

Ring72 AC Pro

72 CHANNEL SYSTEM FOR VARIOUS MEASUREMENT SCENARIOS



The 72 channel ring array is primarily designed for 2D measurements in acoustic laboratories, but also for outdoor measurements of larger objects. The light carbon structure ensures easy handling and quick, precise array positioning.

The ring geometry ensures the greatest versatility and best possible local resolution of the acoustic map. Depending on your requirements, 100 cm and 140 cm diameter ring array models can also be provided with the same amount of channels.

The array comes with an integrated Intel® RealSense™ Depth Camera which features Full HD resolution and the ability to record depth information.

BENEFITS

- Sources can be found independently of the set focus without acoustic smearing
- Easy handling and accurate microphone positioning
- Robust against acoustic focus errors
- Very precise sound source localization to see all sources in one acoustic map
- Suitable for diverse measurement scenarios

APPLICATIONS

- Innovative tool for fault detection and quality control
- Sound localization based on variations in sound emissions
- Engine measurements
- Troubleshooting for larger objects

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TECHNICAL DATA

Size and Weight

Array-body diameter	120 cm
Weight	4 kg

Features

Video camera	Intel® RealSense™ Depth Camera D435
	Optional: Baumer VLG-22C
Resolution	1920 x 1080 (Full HD)

Operating Conditions

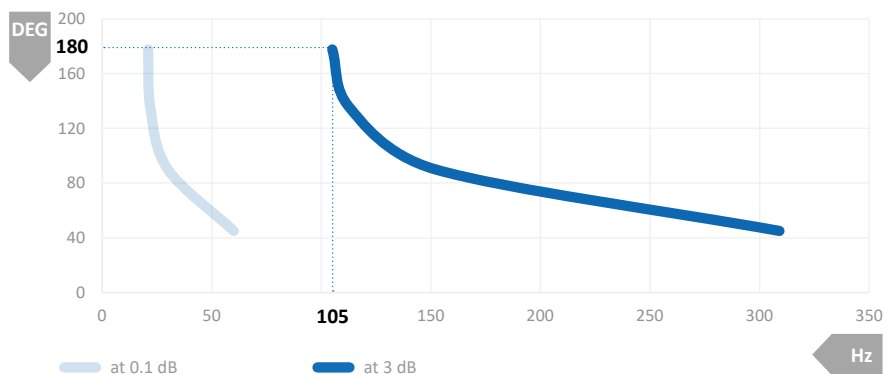
Ingress protection code	IP20
Cable length to data recorder	Up to 20 m (on request: 50 m)
Operating environment	0°C – 35°C, up to 80% RH (RealSense) 0°C – 45°C, up to 80% RH (Baumer)

Microphone Data

Microphones	Electret condenser capsule + special designed preamplifier
Frequency response	100 Hz – 15 kHz (< 0.5 dB) 20 Hz – 20 kHz (< 3 dB)
Max. sound pressure level	130 dB Peak at 3% THD
Noise level	27 dB(A)
Sensitivity	20 mV/Pa

Array Data

Channels	72
Recommended measurement distance	> 0.5 m
Acoustic map range	10 dB – 130 dB
Recommended mapping frequencies	105 Hz – 20 kHz (60 kHz)
Dynamic range*	8 dB – 12 dB, up to 50 dB with Advanced Algorithms



Calculation of the lowest frequency (Hz) at 180° opening angle (DEG)

* Distance to the source: 1 m; calculation points: 90,000