

IMPULSE HAMMERS FOR STRUCTURAL DYNAMIC BEHAVIOR ANALYSIS



IH101 Series

Starts at
\$870



- ✓ Ideal for Generating Known Impulse Forces for Structural Analysis
- ✓ Acceleration Compensated for Accurate Force Measurement
- ✓ Calibration Certificate Supplied
- ✓ Includes Aluminum, Plastic, and Rubber Impact Tips

OMEGA's IH101 impulse hammer imparts motion to a test structure with the hammer tip, while simultaneously measuring the magnitude of the impact. This allows for analysis of the dynamic response of the structure being tested. Accelerometers mounted at various locations on the test structure measure the response of the structure. If a spectrum analyzer or a computer is used, input/response data can display transfer functions and perform modal analysis. The hammer is acceleration compensated, which means that it responds solely to force and is unaffected by the vibration in the hammer head after impact.

SPECIFICATIONS

Excitation: 2 mA nominal @ 18 to 30 Vdc, constant current

Rated Output: 5 V nominal FS

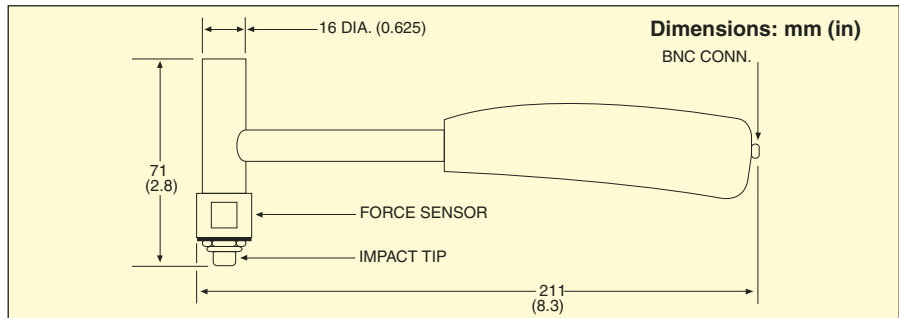
Resonant Frequency (@ No Load): 50 kHz

Discharge Time Constant:

5 s (IH101-10), 20 s (IH101-50), 50 s (IH101-100), 170 s (IH101-500), 300 s (IH101-1K)



IH101, \$870, shown actual size.



Maximum Force:
1000 lb (IH101-50)
1000 lb (IH101-100)
1000 lb (IH101-500)
2000 lb (IH101-1K)
Stiffness: 8.0 lb/ μ in
Amplitude Linearity: $\pm 1\%$ FS (BSFL/0)
Temperature Range:
-75 to 120°C (-100 to 250°F)
Temperature Sensitivity Effect:
0.054% FS/°C (0.03% FS/°F)
Output Impedance: 100 Ω
Bias Voltage: 10 V nominal
Head Weight: 100 g

Total Weight: 190 g nominal
Material:
Sensor: 17-4 SS
Head: 303 SS
Handle: Fiberglass with rubber grip
Overall Length: 210 mm (8.3")
Impact Tip Diameter: 6.3 mm (0.25")
Head Diameter: 16 mm (0.62")
Connector: BNC (cable not included; order model no. **ACC-CB4**)
Calibration: Dynamic comparison by impact against NIST force sensor

MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)		
MODEL NO.	PRICE	RANGE (lb)
IH101-50	\$870	0 to 50
IH101-100	870	0 to 100
IH101-500	870	0 to 500
IH101-1K	870	0 to 1000
ACC-CB4-6	65	1.8 m (6') BNC to BNC cable required

Accessories: ACC-CB4-6 (required), extension cable, ACC-PS1, power supply, ACC-CB6, BNC/pigtail cable (see page K-22), \$65 +205 +15 = \$285.

Ordering Example: IH101-50, impact hammer, \$870.

Note: See pages K-20 through K-22 for details on the above power supplies and cables.

ACCESSORY

MODEL NO.	PRICE	DESCRIPTION
ME-1746	\$190	Reference Book: Handbook of Machinery Dynamics

omega.co.uk[®]

Your One-Stop Source for Process Measurement and Control!

Freephone 0800 488 488 | International +44(0) 161 777 6622 | Fax +44(0) 161 777 6622 | Sales@omega.co.uk

www.omega.co.uk



UNITED STATES

www.omega.com

1-800-TC-OMEGA
Stamford, CT.

CANADA

www.omega.ca

Laval(Quebec)
1-800-TC-OMEGA

GERMANY

www.omega.de

Deckenfronn, Germany
0800-8266342

UNITED KINGDOM

www.omega.co.uk

Manchester, England
0800-488-488
+44-(0)161-777-6611

FRANCE

www.omega.fr

0800-466-342

BENELUX

www.omega.nl

0800-099-33-44



More than 100,000 Products Available!

• Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders, Relative Humidity Measurement Instruments, PT100 Probes, PT100 Elements, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples, Thermowells and Head and Well Assemblies, Transmitters, Thermocouple Wire, RTD Probes

• Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

• pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

• Data Acquisition

Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485, Ethernet and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

• Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Pressure Transmitters, Strain Gauges, Torque Transducers, Valves

• Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters