PLACID

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# ACCURATE & STABLE

PMP 21-1

## PLACID MEASUREMENT MICROPHONES

Discover a wide selections of our measurement microphones according to your sound measurement needs


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# PLACID PMP21-1

## Measurement Microphone Set

1/2" PRE-POLARIZED FREE-FIELD MICROPHONE, WITH PREAMPLIFIER, CLASS 1

## Specification

Frequency Range
20 Hz to 20 kHz

Dynamic Range
16 to 146 dB(A)

Nominal Sensitivity
50 mV/Pa

Measurement Microphone Set

The PMP21-1 is a 1/2" pre-polarized free-field microphone, classified per IEC 61094 as WS2F Class 1 with preamplifier.

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# Specification

## Basics

The PLACID PMP21 -1 is a high-precision condenser microphone manufactured in compliance with the IEC 61094-4 requirements and classified as a class 1 microphone. The PMP21-1 microphone is optimized for free-field measurements.
As all PLACID microphones, the PMP21-1 comes with an individually calibration certificate.

## Connectivity

The PMP21-1 measurement microphone set includes the PMP21 microphone and the PNP21 preamplifier

## Uses

The PMP21 -1 is a robust and stable measurement microphone set and is being used as an all-round free field measurement Microphone set suitable for laboratory as well as field jobs.

## Daily usage

PLACID recommends calibration before and after each measurement with a calibrator.

## Individual calibration

All PLACID measurement microphones set are being calibrated in a controlled laboratory environment using traceable calibration equipment complying with ISO17025 standards. We recommend that all PLACID microphones are re-calibrated every year to guarantee an optimized usage. PLACID Traceable Calibration is performed by our qualified staff and under controlled conditions according to the procedures and standards such as ISO17025

## Quality

All PLACID microphones are made of high-quality materials that will ensure long stability and durability.
The microphone diaphragm, body, and protection grid are made of high-grade stainless steel, which makes the microphone resistant to physical damage. PLACID offers 2 years warranty against defective materials and workmanship.

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# Datasheet PLACID PMP21 - 1 Measurement Microphone Set

| | |
|---|---|
| Class / type | 1 |
| Polarization | 0V |
| Frequency range | 20 Hz to 20 kHz |
| Dynamic range | 16 – 146 dB(A) |
| Nominal Sensitivity | 50 mV/Pa |
| Temperature range, operation | -30 – 75 Celsius |
| IEC 61094 Designation | WS2F Class 1 |
| Humidity operating Range | 0 to 90 % RH |
| Ventilation | Rear |
| Weight | 8.9 grams |
| Height | 17.3 mm |

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# PLACID PNP21

1/2" STANDARD PREAMPLIFIER

## Specification

Frequency Range

5.0 Hz to 100 kHz

Noise

< 2.0 µV

Usage

General purpose

The PLACID PNP21 1/2" Preamplifier is a robust preamplifier designed to be used for acoustic measurements with condenser microphones. The self-noise is very low, it has a wide dynamic range and frequency response.

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# Specification

## Design

All PLACID ICCP microphone preamplifiers are designed for ¼", ½" and 1" condenser microphones.
The preamplifiers are optimized to have a flat frequency response which will ensure high quality acoustic measurements.

## Self Noise

The electrical circuit has especially been designed to ensure a low self-noise level which typically be much lower than the self-noise of the microphone cartridge.

## Impedance

The PLACID PNP21 input impedance is over 5 Ω, the output impedance is less than 110 Ω .

## Daily usage

- General-purpose preamplifier
- High-frequency measurements
- High-pressure measurements

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# Datasheet PLACID PNP21 Preamplifier

| | | |
|---|---|---|
| Frequency Response (Ref. 250 Hz, 0.2 dB) | Hz | 5.0 to 100 kHz |
| Slew Rate | V/µs | 3.7 |
| Input Impedance | G Ω | > 5 |
| Output Impedance | Ω | < 110 |
| Max Output Voltage | Vrms | 8.0 |
| Noise (A-Weighted) | µV | < 2.0 |
| Noise (Linear 20 Hz – 20 kHz) | µV | < 6.0 |
| Gain | dB | - 0.27 |
| DC – offset, minimum | V | 15 |
| DC- offset, maximum | V | 24 |
| Power Requirement | mA | ICP 2 to 20 |
| Temperature operational range | Celcius | - 40 to 100 |
| Temperature storage range | Celcius | -40 to 100 |
| Humidity operational range noncondensing | % Rh | 0 to 98 |
| Output Connector Type | | BNC |
| Diameter | Inch | ½ |
| Weight | Gram | 25.5 |
| Length | mm | 84.5 |