TECHNICAL DATA

Fluke RSE30 and RSE60 Series Fixed Thermal Cameras

Fluke's New Infrared Detection Solutions: RSE30 and RSE60

- Wide Temperature range: -20 to 650° C and -20 to 2000° C options
- Resolution of 384x288 / 640x480, autofocus, high-definition images, test target locking
- Capturing the details with video streaming at 30Hz frame rate, data output with 1.8Mb bandwidth, the smooth test experience
- User definable measurement points (5), lines (10) and areas (10) meet the needs of multi-point testing
- SmartView IR for more analysis functions

Spatial Resolution (Standard Lens)

- RSE30 1.13mrad
- RSE60 0.68mrad

Resolution

- RSE30 384x288
- RSE60 640x480

Thermal Sensitivity

- RSE30 ＜50mk
- RSE60 ＜30mk

Specifications

	RSE30	RSE60	RSE30H	RSE60H
Infrared Resolution	384 x 288	640 x 480	384 x 288	640 x 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 to 35° C, ±2 °C or ±2 % of rdg, 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			
Colour Palettes	10 colour palettes, such as Ironbow, black-white, 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	Main stream Pixel: 384 x 288 Frequency: 30 Hz Bandwidth: 1.8 Mb Sub stream Pixel: 384 x 288 Frequency: 30 Hz Bandwidth: 100 Kb	Main stream Pixel: 640 x 480 Frequency: 30 Hz Bandwidth: 2.5 Mb Sub stream Pixel: 320 x 240 Frequency: 30 Hz Bandwidth: 100 Kb	Main stream Pixel: 384 x 288 Frequency: 30 Hz Bandwidth: 1.8 Mb Sub stream Pixel: 384 x 288 Frequency: 30 Hz Bandwidth: 100 Kb	Main stream 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	Support 5 temperature measurement points, 10 temperature measurement lines, 10 temperature measurement areas, support 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 main stream and sub stream, 1 channel for fully-radiometric			
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			

	RSE30	RSE60	RSE30H	RSE60H
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			

*Best Possible

Optional Lenses

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

Standard Accessories

- Thermal Camera
- Standard Lens
- Lens Cover
- Power Adapter
- Power Connector
- Ethernet Cable
- Document Pouch
  (Safety Sheet, Quick Reference Guide, Warranty Card)
- Accessory Bag
  (Tripod adapter, 4 M2*5 screws, Allen key)
- Packaging Box

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