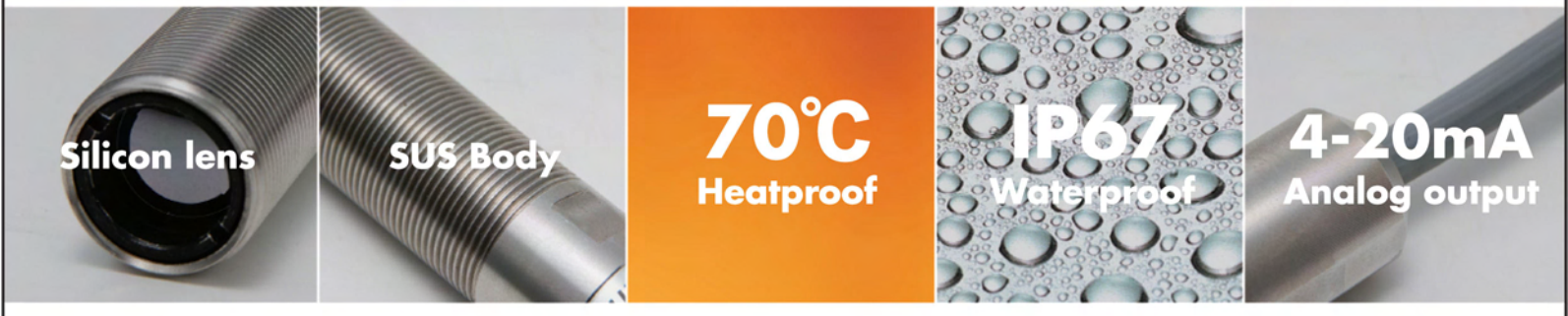
NEW

Non-Contact Thermometer

SA-80T-2A [Temperature range : 0～200℃]

SA-80T-4A [Temperature range : 0～400℃]



Features

■ Quick response time

- High-speed response time 100ms/ 90%

■ Tough and Heavy-Duty

- Waterproofing ability in compliance with IP67
- High heat resistance up to 70°C of ambient temperature
- High noise resistance and accurate temperature measurement with stable operation due to SUS body and silicon lens
- Analog output of 4-20mA highly resistant to noise

■ Compact

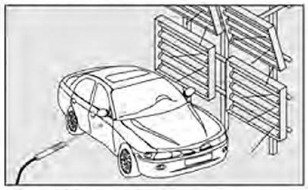
- Cylindrical shape enabling installation in a limited space

■ Wide-range & long-focus setting

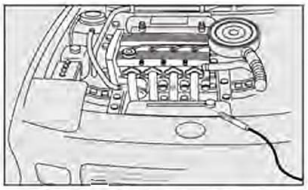
- Temperature measurement range: 0-400°C (SA-80T-4A)
- Area size: ϕ80mm/ 500mm

Applications

1.For automobile industry

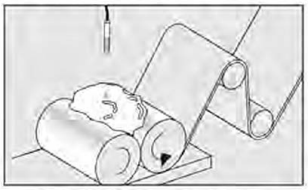


For checking dehydration temperature in baking finishing



For checking abnormal heat in engine / drive

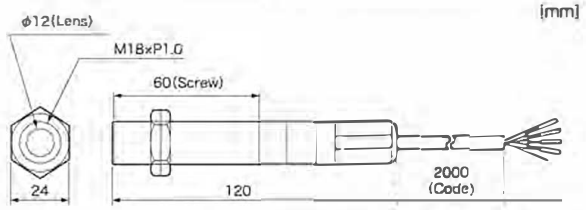
2.For rubber/ plastic industry



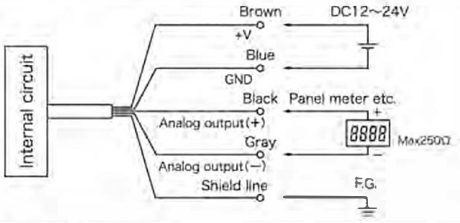
For checking temperature in processing / forming management

Outside dimension

[mm]



Connection Diagram



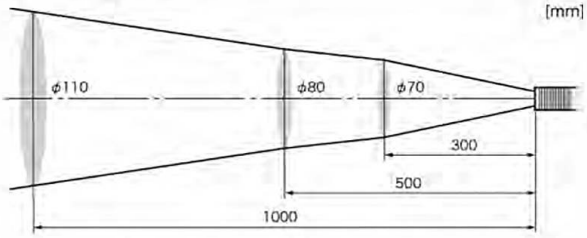
Specifications

Models	SA-80T	
	2A	4A
Temperature Range	0~200°C	0~400°C
Area Size	φ80 / 500mm	
Optics	Silicon Lens	
Spectral Response	Thermopile / 8~14μm	
Response Speed	100ms / 90%	
Accuracy	0~200°C:±2°C 201~400°C:±1%	
Repeatability	±1°C of reading value	
Analog Output	4-20mA	
Emissivity ratio (ε) Adjustment	0.95	
Power Supply	DC12~24V±10% / MAX 70mA	
Ambient Temperature	0~70°C	
Environmental Humidity	35~85%Rh (without dew condensation)	
Storage Temperature	-20~70°C	
Vibration Resistance	10-55Hz, amplitude 1.5mm, two hours each in the direction of X,Y, Z	
Water Resistance	IP67	
Materials	SUS / Al	
Weight	180g	

Accessories : M18 Nut× 2pcs. Optional : Blackbody tape
※ Specifications may change without prior notice.

Field of View

[mm]



The optical resolution values stated in "Field of View" are at minimum 90% energy.
The size of measuring object should be sufficiently larger than the field of view (spot size) shown in the above illustration.

Safe Usage

This instruction manual contains various warnings for your safety and proper usage to avoid possible personal injury.
Please be sure to heed the warnings and strictly follow safety instructions.

⚠ Caution : This symbol signifies that improper usage may result in injuries or damage.

⃠ This symbol signifies a prohibited action. ❗ This symbol signifies a required action.

⚠ Caution

This product is not a clinical thermometer and therefore, can not be used for medical purposes.

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Lens Dust or dirt adhering to the lens and flaws on the lens may cause incorrect measurement. When the lens is dirty, remove the adhering objects from the lens using a blower for lens cleaning, etc. If dirt remains, wipe the lens softly using a cotton swab or lens wiping cloth moistened with a small amount of ethyl alcohol.

Unit When the unit is dirty, wipe it off using a cloth moistened with a small amount of ethyl alcohol.

Troubleshooting

Problems	Cause	Solution
Unmeasurable	The power source is not connected properly.	Check the lead wires and the connection.
	The power voltage is low it to the DC12~24V range.	Check the power voltage and adjust it to the DC12~24V range.
The measured figure is odd.	The lens is dirty.	Clean the lens referring to the lens section under "Maintenance".
	The measuring area is off center.	Aim the target which should be within the area of view field of the sensor.
	Near the object to be measured is another object emitting high temperatures,affecting the temperature reading.	Block the heat source using a board, etc.
The measured figure is not stable	The sensor is vibrating.	Prevent the vibration.
	The temperature of the sensor changes suddenly.	Put the sensor aside for a while to stabilize the sensor's temperature.

When the above symptoms are not removed even after the corresponding countermeasure has been taken, the thermometer may have a fault. In such cases, contact the shop in which you purchased the product or OPTEX.

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Environmental W

❗ **KEEP THE THERMOMETER AWAY FROM DIRECT SUNLIGHT, DUST,HIGH TEMPERATURES AND HIGH HUMIDITY DURING USE AND STORAGE.**
This may cause irreparable damage or incorrect measurement.

❗ **KEEP THE THERMOMETER AWAY FROM SUDDEN CHANGE IN AMBIENT TEMPERATURE.**
Sudden temperature change may cause incorrect measurement. Start measurement when temperature has become stable after leaving the meter for a while.

❗ **KEEP THE THERMOMETER AWAY FROM STRONG ELECTROMAGNETIC SOURCES.**
Usage in such environments may cause irreparable damage or incorrect measurement.

Usage Warni

❗ **AVOID MEASURING SHINY OBJECTS.**
Shiny objects reflect surrounding temperatures. As this thermometer' s sensitivity to emissivity is fixed, the displayed temperature could differ form the actual temperature of objects that have different emissivity values.

⃠ **ONLY RATED SUPPLY SHOULD BE USED FOR POWER SOURCE.**
Using other than direct current of 12-24V will cause damage, short circuit, fire and injury. In this case, immediately shut off the power.

⃠ **DO NOT LET THE THERMOMETER TOUCH THE OBJECT THAT IS BEING MEASURED.**
This product is a non-contact thermometer. Touching high-temperature object may cause deformation of the meter, irreparable damage or incorrect measurement.

⃠ **DO NOT TOUCH THE FILTER.**
Do not let a solid or sharp object touch the filter and do not insert foreign objects into the filter. These may cause incorrect measurement.

❗ **DO NOT BRING THE THERMOMETER CLOSE TO ELECTRICALLY CHARGED OBJECTS.**
This may cause irreparable damage or incorrect measurement.

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