ASE-A

●For Crash Tests ●980.7 m/s² to 9807 m/s²

Damped Acceleration Transducer for Crash Test

Acceleration measurements for car bodies, components, and dummies

- ●Lightweight and Small-Sized (10 x 10 x 5 mm, excluding cable)
- ●Damped type ensures minimal influence of impact acceleration-initiated resonance.
- ●Optional dedicated bracket enables mounting of the transducer to pedestrian protection head impactor.

Specifications

Performance

Rated Capacity	See table below.
Nonlinearity	Within ±1% RO
Hysteresis	Within ±1% RO
Rated Output	See table below.
Peak-to-Peak Sensitivity Error	1% RO or less

Environmental Characteristics

Safe Temperature	-15 to 65°C
Compensated Temperature	5 to 40°C
Temperature Effect on Zero	Within ±1% RO /°C
Temperature Effect on Output	Within ±0.5 RO / °C

Electrical Characteristics

Safe Excitation	10 V AC or DC
Recommended Excitation	2 to 10 V AC or DC
Input Resistance	300 to 1000 Ω
Output Resistance	300 to 1000 Ω
Cable	4-conductor (0.05 mm²) vinyl shielded cable, 2.6 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	See table below.
Frequency Response	See table below.
Transverse Sensitivity	2% RO or less
Weight	Approx. 3 g

Standard Accessories

Hexagon socket head bolts M1.6×8, 2
(Tightening torque 0.1 N·m)
(Recommended torque wrench: KANON 3LT-DK,
+ Hexagon jaw CB H1.5)

Optional Accessories

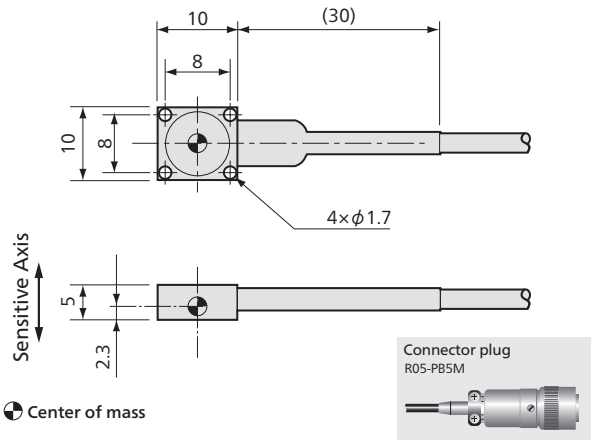
Conversion Cable: TT-18 (1 m) (R05-PB5M→NDIS)

Models	Rated Capacity	Rated Output	Frequency Response (23°C)	Safe Overloads
ASE-A-100	±980.7 m/s² (±100 G)	0.5 mV/V or more	DC to 1 kHz (Sensitivity deviation±3%) 1 kHz to 2 kHz (Sensitivity deviation±10%)	500%
ASE-A-500	±4903 m/s² (±500 G)	1 mV/V or more	DC to 1 kHz (Sensitivity deviation±3%) 1 kHz to 4 kHz (Sensitivity deviation±10%)	400%
ASE-A-1K	±9807 m/s² (±1000 G)	2 mV/V or more	DC to 1 kHz (Sensitivity deviation±3%) 1 kHz to 4 kHz (Sensitivity deviation±10%)	200%

To Ensure Safe Usage

- ●When conducting the Pedestrian Head Protection Performance Test, ground the aluminum skull (Metal) portion of the head impactor and the DIS series. The grounding is an effective measures against noise caused by electric charge. The charge is generated between the head skin material and aluminum skull of the head impactor resulting to adversely affect the ASE-A output at the time of impact.
- ●Due to mounting holes, corners of the transducer case is thin-walled structure. Avoid dropping or hitting against a hard matter. Or the case will be deformed or damaged.
- ●To install, use dedicated bolts M1.6x8 and fix 2 diagonal positions.
- ●If this transducer is installed by adhesives, excessive forces to remove it results in deformation of its frame or failure. To avoid these troubles, fix this transducer by dedicated bolts, if remove transducer and repeat to use it.

■Dimensions



ASE-A Recommended products for combination


DIS-5010A → 5-40


DIS-7000 Series → 5-38


DIS-503A → 5-46


DIS-618A/632A → 5-46


DIS-5210A → 5-47

It requires change of the conversion cable or plug.