Counter Mass(★3) Isolation (Rubber) Pad Model : 9514-AN/MD/Z12 Reinforced Stiffness : 50 N/mm (limited to max. 10 mm$_{p\text{-}p}$) Model : 9514-AN/MD/Z13 Low level acceleration with low distortion (limited to max. 10 mm$_{p\text{-}p}$)	Accelerometer Isolation (Rubber) Pad	Interconnection compatibility with chamber whose wall thickness is other than 70 to 100 mm Muffler for Air Cooling Blower	

(★1)25 mm$_{p\text{-}p}$ displacement is available by changing axial stiffness to 15 N.mm. (★2)At 50 mm above table center.
(★3)When attempting to drive the vibration generator at its rated force, vibration generator should be secured to reaction mass, rigid base or floor.
(★4)Without any projection.

Air-suspension mechanism ensures displacement 9514 Series

Relationship between payload, decreased displacement, and maximum displacement

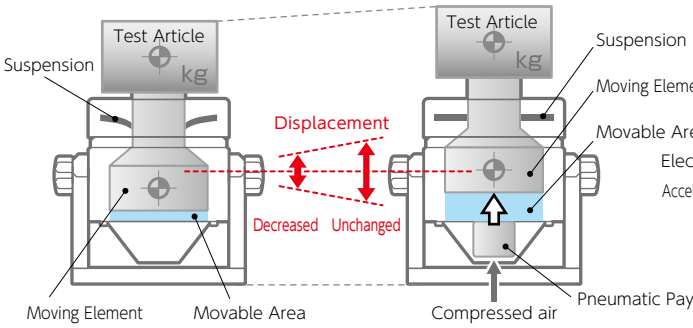
Since the test object is supported by a spring, the increased mass of the loaded object will result in a lower neutral position thus reducing the maximum displacement for the armature of the compact vibration generator. As part of our 9514 series, we offer an optional “air suspension mechanism” that eliminates any reduction in the maximum displacement.
※Please contact our sales dept for details.

● **Standard**

When a heavy test object is loaded, the support spring extends and causes the moveable range to decrease.
→Maximum displacement decreases

● **Air suspension mechanism**

When a heavy test object is loaded, the air suspension raises the armature equivalent to the increase in mass.
→Maximum displacement is maintained

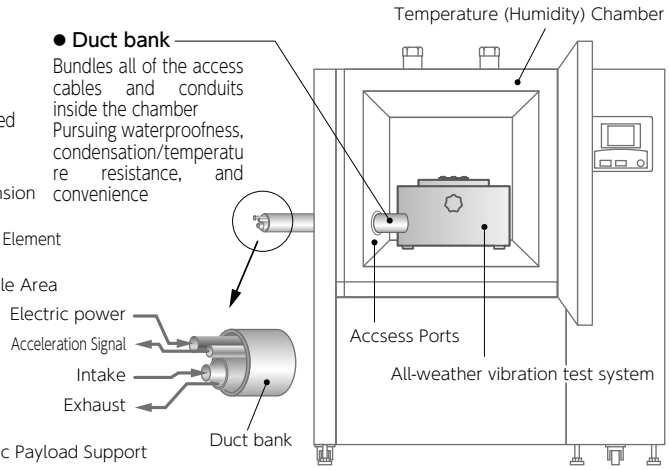


All-weather vibration test system

The compact all-weather vibration test system can be placed in temperature and humidity test chambers to enable combined environmental reliability testing.
Compact, light-weight, waterproof, and highly resistant to condensation and temperature, this test system can be placed in temperature and humidity test chambers for use as a combined environmental reliability test system. The test chamber access ports can be used to connect the devices, thus, eliminating the need to modify the testing chamber. This system can also be used as a stand-alone vibration test system, thesefore allowing for the effective use of various testing equipment.

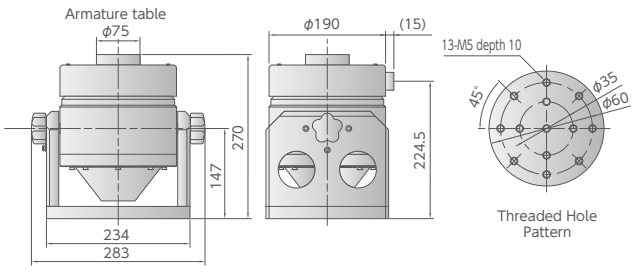
● **Duct bank**

Bundles all of the access cables and conduits inside the chamber
Pursuing waterproofness, condensation/temperature resistance, and convenience

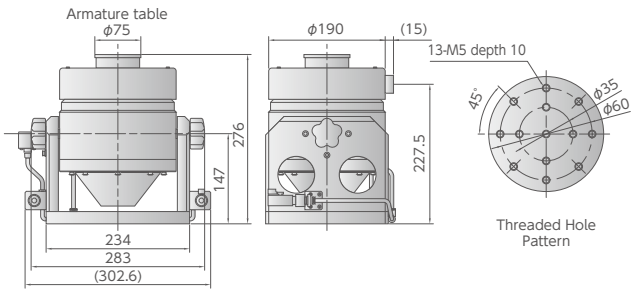


Dimensions

● **9514-AN/SD 9514-AB/SD 9514-AB/WF**



● **9514-AN/AS 9514-AB/AS**



● **9514-AB/AW**