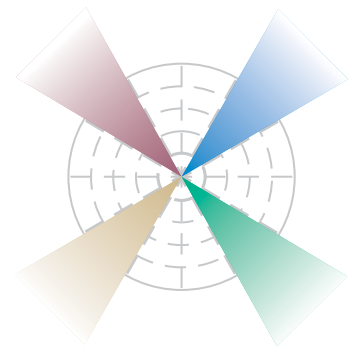


EK Series Microphones



Product Features

- Electret Condenser Microphone
- Lowest Noise Emkay Microphone
- Rugged Construction to Withstand Severe Environmental Conditions
- High Electroacoustic Sensitivity
- High Resistance to Mechanical Shock
- Low Vibration Sensitivity
- Various Responses Available
- Available with RFI Supression

EK omnidirectional microphones provide a unique combination of size, performance and value. These popular microphones are available in many model varieties without the expense or lead time of a custom order. Available in unidirectional as well - see the EL Series.



EK Series Microphone Specifications

Performance

Frequency Response	charted by response type
Sensitivity Tolerance	
EK flat response models	+/-2.0dB @1000Hz
EK ski-slope, step response and all EL models	+/-3.0dB @1000Hz
DC Supply	1.5 -10.0 V
Current Drain	19 uA typical 50 uA maximum
Output Impedance @1kHz	2800 to 6800 ohms
DC Output Voltage	0.2 to 0.9V
Output Noise Level (A-weighted)	-103dBV typical
Input-Referred Noise Level (A-weighted,1kHz reference)	24dB SPL typical 26dB SPL maximum
Input-Referred Vibration Sensitivity	(1g acceleration,1kHz reference) 62dB SPL maximum
Acoustic Polarity	Increased pressure at sound inlet causes a positive-going voltage to appear at the output,terminal, relative to the negative terminal.

Mechanical

Weight	0.13 grams
Dimensions	see outline drawings
Case Material	Type 305 stainless steel
Solder Content	Sn63Pb37

Optional Soldering Fixture

Base:	ET-3042
Nest Plate:	ET-800
Back Plate:	ET-900

Environmental

Humidity Coefficient of Sensitivity	0.02dB per %RH typical
Temperature Range	-17C to 63C operating -40C to 63C storage
ESD Tolerance	MIL-STD-750 Class 1 rating
EOS/ESD-S5.1-1993	Class 2 rating



www.knowlesacoustics.com

AMERICAS:
Knowles Acoustics
1151 Maplewood Drive
Itasca, IL 60143 U.S.A.
Phone: 630-250-5930
Fax: 630-250-5932

EUROPE:
Knowles Acoustics
York Road, Burgess Hill
West Sussex, RT15 9TT
England
Phone: 441-444-235432
Fax: 441-444-872772

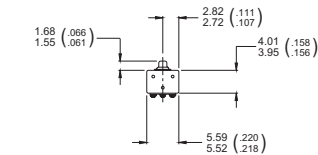
JAPAN:
Knowles Acoustics
Kyodo Bloom Building
19-1 Miyasaka 2-Chome
Setagaya-Ku, Tokyo 156, Japan
Phone: 81-3-3439-1151
Fax: 81-3-3439-8822

ASIA:
Knowles Acoustics
5F, No. 129, Lane 235, Bauchiaw Rd
Shindian City, Taipei 231, Taiwan
Republic of China
Phone: 886-2-8919-1799
Fax: 886-2-8919-1798

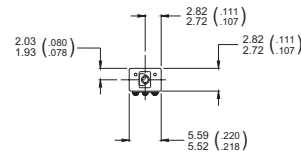
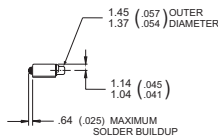
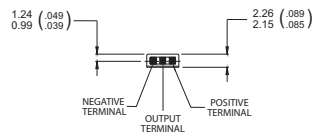
The information contained in this literature is based on our experience to date and is believed to be reliable and subject to change without notice. It is intended as a guide for use by persons having technical skill at their own discretion and risk. We do not guarantee favorable results or assume any liability in connection with its use. Dimensions contained herein are for reference purposes only. For specific dimensional requirements consult factory. This publication is not to be taken as a license to operate under, or recommendation to infringe any existing patents. This supersedes and voids all previous literature.

EK Series Microphone Specifications

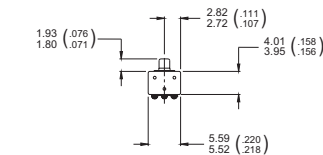
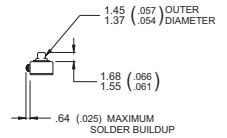
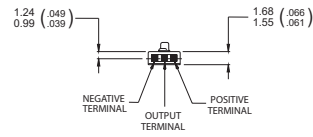
Outline Drawings



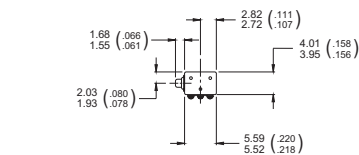
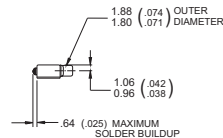
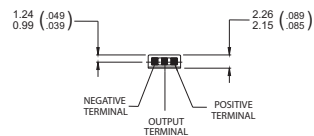
12S



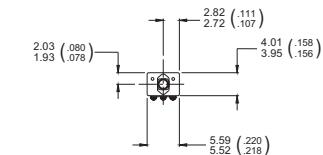
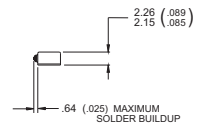
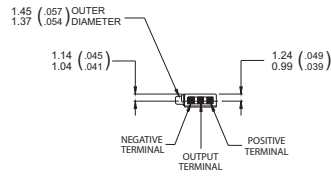
0KP



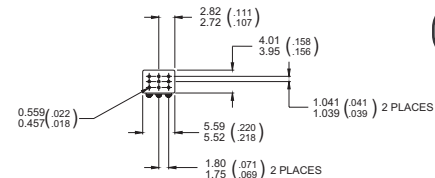
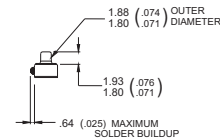
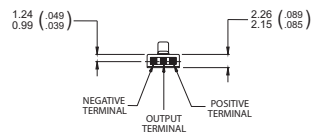
12SL



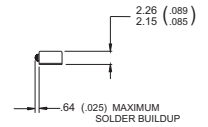
3S



0KPL



Ka



www.knowlesacoustics.com

AMERICAS:
Knowles Acoustics
1151 Maplewood Drive
Itasca, IL 60143 U.S.A
Phone: 630-250-5930
Fax: 630-250-5932

EUROPE:
Knowles Acoustics
York Road, Burgess Hill
West Sussex, RT15 9TT
England
Phone: 441-444-235432
Fax: 441-444-872772

JAPAN:
Knowles Acoustics
Kyodo Bloom Building
19-1 Miyasaka 2-Chome
Setagaya-Ku, Tokyo 156, Japan
Phone: 81-3-3439-1151
Fax: 81-3-3439-8822

ASIA:
Knowles Acoustics
5F, No. 129, Lane 235, Bauchiou Rd
Shindian City, Taipei 231, Taiwan
Republic of China
Phone: 886-2-8919-1799
Fax: 886-2-8919-1798

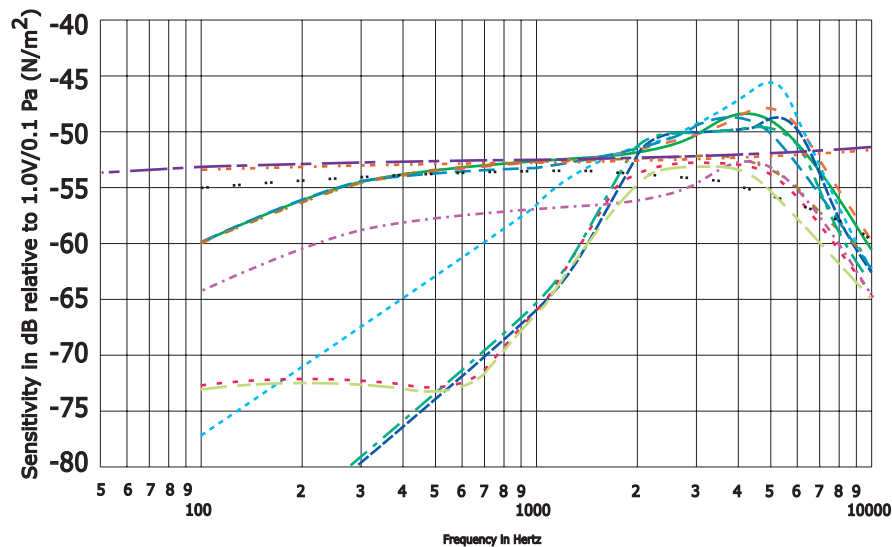
The information contained in this literature is based on our experience to date and is believed to be reliable and subject to change without notice. It is intended as a guide for use by persons having technical skill at their own discretion and risk. We do not guarantee favorable results or assume any liability in connection with its use. Dimensions contained herein are for reference purposes only. For specific dimensional requirements consult factory. This publication is not to be taken as a license to operate under, or recommendation to infringe any existing patents. This supersedes and voids all previous literature.

EK Series Microphone Specifications

Model Chart

Model	Sound Port Location	Response Type	Response (Legend)
EK-3024	12S	Standard	—
EK-5024	12S	Standard	—
EK-3027	OKP	Standard	- - -
EK-3028	12S	6dB/octave Ski Slope	- - - -
EK-3029	12S	12dB/octave Ski Slope	- - - -
EK-3031	12S	Step	- - - -
EK-3032	3S	Standard	- - -
EK-3033	12S	Damped Peak	- - - -
EK-3142	12SL	Broadband	- - - -
EK-3089	12S	Standard, lower sensitivity	- - - -
EK-3091	OKP	12dB/octave Ski Slope	- - - -
EK-3103	OKPL	Broadband
EK-3133	12SL	Broadband
EK-3115	12S	Step	- - - -
EK-3132	Ka	Broadband	- - - -
EK-3169	Ka	Broadband	- - -

Frequency Response



www.knowlesacoustics.com

AMERICAS:
Knowles Acoustics
1151 Maplewood Drive
Itasca, IL 60143 U.S.A.
Phone: 630-250-5930
Fax: 630-250-5932

EUROPE:
Knowles Acoustics
York Road, Burgess Hill
West Sussex, RT15 9TT
England
Phone: 441-444-235432
Fax: 441-444-872772

JAPAN:
Knowles Acoustics
Kyodo Bloom Building
19-1 Miyasaka 2-Chome
Setagaya-Ku, Tokyo 156, Japan
Phone: 81-3-3439-1151
Fax: 81-3-3439-8822

ASIA:
Knowles Acoustics
5F, No. 129, Lane 235, Bauchi Rd
Shindian City, Taipei 231, Taiwan
Republic of China
Phone: 886-2-8919-1799
Fax: 886-2-8919-1798

The information contained in this literature is based on our experience to date and is believed to be reliable and subject to change without notice. It is intended as a guide for use by persons having technical skill at their own discretion and risk. We do not guarantee favorable results or assume any liability in connection with its use. Dimensions contained herein are for reference purposes only. For specific dimensional requirements consult factory. This publication is not to be taken as a license to operate under, or recommendation to infringe any existing patents. This supersedes and voids all previous literature.