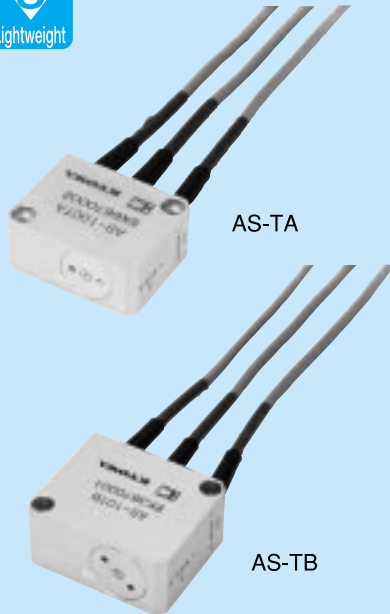


AS-TA/TB

Triaxial Acceleration Transducers

● Simultaneous Measurement of Acceleration in X, Y and Z Directions ● 98.07 to 9807 m/s²



- TEDS-installed versions can be manufactured. Inquiries are welcome.

AS-TA and AS-TB series have three miniature acceleration transducers incorporated into a compact package for simultaneous measurement of acceleration in front-rear, left-right and up-down directions. Minimal interference between axes enables accurate measurement, making them applicable for acceleration analysis of phenomena involving complex vibrations. AS-200, 500 and 1000TA are export controlled products.*

Specifications

Performance

Rated Capacity: See table below.

Nonlinearity: Within $\pm 1\%$ RO

Hysteresis: Within $\pm 1\%$ RO

Rated Output:

0.5 mV/V (1000 $\mu\text{m}/\text{m}$) or more (AS-TA)

0.5 mV/V (1000 $\mu\text{m}/\text{m}$) $\pm 20\%$ (AS-TB) ($\pm 25\%$ with AS-10TB)

Environmental Characteristics

Safe Temperature Range: -15 to 65°C

Electrical Characteristics

Safe Excitation Voltage: 6 VAC or DC

Recommended Excitation Voltage: 1 to 3 VAC or DC

Input Resistance: $120\ \Omega \pm 5\%$

Output Resistance: $120\ \Omega \pm 5\%$

Cable: 4-conductor (0.08 mm²) vinyl shielded cable, 3.2 mm diameter by 5 m long, terminated with connector plug (Shield wire is connected to mainframe.)

Mechanical Properties

Safe Overload Rating: 300% (each axis)

Frequency Response Range: See table below.

Resonance Frequency: See table below.

Transverse Sensitivity: $\pm 2\%$

Damping Ratio: Approx. 0.64 (23°C)

Weight:

Approx. 45 g (AS-TA)

Approx. 95 g (AS-TB)

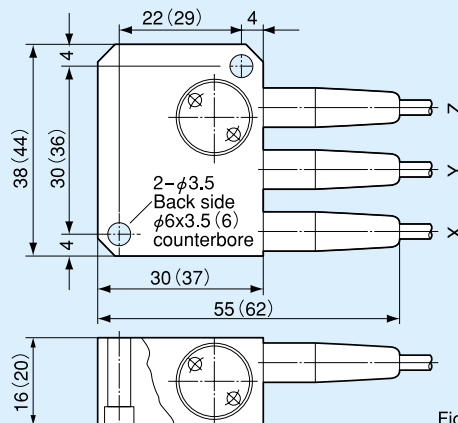
Model	Rated Capacity (Reference Value)	Frequency Response (at 23°C)	Resonance Frequency (App.)
AS-10TB	$\pm 98.07\ \text{m/s}^2$ ($\pm 10\ \text{G}$)	DC to 350 Hz, $\pm 5\%$	490 Hz
AS-20TB	$\pm 196.1\ \text{m/s}^2$ ($\pm 20\ \text{G}$)	DC to 500 Hz, $\pm 5\%$	750 Hz
AS-50TB	$\pm 490.3\ \text{m/s}^2$ ($\pm 50\ \text{G}$)	DC to 1 kHz, $\pm 5\%$	1.3 kHz
AS-100TA	$\pm 980.7\ \text{m/s}^2$ ($\pm 100\ \text{G}$)	DC to 1.2 kHz, $\pm 5\%$	2 kHz
AS-200TA	$\pm 1961\ \text{m/s}^2$ ($\pm 200\ \text{G}$)	DC to 2.1 kHz, $\pm 5\%$	2.8 kHz
AS-500TA	$\pm 4903\ \text{m/s}^2$ ($\pm 500\ \text{G}$)	DC to 3 kHz, $\pm 10\%$	4.8 kHz
AS-1000TA	$\pm 9807\ \text{m/s}^2$ ($\pm 1000\ \text{G}$)	DC to 5 kHz, $\pm 10\%$	7.5 kHz

Notes: 1. Percentage in frequency response column is sensitivity deviation.

2. Resonance frequency measured by mounting to a shaker.

*Export controlled products are strategic commodities to which the Foreign Exchange and Foreign Trade Control Act applies. The necessary legal procedures should therefore be taken with the Government of Japan if these products are to be taken abroad.

Dimensions



Figures in parenthesis are for AS-TB.