

Invention relates to ultrasonic non-destructive testing and can be used to detect defects and determine the thickness of objects in ultrasonic flaw detectors and thickness gauges. Transducer comprises a housing, a waveguide made of magnetostrictive material, an excitation coil on the waveguide, an ultrasonic mirror connected to the housing, a damper at the end of the waveguide, a permanent magnet on the excitation coil, and a matching transformer on the damper, the input winding of which is connected to the excitation coil, and the output winding serves as the transducer's input. Additionally, the transducer is equipped with a two-section measuring coil between the excitation coil and the damper, whose identical sections are connected in series in opposite directions at a distance of half a wavelength from each other, a second permanent magnet on the measuring coil, and a second matching transformer on the damper. An insulating dielectric sleeve is located at the receiving end of the waveguide. The technical result of the invention is an increase in the transducer's sensitivity due to a doubling of the measuring coil's output signal level, a significant reduction in electromagnetic interference, and the ability to monitor objects with highly curved surfaces through an aperture with a diameter of 1 mm or less.