

# **SE-20 / SE-20T**

#### Vibration exciter



# **©** Applications

- ✓ vibration tests of small-scale devices
- ✓ modal and structural testing
- calibration of vibration sensors according to ISO 16063-21
- ✓ industry, research and training

#### **Selected Data**

- ✓ high frequency range DC...20 kHz
- $\checkmark$  acceleration up to 600 m/s<sup>2</sup> (61  $g_a$ )
- ✓ low transverse motion typical < 5 %
- ✓ payload, max.: 2 kg (vert.) / 1 kg (horiz.)
- ✓ temperature range, max.: -40 °C...+120 °C

#### **©** Features

- ✓ highly scratch-resistant hard-coated armature made from aluminum
- ✓ first axial resonance > 22 kHz
- ✓ high payload capability for large sensors or geophones
- ✓ easy operation in climate chambers

- efficient electrodynamic drive using high flux motor
- ✓ optional internal reference accelerometer
- ✓ no compressed air supply or zero position controller required
- ✓ trunnion for vertical and horizontal mode



### **®** Technical data

	SE-20	SE-20T
Force rating, max. (sine-peak)	95 N (21 lbf) <sup>1)</sup>	
Frequency range	DC20 kHz 3 Hz20 kHz with optional internal reference standard 3 Hz10 kHz recommended for calibration of vibration sensors	
Acceleration, max. (sine peak)	600 m/s <sup>2</sup> (61 g <sub>n</sub> ) <sup>1)</sup>	
Displacement, max. (peak-peak)	10 mm (0.39 in)	
Transverse motion	typical < 5 % <sup>2)</sup>	
Payload, max.	2 kg (4.4 lbs) vertical 1 kg (2.2 lbs) horizontal	
Temperature range (in operation)	-20 °C+80 °C (-4 °F+176 °F)	-40 °C+120 °C (-40 °F+248 °F)
DUT mounting	<ul> <li>50 mm (1.97 in) coupling surface diameter</li> <li>hard coated surface</li> <li>¼-28 UNF thread hole</li> <li>3 plcs 10-32 UNF thread holes</li> <li>other thread patterns on request</li> </ul>	
Stray magnetic field on table	< 3 mT	
Armature weight	160 g (0.36 lbs)	
Weight (total)	17 kg (37.5 lbs)	
Dimensions (H $\times$ W $\times$ L)	138 mm × 270 mm × 285 mm (5.4 in × 10.6 in × 11.2 in)	

All specifications are at room temperature unless otherwise specified. Technical data achieved with power amplifier PA 500 DM.

## ① Options and accessories

- ✓ internal reference standard
  - sensitivity (±10 %): 1 mV / m/s² (10 mV /  $g_{\rm n}$ )
  - frequency range in combination with the SE-20: 3 Hz...20 kHz
  - resonance frequency: approx. 70 kHz
- ✓ power amplifier
- $\checkmark$  trunnion base: with additional stops for exact positioning at 0° and 90°
- ✓ adapter sets for different DUT, e.g. also for proximity sensors
- ✓ set for active cooling
- ✓ readout set for the internal temperature sensor

<sup>1)</sup> interval mode of operation

<sup>2)</sup> single peaks up to 15 % / better than ISO 16063-11/21