

ZHONGKE HS BLT Ultrasonic Bolt Stress Detector



HS BLT Performance Features:

The ultrasonic measurement technology of bolt axial tightening force was researched and developed according to the theory of acoustic elasticity. According to the theory of acoustic elasticity, the time of ultrasonic propagation and the axial stress of the bolt have a certain linear relationship when the ultrasonic transverse wave and the longitudinal wave propagate along the bolt axis. The detection system accurately measured the propagation time of ultrasonic shear wave and longitudinal wave along the bolt axis and introduced relevant parameters, and indirectly calculated the numerical value of axial prestress of bolts.

The measurement system sets the stress parameters of different strength and different specifications bolts that calibrated by tension test, which can be widely applied to the measurement of bolt axial stress in various bolt connection structures. The software system of high accuracy, friendly interface, simple operation, high degree of integration of hardware system, small outline dimension, easy to carry, can be widely used in the fields of aerospace, bridge construction, wind power, thermal power, hydroelectric power, petrochemical and other industrial field installation site inspection, in-service inspection, on-line monitoring and other construction process.

HS BLT Technical parameters:

Measure mode: Pulse echo (Standard)

Measure frequency: 2.25M、2.5M、3.5M、5M、10M

Measure range: bolt diameter \geq 8mm

Sound time detection precision : \pm 10ns

Inspection precision of bolt fastening force: $\leq\pm$ 5%

Work temperature: -20°C~+50°C

Overall dimension: 260mm (Length) x 185mm (width) x 75mm (thickness)

Whole weight: 2.77kg

Zhongke Innovation Technology Co., Ltd.

is a professional manufacturer of NDT equipments with independent intellectual property rights. Zhongke has been working on R&D of Ultrasonic technology for over 30 years. Now Zhongke has different series of NDT products, such as Phased Array Detector, TOFD Detector, Conventional Ultrasonic Flaw Detector, EMAT Detector and Online Automatic Inspection Systems for Pipe, Tube, Plate, Bars, Vessel, Automobile Parts and etc. Zhongke also has committed to provide the customers with various kinds of all-round, efficient, steady, reliable ultrasonic solutions!