

MPAC128 Series Acoustic Imager



- 128 Microphone array
- Detection frequency up to 48 kHz
- Detection range up to 120 m
- 8 MP optical camera resolution
- 7" screen
- Intelligent Analytics
- Ultrasonic monitoring

DESCRIPTION

MPAC128 Series: Cutting-Edge Gas Leak Detection

MPAC 128: Locate gas leaks and partial discharge threats swiftly and precisely with Megger's MPAC 128. Equipped with 128 sensors, this high-resolution acoustic imager enables clear visualisation of gas, pressure, and vacuum leaks, as well as electrical partial discharge from safe distances up to 120 meters away. With an IP54 rating, it ensures accurate targeting for repairs, preventing safety hazards, production disruptions, and losses, ultimately saving valuable time, energy, and resources.

The MPAC 128 series also packs impressive reliability with the units ingenious self-check function, meticulously verifying internal components' integrity and guaranteeing flawless operation of the microphone array, providing unwavering performance day in, day out.

The MPAC 128-ATEX is designed for hazardous Zone 2 areas, and provides ATEX-certified safety without compromising performance. Identifying gas, pressure, and vacuum leaks, as well as corona, arcing, and partial discharge faults up to 120 meters away, including challenging areas, this model ensures prompt action to restore safety and system integrity in finished products, process plants, and electrical installations.

FEATURES

- Detects multiple gas types and pressurised gas leaks with ease.
- Simple operation with only two parameters to set.
- Provides leak rate quantification for cost estimation.
- Phase Resolved Partial Discharge (PRPD) for discrimination between different types of partial discharge.
- Focus function reduces unwanted noise in noisy environments.
- Converts ultrasonic monitoring sounds to audible sounds for pinpointing leaks.
- Expandable storage for storing results, images, and videos on site.
- Easy update firmware to latest version via the USB-C memory stick or microSD card.
- Free Acoustic Analysis software.

With the MPAC128 series, experience unparalleled precision and efficiency in gas leak detection, aid maintenance planning and prevention of catastrophic events, ensuring safety and reliability in various industrial applications.

MPAC128 Series Acoustic Imager

- Detection frequency: 2 kHz to 48 kHz
- Detection range: 0.3 to 120 m
- Optical camera resolution: 8 megapixels
- Leak detection rate:
 - 1 m 7 bar 0.37 ml/s
 - 10 m 7 bar 0.7 ml/s
- Microphones in array: 128
- Sound image field of view
 - Horizontal: 62°
 - Vertical: 48°
- Meets IP54

SPECIFICATIONS

| | |
|--|---|
| Ease Of Use | Intuitive user interface and touch screen |
| Trend Graphs | Frequency and dB scale |
| Cursor information | dB level reading at centre point of the image |
| Supported Languages | English, Dutch, French, Chinese, German, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish |
| Sensors | |
| Microphone Array | 128 channels MEMS microphone |
| Frequency Band | 2 kHz to 48 kHz |
| Dynamic Range | 0.5 dB to 12 dB (user adjustable) |
| Sound Image | |
| Field of View (FOV) | Horizontal: 62° Vertical: 48° |
| Nominal Frame Rate | 25 fps (min) Note: frames per second is a measure of how quickly the image on the screen is refreshed each second. |
| Test Sound Pressure Level Range | 25.7 dBA to 132.5 dBA |
| Acoustic measurements | |
| Detect distances | 0.3 m to 120 m |
| Leak detection rate | 1 m 7 bar 0.37 ml/s 10 m 7 bar 0.7 ml/s |
| Number of digits | 24-bit |
| Auto max/min dB gain | User-selectable, minimum test bandwidth 1 kHz |

| | |
|----------------------------|----------------------------------|
| Camera | |
| Camera Focal Length | 3.04 mm fixed focal length |
| Camera Image | |
| Field of View (FOV) | Horizontal: 62° Vertical: 48° |
| Saved Picture Zoom | Manual |
| Resolution | 8 megapixels |
| Display | |
| Resolution | 1024 x 600 |
| Size | 7 inches |
| Brightness | Adjustable |
| Touchscreen | Capacitive touch screen |
| Standard palettes | Grayscale, Ironbow, Rainbow |

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|---|--|
| Storage | |
| Internal Storage | 8 GB Storage capacity subject to change based on software version |
| Image Format | JPG |
| Audio Format | WAV |
| Video Format | mp4 |
| Video Length | 5 min |
| Digital Export | microSD card/USB-C memory stick |
| Battery | |
| Battery Capacity | 6600 mAh, 7.2 V Rechargeable Li-ion |
| Battery Life | ~ 4 hours under full load state |
| Charge | USB Type-C port Output: USB-C 5.0 V 3.0 A. Rated input: 100 240 VAC, 50/60 Hz, 1.2 A |
| Power Consumption | 29 W max |
| Energy management | User selectable Sleep/Auto power off |
| Environmental | |
| Operating Temperature | -20 °C to +50 °C |
| Relative Humidity | 10% to 95% (no condensation) |
| Storage Temperature | -20 °C to +60 °C |
| Charging Temperature | 10 °C to +45 °C |
| Restriction of Hazardous Substances (RoHS) Compliant | Yes |
| Mechanical | |
| Colours | MPAC128: Grey, Black and White MPAC128-ATEX: Grey, Black and Red |
| Size | 272 x 174 x 42 mm |
| Weight | 1.7 kg |
| Ingress Protection (IP) | IP54 |
| Warranty | 2 years |

MPAC128 Series

Acoustic Imager

Safety

General Safety IEC 61010-1

Electromagnetic Compatibility (EMC) International

IEC 61326-1: Portable
Electromagnetic Environment
IEC 61326-2-2
CISPR 11: Group 1, Class A

ATEX

IEC 60079-0, IEC 60079-11
II 3G Ex ic IIC T5 Gc

Software

Report types Gas/Electricity, ISO 50001-compliant

Analysis Waveform, spectrum, spectrogram,
leakage assessment, discharge type
discrimination

ORDERING INFORMATION

| Description | Part number | Description | Part number |
|---------------------------------------|-------------|-------------------------------|-------------|
| MPAC 128-ATEX acoustic imaging camera | 1015-885 | Included accessories | |
| MPAC 128 acoustic imaging camera | 1015-886 | Hand straps | |
| | | Shoulder strap | |
| | | Universal mains charger | |
| | | USB-C charge cable | |
| | | Headphone | |
| | | Protective box | |
| | | 8 GB microSD card | |
| | | USB-A microSD card reader | |
| | | 8 GB USB-C/USB-A memory stick | |
| | | Cleaning tool | |

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