

CUSTOMER'S NAME

AKIZUKI DENSHI TSUSHO CO., LTD.

ALPHA REFERENCE NO.

TSM21040006

## SPECIFICATION

PART NO.	ALPHA MODEL NAME
1.	MB060-N-221-A02

MODEL NAME
MODEL NO.

APPROVAL

PREPARED BY	REVIEWED BY	APPROVED BY
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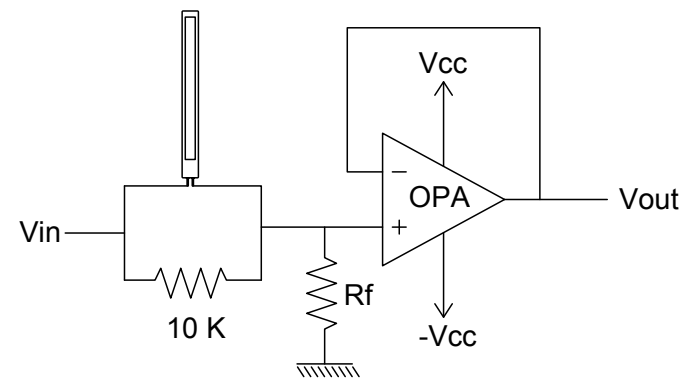
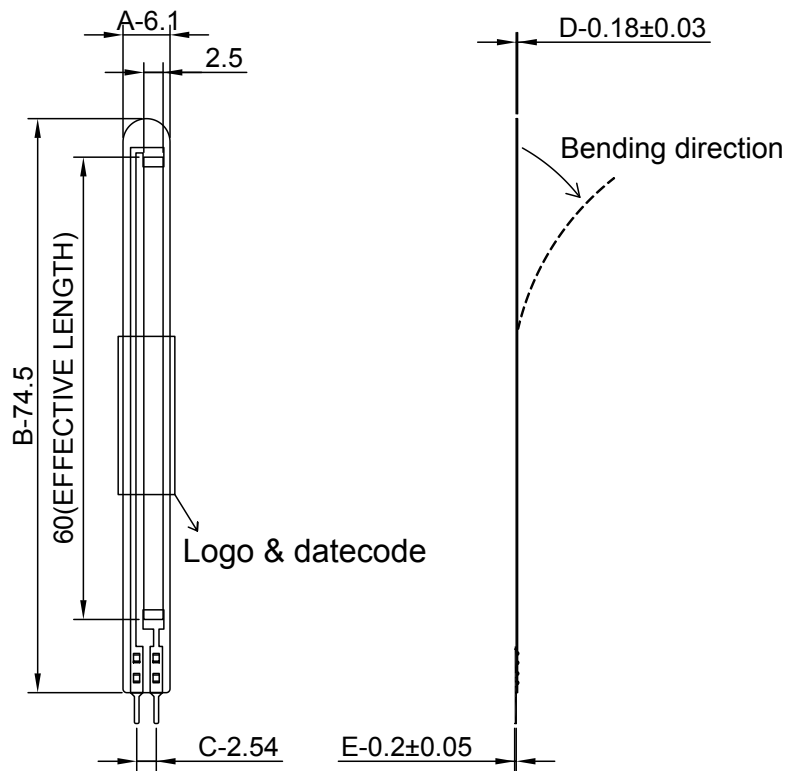
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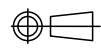
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DESIGNED	CHECKED	APPROVED	LINEAR TOLERANCE (mm)		PART NAME			Ver	
 2019.07.11	 2019.07.11	 2019.07.11	0~4	±0.1	MB060-N-221-A02			-1	
			4~14	±0.2					
			14~63	±0.2		UNIT	SCALE	SHEET NUMBER	SIZE
			63~250	±0.3		mm	1:1	1 of 1	A4



規格書

SPECIFICATION

Model name:MB060-N-221-A02

檢驗項目 Inspection Item	規格 SPEC.	備註 Notes
使用角度範圍 Angle detection range	0° ~ 180° *1	Single direction
解析度 Resolution	1° *2	Continuous(Analog)
未彎曲阻值 Stand-Off resistance	20KΩ±30%	
反應時間 Response time	< 1ms	
有效長度 Effective length	60 mm	
厚度 Thickness	0.18±0.03mm	
使用壽命 Life cycle	> 1 million *3	2 cycles per second
操作溫度 Operation temp.	-30°C to +80°C	
防水防塵等級 IP rating	IP65	
額定功率 Power rating	0.5 Watt max. @25°	

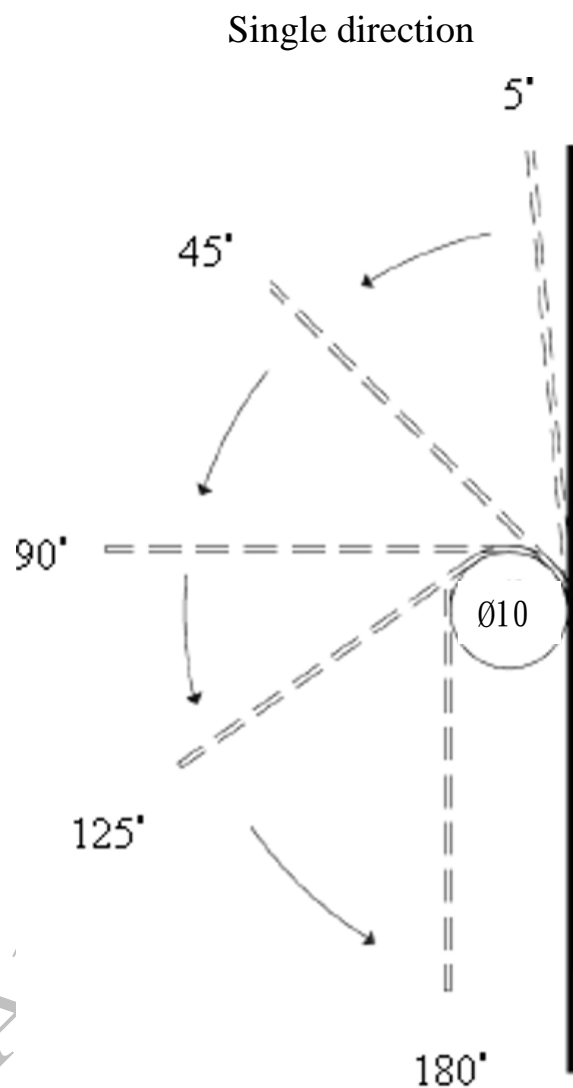
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\*1 彎曲靈敏度範圍 (fig.1)

Angle Sensitivity Range ( fig.1 )



\*2 測試方法(同\*1): 使用一彎曲測試治具進行 0° 至 180° 彎曲測試(中心圓直徑 10mm)

Test method(same \*1): A bending test is performed using an angle fixture bend 180° with a center circle diameter of 10mm.

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\*3 測試方法: 自然彎曲至約  $\varnothing 20$

Test method: Naturally bent to about  $\varnothing 20$

建議彎曲直徑 > 中心圓直徑 5mm。

Recommend bending diameter > (Circle diameter is 5mm)

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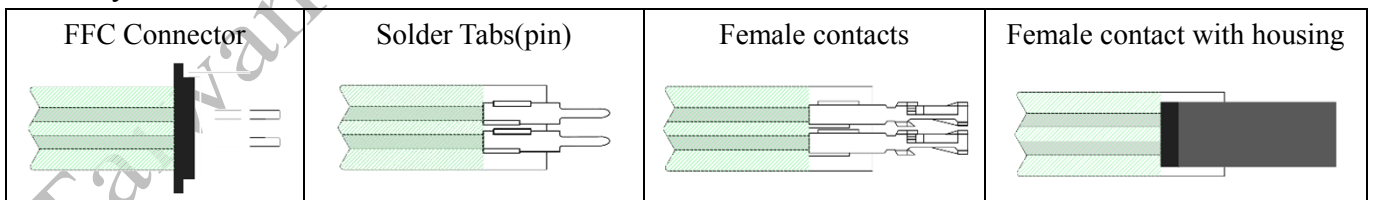
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## Membrane sensor usage tips

### MB series

Please follow the below stipulate to avoid error conditions such as false triggering, false readings, pre-loading, or gouging and cracking of the sensor.

1. Do not store the sample in a humid environment. Please used on the substrate within 12 months after shipment.
2. Do not kink, bending or scratches the tail of membrane sensors. The traces should not be bent more than 90° as the silver conductive leads could break. Also, be careful if bending the tail near the active area 5mm. This can cause stress on the active area and may result in pre-loading and false readings.
3. Do be careful of kinks or dents in active areas. They can cause false triggering of the sensors.
4. Do not block the vent. This vent assures pressure equilibrium with the environment, as well as allowing even loading and unloading of the device. Blocking this vent could cause short circuit(except for the model MB090-N-X21-A02).
5. Do not apply excessive shear force. This can cause delamination of the layers(except for the model MB090-N-X21-A02).
6. The sensors are not designed for use under water. The sensors are not compatible with direct liquid contact. Sensors are ideally suited to placement behind a waterproof enclosure.
7. With flexible substrates, the solder joint will not hold and the substrate can easily melt and distort if solder directly to the exposed silver traces. Choose standard connection, such as FFC connector, solder tabs, female contacts, or female contact with housing connectors.
8. If the Solder pin needs to be soldered, the contact between the torch and the Solder pin should be within 2 sec and the soldering can't be repeated. To prevent meltdown of pin to plastic affect the connection. It is recommended to use flux during soldering that can help lead-free solder flow more easily.



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