

Eta100 Ultra

Acoustic

Transducer type	Membrane-free, optical
Frequency range	10 Hz - 1 MHz
Dynamic range	100 dB
Self-noise	1.5 mPa (BW: 1 Hz, measured @ 1 kHz)
Self-noise, full bandwidth	1.5 Pa
Max. sound pressure for THD < 3%	12 kPa
Max. sound pressure level for THD < 3%	176 dB rel. 20 μ Pa
Damage threshold	> 194 dB rel. 20 μ Pa
Sensitivity	0.35 mV/Pa @ 1 kHz (0 dB gain, 50 Ω)
Polar pattern	Omnidirectional
Sound field optimization	Free field and pressure field
Calibration	Yes, standard calibrators (with adapter)

General

Maximum output voltage	± 15 V (high impedance), ± 7.5 V (50 Ω)
Output impedance	50 Ω
Output connector	BNC
Size of sensor head	diameter: 5 mm; length: 38 mm
Weight of sensor head	ca. 10 g
Length of fiber-optic cable	5 m (other upon request)
Size of signal conditioning unit	220 mm x 334 mm; height: 93 mm
Weight of signal conditioning unit	8 kg
Power supply	120/230V $\pm 5\%$; 50/60 Hz
Power consumption	< 50 W

Environmental

Storage temperature	-20 $^{\circ}$ C to 80 $^{\circ}$ C (0 $^{\circ}$ F to 175 $^{\circ}$ F)
Operating temperature of sensor head	-20 $^{\circ}$ C to 100 $^{\circ}$ C (0 $^{\circ}$ F to 210 $^{\circ}$ F)
Operating temperature of signal conditioning unit	15 $^{\circ}$ C to 30 $^{\circ}$ C (60 $^{\circ}$ F to 85 $^{\circ}$ F)
Environmental humidity	non-condensing