

ASM-200BA

Semiconductor Acceleration Transducer for Crash Test



Acceleration measurements of car bodies and dummies

- Compact and lightweight design causes minimal influence to the vibration mode of a measuring object.
- High safe overload rating 500%
- No damping oil resulting in no temperature effects on frequency response and phase characteristics.
- Undamped design ensures minimal phase shift.

The ASM-200BA acceleration transducer adopts semiconductor strain gages for the sensing element. Its compact and lightweight design less affects to vibration mode of measuring objects. Thus, it is applicable to various acceleration or vibration measurement.

Specifications

Performance

Rated Capacity	1961 m/s ² (±200 G)
Nonlinearity	Within ±1% RO (Within ±0.5% RO optional)
Hysteresis	Within ±1% RO
Rated Output	1.3 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 ±2% RO/°C (Within ±1% RO/°C optional)
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 (0.035 mm ²) vinyl shielded cable, 1.7 mm diameter, 7 m long, terminated with a connector plug R05-PB5M (Shield wire is not connected to the case.)

Mechanical Properties

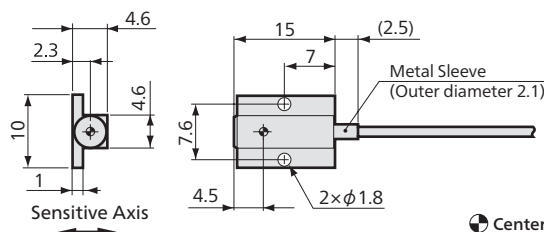
Safe Overloads	500%
Frequency Response	DC to 3.5 kHz at 23°C (Sensitivity deviation ±5%)
Resonance Frequency	21 kHz ±10%
Transverse Sensitivity	3% RO (1% RO optional) or less
Weight	Approx. 1.2 g

Optional Accessories Conversion Cable TT-18 (1 m) (R05-PB5M→NDIS)

To Ensure Safe Usage

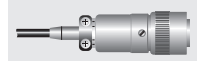
- Excitation voltage should be 2 VDC.
- Use screws to mount the acceleration transducer. Removing the transducer mounted with an adhesive may give it impact, thereby causing damage.
- Bore screw holes for M1.6 or No. 0-80UNF in the measuring object. Tightening torque should be 0.08 to 0.1 N·m.
- When mounting with screws, slightly apply silicone oil or grease to the contact surface. Resultant closer contact will ensure better fixing condition.
- This transducer comes with a connector, whose initial balance has been achieved. Therefore, if the transducer is to be used after removal of the connector, contact us for necessary information.

Dimensions



Center of mass

Connector plug
R05-PB5M



ASM-200BA
Recommended
products for
combination



DIS-5010A
→ 5-40



DIS-7000 Series
→ 5-38



DIS-5210A
→ 5-47

It requires change of the conversion cable or plug.

