

TECHNICAL DATA

RSE300 and RSE600 Infrared Cameras



SUPERIOR IMAGE QUALITY

SPATIAL RESOLUTION

RSF300

1.85 mRad

RSE600

0.93 mRad

RESOLUTION

RSE300

320 x 240

RSE600

640 x 480

FIELD OF VIEW

RSE300

34 °H x 24 °V

RSE600

34 °H x 24 °V

Mounted infrared cameras for research, science and engineering

- MATLAB* and LabVIEW* software compatibility allows users to integrate infrared data, images and videos to support R&D analysis
- 320 x 240 and 640 x 480 resolution options
- See the details you need with **optional smart lenses:** 2x and 4x telephoto, wide angle and macro lenses
- Optimize images, generate customizable reports and export images to the format of your choice with SmartView R&D™ desktop software

SmartView R&D Software included with every camera

- Analyze detailed temperature data with advanced thermography software for research and development applications.
- Real time radiometric data streaming from the camera to the PC software.
- Advanced analysis tools for measuring temperature with the ability to place multiple customizable markers and areas of interest
- Record data trends and time plots on markers and areas of interest.
- Capture radiometric images and recordings manually or off of preset conditions.
- Reports with customizable templates to present findings and analysis.





Specifications

Key features	RSE300	RSE600	
Infrared resolution	320 x 240 (76,800 pixels)	640 x 480 (307,200 pixels)**	
IFOV with standard lens (spatial resolution)	1.85 mRad	0.93 mRad	
Field of view	34 °H x 24 °V	34 °H x 24 °V	
Minimum focus distance	15 cm (approx. 6 in)		
Camera focus options	Focus is adjusted in SmartView R&D™ desktop software		
IR-Fusion* technology	Yes, in SmartView R&D™ desktop software. Five modes of image blending (AutoBlend™ mode, Picture-in-Picture (PIP), IR/Visible alarm, Full IR, Full visible light) add the context of the visible details to your infrared image		
Interfaces for image/data transfer	Supported in camera o	data ports: GigE Vision	
Thermal sensitivity (NETD)	≤ 0.030 °C at 30 °C target temp (30 mK)*	≤ 0.040 °C at 30 °C target temp (40 mK)*	
Level and span	Smooth auto and manual scaling	, in SmartView desktop software	
Fast auto toggle between manual auto modes	Yes, in SmartView R&D™ desktop software		
Fast auto-rescale in manual mode	Yes, in SmartView R&D™ desktop software		
Minimum span (in manual mode)	0.1 °C (0.18 °F), in SmartView R&D™ desktop software		
Minimum span (in auto mode)	<1.0 °C (<1.8 °F), in SmartView R&D™ desktop software		
Built-in digital camera (visible light)	5 megapixel industrial performance		
Frame rate	60 Hz or 9 Hz versions		
Digital zoom	Variable up to 16x in SmartView R&D™ desktop software		
Data storage and image capture			
Memory options	Stream and capture data directly to the PC		
Image capture, review, save mechanism	Capture, save and analyze images in SmartView R&D^ m desktop software		
Image file formats	Non-radiometric (.png) or (.jpeg) or fully-radiometric (.gtsi, .cltsq); no analysis software required for non-radiometric (.png, .jpg and .avi) files		
Software	SmartView R&D™ desktop software—full analysis and reporting software Compatible with MATLAB® and LabVIEW® software		
Export file formats with SmartView R&D™ desktop software	png, jpeg, avi video, ASCII text, CSV, Binary, MATLAB format		
IR PhotoNotes™	Yes, in SmartView R&D™ desktop software		
Text annotation	Yes, in SmartView R&D™ desktop software		
Video recording	Radiometric, in SmartView R&D™ desktop software, with exports to standard non-radiometric formats		
File formats video	Non-radiometric (.AVI) and fully-radiome	tric (.cltsq), in SmartView R&D™ software	
Remote display viewing	via Ethernet cable to SmartV	ra display on your PC, or TV monitor, liew R&D™ desktop software	
Remote control operation	Yes, through SmartView	R&D™ desktop software	
Temperature measurement			
Temperature measurement range (not calibrated below -10 °C)	-10 °C to +1200 °C	(14 °F to +2192 °F)	
Accuracy	± 2 °C or ± 2 %, v	vhichever is greater	
Autocapture	Yes, in SmartView R&	D™ desktop software	
Reflected background temperature compensation	Yes, in SmartView R&D™ desktop software		
Transmission correction	Yes, in SmartView R8	D™ desktop software	
Color palettes			
Standard palettes	11: Rainbow, Iron, Gray, RContrast, Rain900,	Rain, Fire, Yellow, GrayRed, MidGray, Y-Glow	
Ultra Contrast™ palettes	-	au equalization, Plateau equalization	
		-	

^{*}Best possible

^{**}Option to output 320x240 infrared data through GigE Vision



Specifications continued

Key features	RSE300	RSE600
Analysis tools		
Custom markers	Spot, line, box, circle	
Color alarms (temperature alarms)	Yes, in SmartView R&D™ desktop software–high temperature, low temperature, and isotherms (within range)	
Image analysis tools	Ruler, measure line, measure angle, note, pins	
Real-time trend	Point trend, area trend, mix trend, profile trend, boxline trend	
Customizable reports	Display the information you need based on your application	
Center-point temperature measurement	Yes, in SmartView R&D™ desktop software	
Spot temperature	Yes, in SmartView R&D™ desktop software–hot and cold spot markers	
User-definiable spot markers	Unlimited user-definable spot markers, in SmartView R&D™ desktop software	
Center box	Expandable-contractible measurement box with MIN-MAX-AVG temp display, in desktop software	
Additional specifications		
Infrared spectral band	8 μm to 14 μm (long wave)	
Operating temperature	-10 °C to +50 °C (14 °F to 122 °F)	
Storage temperature	-20 °C to +50 °C (-4 °F to 122 °F)	
Relative humidity	10 % to 95 % non-condensing	
Electromagnetic compatibility	EN 61326-1:2013 IEC 61326-1:2013; (Industrial)	
US FCC	CFR 47, Part 15 Subpart B Class A	
Vibration	IEC 60068-2-26 (sinusoidal vibration): 3G, 11–200 Hz, 3 axis.	
Shock	IEC 60068-2-27 (mechanical shock): 50G, 6 ms, 3 axis.	
Size (HxWxL)	8.3 cm x 8.3 cm x 16.5 cm (3.3 in x 3.3 in x 6.5 in)	
Weight	1 kg (2.2 lbs)	
Enclosure rating	IEC 60529: IP67 (protected against dust, limited ingress; protection against water spray from all directions)	
Warranty	Two years (standard), extended warranties are available	
Recommended calibration cycle	Two years (assumes normal operation and normal aging)	
Supported languages	English, French, German, Italian, Russian, Simplified Chinese, Spanish	

Ordering information

FLK-RSE300 60Hz Thermal Imager; 320 x 240 FLK-RSE300 9Hz Thermal Imager; 320 x 240

FLK-RSE300 9Hz/CH Thermal Imager; 320 x 240; 9 Hz, China

FLK-RSE600 60Hz Thermal Imager; 640 x 480 FLK-RSE600 9Hz Thermal Imager; 640 x 480

FLK-RSE600 9Hz/CH Thermal Imager; 640 x 480; 9 Hz, China

What's included

Infrared camera with standard infrared lens; AC power supply; Ethernet cable; antenna; SmartView R&D™ software download key; lens cover; hard case

Follow directions in the box to download copy of SmartView R&D TM . 1 copy of SmartView R&D TM for every camera

Optional accessories

FLK-RSE-MB Mounting bracket

FLK 0.75X WIDE LENS Infrared Wide Angle Lens FLK 2X LENS Infrared Telephoto Lens (2X magnification) FLK 4X LENS Infrared Telephoto Lens (4X magnification) FLK MACRO LENS Infrared Macro Lens

Visit your local Fluke website or contact your local Fluke representative for more information.

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