

## TECHNICAL DATA

# ThermoView® TV30

### Highlights

#### Stand-alone camera

Unrestrained, resilient, and completely customizable.

Monitor temperatures in severe environments without the need for vulnerable computer equipment. With multiple areas of interest (AOIs) and a rich feature set of on board field bus protocol options, the ThermoView TV30 thermal imager detects abnormalities with flexible precision.

#### Directly integrate without a PC

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 PLC's or other devices using multiple fieldbus protocols or discreet I/O.

#### 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

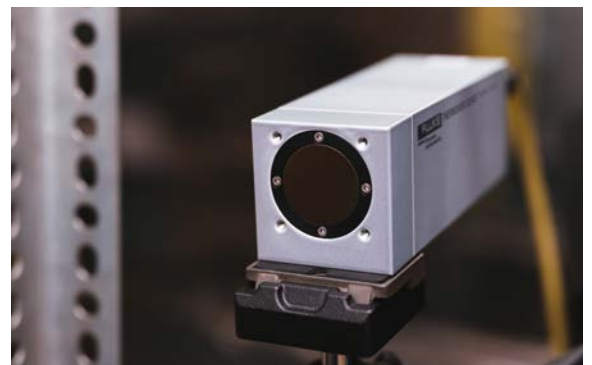
Continuously monitor assets, identify defects, and set up alarms when any anomalies are detected.

#### 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.

#### A New Angle

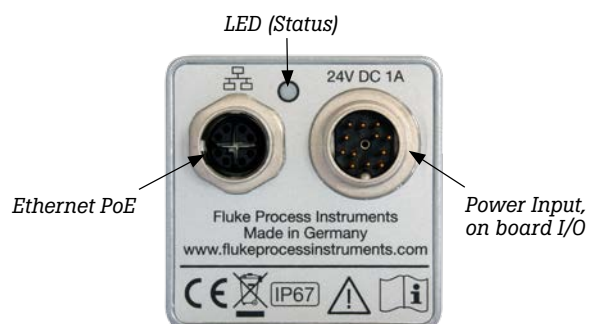
High Performance thermal imaging camera provides a rich feature set of automation and control capabilities along with the durability to meet the demanding industrial applications Fluke Process Instruments products are known for.



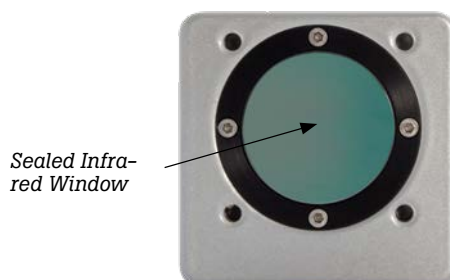
## Specifications

| Models                   | TV33SA/TV36SA                                                                                                                                |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Measuring Range          | -10 to 1300 °C (14 to 2372 °F)                                                                                                               |
| Measurement Accuracy     | Down to $\pm 2$ °C or $\pm 2$ % (reading)                                                                                                    |
| Infrared Resolution      | TV33: 320 x 240<br>TV36: 640 x 480                                                                                                           |
| Spectral Range           | 8 - 14 $\mu$ m                                                                                                                               |
| Detector                 | Uncooled focal plane array                                                                                                                   |
| Lens Options             | 30° x 22° Standard<br>22° x 16° Telephoto<br>48° x 36° Wide Angle                                                                            |
| Focus Range              | Standard: 220 mm (8.7") to $\infty$<br>Wide Angle: 100 mm (3.9") to $\infty$<br>Telephoto: 190 mm (7.5") to $\infty$<br>Motorized lens focus |
| Frame Rate               | 9 or 60 Hz                                                                                                                                   |
| Emissivity Correction    | 0.10 to 1.00                                                                                                                                 |
| Supported Protocols      | MQTT, OPC UA, TCP, DHCP, UDP, mDNS (Bonjour)                                                                                                 |
| 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 $\pm$ 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<br>(1.96 x 1.96 x 5.58")                                                                                      |

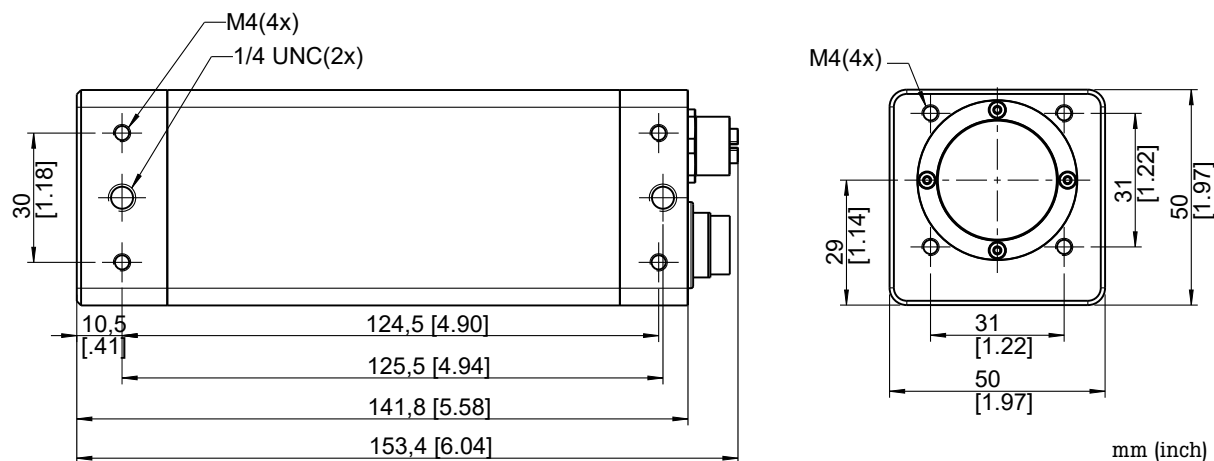
### Thermal Imager Rear View



### Thermal Imager Front View



## Thermal Imager Dimensions



## 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:

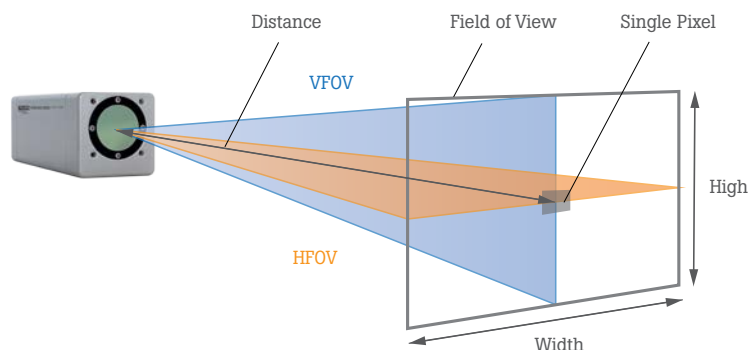
- Calibration certification
- Quick reference guide
- Safety sheet

## 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/TV30](http://www.flukeprocessinstruments.com/TV30)

*These products are controlled under ECCN 6A003 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



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