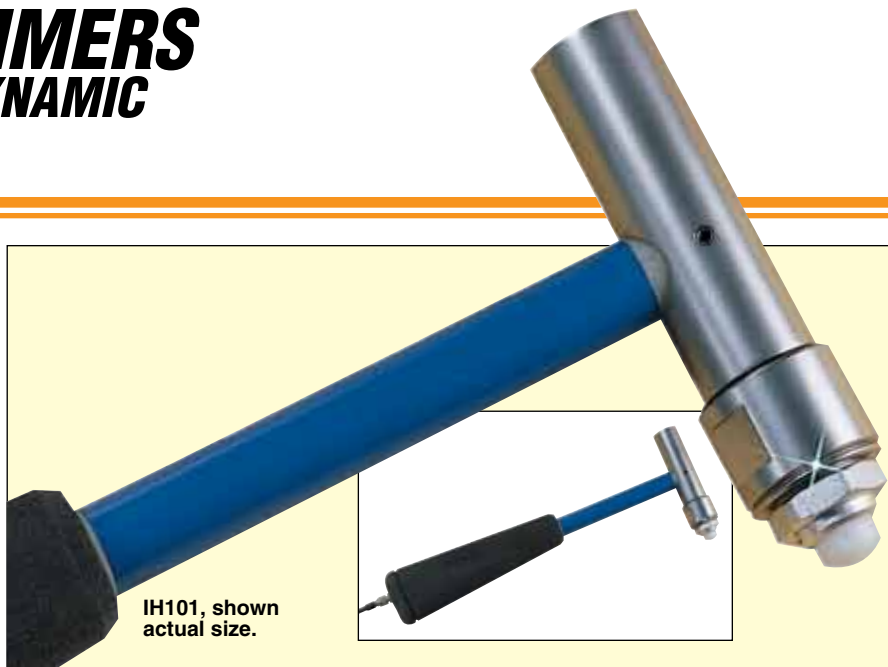


# IMPULSE HAMMERS FOR STRUCTURAL DYNAMIC BEHAVIOR ANALYSIS

## IH101 Series



IH101, shown actual size.

- ✓ 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

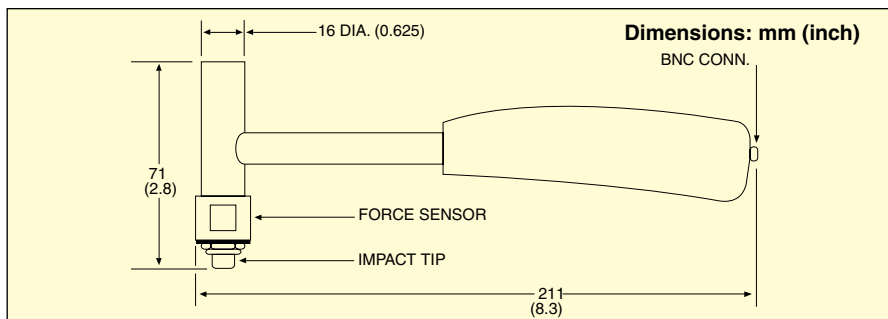
@ 18 to 30 Vdc, constant current

**Rated Output:** 5V 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)



### Maximum Force:

1000 lb (IH101-50)  
1000 lb (IH101-100)  
1000 lb (IH101-500)  
2000 lb (IH101-1K)

**Stiffness:** 8.0 lb/ $\mu$ 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  $\Omega$

**Bias Voltage:** 10V 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 sold separately; order model no. **ACC-CB4-6**)

**Calibration:** Dynamic comparison by impact against NIST force sensor

### To Order

MODEL NO.	RANGE (lb)
IH101-50	0 to 50
IH101-100	0 to 100
IH101-500	0 to 500
IH101-1K	0 to 1000

Comes complete with calibration certificate and operator's manual.

**Ordering Example:** IH101-50, impact hammer, ACC-PS1, power supply, ACC-CB4-6, extension cable, ACC-CB6, BNCM/pigtail cable.

Visit us online for accessories.

### ACCESSORIES

MODEL NO.	DESCRIPTION
ACC-CB4-6	1.8 m (6') BNC to BNC cable <b>required</b>
ACC-PS1	Battery power supply
ACC-CB6	178 mm (7") coaxial cable (BNCM/pigtail)