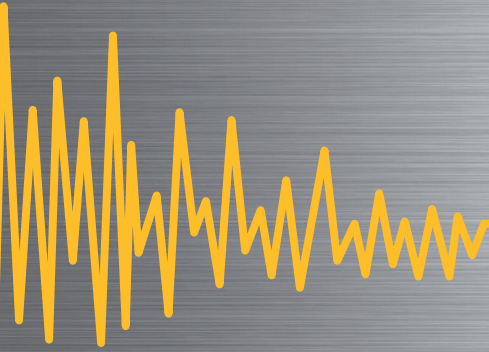


# Active vibration isolation



## ■ NAO-20 : Active Vibration Isolation desktop unit

The NAO-20 consists of an ultra-compact active vibration isolation systems, which is the world's smallest active isolation system. The NAO-20 system is designed such that it is ideal for small and light-weight applications. The system does not require any load adjustment. Once the transportation lock is released, the isolator is ready to be used. Not further action is required from the users.

Because of its design simplicity, the price of the NAO-20 is very affordable. In addition, the NAO-20 system has a small external controller. A major advantage of this is the isolator does not generate heat.

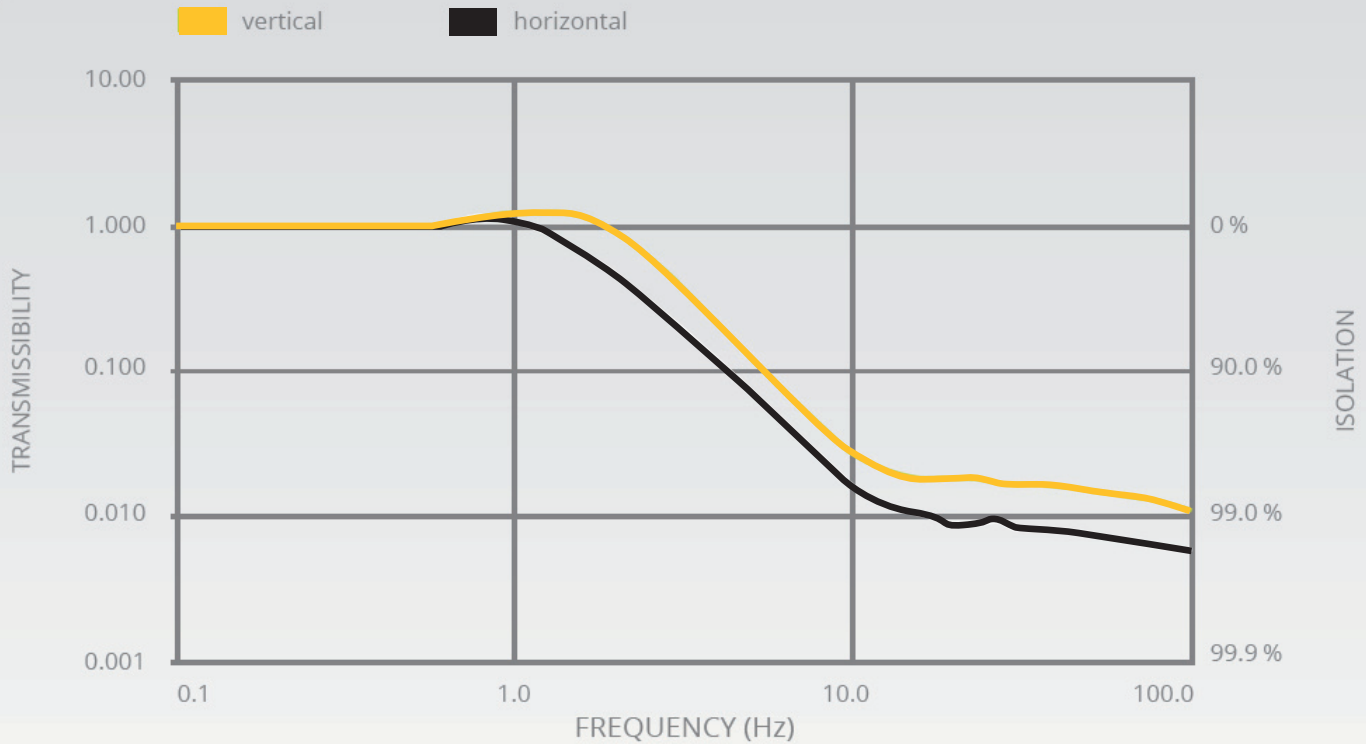
This important for heat critical applications and applicatipons that are used inside an acoustic enclosure. Potential EMC interferences coming from the electronics are minimized, as the controller can be placed away from the application.

One accessory to our active vibration isolation systems are specially designed welded support frames. These frames feature a high horisontal and vertical stiffness and are the ideal basis for the optimal isolation performance of our systems. Different sizes of support frames are available to meet the requirements of our customers.



## » Accessories and option

- Steel support frame
- Acoustic enclosure
- Metric mounting holes in top plate (M6 tapped holes on 25 mm centers)
- Imperial mounting holes in top plate 1/4"-20 tapped holes on 1" centers



Transmission graph of the **halcyonics\_nano\_20** measured at a velocity of 100  $\mu\text{m}/\text{sec}$ . with a payload of 8 kg (17.6 lbs).

## » Key Features :

<b>DIMENSIONS</b>	204 × 204 × 69 MM 8 × 8 × 2.7 INCH
<b>LOAD CAPACITY</b>	0 – 8 KG / 0 – 17.6 LBS
<b>WEIGHT</b>	ISOLATOR: 5.6 KG / 12.6 LBS CONTROL UNIT: 2 KG / 4.4 LBS
<b>ISOLATION TECHNOLOGY</b>	CONTROL TECHNOLOGY BASED ON PIEZOELECTRIC TYPE ACCELERATION PICKUP, FAST SIGNAL PROCESSING AND ELECTRO-DYNAMIC FORCE TRANSDUCERS.
<b>CONTROL ELECTRONICS</b>	EXTERNAL CONTROL UNIT.
<b>FORCE DIRECTIONS</b>	ACTIVE COMPENSATION IN ALL SIX DEGREES OF FREEDOM.
<b>ISOLATION PERFORMANCE</b>	> 5 HZ = 23 DB (93.0 %)
<b>ACTIVE BANDWIDTH</b>	1.0 – 200 HZ* (PASSIVE ISOLATION BEYOND 200 HZ)
<b>SETTLING TIME</b>	300 MS**
<b>STROKE OF THE ACTUATOR</b>	1 MM
<b>MAX. CORRECTION FORCES</b>	VERTICAL $\pm$ 8 N HORIZONTAL $\pm$ 4 N
<b>MAX. COMPENSATION LEVEL</b>	55 $\mu\text{M}/\text{SEC}$ . AT 2 HZ AND 8 KG / 17.6 LBS**,
<b>ENVIRONMENTAL AND OPERATIONAL REQUIREMENTS</b>	ELECTRICAL VOLTAGE: 100 – 250 V~/47 – 63 HZ POWER CONSUMPTION: TYPICALLY 30 – 50 W OPERATING TEMPERATURE: 16 – 40 °C / 61 – 104 °F RELATIVE HUMIDITY: 0 – 60 % OPERATING ALTITUDE: < 2,500 M / 8,100 FT
<b>ELECTRICAL SAFETY</b>	CE CERTIFIED ACCORDING TO DIRECTIVE 2006/95/EC
<b>EMC</b>	CE CERTIFIED ACCORDING TO DIRECTIVE 2004/108/EC

\*FLOATING TABLE TOP IS SUPPORTED BY STEEL SPRINGS; LOW-PASS CHARACTERISTICS OF SPRING-MASS COMBINATION DOMINATES THE DYNAMIC BEHAVIOUR ABOVE 200 HZ.

\*\* THE SETTLING TIME AND MAXIMUM COMPENSATION LEVEL DEPEND ON SEVERAL CONDITIONS, SUCH AS PAYLOAD, FREQUENCY, LOAD DISTRIBUTION AND HEIGHT OF THE PAYLOAD. FOR THAT REASON THIS VALUE SHOULD BE CONSIDERED AS AN ESTIMATION.