

NEW - SIS 190 double

Customer Benefit - Measurements without Interruption



The sound intensity probe SIS 190 double allows a simultaneous sound intensity measurement in a very large frequency range. For this purpose an arrangement of one one-dimensional 1/2" sound intensity probe and one one-dimensional 1/4" sound intensity probe is formed.

Due to its two-channel technology each individual Sound Intensity Probe makes it possible not only to measure sound pressure levels but also to record the sound pressure gradient which is needed to calculate the sound intensity. The SIS 190 double consists of the Measuring Microphone Capsule Pairs MK 290 E (2x MK 222 E) and MK 390 E (2x MK 301 E) with matched phase response and frequency response. Due to the use of the 1/4" Measuring Microphone Preamplifiers MV 310, sound field distortions (shadowing and diffractions) are minimal. The distance between the microphone pairs is defined by spacers (6 mm, 50 mm). These enable measurements in a frequency range between 35 Hz and 12 kHz.

The quality of conformance between the microphone pairs with regard to their transforming functions is measured in compliance with DIN EN 61043 and documented as Minimum pressure-residual intensity index for probes. Each microphone capsule pair comes with a measuring protocol. It shows the tolerance limits for **class 1** probes.

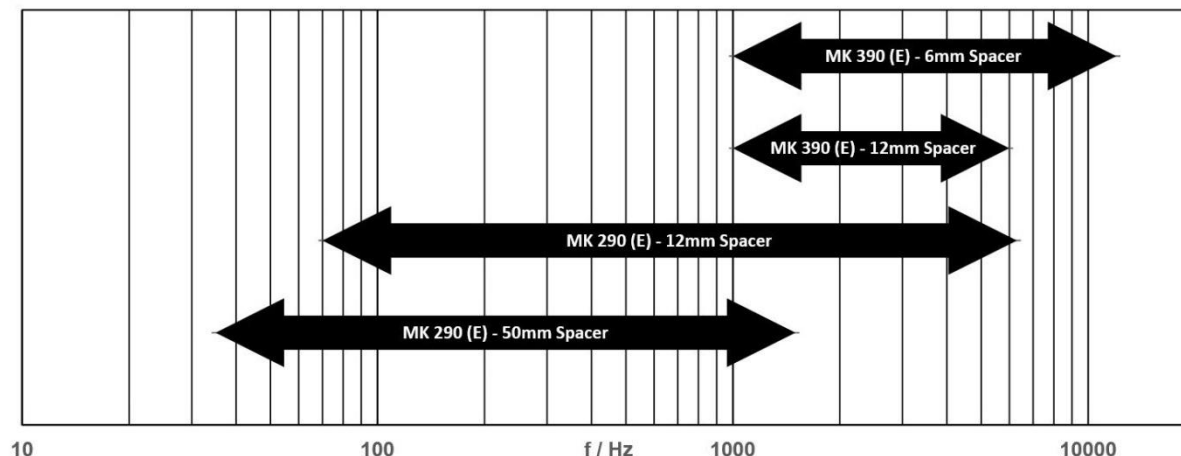
Product contents

SIS 190 double, **IEPE*/ICP®**, Measuring microphone preamplifiers 1/4" MV 310, Measuring microphone capsule pair 1/2" MK 290 E, Measuring microphone capsule pair 1/4" MK 390 E, 2 Adapter A 69.1 1/2"-1/4", Spacer 1/2" 50 mm, Spacer 1/4" 6 mm, Output 10-pin LEMO, connects to a handle, Case in aluminium



Frequency curves

frequency ranges



Technical data

pre-amplifier

Current consumption

Transducer excitation voltage

Frequency range

Range of tolerance RL=100k; Ce=3.3nF; Ce=22pF

RL=100k; Ce=5,6pF

Gain

RL=100k; Ce=22pF

RL=100k; Ce=22pF

RL=100k; Ce=22pF

RL=100k; Ce=5.6pF

RL=100k; Ce=5.6pF

RL=100k; Ce=5.6pF

Input impedance

Output impedance

Inherent noise

A-weighted; RL=100k; Ce=22pF

linear 20Hz to 20 kHz; RL=100k; Ce=22pF

A-weighted; RL=100k; Ce=5.6pF

linear 20Hz to 20kHz; RL=100k; Ce=5.6pF

Plug

microphone capsule

Polarization voltage

Frequency range

Open-circuit Sensitivity

Max. SPL ≤ 3% THD at 1 kHz

Inherent noise A-weighted

microphone capsule

Polarization voltage

Frequency range

Open-circuit Sensitivity

Max. SPL ≤ 3% THD at 1 kHz

Inherent noise A-weighted

MV 310

2 to 10 mA

24 to 30 V DC

20 Hz to 100 kHz

±0.1 dB

±0.4 dB

-1.0 dB @ 5 Hz

-0.5 dB @ 1 kHz

-0.7 dB @ 10 kHz

-5.0 dB @ 5 Hz

-2.0 dB @ 1 kHz

-3.0 dB @ 10 kHz

10 GOhm; <0.4 pF

<100 Ohm

1.7 µVrms

4.2 µVrms

3.8 µVrms

11 µVrms

MALCO-Microdot; 10-32 UNF-2A

MK 290 E

0 V

35 Hz to 1.5 kHz

50 mV/Pa

146 dB

16 dB

MK 390 E

0 V

1 kHz to 12 kHz

4 mV/Pa

158 dB

36 dB

Accessories

accessories

cabel



BNC.02
BNC cable
black
order number: 302219



BNC.05
BNC cable
black
order number: 302220



BNC.1
BNC cable
black
order number: 302221



BNC.2
BNC cable
black
order number: 302222

for sound intensity probes



HG 90 SD
Handle for SIS 190 double
black
order number: 305049



Case in aluminium
Case in aluminium
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order number: 702002