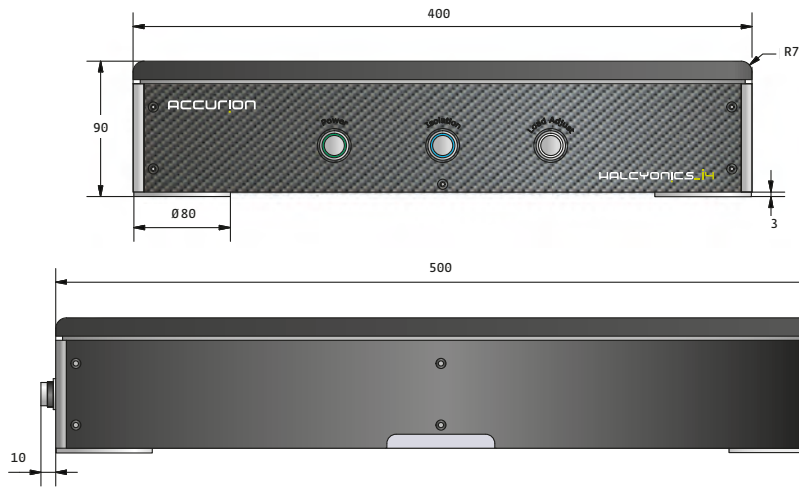


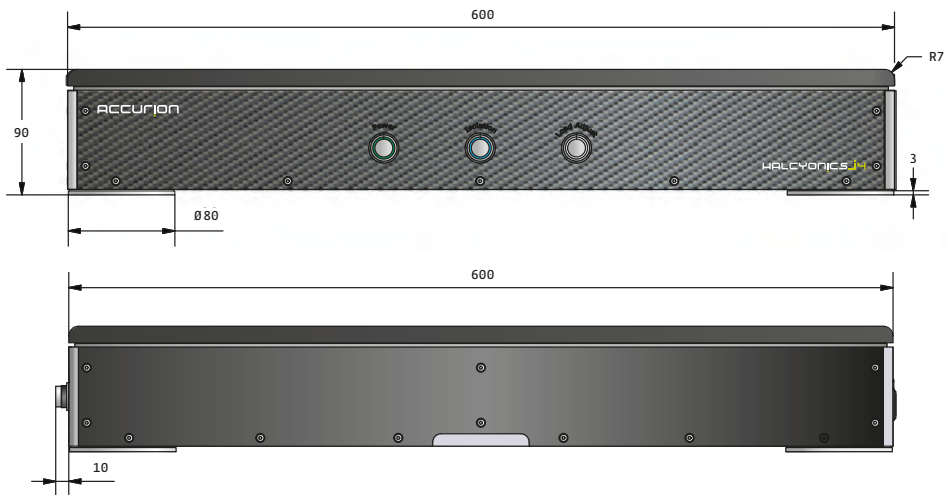
i4

400 × 500 × 90 mm
15.7" × 19.7" × 3.5"



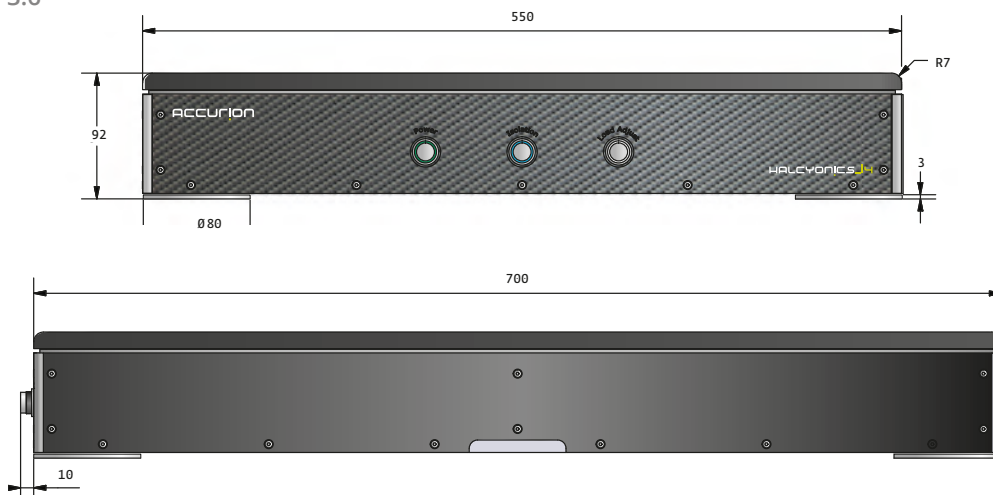
i4MEDIUM

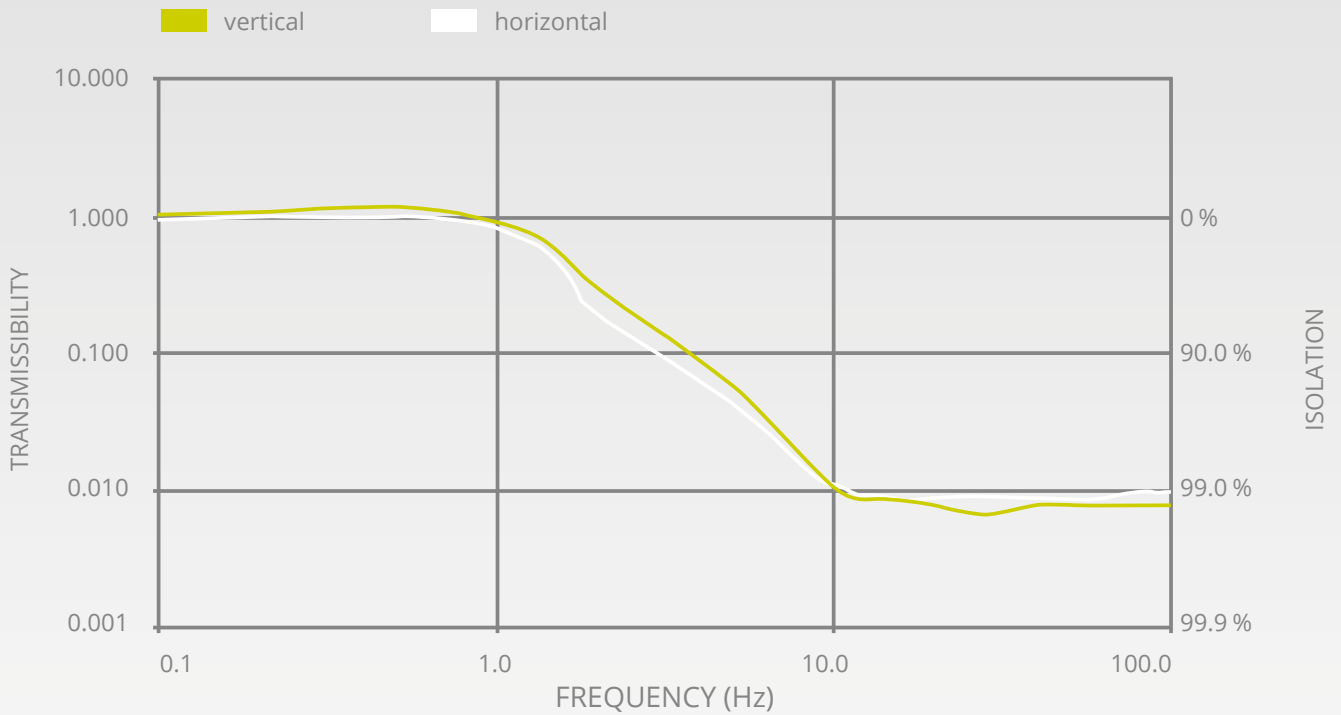
600 × 600 × 90 mm
23.6" × 23.6" × 3.5"



i4LARGE

550 × 700 × 92 mm
21.7" × 27.6" × 3.6"

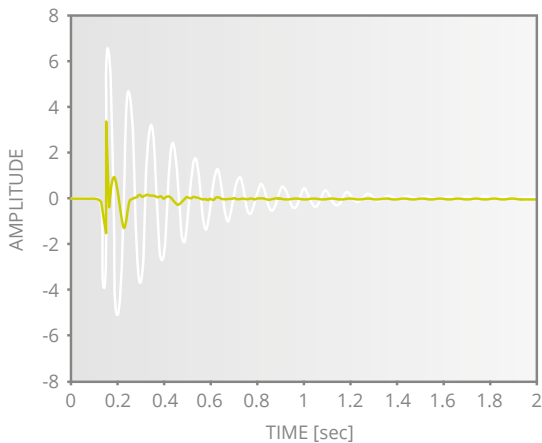




Transmission graph of the **halcyonics_i4** measured at a velocity of 100 $\mu\text{m/s}$ with a payload of 20 kg (44 lbs).

KEY FEATURES:

- Isolation in all six degrees of freedom.
- Active vibration isolation starts at 0.6 Hz (passive isolation above 200 Hz).
- Automatic load adjustment and transportation lock.
- Settling time only 0.3 s.



Settling time i4 (green) compared to a conventional air vibration isolation system (white).

- AC power from an electrical outlet is sufficient; no compressed air supply is needed.
- No natural low frequency resonance and, as a result, excellent vibration characteristics also in frequency ranges below 5 Hz.
- Excellent position stability – inherent stiffness typically 20 – 30 times higher than that of a 1 Hz passive isolator.
- Exceptionally compact dimensions.
- Two-year warranty.
- Long term tests and quality control procedures.



■ Leica DCM8 on halcyonics_i4large

SPECIFICATIONS	i4	i4MEDIUM	i4LARGE
Dimensions	400 × 500 × 90 mm 15.7 × 19.7 × 3.5 inch	600 × 600 × 90 mm 23.6 × 23.6 × 3.5 inch	550 × 700 × 92 mm 21.7 × 27.6 × 3.6 inch
Load capacity	0 – 120 kg / 0 – 265 lbs	0 – 105 kg / 0 – 232 lbs or 40 – 150 kg / 88 – 331 lbs	0 – 105 kg / 0 – 232 lbs or 40 – 150 kg / 88 – 331 lbs
Weight	20 kg / 44 lbs	37 kg / 82 lbs	40 kg / 88 lbs
Isolation technology	Halcyonics control technology based on piezoelectric type acceleration pickup, fast signal processing and electro-dynamic force transducers.		
Force directions	Active compensation in all six degrees of freedom.		
Isolation performance	> 5 Hz = 25 dB (94.4 %) > 10 Hz = 40 dB (99.0 %)		
Active bandwidth	0.6 – 200 Hz* (passive isolation beyond 200 Hz)		
Settling time	300 ms**		
Response time	0.5 ms***		
Stroke of the actuator	1 mm		
Max. correction forces	Vertical ± 8 N Horizontal ± 4 N		
Max. compensation level	500 µm / sec. at 6 Hz and 60 kg / 132 lbs**		
Repeatability of load adjustment	120 µm		
Table top material	Powder coated aluminum		
Top plate surface flatness	± 0.10 mm over complete surface		
Environmental and operational requirements	Electrical voltage: 100 – 240 V / 47 – 63 Hz Power consumption: Typically 40 – 45 W Operating temperature: 15 – 40 °C / 59 – 104 °F Relative humidity: 0 – 60 % Operating altitude: < 2,500 m / 8,100 ft		
Electrical safety	CE certified according to directive 2006/95/EC		
EMC	CE certified according to directive 2004/108/EC		

*The low-pass characteristics of the spring-mass combination dominate the dynamic behavior of the isolation system above 200 Hz. The part of the active isolation decreases with increasing frequency.

**The settling time and maximum compensation level depend on several conditions such as payload, frequency and load distribution. The mentioned settling time value is exemplary for a centric load of 80 kg. The settling time defines the time until an incoming vibration is compensated.

***The response time determines when the system starts to actively isolate an incoming vibration after detection by the sensors.