


	<p>HERO™ vibration controller incl. signal conditioners</p>
	<p>CS Q-LEAP™ software</p> <ul style="list-style-type: none"> • shock calibration • more on demand
	<p>Shock control unit for control via PC</p>
	<p>SE-201 pneumatic shock exciter to produce monopole shock pulse (half sine) as mechanical input signal for calibration purposes. Contains a digital laser interferometer (mach-zehnder) with positioning unit and damped tripod.</p>

Typical DUT*

- vibration/shock sensors
- PE transducers
- IEPE transducers
- PR transducers
- Digital transducers (SPI, I2C, DTI, and other interfaces)
- supports TEDS/ID modules according to IEEE 1451.4

* DUT = Device Under Test

Standards

- ISO 16063 - 13: Primary shock calibration using laser interferometry
- ISO 16063 - 22: Shock calibration by comparison to a reference transducer
- ISO 17025: General requirements for the competence of testing and calibration laboratories

Key features



Broad amplitude range $5 g_n \dots 10\,000 g_n$ ($49 \text{ m/s}^2 \dots 98 \text{ km/s}^2$)



Traceable to PTB (German National Metrology Laboratory)



Primary calibration of shock sensors



Integrated sensor database



Integrated software for the generation of calibration certificates (print, PDF,...)
Easy data exchange with applications like ERP systems or measuring equipment databases



Broad amplitude range	5 g_n ...10 000 g_n (49 m/s ² ...98 km/s ²)
Pulse width¹⁾	0.1 ms...5 ms
Automated regulation of amplitudes	up to 6000 g_n (60 km/s ²)
DUT weight, max.	80 g (2.82 oz)

Shock peak value			Expanded measurement uncertainty ²⁾ for primary calibration
Anvil type	from	to	Shock-transfer-coefficient S_{SH} ³⁾ of analogue sensors
Low shock (LS)	50 m/s ² (5 g_n)	100 m/s ² (10 g_n)	0.8 %
	100 m/s ² (10 g_n)	2 500 m/s ² (250 g_n)	0.7 %
Medium shock (MS)	2 km/s ² (200 g_n)	40 km/s ² (4 000 g_n)	1.0 %
	40 km/s ² (4 000 g_n)	100 km/s ² (10 000 g_n)	1.5 %

- 1) The pulse duration depends on the damper material on the anvil and can change due to aging and wear. The values in the table are valid for new standard anvils delivered with the shock exciter.
- 2) Determined according to GUM (JCGM 100 „Evaluation of measurement data - Guide to the expression of uncertainty in measurement“) with $k = 2$ (coverage factor) for the best possible device under test (DUT). Other devices that are not assumed as ideal must be evaluated with individual contributions
- 3) Shock-transfer-coefficient SSH is calculated in the time domain by comparing of peak values
In addition to the Shock-transfer-coefficient SSH in the time domain, further results are calculated in the frequency domain $Sf(n)$ at certain frequencies



Accessories (optional)

PR module	to support the calibration of piezoresistive sensors
Data recorder DTI sensors	to support the calibration of DTI sensors with digital interface

