

ASM-1KBCV/BCH M3

Semiconductor Acceleration Transducer for Crash Test

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AUTOMOTIVE TEST EQUIPMENT



Automotive Test Equipment

Automotive performance test

Crash test

Crash test measuring system

Crash test software



●For crash tests ●9807 m/s²

Specifications

Performance

Rated Capacity	±9807 m/s ² (±1000 G)
Nonlinearity	Within ±1% RO
Hysteresis	Within ±1% RO
Rated Output	1.75 mV/V or more
Peak-to-peak Sensitivity Error	1.5% RO or less

Environmental Characteristics

Safe Temperature	-20 to 60°C
Compensated Temperature	5 to 40°C
Temperature Effect on Zero	Within ±3% RO/°C
Temperature Effect on Output	-0.25 to 0%/°C

Electrical Characteristics

Safe Excitation	2 VDC only
Recommended Excitation	2 VDC only
Input Resistance	120 Ω ±20%
Output Resistance	120 Ω ±20%
Cable	4-conductor (0.08 mm ²) vinyl shielded cable, 3.2 mm diameter by 7 m long, terminated with a connector plug R05-PB5M (Shield wire is not connected to the case.)

Mechanical Properties

Safe Overloads	150%
Frequency Response	DC to 2.8 kHz at 23°C (Sensitivity deviation ±5%)
Resonance Frequency	35 kHz ±30%
Transverse Sensitivity	3% RO or less
Weight	Approx. 4.0 g

Optional Accessories Conversion cable TT-18

Measures acceleration of crash-test cars.

- Compact and lightweight design (approx. 4 g) causes minimal influence to the vibration mode of a measuring object.
- High safe overload rating 150%
- No damping oil resulting in no temperature effects on frequency response and phase characteristics.
- Undamped design ensures minimal phase shift.
- Combinations of 2 sensitivity axes, horizontal (H model) and vertical (V model) to mounting surface, are able to configure thin-triaxial acceleration transducers.

These acceleration transducers adopt semiconductor strain gages as the sensing element and are applicable to acceleration measurements of car bodies in crash tests.

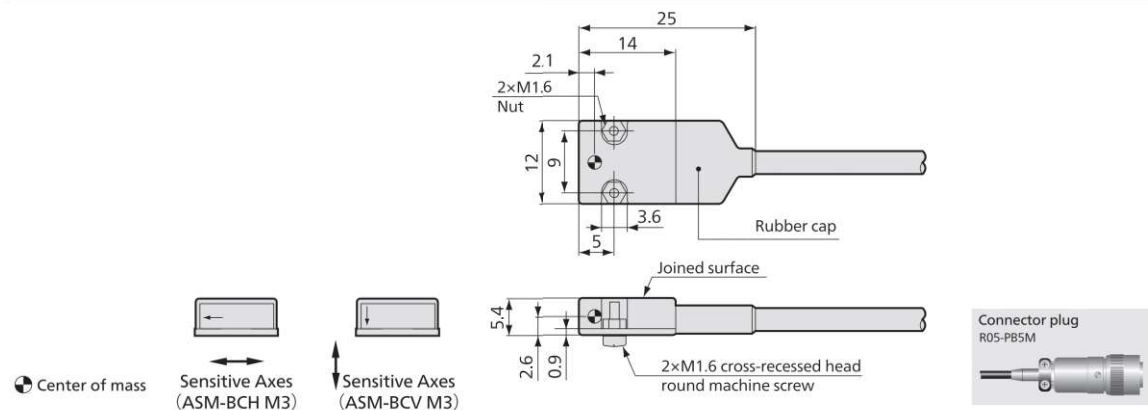
To Ensure Safe Usage

- Excitation voltage should be 2 VDC.
- Transducer output characteristics

*Not in accordance with the direction of acceleration

	Acceleration	Impact	Rotation	
Acceleration input conditions				The same as weight movement
Transducer output polarity	(+)	(+)	(+)	

Dimensions



ASM-1KBCV/BCH M3
Recommended
products for combination

Data Acquisition System
for Crash Test
DIS-7000 Series
→ 5-34

Data Logger for Crash Test
DIS-5210A
→ 5-43

It requires change of the conversion cable or plug.

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