

Star48 AC Pro

48 CHANNEL SYSTEM FOR OUTDOOR MEASUREMENTS



The Star48 array is our largest preconfigured array and particularly suitable for outdoor measurements of large objects. The lightweight folding aluminum body of the array ensures a stable and safe setup by just one person.

The array has 48 interference-resistant microphone channels. The recommended measurement distance ranges from four meters up to several hundred meters, depending on the spectral content of the measured acoustic signal and ambient conditions.

Large objects can be measured and analyzed via time and frequency domain acoustic beamforming using the same methods as our smaller microphone arrays. Analysis can be performed quickly using NoiseImage software.

The Star48 features a Baumer VLG-22C camera to provide ideal reference images for acoustic measurement tasks.

BENEFITS

- Easy handling and accurate microphone positioning
- Distinct array pattern aids in troubleshooting even with non-ideal focus measurements
- Slim aluminum array body
- > -23 dB backward attenuation

APPLICATIONS

- Environmental noise control
- Pass-by measurements of vehicles
- Airplane Fly-Overs
- Wind tunnel measurements
- Applications with low to mid-range acoustic frequency



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TECHNICAL DATA

Size and Weight

| | |
|---------------------|--------|
| Array-body diameter | 3.4 m |
| Weight | 7.4 kg |

Features

| | |
|--------------|--------------------------|
| Video camera | Baumer VLG-22C |
| Resolution | 1920 x 1080 (Full HD) |



Operating Conditions

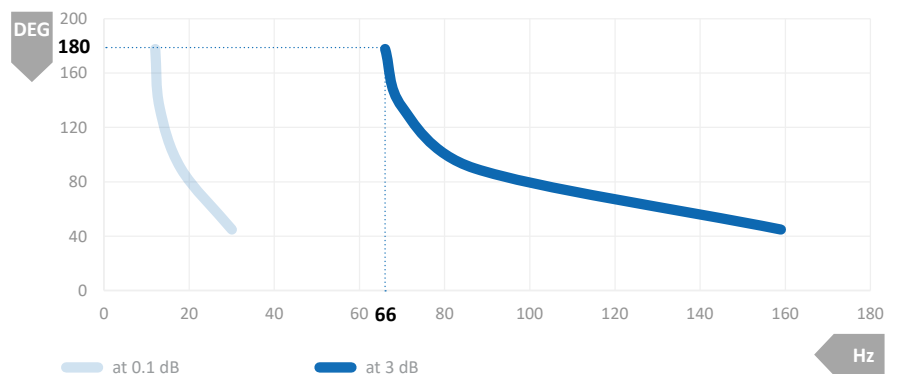
| | |
|-------------------------------|------------------------------|
| Ingress protection code | IP20 |
| Cable length to data recorder | Up to 20 m (on request: 50m) |
| Operating environment | 0°C - 45°C, up to 80% RH |

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 | 48 |
| Recommended measurement distance | > 4 m |
| Acoustic mapping range | 12 dB – 130 dB |
| Backward attenuation/suppression | > -23 dB |
| Recommended mapping frequencies | 66 Hz – 13 kHz |
| Dynamic range* | 7 dB – 9 dB, up to 50 dB with Advanced Algorithms |



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

* Distance to the source: 7 m; calculation points: 90,000