MA231HT 1/2-inch High Temperature Preamplifier

Features:

- Suitable for 1/2-inch pre-polarized microphone
- ICCP power supply preamplifier
- Frequency response: 20 Hz ~ 100 kHz (±0.2 dB)
- Attenuation: 0.3 dB (typ.)
- Connector: BNC
- Optional TEDS (IEEE.1451.4)
- Suitable for high temperature measurement

Applications:

- Common acoustic measurement
- Environmental, industrial, traffic and other acoustic measurement

Introduction

MA231HT is 1/2-inch ICCP power supply high temperature preamplifier developed by BSWA, which is suitable for MP series 1/2-inch pre-polarized microphones. It is a low-noise and high-quality preamplifier that can be used in a variety of acoustic applications.

The main function of the preamplifier is impedance change, since the output impedance of the microphone is above GΩ, it cannot be directly connected to the common data acquisition equipment. The high input impedance and low output impedance of the preamplifier can reduce the output impedance of the microphone to less than 100 Ω.

MA231HT does not provide polarization voltage, so it is only applicable to pre-polarized microphone. The power supply mode named ICCP (Integrated constant current power) can operate on a constant current power supply and give output signals in the form of voltage modulation on the coaxial cable. This kind of power supply mode can keep a very low signal attenuation even using a long cable. The MC1xx series power supply conditioner is required.

MA231HT can choose to supply with TEDS to support read microphone information directly by data acquisition equipment, including microphone model, serial number, sensitivity, etc. BSWA TEDS microphone supports the IEEE 1451.4 standard. The version of 0.9 is used by default to be compatible with more data acquisition equipment. The version of 1.0 can also be selected according to user's requirements.

Specifications

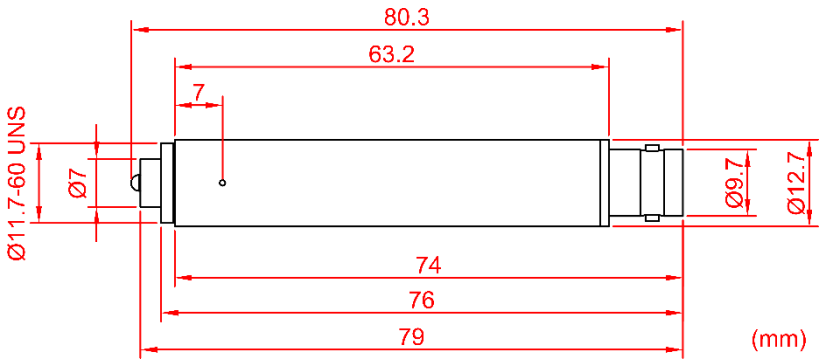
Diameter		1/2"
Polarization Voltage Support		0V (Prepolarized)
Frequency Response (Hz)		20 Hz ~ 100 kHz, ±0.2 dB 12.5 Hz ~ 100 kHz, +0.2 dB/-0.5 dB
Attenuation (dB)		0.3 (typ.)
Maximum Output Voltage (Vp)		±8
Self-generated Noise [1]	A-weighted	<3.5 μV (2.2 μV typ.)
	20 Hz ~ 20 kHz	<20 μV (10 μV typ.)
Input Impedance (GΩ ‖ pF)		6 ‖ 0.4
Output Impedance (Ω)		<30
Power Supply		ICCP (2mA ~ 20mA, 4mA typ.)
DC Bias Voltage (V)		12±2
Operating Temperature Range (°C)		-30 ~ 125

Operating Humidity Range (%RH)	0 ~ 95
Dimensions (mm)	Ø12.7 × 80.3
Mounting Thread for Microphone	11.7 mm-60 UNS
Output Connector	BNC
Weight (g)	27.3
TEDS	Optional, IEEE 1451.4 compliant (default v0.9, optional v1.0)

Note: Unless specified otherwise, all values were measured at 23 °C, 101.3 kPa, 50 %RH by using 1 meters coaxial cable, 4 mA / 24 V power supply and microphone capacitance of 15 pF.

Note 1: Self-generated noise will increase at high temperatures. Specific data to be determined.

Dimensions



BSWA Technology Co., Ltd. Room 1003, North Ring Center, No.18 Yumin Road, Xicheng District, Beijing 100029, China • Tel: 86-10-5128 5118 • Fax: 86-10-8225 1626 • E-mail: news@bswa.com.cn • URL: www.bswa-tech.com