# SE-201

## Shock Exciter

Danetech srl
Via Italo Calvino 7
Lotto 1 - Edificio A13-14
20017 Rho (MI)
Tel. +39 02 36569371
info@danetech.it
www.danetech.it

## Applications

- shock testing of small assemblies / parts
- secondary calibration of shock transducers, complete measuring instruments according to ISO 16063-22
- secondary calibration of shock accelerometer reference standards

## Selected Data

- broad amplitude range 5 $g_n$...10 000 $g_n$
- pulse duration up to 5 ms
- sensor mass (DUT) up to 80 g

## Features

- type of excitation: half sine shock
- good repeatability of shock
- position of DUT: vertical
- realization of all automatic calibrations according to own test regime (up to 1 shock/s)
- upgradeable to a CS Q-LEAP™ shock calibration system
- low transverse motion of DUT
- automated regulation of amplitudes up to 10 000 $g_n$ is possible

# Specification

The SE-201 is a pneumatically driven shock exciter which provides a wide amplitude range. It uses the hammer-anvil principle to generate the shocks. A projectile that is accelerated by pressurized air is used as hammer. While the air pressure is kept constant, the kinetic energy of the projectile can be controlled by a motor-driven mechanical stop that allows a precise adjustment of the projectile's starting position. Thus the SE-201 allows an automatic control of the shock amplitude. All mechanical parts are built from wear-resistant materials, ensuring best stability of the shock exciter and providing a good repeatability of shocks.

The SE-201 can be used for calibration purposes (secondary calibration according to ISO 16063-22) as well as for shock testing of small assemblies or parts.

It is optimized for low transverse motion of the DUT. For low shocks (5 $g_n$…250 $g_n$), an air bearing is used to guide the anvil.

## Technical data

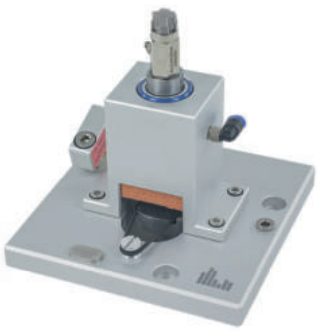
| | |
|---|---|
| **Sensor mass (DUT), max.** | 80 g |
| **Shock amplitude, min.** | 5 $g_n$ |
| **Shock amplitude, max.** | 10 000 $g_n$ |
| **Pulse duration (typically)** | 0.1 ms…5 ms |
| **Required air pressure** | • AIR-02 input: 6 bar…10 bar (87 psi…145 psi)<br>• shock exciter: 3.5 bar…4 bar (51 psi...58 psi) |
| **Required air quality** | ISO 8573-1:2010, Class 3 |
| **Dimensions (H x W x L)** | 360 mm x 440 mm x 905 mm (14.2 in x 17.4 in x 35.6 in) |

All data for environmental conditions: temperature 23°C (± 2°C) and relative humidity 30 %...75 %

## Components

- ✓ Pneumatically driven pulse generator
- ✓ Reference standard BN-02
- ✓ Shock Control Unit (SCU)

*Low acceleration shock application ▶*



*◀ Medium acceleration shock application*