

# Eta250 Ultra

## Acoustic

Transducer type	Membrane-free, optical
Frequency range	10 Hz - 1 MHz
Dynamic range	100 dB
Self-noise	50 $\mu$ Pa (BW: 1 Hz, measured @ 1 kHz)
Self-noise, full bandwidth	50 mPa
Max. sound pressure for THD <3 %	400 Pa
Max. sound pressure level for THD <3 %	146 dB rel. 20 $\mu$ Pa
Damage threshold	>194 dB rel. 20 $\mu$ Pa
Sensitivity	10 mV/Pa @ 1 kHz (0 dB gain, 50 Ohm)
Polar pattern	Omnidirectional
Sound field optimization	Free field and pressure field
Calibration compatible with pistonphone or calibrator	Yes, standard calibrators (with adapter)

## General

Sensor output voltage	$\pm$ 15V (high impedance), $\pm$ 7.5V (50 Ohm)
Sensor output voltage connector (signal conditioning unit)	BNC
Sensor output impedance	50 Ohm
Size of sensor head	diameter: 5 mm; length: 33 mm
Weight of sensor head	10 g
Fiber cable length	5 m (other upon request)
Size of control unit	220 mm x 330 mm; height: 95 mm
Weight of control unit	8 kg
Power supply (signal conditioning unit)	230V $\pm$ 10%; 50 / 60 Hz
Power consumption	< 50 W

## Environmental

Storage temperature	0° C to 60° C (30 F to 140 F)
Operating temperature: sensor head	5° C to 60° C (40 F to 140 F)
Operating temperature: control unit	15° C to 30° C (60 F to 85 F)
Environmental humidity	non condensing