



Multi-Function-Amplifier MFA 1000 with 1 MHz Bandwidth

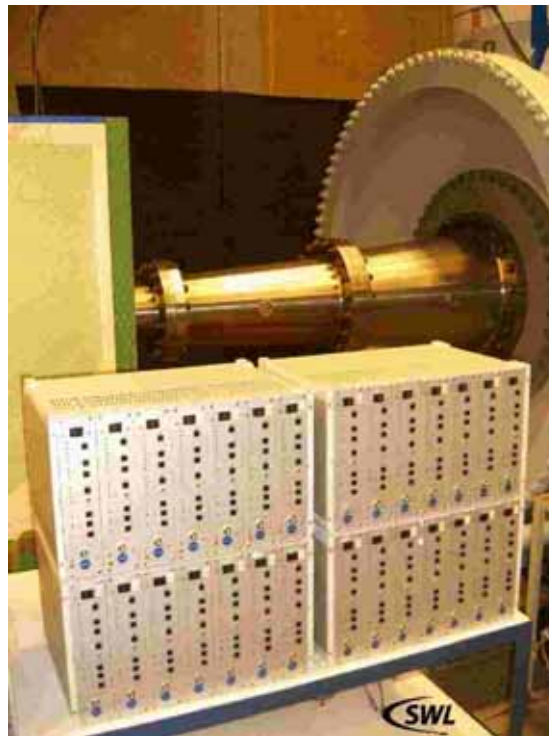
DC-Amplifier with Power Supply of Constant Voltage and Constant Current

Applications

This Multi-Function-Amplifier fulfils different tasks in one. First it is an amplifier with different eligible amplification factors. Second the device provides the sensors either with different constant voltages or with constant current. It is already successful for many years in amplification and supplying of thin film gauges, thermocouples, piezo resistant transducers or similar sensors. It is ideal for piezorestant pressure transducers like those from Kulite, Endevco or Entran as well as our thin film gauges or thermocouples.



Front and back panel



**Bank of 28 MFA 1000 at the Shock Wave Laboratory of the
University Aachen**

(By courtesy of Prof. Dr. H. Olivier, Shock Wave Laboratory, University
Aachen, Germany)

By its wide bandwidth up to 1 MHz this amplifier can be used for many measurements. So applications with film or DMS probes in a shock tube wind tunnel or aerodynamic experiments are possible.

Different probe voltages or current supplies can be chosen independently from the amplification factor. Two different input connectors make work with different sensor types easier. The handling of the amplifier with its LED display leads to a clear overview of all justifications.

Technical Data

Input voltage:	± 900 mV
Input stability:	Max. ± 18 V
Amplifier steps:	x1, x10, x100, x1000
Linearity:	± 0.1 % up to x100, ± 1 % up to x1000
Frequency limit:	>1 MHz for all settings
Rise time (10-90%):	< 300 ns
Noise:	< 12 µV to input
Over oscillation:	< 2%
Offset reset:	Automatic up to ± 2.5 V, manual eligible
Filter:	Low pass filter 50 kHz, eligible
Input impedance:	1 MOhm
Input connection:	IN1 BNC neg., IN2 Lemos 6 poles
Output connector:	BNC negative
Output voltage:	Max. ±10 V
Typical sensors:	Piezo resistant probes, thin film gauges, thermocouples, DMS sensors, etc.
Probe power supply:	Galvanic separated, switchable voltage: 5, 7, 10 or 15 VDC, max.150 mAh
Current:	5, 7 or 10 mAh ± 0.1%
Noise of current supply:	< 0.3 µAh eff. (10Hz>f>2Mhz)
Noise of voltage supply:	< 0.04 µV eff. (10Hz>f>2Mhz)
Display:	Optical signals with LED, up-down buttons
Housing:	262 (6HE) x 61 (12TE) x 262 mm
Weight:	2 Kg
Operating temperature range:	0° to 50°C
Mains:	230 V, 50 Hz ± 20% or 110 V, 60 Hz
Accessories:	19" rack for 7 amplifiers Lemos connector for input 2 (e.g. thin films gauges)

Article-No.:

200-100-1: Amplifier MFA 1000

200-190-7: 19" Rack for 7 amplifier

800-200-3: Lemos connector, 6 pole for thin film gauges

