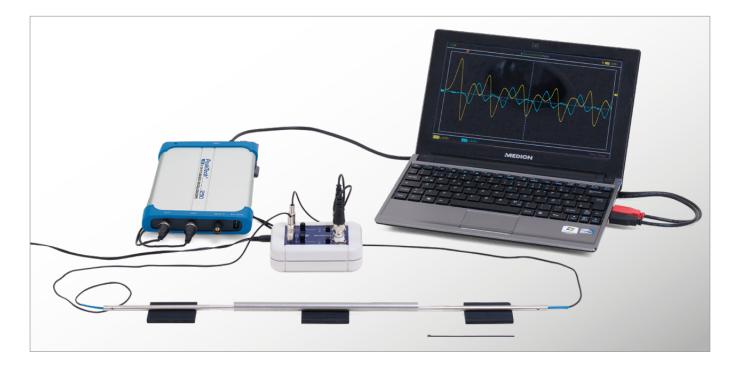
# **STUDENT EXPERIMENT KIT SYSTEM** SOUND PROPAGATION IN SOLID BODIES



#### > CONTENTS:

- 6 Test Rods, 200 mm, made of Glass, Transparent Acrylic (perspex), PVC, Wood (Beech), Stainless Steel and Aluminium
- 4 Test Rods, 100 mm, Made of Copper, Brass, Stainless Steel and Aluminium
- 1 Test Rod, 400 mm made of Stainless Steel
- 2 Beaters
- 2 Microphone Probes
- 1 Microphone Boxes
- 1 Plug-in Power Supply 12 V AC
- 3 Rubber Mats, 50x40x5 mm<sup>3</sup>

# > COMPACT SET-UP ON LAB BENCHES

## EQUIPMENT SET "SOUND PROPAGATION IN RODS"

Equipment set for investigating propagation of sound and determining the speed of sound in solid rods of various materials. The set includes various test rods, two microphone probes and a microphone box for connection to an oscilloscope. Contained in a sturdy plastic case with foam inlays in the shape of the apparatus and a transparent lid.

Equipment Set "Sound Propagation in Rods" (230 V, 50/60 Hz) 1018469 or

Equipment Set "Sound Propagation in Rods" (115 V, 50/60 Hz) 1018468

Additionally required:

Dual-channel oscilloscope, e.g. 1020857 PC Oscilloscope, 2x25 MHz

### **EXPERIMENT TOPICS:**

- Speed of propagation of sound pulses in various rods
- Comparison between the propagation of longitudinal and transverse waves
- $\ensuremath{\cdot}$  Standing sound waves in short rods
- Polarity of reflections at the ends of the rods
- Multiple reflection at the ends of longer rods

NON-CONTACT AND LOW-ATTENUATION MEASUREMENT OF SOUND WAVES!