7. Physical Characteristics

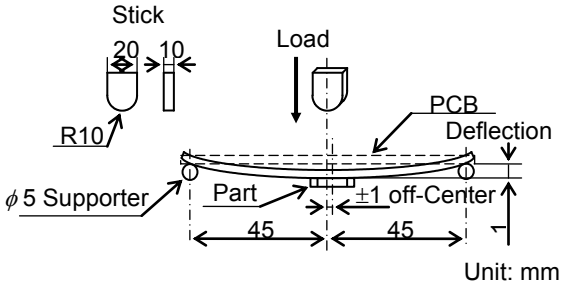
	Test Item	Condition of Test	Performance Requirements
7-1	Mechanical Shock	The transducer shall be measured after being applied three impacts in plus and minus directions of three mutually perpendicular planes. The shock is specified as 29400m/s^2(3000G) half sine pulse of 0.3 ms duration.	No visible damage and the measured values shall meet Table 2.
7-2	Vibration	The transducer shall be measured after being applied vibration of amplitude of 1.5 mm with 10 to 55 Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours. (5 minutes × 24 cycles)	
7-3	Bend Strength PCB	The transducer is soldered onto the center of PCB (1.6 mm thickness) which is laid on the 2 small supporters spaced 90 mm. PCB is deflected to 1 mm below from horizontal level by the pressing force with 20 × 10. R10 stick. The force is supplied for 1 second, 5 times repeatably.  	No visible damage and the measured values shall meet Table 3.
7-4	Resistance to Reflow Soldering	The transducer shall be mounted on PCB, then measured after being applied following reflow conditions. <Test flow> Pre-heating : 60 to 150 sec. at 150 to 180 °C Heating : Within 60 sec. at 200 °C (or more) Within 30 sec. at 250 °C (or more) Peak Temperature: Within 10 sec. at 260 °C Shock sensor should be tested 2 times of this test flow. PCB size : 115 × 80 × 0.8 mm After being placed at ambient conditions for 8 hours, the transducer shall be measured.	No visible damage and the measured values shall meet Table 2.
7-5	Solderability	End terminals are immersed in rosin for 5 seconds then immersed in soldering bath of +245±5°C for 3±0.5 seconds.	75% min. end terminals shall be wet with solder.
7-6	Washability	See Table 1.	No visible damage and the measured values shall meet Table 2.

Table 1. Wash

Item \ Cleaning Solvent			Alcohol (Iso-propanol)	Water (Tap water, Demineralized water)	Cleaning Water Solution (Cleanthrough 750H, Pine alpha 100S)	Silicon (Techno care FRW)
Temperature Difference:dT *1 [dT = Component - solvent]			dT<100°C			
Condition						
	(1)	Ultrasonic Wash	1 minute max. in above solvent at 60°C max. (Frequency : 28 kHz, Output : 20 W/L)			
	(2)	Immersion Wash	5 minutes max. in above solvent at 60°C max.			
	(3)	Shower or Rinse Wash	5 minutes max. in above solvent at 60°C max.			
	(4)	Drying	1 to 5 minutes. by air blow at 80°C max.			

*1 ex. In case the component at 90°C immerses into cleaning solvent at 60°C, then dT = 30°C.

Note(Wash)

1. Please insure the component is thoroughly evaluated in your application circuit.
2. The component may be damaged if it is washed with alkali cleaning solvent.
3. Flux should be washed out before use.