

ASE-A/ASER-A



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-152

Sensor

Damped Acceleration Transducer for Crash Test



For pedestrian protection performance testing

- Rated capacity: ± 980.7 to ± 9807 m/s²
- Cable can be replaced if broken (ASER-A)

Acceleration transducers compatible with built-in head-form impactors and leg-form impactors (Flex-PLI-GTR) used during pedestrian protection performance testing. Damped type with little impact on resonance due to impact-initiated acceleration.

Specifications

Performance

Rated Capacity	See table below.
Nonlinearity	Within $\pm 1\%$ RO
Hysteresis	Within $\pm 1\%$ 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 $\pm 1\%$ RO/°C
Temperature Effect on Output	Within $\pm 0.5\%$ °C

Electrical Characteristics

Safe Excitation	10 VAC or DC
Recommended Excitation	2 to 10 VAC or DC
Input Resistance	300 to 1000 Ω
Output Resistance	300 to 1000 Ω
Cable	4-conductor (0.05 mm ²) 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 (Excluding cable)
Compliance	Directive 2011/65/EU, (EU)2015/863(10 restricted substances) (RoHS)

Notes

When conducting the Pedestrian Head Protection 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/ASER-A output at the time of impact.

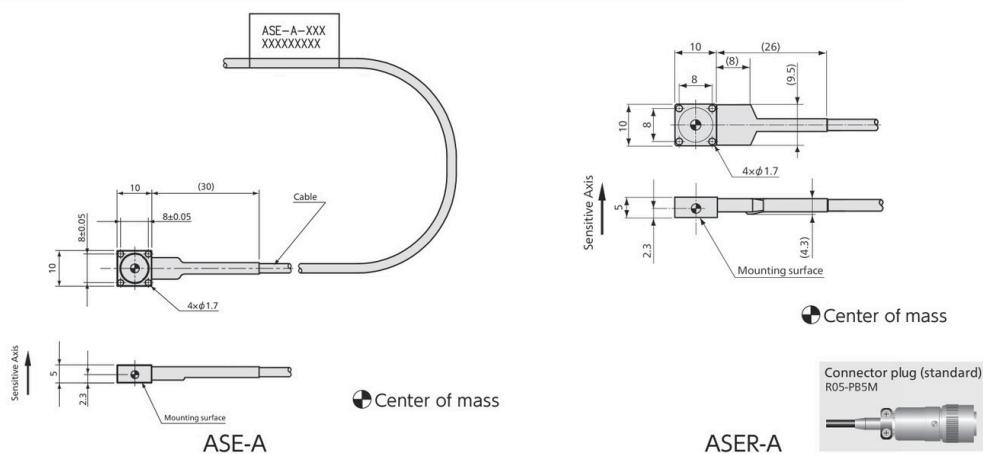
■ **Standard Accessories** Hexagon socket head bolts M1.6×8 (×2) (Tightening torque 0.1 N·m)

■ **Optional Accessories** Conversion Cable TT-18

Models

Model		Rated Capacity (Reference Value)	Rated Output	Frequency Response (At 23°C)	Safe Overloads
Cable can be replaced when it is damaged					
No	Yes				
ASE-A-100	ASER-A-100	±980.7 m/s ² (±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	ASER-A-500	±4903 m/s ² (±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	ASER-A-1K	±9807 m/s ² (±1000 G)	2 mV/V or more	DC to 1 kHz (Sensitivity deviation ±3%) 1 kHz to 4 kHz (Sensitivity deviation ±10%)	200%

Dimensions



Strain Gauge

Load Cell

Pressure Sensor

Acceleration Sensor

Torque Sensor

Displacement Sensor

Component Force Sensor

Automotive Sensor

Civil Engineering Sensor