ThermoView® TV30

Highlights

Stand-alone camera

Unrestrained, resilient, and completely customizable. Monitor temperatures in severe environments without the need for vulnerable computer equipment with TV30 SA camera models. With multiple areas of interest (AOIs) and a rich feature set of onboard fieldbus protocol options, the Thermoview TV30 thermal imager detects abnormalities with flexible precision.

Directly integrate without a PC with TV30 SA camera models

With TV30 SA camera models set up multiple areas of interest, monitor your process, and access on-board analytics of the fixed thermal imager through a web browser. Interface directly to PLCs or other devices using multiple fieldbus protocols or discreet I/O.

Discover advanced capabilities with TV30 GigE models

For more specialized applications, the TV30 GigE models open up a world of possibilities with their true GigE Vision interface, enabling direct communication between programmers and the camera using standard applications like LabVIEW and MATLAB. Moreover, these cutting-edge GigE models seamlessly integrate with the Fluke Process Instruments ThermoView software, granting access to an extensive array of features and functions available in ThermoView.

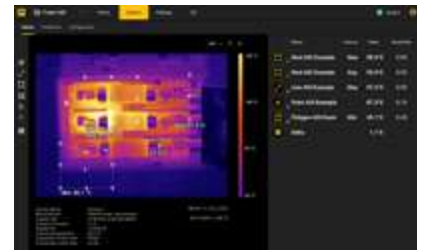### Reduced installation cost and space savings

The fixed thermal imager's small footprint allows for easier installation, while multiple fieldbus options simplify integration with your existing process controllers and external devices.

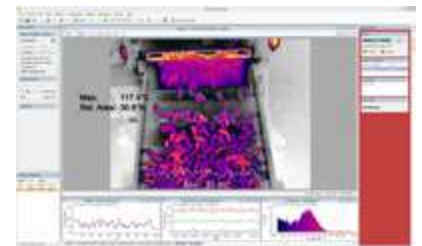### Avoid downtime or costly repairs

Continuously monitor assets, identify defects, and set up alarms when any anomalies are detected.

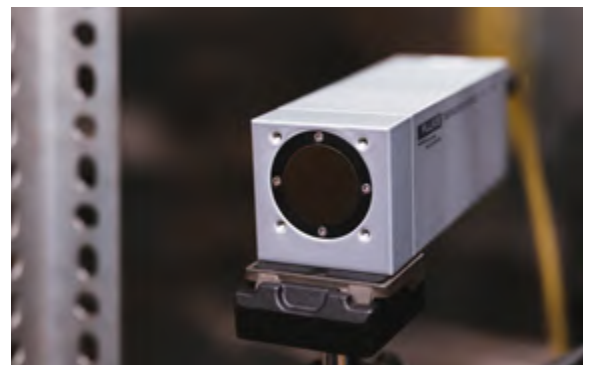### Built to work in the harshest environments

IP67 housing that guarantees long-term use in the most rugged conditions, with air purge, water cooling jacket, and other accessories available.

The TV30SA offers remote accessibility through a web browser, enabling users to create multiple AOIs (Areas of Interest) within a single camera unit.
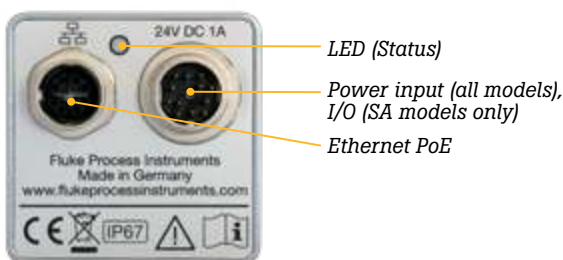
ThermoView software for GigE models for factory automation, process inspection, and process monitoring applications
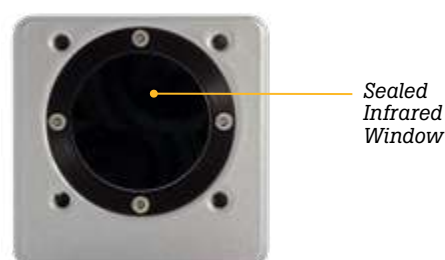
Specifications

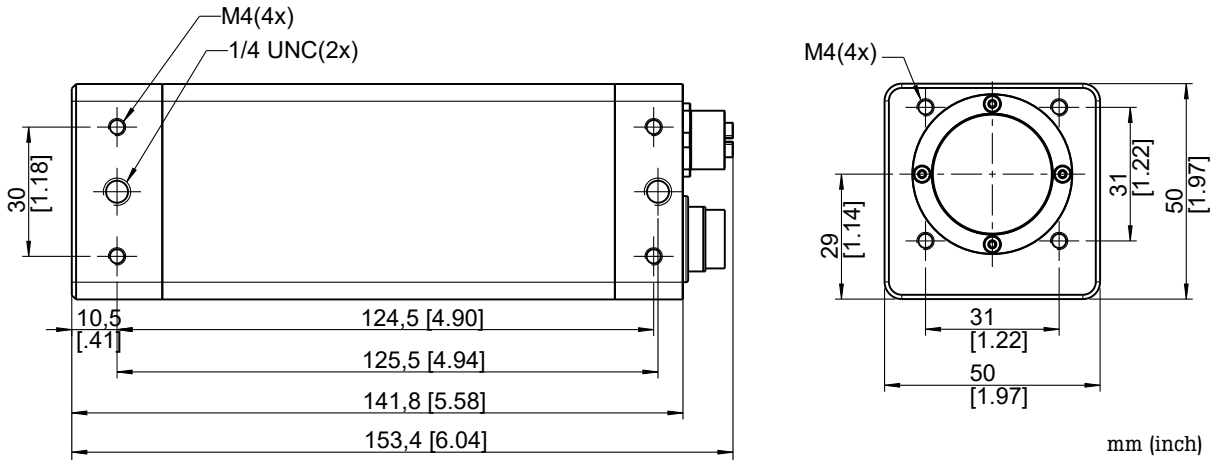| Models	TV30-SA/TV30-GE
Measuring Range	–10 to 1300 °C (14 to 2372 °F)
Measurement Accuracy	Down to ±2 °C or ±2 % (reading)
Infrared Resolution	TV33: 320 x 240 TV36: 640 x 480
Spectral Range	8 – 14 µm
Detector	Uncooled focal plane array
Lens Options	30° x 22° Standard 22° x 16° Telephoto 48° x 36° Wide Angle
Focus Range	Standard: 220 mm (8.7") to ∞ Wide Angle: 100 mm (3.9") to ∞ Telephoto: 190 mm (7.5") to ∞ Motorized lens focus
Frame Rate	9 or 60 Hz
Emissivity Correction	0.10 to 1.00
Supported Protocols	TV33SA/TV36SA: MQTT, OPC UA, DHCP, mDNS (Bonjour) TV33GE/TV36GE: DHCP, mDNS (Bonjour), GigE Vision ver. 2.0 &1.2, GenICam compliant
Inputs/Outputs	TV33SA/TV36SA: 3 on board inputs/3 onboard outputs, direct interface to additional remote I/O TV33GE/TV36GE: Interface to remote I/O via ThermoView software
LED Display	Power supply indication, system error codes
Operating Temperature	–10 to 50 °C (14 to 122 °F)
Storage Temperature	–20 to 70 °C (–4 to 158 °F)
Humidity	Operating and storage 10 % to 95 %, non-condensing
Power Supply	24 VDC ± 20 % or Power over Ethernet (IEEE 802.3at)
Shock Resistance	IEC 60068-2-27 (mechanical shock): 50 g, 6 ms, 3 axes
Vibration Resistance	IEC 60068-2-26 (sinusoidal vibration): 3 g, 11 – 200 Hz, 3 axes
Environmental Protection	IP67
Dimensions (W x H x L)	Approximately 50 x 50 x 142 mm (1.96 x 1.96 x 5.58")
Software	TV33SA/TV36SA: Web interface TV33GE/TV36GE: ThermoView Software, Web interface (basic configuration)

Thermal Imager Rear View

LED (Status)

Power input (all models),
I/O (SA models only)

Ethernet PoE

Thermal Imager Front View

Sealed
Infrared
Window

Thermal Imager Dimensions

M4(4x)
1/4 UNC(2x)

30 [1.18]

10,5 [.41]
124,5 [4.90]
125,5 [4.94]
141,8 [5.58]
153,4 [6.04]

M4(4x)

29 [1.14]
31 [1.22]
50 [1.97]

31 [1.22]
50 [1.97]

mm (inch)

Accessories

A-TV30-AP
Air purge collar
(For use with all TV30 camera models
to keep the camera window clean)

A-TV30-AP-WC
Cooling jacket with air purge collar
(For use in ambients up to 200 °C (392 °F))

A-TV-ENCVW
Outdoor enclosure

Additional accessories include but are not limited to:
- Mounting base (A-TV30-MB)
- Swivel bracket (A-BR-S)
- Various length Ethernet and fiber optic cables
- I/O accessories

Scope of Delivery

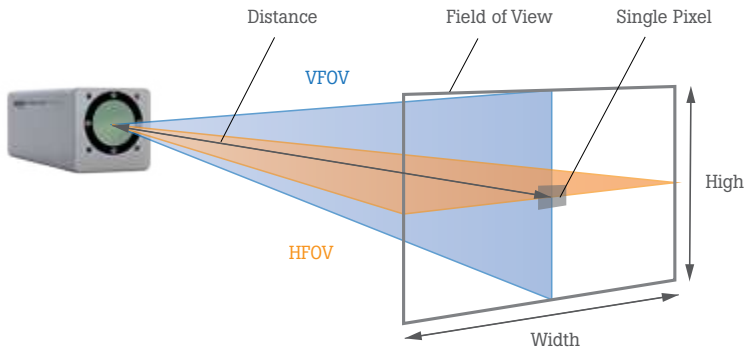TV30 thermal imagers are
shipped with:
- Calibration certification
  (downloadable from camera)
- Quick reference guide
- Safety sheet

Distance to Object

Lens Field of View examples (TV33)

Lens Type	Distance		HFOV		VFOV		Pixel Size	
	m	ft	m	ft	m	ft	mm	in
Standard Lens	0.5	1.6	0.3	0.9	0.2	0.6	0.82	0.032
	1.0	3.3	0.5	1.8	0.4	1.3	1.64	0.065
	3.0	9.8	1.6	5.3	1.2	3.8	4.90	0.193
	10.0	32.8	5.4	17.6	3.9	12.8	16.35	0.648
Wide Angle	0.5	1.6	0.4	1.4	0.3	1.0	1.31	0.516
	1.0	3.3	0.9	2.9	0.7	2.1	2.62	0.103
	3.0	9.8	2.7	8.7	2.0	6.4	7.85	0.309
	10.0	32.8	8.9	29.2	6.5	21.3	26.16	1.030

Field of View

HFOV – Horizontal Field of View (horizontal aperture angle)
VFOV – Vertical Field of View (vertical aperture angle)

Measuring field sizes can be calculated online at:
www.flukeprocessinstruments.com/SpotSizeCalculator

These products are controlled under ECCN 6A003.B.4.B and an export license is needed for certain destinations. Please see RS1 controls for licensing requirements.

The Fluke Process Instruments Guarantee

The ThermoView TV30 thermal imager is supported by a two year warranty. With a network of trained representatives and agents in over one hundred countries and offices located in the U.S., Germany and China, we provide local service and support.

Fluke Process Instruments