

AS-TG

Small-sized Triaxial Acceleration Transducer

- Simultaneous measurement of acceleration in X, Y and Z directions
- 9.807 to 196.1 m/s²



*TEDS-installed models are available. Inquiries are welcome.

Able to withstand against 10 times larger overload than rated capacity by the built-in overload stopper

AS-TG series acceleration transducers have 3 incorporated miniature acceleration transducers to measure simultaneously 3 axial accelerations (X, Y, and Z). Not only are interferences of AS-TG series among each axes little, but also AS-TG series withstand against 10 times larger overload than rated capacity.

Specifications

Performance

Rated Capacity	See table below.
Nonlinearity	Within $\pm 1\%$ RO
Hysteresis	Within $\pm 1\%$ RO
Rated Output	0.5 mV/V or more

Environmental Characteristics

Safe Temperature	-10 to 60°C
------------------	-------------

Electrical Characteristics

Safe Excitation	6 V AC or DC
Recommended Excitation	1 to 3 V AC or DC
Input Resistance	121 $\Omega \pm 1.7\%$
Output Resistance	121 $\Omega \pm 1.7\%$
Cable	4-conductor (0.08 mm ²) vinyl shielded cable, 3.2 mm diameter by 5 m long, terminated with a connector plug PRC03-12A10-7M, 3 cables (Shield wire is not connected to the case.)

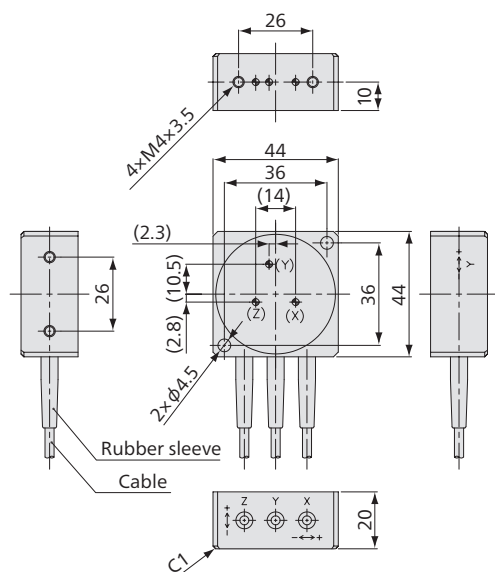
Mechanical Properties

Safe Overloads	300%
Overload Limit	1000% (With a stopper)
Frequency Response	See table below.
Transverse Sensitivity	4% RO or less
Weight	Approx. 110 g (Excluding cable)

Models	Rated Capacity (Reference Value)	Frequency Response (At 23°C)
AS-1TG	$\pm 9.807 \text{ m/s}^2 (\pm 1 \text{ G})$	DC to 40 Hz Sensitivity deviation $\pm 5\%$
AS-2TG	$\pm 19.61 \text{ m/s}^2 (\pm 2 \text{ G})$	DC to 60 Hz Sensitivity deviation $\pm 5\%$
AS-5TG	$\pm 49.03 \text{ m/s}^2 (\pm 5 \text{ G})$	DC to 100 Hz Sensitivity deviation $\pm 5\%$
AS-10TG	$\pm 98.07 \text{ m/s}^2 (\pm 10 \text{ G})$	DC to 150 Hz Sensitivity deviation $\pm 5\%$
AS-20TG	$\pm 196.1 \text{ m/s}^2 (\pm 20 \text{ G})$	DC to 250 Hz Sensitivity deviation $\pm 5\%$

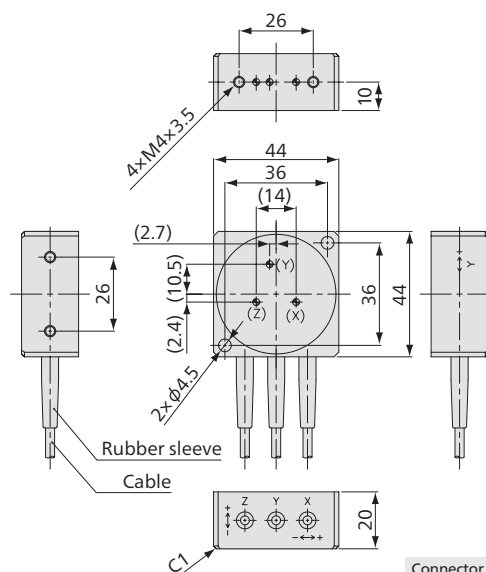
Note: The acceleration transducer is subject to a constant acceleration in the direction of gravity, therefore measurement is restricted, taking into account this vertical movement (9.807 m/s^2). In terms of AS-1TG, detected value exceeds rated capacity in positive side toward gravity direction. As long as the safe overload rating is not exceeded, there will be no damage, but characteristics will be outside the guaranteed range.

Dimensions



AS-1TG, 2TG, 10TG, 20TG

● indicates the centroid of element.



AS-5TG

● indicates the centroid of element.

Connector plug
PRC03-12A10-7M



Acceleration
Transducers

Outline

General

Piezoelectric

Gyro