

# Flaw Detector PCE-FD 20



PCE-FD 20 is a portable ultrasonic flaw detector with a large LCD screen that displays A-scan maps of ultrasonic signals as well as B-scan cross sections. Ideal for use in mechanical engineering, aerospace and metallurgical applications, this high-frequency ultrasound-based defectoscope uses a contact transducer (two different probes included; 45° and 90°) to measure material thickness and identify flaws and defects such as discontinuity in welds.

- ▶ Operating frequency range: 1 ... 10 MHz
- ▶ Measured time interval range: 6 ... 1000 microseconds ( $\mu$ s)
- ▶ Sound velocity: 1000 ... 9999 m/s
- ▶ Implements shadow, echo and mirror-shadow testing methods
- ▶ Features a USB interface for downloading data to PC for detailed analysis
- ▶ Lightweight
- ▶ Battery or electric power
- ▶ 1.5 m long probe cable

# Specifications

## Technical specifications

Operating frequency range	1 ... 10 MHz
Measure time interval range (scan duration)	6 ... 1000 microseconds ( $\mu$ s)
Sound velocity range	1000 ... 9999 m/s
Deviation of measurement of time intervals	Not exceed $\pm 0.025\mu$ s
Max. deviation of amplitude of signals at receiver input in 0 ... 110 dB range	Not exceed $\pm 0.5$ dB
Testing gain region	125 dB
Averaging over the quantity of starts	1 ... 16
Range of time-variable gain (TVG) / Number of control points TVG	40 dB / 15
Duration of excitation pulse to load	0 ... 0.5 $\mu$ s
Amplitude of excitation pulse to 50 Ohm load, not less	100, 200, 300
Operating frequency range of receiver at -3 dB	1 ... 10 MHz
Deviation of amplitudes of input signals in 10 ... 100% range of screen height	Not more than 1 dB
Scanning	1 ... 1000 $\mu$ s
Scanning delay	0 ... 2000 $\mu$ s
Measurement range of time intervals	0 ... 1000 $\mu$ s
Prism of probe delay	0 ... 15 $\mu$ s
Automatic signaling of defects (AFS)	Dual-gate
Setting range of AFS gates	0 ... 2000 $\mu$ s
Adjusting thresholds of AFS gates	0 ... 100%
Detection of signals (receiver)	Positive half-wave, radio mode
Dimensions of device (approx.)	80 x 162 x 35 mm / 3.14 x 6.37 x 1.37"
Dimensions display (approx.)	48 x 74 mm / 1.88 x 2.91"
Power supply	100 ... 250 V AC or 3 x 1.5 V AA batteries
Weight (approx.)	250 g / 0.55 lb (without batteries)

# More information

Manual



More product info



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