

# Datasheet

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Web: https://www.workswell-thermal-camera.com/workswell-tis-640/





#### Introduction

Truck Infrared System (TIS) by Workswell company is made to be used by fire crews to make their work more secure and faster. This complex thermal imaging system is designed for use on firefighting vehicles. The whole system is based on a thermal imaging camera which can be controlled by PTZ system motors. The thermal imaging camera can be controlled remotely, directly from vehicle cabin, through a remote connection via a tablet.

This system is suitable for big fire trucks (with dimensions and weights of about 20 meters and 30 tons) with a large water tank and a second chemical tank for chemical extinguishing. The vehicle can be operated by a crew of two and primarily serves for firefighting at a chemical plant, tire waste and, in general, in place with a high degree of smoke.

Temperature resistance of the system is within the range of  $-20^{\circ}$ C to  $+60^{\circ}$ C, which is the operating temperature of the protective cover. The temperature range of the thermal imaging camera can be set to the low temperature range (0-250°C) or to the high temperature range (50-1000°C).

The PTZ system can be controlled via the software control unit with buttons on the tablet. It is possible to pre-set the motor positions; those can be used either the default ones or the ones to which the motor returns back (as pre-programmed ones).

#### **Key Features**

- Thermal camera controlled by PTZ system motors
- Remote control of the TIS 640
- Digital visible camera included
- Protective cover (dustproof, watertight)
- High temperature ranges up to 1000°C







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### **WORKSWELL TIS - 640 Technical Parameters**

Thermal Camera	Truck Infrared System
Resolution	640 x 512 pixels
Temperature ranges	Low: 0 °C to +250 °C
	High: +50°C to +1000°C
Temperature sensitivity	0.05 °C (50 mK)
Accuracy	±2 % or ±2 °C (For high temperature ranges)
Spectral range	7.5 – 13.5 μm
Calibration	Yes, the package includes the calibration certificate
Lens	Focal distance 35 mm FOV 18° x 14°
Focus	Fixed (focused on infinity)
Digital zoom	1 - 12x
Image recording	Radiometric JPEG & Digital camera JPEG

Digital visible Camera	
Resolution	800 x 600 pixels
Digital zoom	1 - 12x

Built-in Functions	
Image recording	Radiometric JPEG & Digital camera JPEG
Storage	Internal 128 GB – up to 2 hours of radiometric sequences
Max/Min/Centre temp.	Automatic hot spot and cold spot detection, centre point measurement
Video stream	Stream of the live view to tablet
Post analysis software	CorePlayer

Operating Environment and Packaging	
Operating temperature	-20°C to +60°C (operating temperature of the protective cover)
IP protection (Encapsulation)	IP 67 (dustproof and watertight)

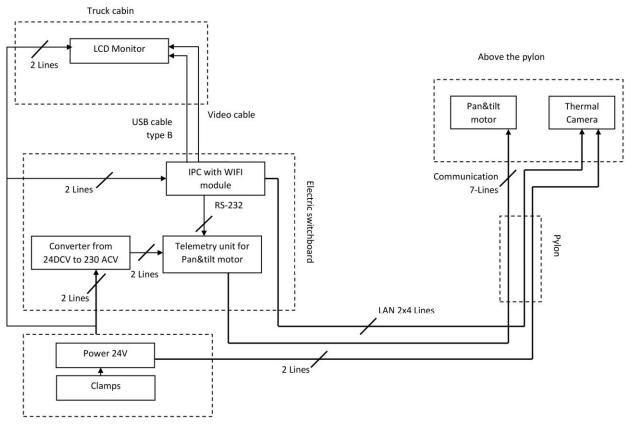
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# **WORKSWELL TIS - 640 Technical Parameters**

Connectivity and Power supply	
Input supply voltage	24 VDC - 30 VDC, maximum voltage of 28 V
Connectivity	Wi-Fi
PTZ system motors	Controlled via the software control unit on the tablet (from the truck cabin)



Block diagram of the TIS - 640

Truck Infrared System (TIS) can work in pre-set modes. These can be pre-set and then edited as needed. The modes are used to set live transmission from the thermal imaging camera and to set the way of presentation on the screen. It is possible to add or remove them easily using just two buttons. Modes include settings such as: colour palette of thermal image, automatic or manual temperature range; and the minimum and maximum temperatures in the manual temperature range.



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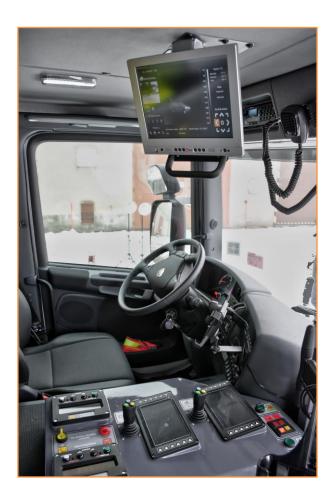




Workswell TIS - 640 application interface on the tablet

The tablet to control the system while sitting in the vehicle cabin shall be connected to the control computer using the PC Remote application. The tabletbased system application displays live transmission from the thermal imaging camera and the camera in the visible spectrum at the same time, allowing you to make all the settings.





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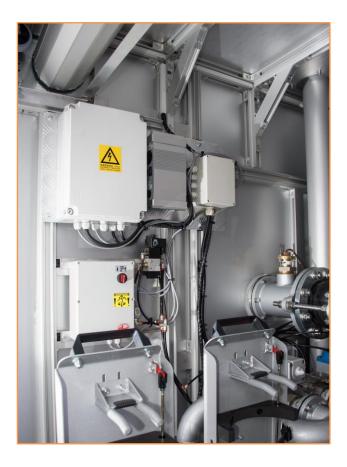






### **Package contents**

- The thermal imaging camera with the camera in the visible-spectrum, in the protective cover
- PTZ motor with control unit
- Controlling industrial computer
- Tablet with touch display





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### **Key Points**

- No external Software needed
- Full camera control and image streaming
- User-friendly configuration
- Saves lives in high-smoking areas and helps to find deep smoke
- Suitable in risky environment in general
- Multilanguage



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Revision 1.0 EN, 11. 9. 2017 All pictures are only for illustration. Real values may vary.

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