

# GRAS 50GI-R

CCP Intensity Probe with  
Remote Control



Freq range: IEC 61043 Class 1  
Dyn range: 27 dB(A) to 163 dB  
Sensitivity: 12.5 mV/pa

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The 50GI-R is a sound intensity probe for direct connection to signal analyzers or data acquisition devices with IEPE inputs. The probe includes a pair of phase-matched prepolarized precision microphones which meet the requirements in IEC standard 61043 for a class-1 intensity probe. The small rugged ¼" CCP preamplifiers ensure minimum disturbances to the sound field for accurate measurements in the full frequency range.

## Typical Applications and Uses

- Sound intensity measurements
- Sound source location
- Sound power measurements
- IEC 61043 standard measurements
- Sound source ranking
- Sound intensity mapping

## Design

The probe set includes solid interchangeable spacers for microphone separations from 12 mm to 100 mm so that the probe can cover the frequency range from 50 Hz to 10 kHz.

All components are made specifically for sound intensity applications. Each small ¼" diameter by 40 mm long microphone preamplifier is housed in a robust stainless steel casing, which enables novel probe designs for reducing disturbances to the soundfield otherwise brought about by the effects of shadows and diffraction, and a symmetry which enables reliable calibrations as described in the proposed standard (ISO/DIS 9614-2) for sound power measurements using sound intensity measurements.

The 50GI-R CCP Intensity Probe comprises a 40GK sound Intensity Microphone Pair, two 26CB CCP Microphone Preamplifiers, four solid spacers of various lengths, windscreen, and probe handle with remote control.

The 50GI-R is delivered in a carrying case as a ready-to-use kit, complete with all the above accessories. The microphones are ½" free-field prepolarized microphones with a uniquely-designed pressure equalization system which ensures extremely well defined phase characteristics.

The microphones and preamplifiers are mounted on a swivel head on the telescopic arm of the Remote control handle. To cover the full frequency range

from 50 Hz to 10 kHz, the 50GI-R probe is delivered with four solid spacers for spacing the microphones at 12 mm, 25 mm, 50 mm and 100 mm. These spacers can be easily interchanged without dismantling the probe.

Frequency range ( $\pm 2$ dB)	Hz	IEC 61043 Class 1
Weight	g / oz	400 / 14.110

GRAS Sound & Vibration reserves the right to change specifications and accessories without notice.

## Included

<a href="#">GRAS 40GK</a>	Microphone set
<a href="#">GRAS 26CB Set</a>	¼" CCP Preamplifier
	Spacers
<a href="#">GRAS RA0003</a>	Adapter for 1/2" microphone and 1/4" preamplifier
<a href="#">GRAS RA0001</a>	Right-angled (90°) Adapter for 1/2" microphone and 1/4" preamplifier
GRAS AA0021	5 m cable for Intensity Probe
GRAS AC0024	Adapter Cable for CCP Intensity Probe
GRAS AA0084	Cable, SMB-Microdot, 30 cm (male-male)
GRAS KE0132	Serial to USB Adapter
GRAS AI0048S	Probe handle
<a href="#">GRAS AI0001</a>	Windscreen

## Optional

<a href="#">GRAS 51AB</a>	Phase Calibrator according to IEC 61043
<a href="#">GRAS 42AP</a>	Intelligent Pistonphone, Class 0
<a href="#">GRAS RA0024</a>	Coupler for two-port Calibration

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# | We Make Microphones

## Tradition

Since the establishment in 1994, GRAS has been 100% dedicated to developing and manufacturing high-quality measurement microphones and related acoustic equipment.

## Innovation

We work with everybody with an interest in sound or noise within the fields of aerospace, automotive, audiology, consumer electronics, noise monitoring, building acoustics and telecommunications.

## Quality

At GRAS we know that in order for you to trust your measurement results; signal quality, stability and robustness are essentials. We design and build them to perform under real life conditions – and beyond.

