



OPTIMIC™ 4120

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
- ▶ Exceptionally low sensitivity to vibration
- ▶ 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 - 7,000 Hz	±10.0 dB
Sensitivity	100 mV/Pa ±10% at 1 kHz
Equivalent Self-Noise	≤31 dBA
Maximum Acoustic Pressure	114 dB SPL
Total Harmonic Distortion	<1% at 84 dB SPL
Supply Voltage	8-15 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	Polycarbonate
Maximum Diameter	27 mm
Maximum Length	12 mm
Weight	6 g
Optical Cable Length	10 m

APPLICATIONS

- ▶ Water area or portside monitoring
- ▶ Extremely humid environments
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ High voltage electrical utilities
- ▶ High RF areas
- ▶ Severe electromagnetic fields
- ▶ Petrochemical facilities



OPTIMIC™ 4120 System Kit

Complete, versatile, cost-effective solution

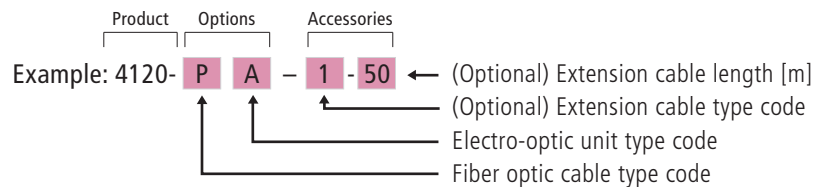
Optoacoustics' OPTIMIC 4120 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.










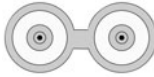
Optoacoustics EOU 100 electro-optic unit showing fiber optic, audio, and power supply connections

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	Clear PVC Ø 1 mm	Kevlar reinforced black PVC Ø 3 mm	EOU 100 Single Channel	EOU 200 Single Channel
Code	P	F	A	B
				

Accessories	Extension Cable Type (Specify length from 10-100 m)			
Item	Outdoor, Milspec Ø 5 mm	Outdoor, Polyamide Ø 5.1 mm	Indoor, Rugged Ø 3.0 mm	Indoor, Zip Cord Ø 3.0 x 2 mm
Code	1	2	3	4
				



SOUND SOLUTIONS FROM LIGHT TECHNOLOGY

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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