

PRECAUTIONS

This section provides general precautions for using the ES1A Non-contact Temperature Sensor and related devices.

The information contained in this section is important for the safe and reliable application of the ES1A Non-contact Temperature Sensor. You must read this section and understand the information contained before attempting to set up or operate the ES1A Non-contact Temperature Sensor.

1 Intended Audience

This manual is intended for the following personnel, who must also have knowledge of electrical systems (an electrical engineer or the equivalent).

- Personnel in charge of installing factory automation systems.
- Personnel in charge of designing factory automation systems.
- Personnel in charge of managing factory automation systems and facilities.


2 General Precautions

The user must operate the product according to the performance specifications described in the operation manuals.


Before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems, machines, and equipment that may have a serious influence on lives and property if used improperly, consult your OMRON representative.

Make sure that the ratings and performance characteristics of the product are sufficient for the systems, machines, and equipment, and be sure to provide the systems, machines, and equipment with double safety mechanisms.

This manual provides information for programming and operating the Unit. Be sure to read this manual before attempting to use the Unit and keep this manual close at hand for reference during operation.

 **WARNING** It is extremely important that the ES1A Non-contact Temperature Sensor be used for the specified purpose and under the specified conditions, especially in applications that can directly or indirectly affect human life. You must consult with your OMRON representative before applying the ES1A Non-contact Temperature Sensor to the above-mentioned applications.

3 Operating Environment Precautions

 **Caution** Do not operate the ES1A Non-contact Temperature Sensor in the following locations:

- Locations subject to dust or corrosive gases (particularly, sulfide gases, ammonia gases).
- Locations subject to condensation or icing.
- Locations subject to shock or vibration.
- Locations subject to exposure to oil, chemicals, cosmetics, detergents, or adhesives.
- Locations subject to radical temperature changes.

4 Application Precautions

Observe the following precautions when using the ES1A Non-contact Temperature Sensor.

**Caution**

Failure to abide by the following precautions could lead to faulty operation of the ES1A Non-contact Temperature Sensor, or could damage the Sensor. Always heed these precautions.

- Pay careful attention to the environmental conditions so that the operating temperature of the ES1A Non-contact Temperature Sensor will not exceed the upper limit. When using the ES1A-C Non-contact Temperature Sensor, the operating temperature should not exceed the upper limit regardless of whether or not the Sensor is provided with air-cooling measures.
- Check terminal polarities and wire correctly. (The red lead wire must be connected to the negative side.)
- Be sure to ground the shielded cables.
- Separate the wiring from high-voltage or high-current lines to prevent the influence of inductive noise. Avoid wiring in the same conduits as or in parallel with power lines.