CS18 HA

Calibration System High-Amplitude

Application

- Secondary calibration of amplitude linearity according to **ISO 16063-21** (comparison method) of charge type, IEPE, voltage, capacitive and piezo-resistive sensors for acceleration, velocity and displacement, with Sine excitation with high accuracy
- Secondary calibration of **reference standards**
- **Amplitude Linearity calibration up to 4,000 m/s²**
- Calibration of **vibration meters**

Range of Use

- **Certified calibration laboratories** with outstanding quality demands
- Departments of **measuring instrument verification** in **research and industry**
- **Quality assurance** in sensor manufacturing
- **Testing of fatigue behavior of devices at high acceleration levels**

Features

- **Traceable** to **P**hysikalisch **T**echnische **B**undesanstalt (**PTB**) Braunschweig by the accredited SPEKTRA Calibration Laboratory D-K-15183-01-00 **(DAkkS Calibration Certificate)**
- **Calibration of sensors** with / without amplifiers,
  measurement instruments with indication of their own by applying of determinate acceleration signals
- **Frequency range 65 Hz ... 500 Hz**
- **Acceleration amplitude up to 4,000 m/s²**
- **Sensor mass up to 300 gram**
- **Upgradeable** to a combined Sine calibration system, e.g. type CS18 HF / HA / LMS

CS18 HA

Calibration System High-Amplitude

Components

- Vibration control system **SRS-35**, SPEKTRA
- Software CS18 with operation modes: sensor calibration, sweep, vibration generation
- Power amplifier **PA 14-180**, SPEKTRA
- Vibration exciter **SE-101**
- Internal reference standard accelerometer **BN-09**
- Standard-PC

Specification

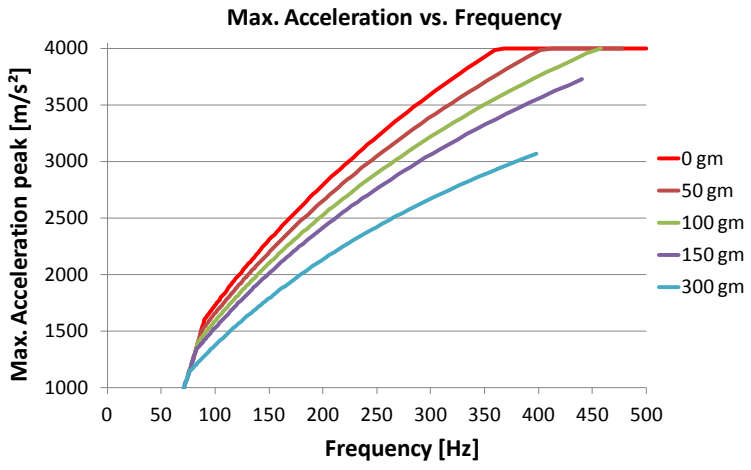
CS18 HA with vibration exciter SE-101

in the frequency range 65 Hz ... 500 Hz for sensors with mass to max. 300 gram (DUT)
for environmental conditions: temperature 23°C / 73 °F (± 2°C) and relative humidity 30 % ... 75 %

Mass of DUT	Expanded Measurement Uncertainty [2] Amount [3] / Phase [1] for amplitude linearity calibration	Working Range (peak value)		
		Minimum (Acceleration)	Maximum values at lowest frequency (Frequency, Acceleration, Velocity, Displacement)	Maximum values at highest frequency (Frequency, Acceleration, Velocity, Displacement)
0 gram	0.5 % / 0.5°	1 m/s²	80 Hz 1250 m/s² 2.5 m/s 5.0 mm	500 Hz 4000 m/s² 1.3 m/s 0.8 mm
300 gram[4] (Maximum)	0.5 % / 0.5°	1 m/s²	65 Hz 830 m/s² 2.0 m/s 5.0 mm	395 Hz 3050 m/s² 1.2 m/s 1.0 mm

[1] Only in combination with optional extra PHASE
[2] Determined according to GUM (ISO Guide to the expression of uncertainty in measurement) with k = 2 (coverage factor)
[3] Valid for electrical sensor signals ≥ (1 mV or 1 pC)
[4] Higher payload on request

Options for calibration systems: see leaflet CS18-extras



All data are subject to change without notice

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