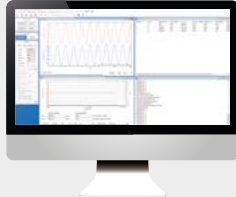







	HERO™ vibration controller incl. signal conditioners	<div>~ Typical DUT</div> <ul style="list-style-type: none"><li>• PE transducer</li><li>• IEPE transducer</li><li>• VC transducer</li><li>• PR transducer</li><li>• digital transducer with SPI, I2C, DTI, and many other interfaces</li><li>• vibration meter</li><li>• vibration calibrator</li></ul>
	CS Q-LEAP™ software <ul style="list-style-type: none"><li>• sine calibration</li><li>• sine sweep</li><li>• vibration measurement</li><li>• vibration generation</li><li>• more on demand</li></ul>	
	SE-09 High frequency vibration exciter	
	Power amplifier PA 500 DM	<div>✓ Standards</div> <ul style="list-style-type: none"><li>• ISO 16063 - 21: Calibration of vibration transducers by comparison to a reference transducer</li><li>• ISO 17025: General requirements for the competence of testing and calibration laboratories</li></ul>

★ Key features
 <p>Accelerometer calibration system for the frequency range 5 Hz ... 20 kHz (... 50 kHz without traceability)</p>
 <p>Traceable to PTB (German National Metrology Laboratory)</p>
 <p>Calibration of vibration sensors, measurement systems and calibrators</p>
 <p>Integrated sensor database</p>
 <p>Integrated software for the generation of calibration certificates (print, PDF,...) Easy data exchange with applications like ERP systems or measuring equipment databases</p>



Frequency range	5 Hz... 20 kHz (... 50 kHz without traceability)
Acceleration, max.	400 m/s <sup>2</sup> (40 g <sub>n</sub> ) peak
Velocity, max.	0.5 m/s (19.7 inch/s)
Displacement, max.	7.5 mm (0.3 inch)
DUT weight, max.	350 g (12 oz)
Sensitivity of ref. accel.	1 mV / m/s <sup>2</sup> (10 mV / g <sub>n</sub> )

Frequency range		Max. recommended payload	Expanded measurement uncertainty <sup>1)</sup> magnitude <sup>2)</sup> / phase <sup>3)</sup> of transfer coefficient
from	to		
5 Hz	< 10 Hz	200 g	1.0 % / 1.0°
10 Hz	< 20 Hz		0.7 % / 0.7°
20 Hz	1 000 Hz		0.5 % / 0.7°
> 1 000 Hz	5 000 Hz	50 g	0.7 % / 0.7°
> 5 000 Hz	10 000 Hz		1.5 % / 1.0°
> 10 000 Hz	15 000 Hz		2.0 % / 2.0°
> 15 000 Hz	20 000 Hz		3.0 % / 3.0°
Reference Frequencies: 80 Hz, 100 Hz, 160 Hz		200 g	0.5 % / 0.7°

Recommended excitation amplitudes	
Minimum	1.0 m/s <sup>2</sup>
Maximum (high payload) <sup>3)</sup> (displacement, velocity, acceleration)	<b>4 mm</b> in the range <b>5 Hz ... 20 Hz (pk - pk)</b> <b>0.3 mm/s</b> in the range <b>20 Hz ... 53 Hz (peak)</b> <b>100 m/s<sup>2</sup></b> in the range <b>53 Hz ... 40 kHz (peak)</b>
Maximum (low payload) <sup>4)</sup> (displacement, velocity, acceleration)	<b>4 mm</b> in the range <b>5 Hz ... 20 Hz (pk - pk)</b> <b>0.3 mm/s</b> in the range <b>20 Hz ... 106 Hz (peak)</b> <b>200 m/s<sup>2</sup></b> in the range <b>106 Hz ... 20 kHz (peak)</b>

1) Determined according to GUM (ISO Guide to the expression of uncertainty in measurement) with k = 2 (coverage factor). The measurement uncertainty is specified for the best possible device under test (DUT): „Nanometrics Trillium Compact“ (plus its mounting adapter) in two configurations: first the DUT and secondly the DUT with additional dummy mass. Best uncertainty values only valid for symmetric centered mounting of the DUT and the mass with a center of gravity <80 mm at 35 kg above exciter table. Any other type of DUT can be calibrated. But they must meet the maximum payload limits given by the data sheet of the vibration exciter. Measurement uncertainties need to be determined individually, especially for frequencies above 20 Hz

2) Valid for electrical sensor signals ≥ (1 mV or 1 pC)

3) Maximum vibration amplitude for maximum payload (DUT)

4) Maximum vibration amplitude without any payload (DUT)

