

Technical Data Sheet

Broadband ultrasonic pulser-receiver SONO-PR 200

for nondestructive testing



The SONO-PR 200 is a high-performance broadband pulser-receiver and intended for the following applications:

- Nondestructive measurement/examination of wall thickness
- Nondestructive material testing
- Probe specification in R&D
- Immersion and squirter applications
- Acoustic microscopy
- Integration into automated testing systems

General data

Article number	200 09 0001: SONO-PR 200 Spike Pulser – Rack mount 200 09 0009: SONO-PR 200 Spike Pulser – Desktop 200 09 0015: SONO-PR 200 Combi Pulser – Desktop 200 09 0016: SONO-PR 200 Combi Pulser – Rack mount
Dimensions	19", 2 U (rack units)
Weight	5.5 kg
Operation modes	P/E (pulse/echo) T/R (Through transmission, transmitter/reciever separated)
Number of channels	1
Display	Type: TFT Dimension: 4.3" Resolution: 480 × 272 Pixel

Electrical data

Power supply 110/220 VAC, 1 A, 50/60 Hz

Power consumption 110/220 VAC, 1 A, 50/60 Hz

Connections and interfaces

Electrical connection IEC socket C14

Communication RS-232 (9 pin D-sub male)

Probe connectors, Analog HF Out, Trigger I/O BNC connector

Digital I/O On request only
Up to 8
Phoenix MCV 1,5/ 8-GF-3,81

Spike pulser

Open circuit voltage 277 V

Energy 1 | 2 | 4 | 8 | 16 | 32 μ J

Rise time < 1 ns

Damping 6.5 | 10 | 16 | 20 | 26 | 30 | 40 | 50 Ω

Pulse repetition frequency Range: 10 Hz ... 20 kHz
Increment: 10 | 100 | 1000 Hz

Square wave pulser

Voltage	10 ... 100 V (at damping 50 Ω) 20 ... 200 V (at damping 1 k Ω)
Polarity	Unipolar+ Unipolar- Bipolar
Pulse width	63 ... 1000 ns (corresponds to 500 kHz ... 8 MHz frequency range)
Pulses per burst	1 ... 10
Damping	50 Ω 1 k Ω (at TR mode)
Pulse repetition frequency	Range: 10 Hz ... 20 kHz Increment: 10 100 1000 Hz <div style="border: 1px solid black; padding: 5px; margin-top: 5px;">ⓘ The maximum pulse repetition frequency depends on the other device settings.</div>

Receiver

Gain	26 40 54 dB
Attenuation	Range: 0 ... 65.5 dB Increment: 0.5 6 dB
Input impedance	50 Ω
Bandwidth	100 kHz ... 200 MHz (-3 dB)
High-pass filter	100 kHz 1 MHz 3 MHz 10 MHz
Low-pass filter	200 MHz 100 MHz 50 MHz 20 MHz
Equivalent input noise level	2 nV / $\sqrt{\text{Hz}}$ (gain: 54 dB; attenuation: 0 dB; full bandwidth)
Crosstalk attenuation	> 80 dB at 10 MHz

Trigger

Source	Internal or external
Max. trigger rate	20 kHz
Output level	5 V
Output impulse duration	20 μ s

Ambient conditions

Operating temperature	0 °C ... +60 °C
Storage temperature	-20 °C ... +80 °C
Protection type	IP20

Drawings are not to scale. Dimensions in mm, unless otherwise specified. Information is subject to change without notice. SONOTEC is a registered trademark.

Manufacturer

SONOTEC GmbH
Nauendorfer Str. 2
06112 Halle (Saale)
Germany
Phone: +49 345 13317-0
mySONAPHONE@sonotec.de
www.sonotec.eu

Contact USA

SONOTEC US Inc.
190 Blydenburgh Rd
Suite 8, 2nd Floor
Islandia, New York 11749, USA
Phone: +1 631 4154758
sales@sonotecusa.com
www.sonotecusa.com