

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

MPAC 128 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 MPAC 128 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
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
MPAC128-ATEX acoustic imaging camera	1015-885	Included accessories	
MPAC128 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	

**MPAC128-
MPAC128ATEX_DS_en_V01**

ISO 9001
The word 'Megger' is a registered trademark

Megger®