

RSE300, RSE600

Thermal imagers

Users Manual



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Introduction

The RSE300 and RSE600 Thermal Imagers (the Product or Imager) are stationary, infrared imaging cameras for use in many applications. These applications include equipment troubleshooting, preventive and predictive maintenance, building diagnostics, and research and development.

The Imager can stream live infrared and IR-Fusion technology video to a PC that has SmartView R&D software installed. SmartView R&D is a high-performance, professional software suite for quality analysis and reporting. The Imager also works with MATLAB® and LabVIEW®.

Contact Fluke

Fluke Corporation operates worldwide. For local contact information, go to our website: www.fluke.com.

To register your product, or to view, print, or download the latest manual or manual supplement, go to our website.

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Safety Information

General safety information is in the printed Safety Information document that ships with the Product and at www.fluke.com. More specific safety information is listed where applicable.

Specifications

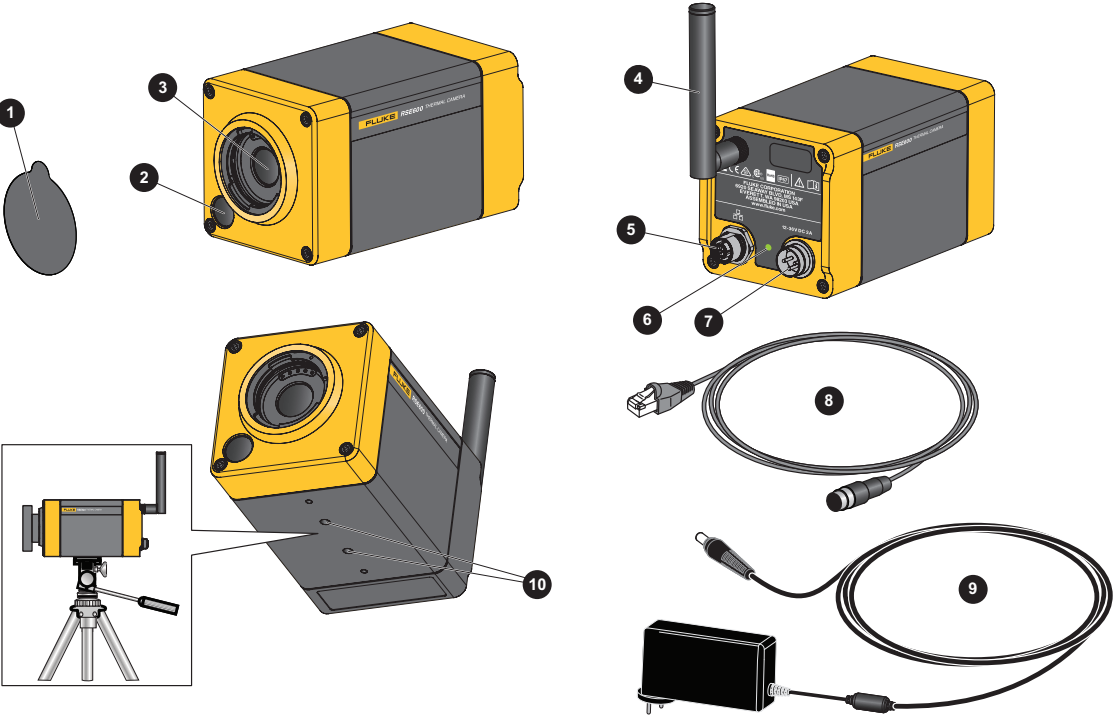
Complete specifications are at www.fluke.com. Search for RSE300 or RSE600.

Product Familiarization

Features

Table 1 lists the features of the Product.

Table 1. Features

			
Item	Description	Item	Description
1	Lens cover	6	LED indicator (See LED Indicator)
2	Visual light lens	7	M16 DC power jack
3	Infrared lens	8	M12 ethernet and power over ethernet cable
4	Antenna	9	M16 DC power cable
5	M12 ethernet and power over ethernet jack	10	Tripod/accessory mounting holes

LED Indicator

[Table 2](#) explains what the colors on the LED indicator means.

Table 2. LED Indicator Light Colors

Color	Description	Action
Blinking red	Not ready or not able to talk to the engine.	Wait for the Product to warm up. Or Connect the RJ45 connector end of the Ethernet cable to the Ethernet switch and the M12 connector end to the Product. If the problem persists, see Contact Fluke .
Solid red	Over ambient temperature.	Move the Product to a cool location.
Blinking green	Flash memory update is in progress.	NA
Solid green	Ready, IP address is set, and Ethernet cable is connected.	Use the Product.
Blinking yellow	Booting	NA
Solid yellow	Wait, the operating system is loading.	NA
Solid blue	Shutter is closed	NA

Operation

The Imager and SmartView R&D need a stable network connection to work properly. Set up your network without interference from other systems. Do not connect the Imager to a Virtual Private Network (VPN). SmartView R&D is a data-intensive application. Use of other data-intensive applications (streaming audio or video) on the PC or the same network system can cause loss of data.

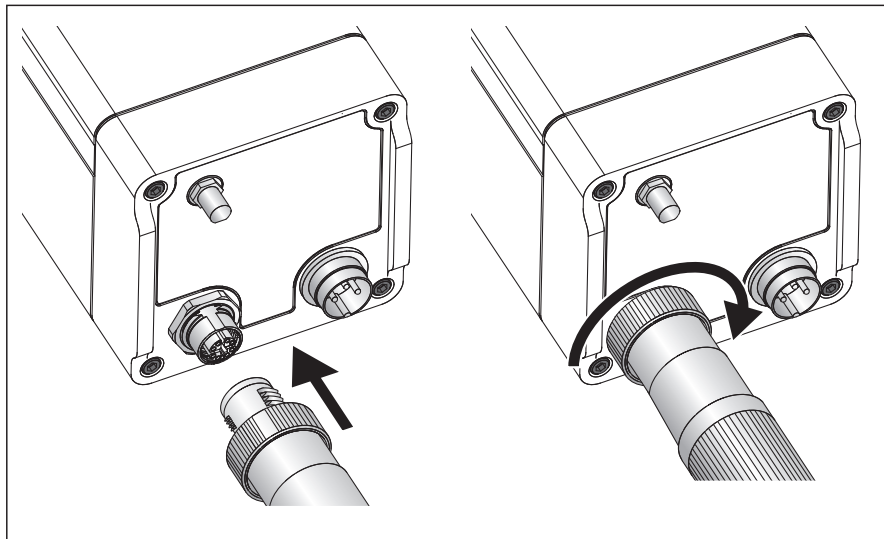
Note

All thermal imagers need sufficient warm-up time for accurate temperature measurements and best image quality. Fluke recommends a warm-up period of 60 minutes for optimal performance.

To set up the Product:

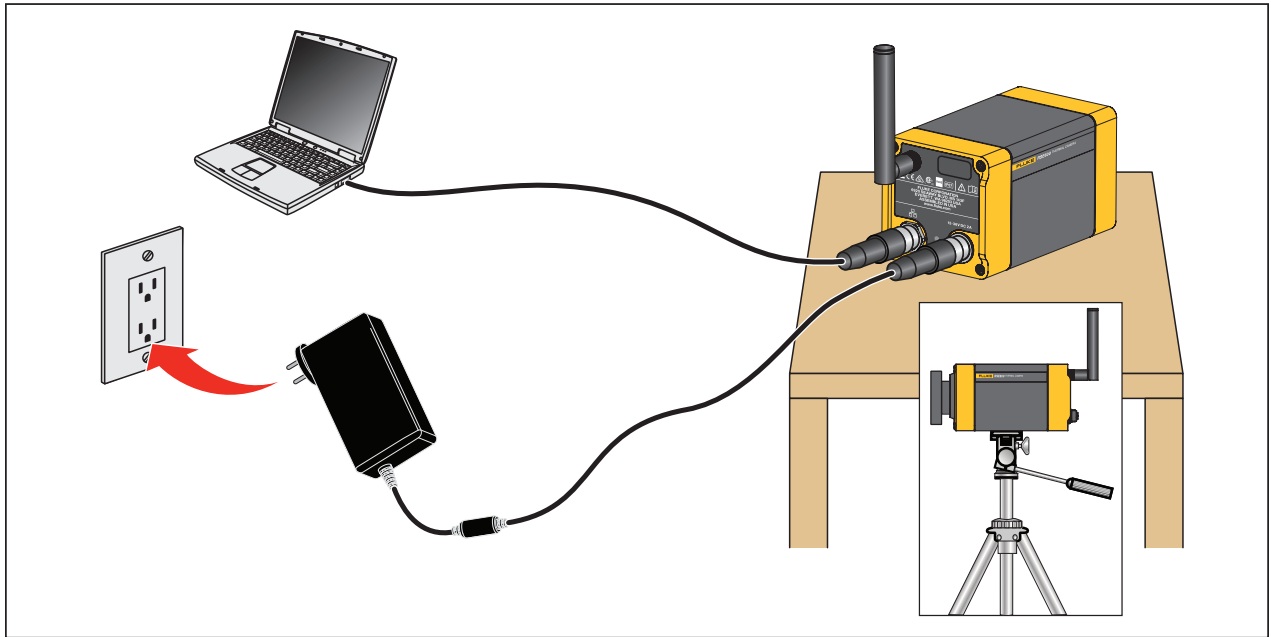
1. Attach the antenna.
2. Stabilize the Product either on a flat surface or a tripod.
3. Connect the M12 end of the ethernet cable to the M12 ethernet jack on the Product. See [Figure 1](#).
 - a. Fully insert the ethernet cable into the ethernet jack.
 - b. Rotate the ring 180 ° clockwise. Connect the M12 connector end of the ethernet cable to the Product.

Figure 1. M12 Ethernet Cable Connection



4. Connect the RJ45 connector end of the ethernet cable to the ethernet jack on the PC. See [Figure 2](#).
5. Connect the AC plug of the M16 DC power cable (15 V dc) to a power outlet and the M16 connector to the Product.
6. Wait for the Product to warm up and the LED indicator to show solid green.
7. Remove the lens cover.
8. Use SmartView R&D to focus the image.

Figure 2. Product Setup



SmartView R&D Software

SmartView R&D desktop software provides the ability to stream, analyze, and export radiometric video as well as create professional reports.

SmartView R&D desktop software features:

- Radiometric video streaming
- Radiometric video or image creation
- Image analysis tools
- Data trending tools
- Data exports
- Custom reports

For more information on how to download and install SmartView R&D Software, go to: <https://www.fluke.com/en-us/support/software-downloads/software-for-fluke-infrared-cameras>.

Accessories

Table 3 is a list of the accessories available for the Imager.

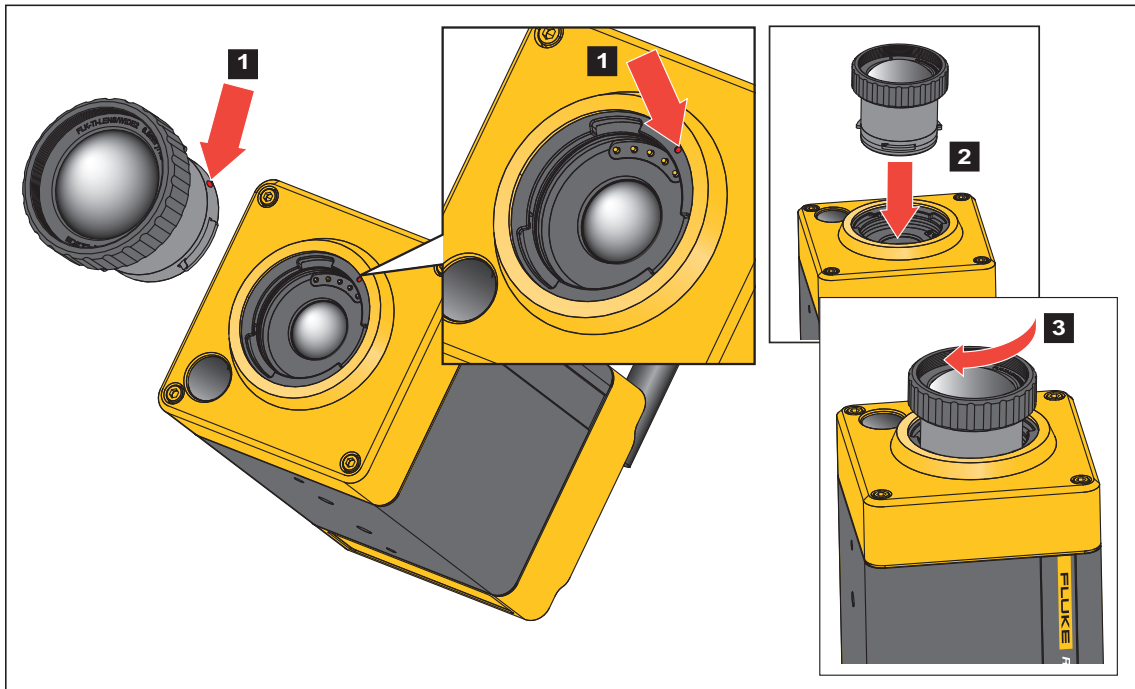
Table 3. Accessories

Model	Description	PN
FLK-RSE-MB	Mounting Base	4961344
FLK-0.75X-WIDE-LENS	Wide-Angle Infrared Smart Lens	4961174
FLK-2X-LENS	2X Telephoto Infrared Smart Lens	4961163
FLK-4X-LENS	4X Telephoto Infrared Smart Lens	4961188
FLK-MACRO-LENS	Macro Infrared Smart Lens	4961195

Optional Lenses

Use optional lenses for more applications of infrared inspection work. [Figure 3](#) shows how to install a lens.

Figure 3. Optional Lens Installation



For more information about optional lenses, go to www.fluke.com and search with the description in [Table 3](#).

Maintenance

Cleaning and lens care are the only maintenance required to the Product.

Clean the Case

Clean the case with a damp cloth and a weak soap solution. Do not use abrasives, isopropyl alcohol, or solvents to clean the case.

Lens Care

Caution

To prevent damage to the infrared lens:

- **Carefully clean the infrared lens. The lens has a delicate anti-reflective coating.**
- **Do not clean the lens too vigorously because this can damage the anti-reflective coating.**

To clean the lens:

1. Use a pressurized can of air or a dry nitrogen-ion gun, if available, to blow off the particulates from the lens surface.
2. Soak a lint-free cloth in a commercial lens cleaning liquid that contains alcohol, ethyl alcohol, or isopropyl alcohol.

Caution

To prevent damage to the case, do not get the alcohol on the case.

3. Squeeze the cloth to remove excess liquid.
4. Wipe the lens surface in one circular motion and discard the cloth.
5. If needed, repeat with a new lint-free cloth.