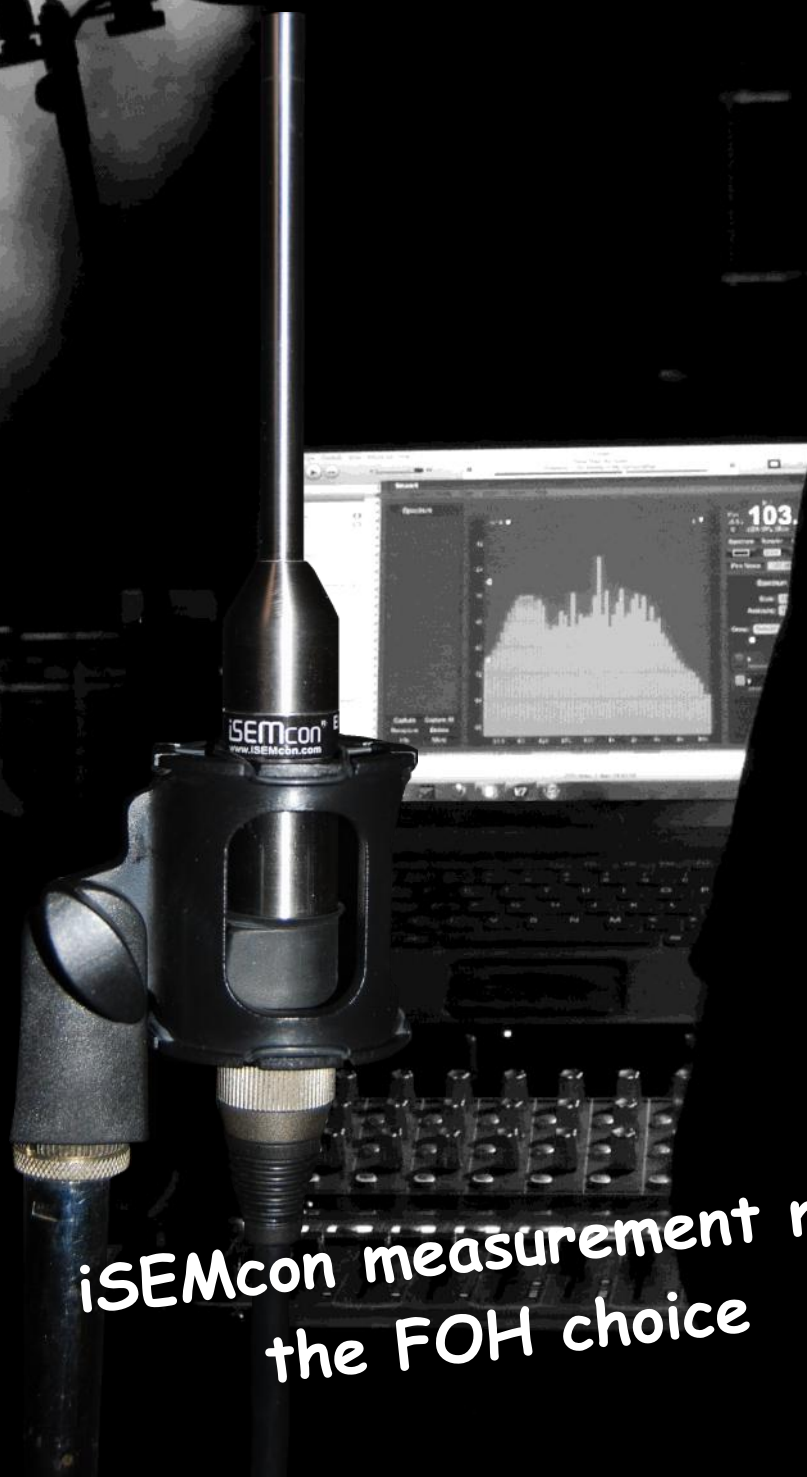




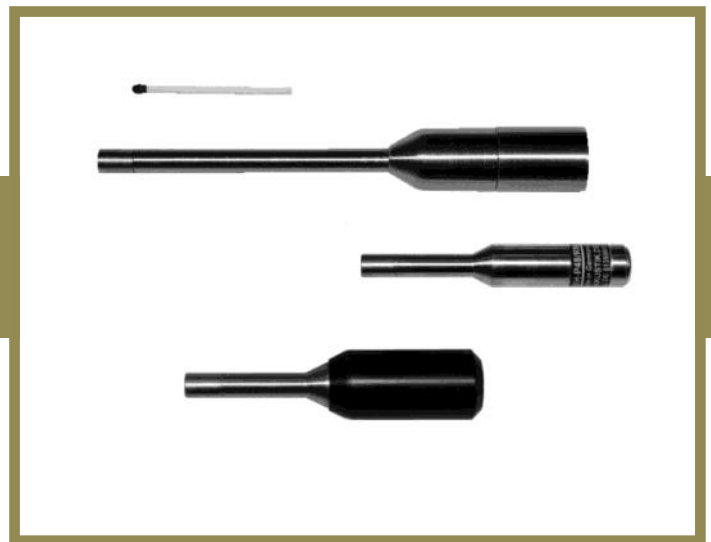
Acoustic Measurement Products

02-2017



iSEMcon measurement mics
the FOH choice

PHANTOM POWERED MICROPHONES



TYPICAL APPLICATIONS

Sound-power and sound-field analysis
Industrial Acoustics
Room acoustics analysis
Sound reinforcement
Real time analyzers

The EMX-7150 is a 1/4" microphone made from stainless steel and using state of the art water tight Neutrik^{®3} connectors has a very accurate frequency response combined with the capability to measure high sound pressure levels up to 145dBspl. It is low impedance measurement microphone that can be operated from 12...52 V Phantom Power which is available on most professional microphone preamplifiers and professional computer interfaces. With its mechanically robust design it is well suited for harsh environment use such as open air sound reinforcement measurements. Its class 1 frequency response (*NOTE: NOT A CLASS 1 MICROPHONE*)*1 makes it predestined for Room acoustics analysis including recording studios and home theaters. It can normally be used without the included freefield calibration data file for compensation. In this case take the individual calibration data as proof of its superb performance.

Our super protection windshield SWS -7 is recommended for open air use when limited amounts of spraying water as well as trickling water impact the microphone.

FEATURES

Frequency range **10Hz...20kHz**
Sensitivity **6mV/Pa** typ.
Dynamic range ~30... >140dBspl
3% distortion limits **146dBspl** typ.
Calibration chart and calibration data files included on CD
IEC 61672 class 1 frequency response
Dimensions: acoustic port dia. 1/4" (**7mm**)
Microphone body **0.75"** (19mm)
Overall length **6"** (**152mm**)
Weight **0.3oz** (**75 grams**)

Small windshield included

High SPL capability
freefield calibration data
diffusefield calibration data*2

1/4" acoustical port

Long microphone body
reduces early reflection effects

All stainless steel body

Factory replaceable electronics & capsule

O-Ring seal

Water tight connection
when using Neutrik^{®3} NC-3FX-HD
connector

ACTUAL SIZE



*1: Class 1 Freq.Response under limited conditions (23°C ± 3°C, 1013 mbar ± 30mbar)

*2: approximated by 90deg incidence response

*3: The corporate names and names of the products stated in this brochure are trademarks or registered trademarks of the respective companies.

SPECIFICATIONS

Values for 23° Celsius and 48V Phantom Power

PERFORMANCE

Frequency Response characteristic	Free-Field
Polarization Voltage	Prepolarized
Nominal Sensitivity @1kHz	6mV/Pa
Microphone Polarity	Non-Inverting
Frequency Response calibrated	10...20.000 Hz
Frequency Response IEC61672 *1	class 1
Inherent Noise 100-10000 Hz	<30dB typ.
Inherent Noise 1/3 Oct.	<15dB typ.
Max. SPL. (3% distortion limit)	> 140dBspl
Max. SPL. (3% distortion) typ.	146 dBspl

ENVIRONMENTAL

Operating Temperature range	-10...+55°
Storage Temperature Range	-20...+70°
Operating Humidity Range	0...90%r.H.
Axial Vibration Sensitivity	~ 50dB

ELECTRICAL

Output Impedance	< 200 Ω
Phantom Power	12...52Vdc

PHYSICAL

Housing Material	Stainless Steel
Sealing	O-ring/Polyurethane/Epoxy
Output Connector	XLR male
Dimensions	Ø 1/4" (7mm) x 6" (152mm)
Weight	0.3 oz (75g)

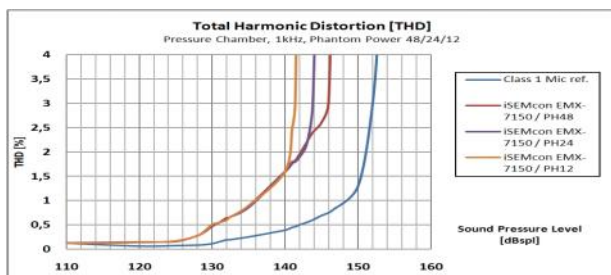
CONFORMITY

IEC 61000-6-1;
IEC 61010-1

SPECIAL FUNCTIONALITY

Voltage surge protection ü

THD , ref 1kHz



CALIBRATION DATA FILE ORMAT

Human readable ASCII file:

www.iSEMcon.com freefield

Sensitivity 5.88 mV/Pa @1kHz

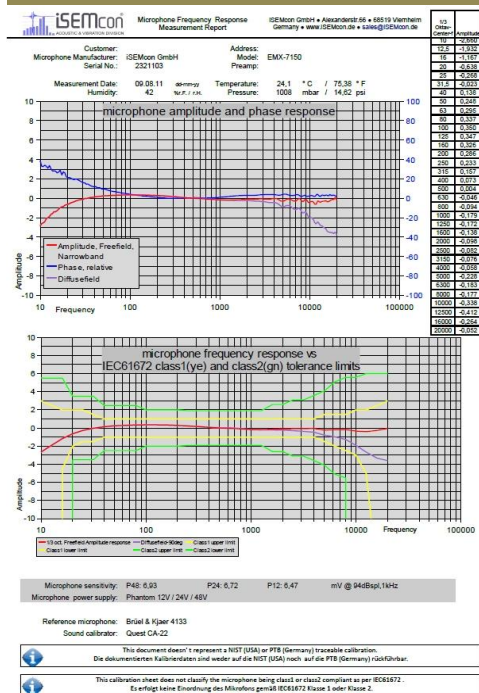
10.00 -0.02

11.26 0.10

..... 19992.19 0.93

^ frequency (Hz) ^amplitude response (dB)

FREQUENCY RESPONSE



Ordering information :

Order No.	Name	
800060	EMX-7150-CF1	EMX-7150, clamp,USB Stick,cal Adapter
800070	EMX-7150-CF2	2x EMX-7150, shock-mount,USB Stick,cal Adapter
800080	EMX-7150-CF/MP	2x EMX-7150, clamps,USB Stick,cal Adapter
800081	EMX-7150-CF/MT	3x EMX-7150, clamps,USB Stick,cal Adapter
800082	EMX-7150-CF/MQ	4x EMX-7150, clamps,USB Stick,cal Adapter
150010	EMX-7150	EMX-7150, clamp,

SOUND LEVEL CALIBRATORS



SOUND CALIBRATORS

SOUND CALIBRATOR SC-1

- 9V battery powered
- 94dBspl 110dBspl switchable
- 1/4" or 1/2" or individual adapters
- stainless steel body



General description

The SC-1 sound calibrator is a one frequency dual amplitude, self contained field calibrator that quickly and also precisely verifies the accuracy and the sensitivity of microphones. The unit generates a 1kHz reference tone at 94 and 110 dB SPL. The calibrator uses a single 9 Volt battery.

The SC-1 consists of a amplitude switchable constant frequency oscillator, a transducer and a microphone coupler. The coupler accepts a large variety of microphones. Separate 1/2", 1/4" and 8mm adapters are available (others upon request).

Regulation of the SPL-output is inherently provided against battery drain.

Specifications

- output frequency 1kHz \pm 0.2%
- output amplitude switchable 94dB / 110dB
- accuracy \pm 0.5dB @ 20°C [68°F] and 1013mbar [760mm Hg]
- Operating Temperature -5°C to 55°C [40°F to 130°F]

- Temperature drift Coefficient of SPL is -0.08 to -0.012 dB/K
- Humidity 5 to 95% relative humidity
- Power supply: 9V standard transistor battery (Low Batt control)
- Construction Solid state integrated circuitry in stainless steel/plastic housing
- Size: dia 40mm [1.57"], x 132mm [5.24"]

Theory of operation

The oscillator is a crystal stabilized squarewave oscillator followed by a squarewave to sine converter. Automatic gain control and temperature compensation are built-in. The oscillator output drives the transducer and is converted to sound.

Version with MB-190 BOX (case)



Ordering information :

Order No.	Name
230111	SC-1 + CA-1/2 + CA-1/4 Sound Calibrator
230112	SC-1 + CA-1/2 + CA-1/4 + case Sound Calibrator
230110	SC-1 Sound Calibrator
230210	CA 1/4 Adapter
230220	CA 1/2 Adapter
230230	CA 8 Adapter
230290	CA cust, specify diameter