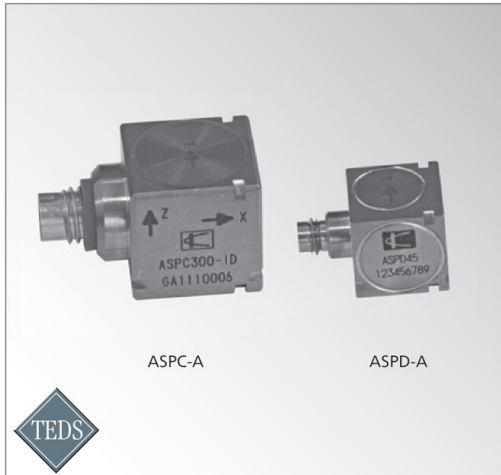


ASPC-A/ASPD-A

Piezoelectric Acceleration Transducer (Built-in Amplifier)



Wide measurement range, capable of measuring slight through to high accelerations.

- High sensitivity, small size
- Capable of measurement of wide band, low to high frequencies
- High mechanical strength
- Environmentally-resistant

Models	Rated Capacity	Voltage Sensitivity (±10%)	TEDS
ASPC-A-30-ID	±360 m/s ²	10 mV/m/s ²	✓
ASPC-A-30	±400 m/s ²		-
ASPD-A-45-ID	±450 m/s ²		✓
ASPD-A-45		-	
ASPC-A-300-ID	±3600 m/s ²	1.0 mV/m/s ²	✓
ASPC-A-300	±4000 m/s ²		-
ASPD-A-450-ID	±4500 m/s ²		✓
ASPD-A-450			-

- Simultaneous measurement of acceleration in X, Y and Z directions
- 360 to 4500 m/s²

ASPC-A Specifications

Rated Capacity	See table below.
Voltage Sensitivity	See table below.
Resonant Frequency	Approx. 35 kHz
Frequency Response (±1 dB)	1 to 5000 Hz
Frequency Response (±3 dB)	1 to 8000 Hz
Impact Resistant	30000 m/s ²
Operating Temperature	ASPC-A-30/ASPC-A-300: -50 to 110°C (With operating power supply: 0.5 to 5 mA) -50 to 70°C (With operating power supply: 0.5 to 10 mA) Measuring instrument side's operating temperature: -20 to 60°C ASPC-A-30-ID/ASPC-A-300-ID: -40 to 85°C (With operating power supply: 0.5 to 5 mA) -40 to 70°C (With operating power supply: 0.5 to 10 mA) Measuring instrument side's operating temperature: -20 to 60°C
Transverse Sensitivity	5% RO or less
Output Impedance	1000 Ω or less
Weight	Approx. 11 g (Excluding cable)
Case Material	Titanium
Mounting Screw	Female screw (M5×0.8, depth 3.5)
Power Supply	21 to 24 VDC, 0.5 to 10 mA
Cable	Dedicated cable (SA12ZSC-01B), length approx. 3.3 m Sensor side: DR-4S-1 Measuring instrument side: BNC connector (BNC163) (Shield wire is connected to the case.)
Sensor ID	TEDS (IEEE1451.4) (ASPC-A-30-ID/ASPC-A-300-ID only)

Standard Accessories Dedicated cable SA12ZSC-01B

Optional Accessories Mount base

*Acceleration (m/s²)

= Output voltage from sensor (mV) ÷ Voltage sensitivity (mV/m/s²)

To Ensure Safe Usage

Before measuring data by using the CCA-40A or CCA-40A-F, insulate the mounting surface between the transducer and target object.

ASPD-A Specifications

Performance	
Rated Capacity	See table on the previous page.
Voltage Sensitivity	See table on the previous page.

Environmental Characteristics	
Operating Temperature	ASPD-A-45 (-ID): -50 to 110°C (With operating power supply: 2 to 5 mA) -50 to 80°C (With operating power supply: 2 to 10 mA)
	ASPD-A-45-ID: -40 to 85°C (Operating temperature of TEDS)
	ASPD-A-450 (-ID): -50 to 120°C (With operating power supply: 2 to 5 mA) -50 to 80°C (With operating power supply: 2 to 10 mA)
	ASPD-A-450-ID: -40 to 85°C (Operating temperature of TEDS)

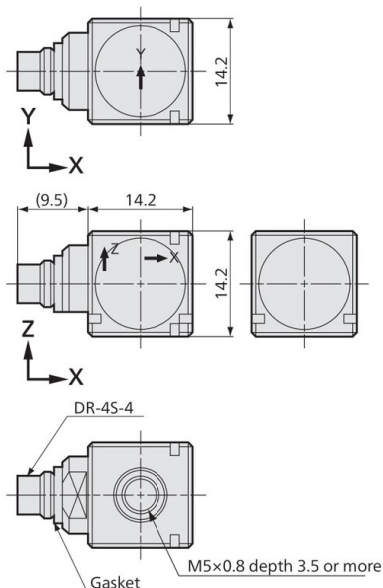
Electrical Characteristics	
Output Impedance	ASPD-A-45 (-ID): 500 Ω or less ASPD-A-450 (-ID): 100 Ω or less
Power Supply	21 to 30 VDC, 2 to 10 mA
Cable	Dedicated cable (SA11ZSCA-01B), length approx. 3.3 m (Measuring instrument side's operating temperature: -20 to 60°C) Sensor side: CZ663 Measuring instrument side: BNC connector (Shield wire is connected to the case.)

Mechanical Properties	
Frequency Response	ASPD-A-45 (-ID): (±5%) (X, Y): 2 to 7000 Hz (Z): 2 to 10000 Hz (±3 dB) (X, Y): 0.5 to 10000 Hz (Z): 0.5 to 18000 Hz
	ASPD-A-450 (-ID): (±5%) (X, Y): 2 to 10000 Hz (Z): 2 to 15000 Hz (±3 dB) (X, Y): 0.5 to 15000 Hz (Z): 0.5 to 20000 Hz
Frequency Response (When using mount base)	(±5%) (X, Y, Z): 2 to 900 Hz (±3 dB) (X, Y, Z): 0.5 to 2000 Hz
Resonant Frequency	55 kHz or more (Z axis)
Impact Resistant	±30000 m/s ²
Transverse Sensitivity	5% RO or less
Case Material	Titanium
Dimensions	10 W × 10 H × 10 D mm (Excluding protrusions)
Weight	Approx. 4.4 g (Excluding cable)

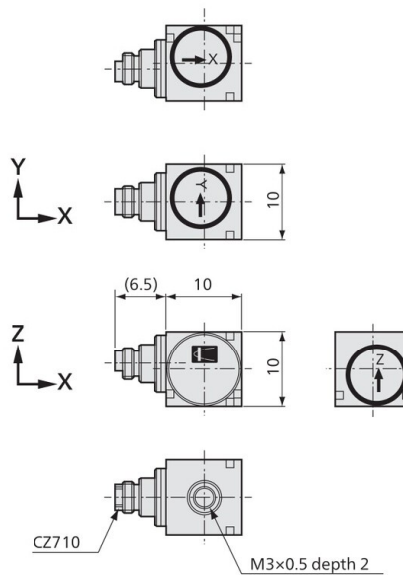
Other	
Mounting Screw	Female screw (M3 × 0.5, depth 2)
Attached Screw	Male screw (M3 × 0.5 × 4)

Standard Accessories	Dedicated cable SA11ZSCA-01B Attached screw (M3 × 0.5 × 4) Dedicated mount base SA11ZSCA-02
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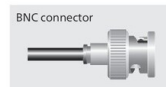
Dimensions



ASPC-A



ASPD-A



BNC connector



Acceleration Transducers

Outline

General

Piezoelectric

Gyro