

GRAS 40PH-10

CCP Free-field Array Microphone



Cost-effective free-field microphone for general-purpose measurements in arrays and matrices with a nominal sensitivity of 50 mV/Pa. It has a wide frequency range up to 20 kHz and a dynamic range from 33 dB(A) to 135 dB. Its integrated CCP preamplifier and built-in TEDS enables it to be used with TEDS compatible input modules.

GRAS 40PL-10

CCP Free-field Array Microphone, High Pressure



Cost-effective microphone for general-purpose measurements in arrays and matrices with a nominal sensitivity of 9 mV/Pa. It has a wide frequency range up to 20 kHz and a large dynamic range from 33 dB(A) to 142 dB. Its integrated CCP preamplifier and built-in TEDS enables it to be used with TEDS compatible input modules.

GRAS 40PL-11

CCP Free-field Array Microphone, High Pressure, Short



40PL-11 is a short version of 40PL-10. The specifications are the same, but it is only 34 mm long.

Specifications	40PH-10	40PL-10/40PL-11
Sensitivity at 250 Hz	50 mV/Pa (nominal)	9 mV/Pa (nominal)
Dynamic Range		
Lower limit	< 33 dB(A) re. 20 µPa	< 33 dB(A) re. 20 µPa
Upper limit	135 dB re. 20 µPa	142 dB re. 20 µPa
Frequency Range		
± 1.5 dB	50 Hz – 5 kHz	50 Hz – 5 kHz
± 2 dB	10 Hz – 20 kHz	10 Hz – 20 kHz
Phase match (50 Hz – 5 kHz)	±5°	±5°
Output Impedance	< 50 Ω	< 50 Ω

GRAS 67AX

ø40 cm CCP Ground Array Microphone Kit



The GRAS ground array kits are developed for fixed-wing aircraft and rotorcraft flyover measurements in phased arrays, where the noise is mapped for research or approval purposes.

The design offers a practical alternative to the conventional up-side-down microphone setup. They are based on customized version of the 47AX flush-mount pressure microphone set, integrated into a ø40 cm POM plate, which is easy to position and calibrate in the field.

Includes the GRAS 47AX-S1 ½" CCP Flush-mount Microphone Set, which is a rear-vented version of 47AX.

Specifications	47AX
Nominal Sensitivity	12.5 mV/Pa at 250 Hz
Frequency Response	3.15 Hz – 20 kHz (± 2.0 dB) 5 Hz – 12.5 kHz (± 1.0 dB)
Dynamic Range	Upper limit; 150 dB re. 20 µPa (3% distortion) Thermal noise; 22 dB(A) re. 20 µPa
Temperature	- 30°C to + 70°C (operation) - 40°C to + 85°C (storage)
Static Pressure Coefficient	-0.008 dB/kPa (250 Hz / 25°C)
Dimensions	Diameter; Microphone: 12 mm—Preamplifier: 18 mm
Height of Microphone Set	With grid: 9.2 mm / Without grid: 8 mm
Weight	9 g

