



PLACID  
MEASUREMENT  
MICROPHONE

**PMP  
20-1**

# ACCURATE & STABLE

PLACID MEASUREMENT MICROPHONES

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

**Placid Instruments BV**

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# PLACID PMP20-1 Measurement Microphone Set

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



## Specification

### Frequency Range

20 Hz to 40 kHz

### Dynamic Range

25 to 155 dB(A)

### Nominal Sensitivity

12 mV/Pa

### Measurement Microphone Set

The PMP20 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 PMP20-1 is a high-precision condenser microphone manufactured in compliance with the IEC 61094-4 requirements and classified as a class 1 microphone.

The PMP20-1 microphone is optimized for free-field measurements. As all PLACID microphones, the PMP20-1 comes with an individually calibration certificate.

### Connectivity

The PMP20-1 measurement microphone set includes the PMP20 microphone and the PNP21 preamplifier

### Uses

The PMP20 -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 PMP20-1**



Class / type	1
Polarization	0V
Frequency range	20 Hz to 40 kHz
Dynamic range	25 – 155 dB(A)
Nominal Sensitivity	12 mV/Pa
Temperature range, operation	-30 – 75 Celsius
IEC 61094 Designation	WS2F
Humidity operating Range	0 to 90 % RH
Ventilation	Rear
Weight	6.8 grams
Height	12.3 mm



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# PLACID PNP21

1/2" STANDARD PREAMPLIFIER



## Specification

**Frequency Range**  
5.0 Hz to 100 kHz

**Noise**  
< 2.0  $\mu$ V

**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

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### 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/ $\mu$ s	3.7
Input Impedance	G $\Omega$	> 5
Output Impedance	$\Omega$	< 110
Max Output Voltage	V <sub>rms</sub>	8.0
Noise (A-Weighted)	$\mu$ V	< 2.0
Noise (Linear 20 Hz – 20 kHz)	$\mu$ V	< 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	$\frac{1}{2}$
Weight	Gram	25.5
Length	mm	84.5



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