

Specifications

ISOLATION AMPLIFIER BE560

Introduction

The Isolation Amplifier BE560 is a complete stand-alone isolated amplifier of modular construction for professional low and medium voltage measurement applications.

The instrument is an ideal solution to protect your measurement system and yourself against hazardous voltages. The instrument can be used in combination with data acquisition systems, waveform analyzers, data loggers, oscilloscopes and PC-based instrumentation.

Each isolated amplifier system is divided into three distinct sections:

- The amplifier stage is built around a floating amplifier with five selectable input ranges and provides a 1500 Volt DC isolation barrier. By using digital

modulation the barrier characteristics do not affect signal integrity, resulting in excellent reliability and good high frequency transient immunity across the barrier.

- A filter section is used to minimize power supply feed through noise and to remove carrier ripple.
- The output section is designed with a short-circuit protected output buffer.

One to 16 pieces of single channel input modules can be installed in one of three different housings.

Additional accessories complement the functionality of this versatile instrument.

Features

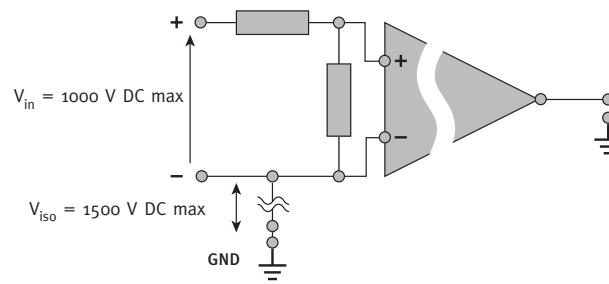
- Three different mainframes
- Modular, up to 16 channels
- 1500 Volt isolated amplifiers
- Isolated, floating, unsymmetrical inputs
- ± 100 mV to ± 1000 V input ranges
- 50 kHz bandwidth
- Filtered, short-circuit protected, low voltage outputs, ± 10 V
- Stand-alone instrument for a variety of applications
- Perfect front end for GEN DAQ products in LV or MV applications as well as for shunt measurements

Applications

- Isolator for transducers, thermocouples, RTD's, etc.
- Isolated, off ground shunt measurements
- Ground loop elimination
- Power line monitoring
- Protection against hazardous voltages
- PC-based data acquisition
- PC-based (industrial) process control



The eight channel portable mainframe provides a cost effective solution for input ranges of up to 1000 V.



BE560 input diagram



Specifications

Input

Input Ranges	5 ranges: ± 100 mV; ± 1 V; ± 10 V; ± 100 V; ± 1000 V Maximum 1000 V DC or PK ÷ 100 to x 100
Gain Protection	Against incorrect gain setting up to maximum input
Impedance	> 1 MΩ
CMRR	> 150 dB* (DC to 60 Hz)
Bandwidth	DC - 50 kHz (-3 dB)

*@ Input range +/- 100 mV

Accuracy

Gain Accuracy	± 0.25 % FS
Linearity	± 0.02 % FS
Offset	< 200 μV
Offset Drift	< 10 μV / °C RTI**
Gain Drift	< 0.01 % / °C
Stability	< 0.1 % change over 12 months
Noise	< 20 μV pk-pk (DC - 50 kHz) RTI**

**RTI = referred to input

Isolation

Voltage	1500 V DC or peak (tested 5s @ 2500 V)
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Output

Voltage Range	± 10 V
Signal Filter	3 pole Butterworth (60 dB/decade)
Noise	< 2 mV RMS DC - 50 kHz
Offset	< ± 15 mV
Offset Temp Coefficient	< 1 mV/ °C
Load	> 5 kΩ minimum

Temperature

Operation	0 - 50 °C
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Power Supply

Voltage Selection	115/230 VAC, 50-60 Hz
Power	Through rotary switch on the back panel 8 slot mainframe fully loaded: 25 VA max. 16 slot mainframe fully loaded: 50 VA max.

Connector

Input	2 x 4 mm Safety-Banana per channel
Output	1 BNC per channel

All connectors are located on the back panel

Mechanical

Dimensions

8 slot Mainframe	220 x 350 x 90 mm (W x D x H) (8.7" x 13.8" x 3.5")
16 Slot Mainframes	450 x 350 x 90 mm (W x D x H) (17.7" x 13.8" x 3.5")

The 16 slot mainframe is available in a portable and in a rack mount version.

Weight (fully loaded)

8 slot Mainframe	3.1 kg (6.8 lb)
16 slot Mainframes	6 kg (13.2 lb)



For user convenience, all input and output connectors are located on the same side.



The 16 slot housing is available as benchtop or rackmount version.

Head Office
HBM GmbH
Im Tiefen See 45
64293 Darmstadt
Germany

Tel: +49 6151 8030
Email: info@hbm.com

France
Sales Office
LDS Test and Measurement SARL
9 ave du Canada, Les Ulis, BP 221
91942 Courtaboeuf Cedex

Tel: +33 (0)1 64 86 45 45
Email: info@hbm.com

Germany
Sales Office
LDS Test and Measurement GmbH
Carl-Zeiss-Ring 11-13
85737 Ismaning

Tel: +49 89 92 33 33 0
Email: info@hbm.com

UK
Sales Office
HBM United Kingdom Limited
1 Churchill Court, 58 Station Road
North Harrow, Middlesex, HA2 7SA

Tel: +44 (0) 208 515 6100
Email: info@uk.hbm.com

USA
Sales Office
LDS Test and Measurement LLC
8551 Research Way, M/S 140
Middleton, WI 53562

Tel: +1 (608) 821 6600
Email: info@hbm.com

PR China
Sales Office
LDS Test and Measurement
Room 2912, Jing Guang Centre
Beijing, China 100020

Tel: +86 10 6597 4006
Email: info@hbm.com

