



Datasheet

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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°C to +60°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











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) |



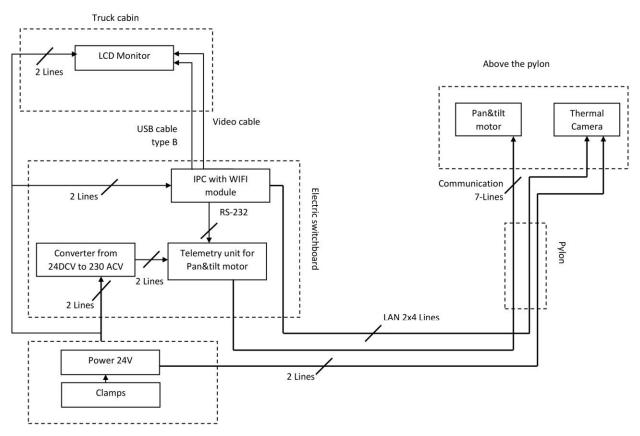






WORKSWELL TIS - 640 Technical Parameters

| 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.





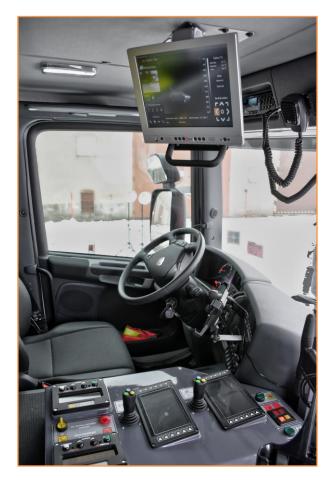




Workswell TIS - 640 application interface on the tablet

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 tablet-based 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.





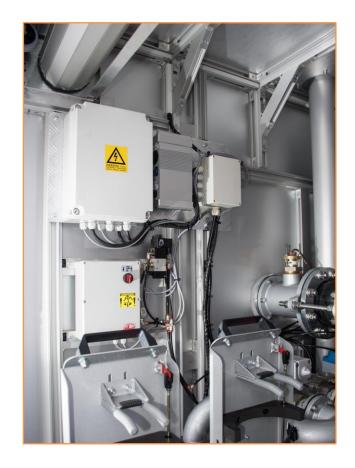






Package contents

- 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















Key Points

- No external Software needed
- Full camera control and image streaming
- User-friendly configuration

Multilanguage

- Saves lives in high-smoking areas and helps to find deep smoke
- Suitable in risky environment in general









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