

Technical Data

RSE30 and RSE60 Thermal Camera

Fluke's New Infrared Detection Solutions — RSE30 & RSE60



Spatial Resolution (Standard Lens)

RSE30 1.13mrad

RSE60 0.68mrad

Resolution

RSE30 384×288

RSE60 640×480

Thermal Sensitivity

RSE30 < 50mK

RSE60 < 30mK

- Wide Temperature range: -20 to 650°C & -20 to 2000°C options.
- 384×288 & 640×480 infrared resolution offers high-definition images. Autofocus feature enables test target locking.
- Capturing the smallest details with video streaming at a 30Hz frame rate. Data output with 1.8Mb bandwidth offers a smooth test experience.
- User-definable measurement points, lines, and areas to meet the challenging needs of multi-point testing.
- SmartView IR software for measurement, recording, analysis & reporting functions.
- Access the full potential of our RSE 30/60 series infrared cameras with Open API SDK.



Specifications

	RSE30	RSE60	RSE30H	RSE60H
Infrared Resolution	384 × 288	640 × 480	384 × 288	640 × 480
Detector Type	Focal Plane Array FPA, Uncooled Microthermal			
Thermal Sensitivity (NETD)*	<50 mK	<30 mK	<50 mK	<30 mK
Pixel Spacing	17µm			
Infrared Spectral Band	7.5 µm to 14 µm			
Field of View (FOV)	See lens parameters			
Spatial Resolution (IFOV)	See lens parameters			
Minimum Focus Distance	See lens parameters			
Lens Focal Length	See lens parameters			
Focus System	Auto	Auto	Auto	Auto
Temperature Range	-20 °C to 650 °C	-20 °C to 650 °C	-20 °C to 2000 °C	-20 °C to 2000 °C
Temperature Measurement Range	Subrange 1 -20 °C to 150 °C Subrange 2 0 °C to 650 °C	Subrange 1 -20 °C to 150 °C Subrange 2 0 °C to 650 °C	Subrange 1 -20 °C to 150 °C Subrange 2 0 °C to 650 °C Subrange 3 300 °C to 2000 °C	Subrange 1 -20 °C to 150 °C Subrange 2 0 °C to 650 °C Subrange 3 300 °C to 2000 °C
Temperature Accuracy	15°C~35°C, ±2 °C or ±2 % of reading, whichever is greater			
Global Temperature Measurement Correction	Emissivity (0.01 to 1.00), Reflected Temperature (Background Temperature), Transmittance, Atmospheric Temperature, Relative Humidity, Target Distance			
Area Temperature Measurement Correction	Emissivity (0.01 to 1.00)			
Analysis Software	SmartView IR			
Color Palettes	16 color palettes such as Grey, Iron, Rainbow etc. The palettes can be inverted.			
Image Processing	Non-uniformity correction, intelligent gain control			
Image Mirror	Left-right, up-down, center			
Video Stream Compression Standard	H.264			
Video	Mainstream Pixel: 384 x 288 Frequency: 30 Hz Bandwidth: 1.8 Mb Sub stream Pixel: 384 x 288 Frequency: 30 Hz Bandwidth: 100 Kb	Mainstream Pixel: 640 x 480 Frequency: 30 Hz Bandwidth: 2.5 Mb Sub stream Pixel: 320 x 240 Frequency: 30 Hz Bandwidth: 100 Kb	Mainstream Pixel: 384 x 288 Frequency: 30 Hz Bandwidth: 1.8 Mb Sub stream Pixel: 384 x 288 Frequency: 30 Hz Bandwidth: 100 Kb	Mainstream Pixel: 640 x 480 Frequency: 30 Hz Bandwidth: 2.5 Mb Sub stream Pixel: 320 x 240 Frequency: 30 Hz Bandwidth: 100 Kb
Fully-Radiometric Streaming	Yes. 30Hz	Yes. 25Hz	Yes. 30Hz	Yes. 25Hz
Pan-Tilt Control	Support Pelco-D protocol			
Temperature measurement area	Supports temperature measurement points, lines & areas. Supports Modbus output (the Modbus output is mutually exclusive with the Pan-Tilt control)			
Ethernet Type	10M/100M/1000M, adaptive			
Network Protocols	IPv4, UDP, TCP, RTSP, RTCP, RTP			
Concurrent Access	10 channels for mainstream and sub stream, 1 channel for fully-radiometric			

* Best Possible

Specifications

	RSE30	RSE60	RSE30H	RSE60H
Access standard	ONVIF			
Power Port	Terminal block, with fixed screw holes			
Network Interface	RJ45, with fixed screw holes and status indicator			
Alarm Input/Output	1 relay output: load capacity: 24 V, 1.5 A 1 optocoupled output: output capacity: 3.3 to 24 V, 35mA maximum output current 1 channel optocoupled input: input capability: 3.3 to 24 V, 5mA-to-15mA input current			
Serial Port	1 RS-485			
Power Supply	12V to 24V DC, PoE			
Typical Power Consumption	3 W	4 W	3 W	4 W
Safety Standards	IEC 61010-1: Pollution Degree 2			
Electromagnetic Compatibility (EMC)	IEC 61326-1: Industrial Electromagnetic Environment. CISPR 11: Group 1, Class A			
Enclosure Rating	IEC 60529: IP40			
Shock	IEC 60068-2-27: 25g, 11ms			
Vibration	IEC 60068-2-6: 2g			
CE Compliant	Directive 2011/65/EU and amendment (EU) 2015/863 Directive 2014/30/EU EMC			
Operating Temperature	-10 °C to 50 °C			
Storage Temperature	-40 °C to 70 °C			
Relative Humidity	90 %			
Dimensions	142.25 mm x 71 mm x 70 mm (Standard lens, without base)		157.25 mm x 80 mm x 79 mm (Standard lens, without base)	164.6mm x 80 mm x 79 mm (Standard lens, without base)
Weight	706 g (standard lens)	718g (standard lens)	713g (standard lens)	993g (standard lens)
Housing Material	Housing material: aluminum alloy			
Mounting	Tripod mounting: 2 x 1/4-UNC-20 standard tripod mounting holes Bottom and top mounting supported			

Optional Lenses

	Lens Name	Standard Lens	Wide-Angle Lens	Telephoto Lens
	Lens Parameters			
RSE30	Field of View (FOV)	25° x 18.7°	50° x 37.5°	12° x 8.9°
	Spatial Resolution (IFOV)	1.13 mrad	2.07 mrad	0.57 mrad
	Minimum Focus Distance	0.3 m	0.3 m	1 m
	Focal Length	15 mm	8.2 mm	30 mm
RSE60	Field of View (FOV)	25° x 18.7°	50° x 37.5°	12° x 8.9°
	Spatial Resolution (IFOV)	0.68 mrad	1.31 mrad	0.34 mrad
	Minimum Focus Distance	0.3 m	0.3 m	1 m
	Focal Length	25 mm	13 mm	50 mm
RSE30H	Field of View (FOV)	25° x 18.7°	50° x 37.5°	12° x 8.9°
	Spatial Resolution (IFOV)	1.13 mrad	2.32 mrad	0.53 mrad
	Minimum Focus Distance	0.5 m	0.5 m	1.5 m
	Focal Length	15 mm	7.34 mm	32.2 mm
RSE60H	Field of View (FOV)	25° x 18.7°	50° x 37.5°	12° x 8.9°
	Spatial Resolution (IFOV)	0.67 mrad	1.39 mrad	0.32 mrad
	Minimum Focus Distance	0.5 m	0.7 m	5 m
	Focal Length	25.3 mm	12.2 mm	53.9 mm

Note: The RSE 30/60 is shipped with a standard lens. The optional lens if required must be ordered with the camera.

Standard Accessories

- Thermal Camera (standard lens)
- Lens cap (removable)
- Power adapter
- Power connector
- Ethernet cable, 3 m
- Allen wrench
- Tripod adapter block
- Mounting screw, M2X5
- Documents including each of Safety Sheet, Quick Reference Guide, Quality Certificate and Warranty Card

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