



SOUND SOLUTIONS FROM LIGHT TECHNOLOGY



OPTIMIC™ 4130

Fiber Optic Contact Microphone

Contact fiber optic microphone designed for structure-borne monitoring in the audio range.

FEATURES

- ▶ Robust design suited to medical applications
- ▶ Absolute EMI/RFI immunity
- ▶ Completely passive sensor with no metal or electrical parts
- ▶ Excellent for monitoring structure-borne sounds
- ▶ High reliability and environmental stability
- ▶ Optical fiber connection over extended lengths without signal loss
- ▶ Available in two frequency response ranges
- ▶ Plug-and-play system
- ▶ Cost-effective, long-term solution

TECHNICAL SPECIFICATIONS

Device Type	Contact microphone	
Model Options	Model A	Model B
Frequency Response	10-200 Hz	10-5,000 Hz
Conformity	±3.0 dB	±10.0 dB
Sensitivity at 1 mg (RMS)	10 mV	10 mV
Equivalent Self-Noise	≤2 µg	≤5 µg
Maximum acceleration	0.3 g	0.3 g
Supply Voltage	8-15 V DC	
Current Drain (max.)	80 mA	
Operating Temperature	-20 to +60 °C (-4 to +140 °F)	
Storage Temperature	-20 to +60 °C (-4 to +140 °F)	
Water Resistant	Up to 10 m	
MTBF	>100,000 hours	
Microphone Head		
Material	Polycarbonate	
Diameter	36 mm	
Weight	18 g	
Optical Cable Length	10 m	

APPLICATIONS

- ▶ High voltage electrical utilities
- ▶ Oil and gas detection sites
- ▶ Highly explosive areas
- ▶ Heart monitoring (Model A)
- ▶ High RF areas
- ▶ Severe electromagnetic fields
- ▶ Aerospace measurements
- ▶ Petrochemical facilities
- ▶ Homeland security



OPTIMIC™ 4130 System Kit

Complete, versatile, cost-effective solution

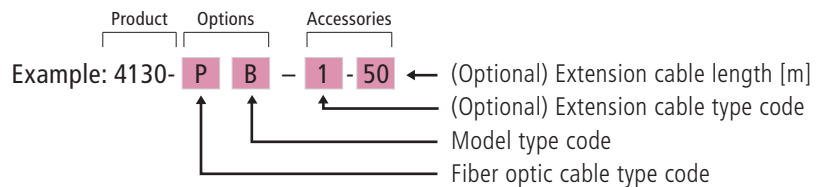
Optoacoustics' OPTIMIC 4130 system is comprised of our advanced OPTIMIC fiber optic microphone, electro-optic unit, audio cable with BNC connector, DC power supply and a ruggedized carrying case.



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 ∅ 1 mm	Kevlar reinforced black PVC ∅ 3 mm	EOU 200 Single Channel
Code	P	F	B

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



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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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