The CAE Acoustic Compass is a 3D sound intensity probe that is able to measure from low frequencies to high frequencies in 3D. The output of the analysis is a spectrum with amplitude and direction of incidence for each frequency line. The Noise Inspector software shows the direction and the intensity on the 3D display. Intensity measurement systems have a very high dynamic range as there is no algorithm and no beampattern limiting this range.

Features

- Online analysis
- Localization in small spaces
- Ultramobile
- Easy to use – like a compass
- 3D intensity measurement
- Usage from 40 Hz to 4 kHz

Application

- NVH
- Squeak and rattle
- Noise leakage detection
- Machinery acoustic
- Cabin acoustics
- For transient and stationary noise sources

Acoustic Compass

Array Size from
Array Material
Weight (excl. Tripod)
Intensity Probes
Sample Rate
Mic. Frequency Range
Operating Range
Analysis Dynamic Range
Source distance
Resolution
Interface E
Operating Temperature
Operating Humidity

40 mm x 40 mm
Composite Material
0.5 kg
28
48 kHz
10 Hz to 24 kHz
< 33 dB to 120 dB
up to 30 dB
0.01 m to infinity
24-Bit
Ethernet
-40 °C to +60 °C
Non Condensing
Noise source is to the right direction of the probe (3D multiple point)

8 microphones result in 28 intensity probes

Localized sound source (3D multiple points) Each point represents one frequency line, direction and amplitude (color)

Noise source (cell phone) is in front of the probe (3D single point)

8 microphones Localized sound source (3D single point)