



SOUND SOLUTIONS FROM LIGHT TECHNOLOGY



OPTIMIC™ 4122

Waterproof Fiber Optic Microphone for Remote Monitoring

Fully sealed fiber optic microphone for remote monitoring applications. Designed specifically for use in seawater, wet or extremely humid environments.

FEATURES

- ▶ Robust design suited to industrial applications
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor
- ▶ Waterproof and submersible to depths of 15 meters
- ▶ Customizable by application
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Mil Std Hermetic duplex connector
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Polar Pattern	Omnidirectional
Frequency Response	30-10,000 Hz
Conformity 30 - 1,000 Hz	±3.0 dB
Conformity 1,000 - 10,000 Hz	±10.0 dB
Sensitivity	100 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤31 dBA
Maximum Acoustic Pressure	114dB SPL
Total Harmonic Distortion	<1% at 114 dB SPL
Supply Voltage	24 V DC
Current Drain	80 mA ±10%
Operating Temperature	-20 to +60 °C (-4 to +140 °F)
Storage Temperature	-20 to +60 °C (-4 to +140 °F)
Water Resistant	Up to 15 m
MTBF	>100,000 hours
Microphone Head	
Material	Aluminium Alloy
Maximum Diameter	25 mm
Maximum Length	65 mm
Weight	32 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ Water area or portside monitoring
- ▶ Extreme sports monitoring
- ▶ Extremely humid environments
- ▶ Ocean shipping containers
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High voltage electrical utilities
- ▶ High RFI or EMI areas
- ▶ Petrochemical facilities



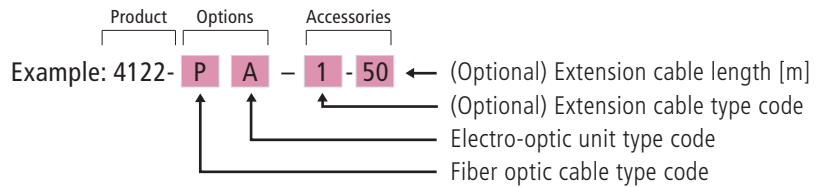
OPTIMIC™ 4122 System Kit





Complete, versatile, cost-effective solution



Optoacoustics' OPTIMIC 4122 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized storage case.

PRODUCT ORDERING GUIDE

Use the matrix below to select options and accessories for your order.



Options	Fiber Optic Cable Type	Electro-Optic Unit Type		
Item	Outdoor, Milspec ∅ 5 mm	EOU 200 Single Channel	EOU 400 Dual Channel Industrial	EOU 2500 Multichannel Rack-mount
Code	P	A	E	J
				

Accessories	Extension Cable Type (Specify length from 10-100 m)	
Item	Outdoor, Milspec ∅ 5 mm	Outdoor, Polyamide ∅ 5.1 mm
Code	1	2
		



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Optoacoustics is a leading manufacturer of high performance, optical fiber-based sound and vibration sensors. Each of our products combines the natural intelligence of optics and acoustics to meet technical performance demands which cannot be addressed by conventional sensing solutions. Optoacoustics' pioneering technology is protected by over 20 international patents.

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