

# Eta100 Ultra

上海昊量光电设备有限公司

中国区代理

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## 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 μPa
Damage threshold	>194 dB rel. 20 μPa
Sensitivity	0.35 mV/Pa @ 1 kHz (0 dB gain, 50 Ω)
Polar pattern	Omnidirectional
Sound field optimization	Free field and pressure field
Calibration	Adapter available for standard calibrators

## General

Maximum output voltage	±15V (high impedance), ±7.5V (50 Ω)
Output impedance	50 Ω
Output connector	BNC
Sensor head dimensions	diameter: 5 mm; length: 33 mm
Sensor head weight	10 g
Fiber cable length	5 m (other upon request)
Signal conditioning unit dimensions	220 mm x 330 mm; height: 95 mm
Signal conditioning unit weight	8 kg
Power supply	230/120V ±5%; 50/60 Hz
Power consumption	< 50W

## Environmental

Storage temperature	-20 °C to 80 °C (0 °F to 175 °F)
Operating temperature: sensor head	-20 °C to 100 °C (0 °F to 210 °F)
Operating temperature: signal conditioning unit	15 °C to 30 °C (60 °F to 90 °F)
Environmental humidity	non-condensing

# 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 $\Omega$ )
Polar pattern	Omnidirectional
Sound field optimization	Free field and pressure field
Calibration	Adapter available for standard calibrators

## General

Maximum output voltage	$\pm$ 15V (high impedance), $\pm$ 7.5V (50 $\Omega$ )
Output impedance	50 $\Omega$
Output connector	BNC
Sensor head dimensions	diameter: 5 mm; length: 33 mm
Sensor head weight	10 g
Fiber cable length	5 m (other upon request)
Signal conditioning unit dimensions	220 mm x 330 mm; height: 95 mm
Signal conditioning unit weight	8 kg
Power supply	230/120V $\pm$ 5%; 50/60 Hz
Power consumption	< 50W

## Environmental

Storage temperature	-20 $^{\circ}$ C to 80 $^{\circ}$ C (0 $^{\circ}$ F to 175 $^{\circ}$ F)
Operating temperature: sensor head	-10 $^{\circ}$ C to 100 $^{\circ}$ C (0 $^{\circ}$ F to 210 $^{\circ}$ F)
Operating temperature: signal conditioning unit	0 $^{\circ}$ C to 50 $^{\circ}$ C (30 $^{\circ}$ F to 120 $^{\circ}$ F)
Environmental humidity	non-condensing

# Eta450 Ultra

## Acoustic

Transducer type	Membrane-free, optical
Frequency range	50 kHz - 2 MHz
Dynamic range	100 dB
Self-noise	5 $\mu$ Pa (BW: 1 Hz, measured @ 500 kHz)
Self-noise, full bandwidth	10 mPa
Max. sound pressure for THD <3%	40 Pa
Max. sound pressure level for THD <3%	126 dB rel. 20 $\mu$ Pa
Damage threshold	>194 dB rel. 20 $\mu$ Pa
Sensitivity	100 mV/Pa @ 1 kHz (0 dB gain, 50 $\Omega$ )
Polar pattern	Omnidirectional
Sound field optimization	Free field and pressure field
Calibration	Adapter available for standard calibrators

## General

Maximum output voltage	$\pm$ 15V (high impedance), $\pm$ 7.5V (50 $\Omega$ )
Output impedance	50 $\Omega$
Output connector	BNC
Sensor head dimensions	diameter: 8.8 mm; length: 35 mm
Sensor head weight	10 g
Fiber cable length	5 m (other upon request)
Signal conditioning unit dimensions	220 mm x 330 mm; height: 95 mm
Signal conditioning unit weight	8 kg
Power supply	230/120V $\pm$ 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: sensor head	10 $^{\circ}$ C to 40 $^{\circ}$ C (50 $^{\circ}$ F to 100 $^{\circ}$ F)
Operating temperature: signal conditioning unit	0 $^{\circ}$ C to 50 $^{\circ}$ C (30 $^{\circ}$ F to 120 $^{\circ}$ F)
Environmental humidity	non-condensing