

## 8. Reliability

After each one of the test, No transformation, No crack

### 8-1 High temperature

85°C for 500hours

### 8-2 Low temperature

-30°C for 500hours

### 8-3 Humidity

60°C, 95%RH for 500hours

### 8-4 Heat cycle

20 times of the following cycle

-25°C, 30min.⇒ Room temp. 30min.⇒ 55°C, 30min.⇒ Room temp.

## 9. ⚠ Caution

### 9-1 Limitation of Applications

Please contact us before using our products for the applications listed below which require especially high reliability for the prevention of defects which might directly cause damage to the third party's life, body or property.

1. Aircraft equipment
2. Aerospace equipment
3. Undersea equipment
4. Power plant control equipment
5. Medical equipment
6. Transportation equipment (vehicles, trans, ships, etc.)
7. Traffic signal equipment
8. Disaster prevention / crime prevention equipment
9. Data-processing equipment
10. Application of similar complexity and/or reliability requirement to the applications listed in the above

### 9-2 Fail-safe

Be sure to provide an appropriate fail-safe function on your product to prevent a second damage that may be caused by the abnormal function or the failure of our product.

## 10. Caution in use

### 10-1 Notice in design

- 1) Please set the direction of the tab of fresnel lens to the tab of the sensor.
- 2) To bring pyro-Element into the focus of fresnel lens, Please push the sensor until the step inside the fresnel lens.
- 3) Please add any mechanism for preventing dislocation or for preventing coming off from the sensor because of transition fit between sensor and fresnel lens.
- 4) Please avoid using the fresnel lens in the following conditions because it may cause failure or malfunction ;
  - a) in such a fluid as water, alcohol etc. corrosive gas (SO<sub>2</sub>, Cl<sub>2</sub>, NO<sub>x</sub> etc.) or sea breeze.
  - b) in high humidity.
  - c) in a place exposed directly to sun light or headlight of automobile.
  - d) in a place exposed directly to blow from air-conditioner or heater.
  - e) in such a place where infrared ray is shaded.
  - f) in any other place similar to the above (a) through (e).

### 10-2 Notice in handling and storage

- 1) Optical filter of sensor should not be scratched or soiled.
- 2) Strong shock should be avoided.
- 3) High temperature, high humidity, fluid as water or alcohol etc., corrosive gas (SO<sub>2</sub>, Cl<sub>2</sub>, NO<sub>x</sub> etc.) and sea breeze should be avoided.
- 4) Use the products within 6 months after receiving.

## 11. ⚠ Note

- 1) Please make sure that your product has been evaluated in view of your specifications with our product being mounted to your product.
- 2) You are requested not to use our product deviating from the agreed specifications.
- 3) We consider it not to appropriate to include any terms and conditions with regard to the business transaction in the product specifications, drawings or other technical documents. Therefore, if your technical documents as above include such terms and conditions such as warranty clause, product liability clause, or intellectual property infringement liability clause, they will be deemed to be invalid.