

Online Thermal Camera OTi 600

For Industrial Process Monitoring , Control & Automation



Detectors (Pixels): 640 X 320

Wide Choices of Lenses for Any Industrial Application under the Sun



Technical Details of the STEK OTi 600

- Detector : FPA, uncooled (17 μm x 17 μm)
- Optical resolution : 640x480 pixel
- Spectral range : 8 – 14 μm
- Temperature ranges : -20 °C...100 °C; 0 °C...250 °C; 150 °C...900 °C (selectable from software);
Additional range: 200 °C...1500 °C (option)
- Frame rate : 32 Hz / 125 Hz @ 640 x 120 pixels
- Optics : 33° x 25° FOV / f = 18.7 mm (Model: OTi600-33) or
15° x 11° FOV / f = 41.5 mm (Model: OTi600-15) or
60° x 45° FOV / f = 10.5 mm (Model: OTi600-60) or
90° x 64° FOV / f = 7.7 mm (Model: OTi600-90)
- Thermal sensitivity (NETD) : 40 mK
- System accuracy : ± 2 °C or ± 2 % (at ambient temperature 23 ± 5 °C)
- Ambient derating : $\pm 0,05$ %/K¹
- PC interface : USB 2.0
- Process interface (PIF): (Process Interface-Standard) PI-S: 0-10 V input, digital input (max. 24V), 0-10 V output
(Process Interface -Industrial PI-I: 2x 0 – 10 V input, digital input (max. 24 V), 3x 0/4-20 mA output, 3x relay (0 – 30 V/ 400 mA), fail-safe relay
- Ambient temperature : 0°C...50°C
(T_{Amb})
- Storage temperature : -40°C...85°C
- Relative humidity : 10 – 95 %, non-condensing
- Enclosure (size / rating) : 46 mm x 56 mm x 90 mm / IP 67 (NEMA 4)
- Weight : 269 – 340 g (depending on lens)
- Shock : IEC 60068-2-27 (25 G and 50 G)
- Vibration : • IEC 60068-2-6 (sinus shaped)
• IEC 60068-2-64 (broadband noise)
- Tripod mount : 1/4-20 UNC
- Power supply : USB powered
- Part number : optical resolution / frame rate / thermal resolution

Touch bellow Link to select best Lens suitable
<https://stek.in/field-of-view-calculator>

¹ T_{amb} 10...50 °C and $T_{\text{obj}} \leq 500$ °C; else: $\pm 0,1$ K/K or 0,1%/K (the higher value applies)

Scope of supply:

1. USB camera,
2. USB cable (1 m),
3. table tripod,
4. PI-S (Process Interface-Standard) cable incl. terminal block (1 m),
5. software package Thermotools,
6. Rugged outdoor transport case (IP67)



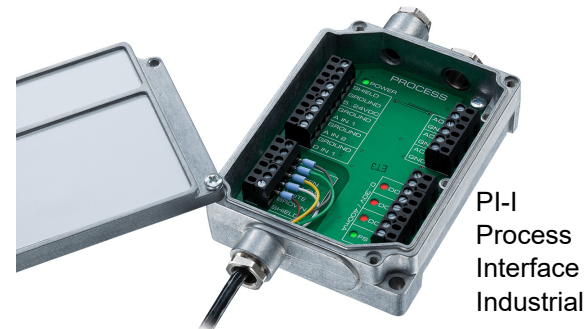
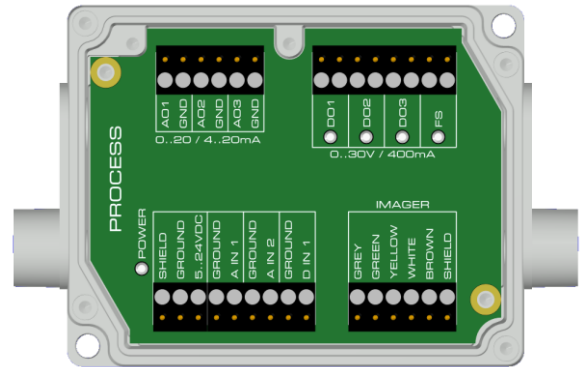
Optional:

1. Air Purge Jacket with Infrared Window (APJ-OTi)
2. Cooling Jacket (Air / Nitrogen / Water (CJ-OTi)
3. Adjustable Mounting Bracket (AMB-OTi)
4. Outdoor Protective Housing (OPH-OTi)
5. Process Interface – Industrial (PI-I)
For use in industrial environment the industrial process interface with 500 V ACRMS isolation voltage between PI and process is available (connection box with IP65, 5 m (PI-I-5), 10 m (PI-I-10) or 20 m (PI-I-20) standard or high temperature cable for camera connection, terminal for process integration
6. The maximum USB cable length is 20 m. For greater distances between OTi and computer or for stand-alone solutions the optional OTi NetBox (OTi-Net) or the USB Server Gigabit (OTi-USBExt) is provided

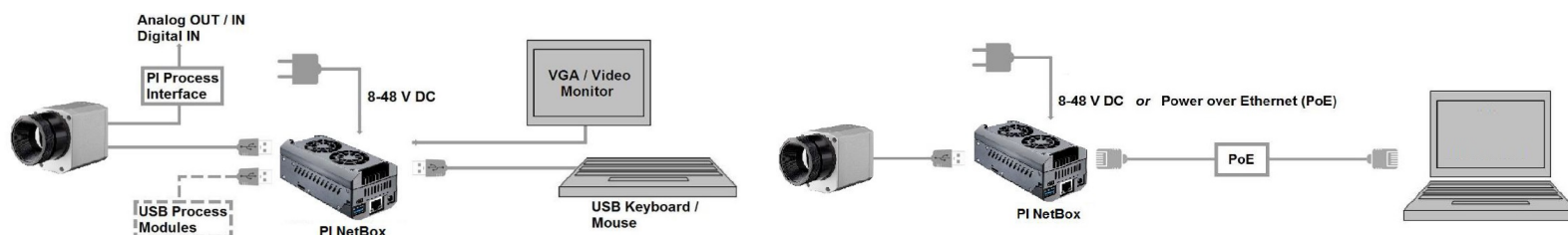
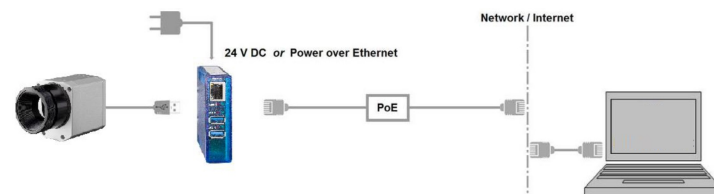
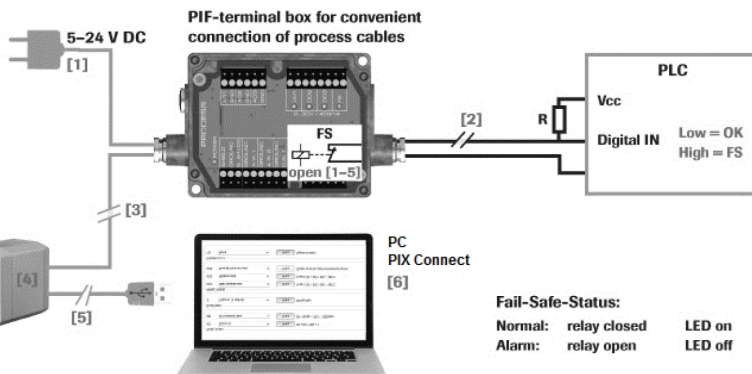
Cooling jacket

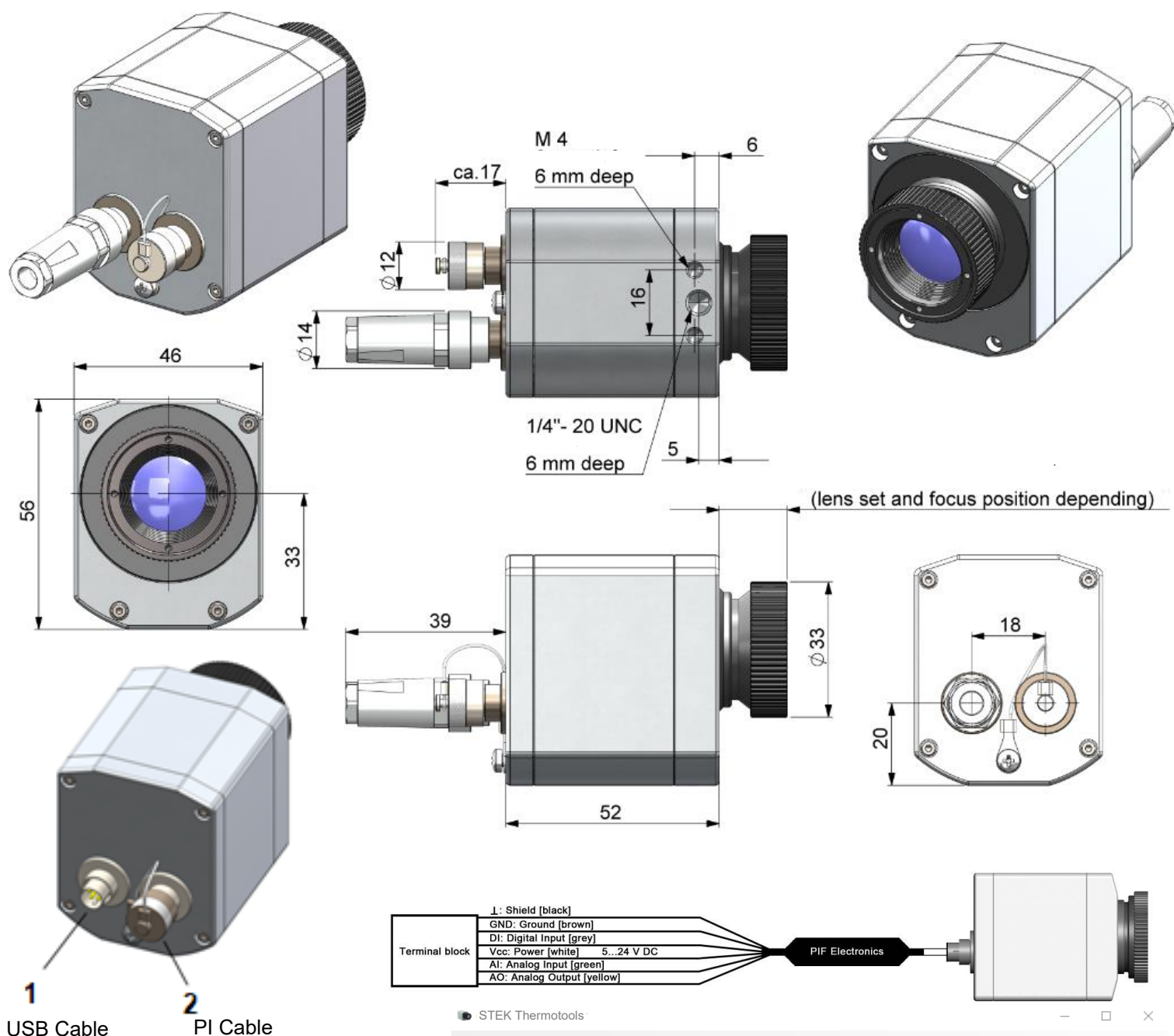


Outdoor Protection Housing



PI-I
Process
Interface
Industrial





1 USB Cable 2 PI Cable

Advance Analysis & Control Software

1. IR image from the camera
2. Temperature profile: Shows the temperatures along max. 2 lines at any size and position in the image.
3. Reference bar: Shows the scaling of temperature within the color palette.
4. Temperature of measure area: Analyses the temperature according to the selected shape, e.g. average temperature of the rectangle. The value is shown inside the IR image and the control displays.
5. Control displays: Displays all temperature values in the defined measure areas like Cold Spots, Hot Spots, temperature at cursor, internal temperature and chip temperature. Alarm settings: Bar showing the defined temperature thresholds for low alarm value (blue arrow) and high alarm value (red arrow). The color of numbers within control displays changes to red (when temp. above the high alarm value) and to blue (when temp. below the low alarm value).
6. Temperature time diagram: Shows the temperature curves over time for selectable region of interest (ROI)
7. Histogram: Shows the statistic distribution of single temperature values.
8. Automatic / manual scaling of the palette (displayed temperature range): Man., </> (min, max), 1 σ : 1 Sigma, 3 σ : 3 Sigma, OPT: Palette optimization
9. Menu and Toolbar (Icons)
10. Icon enabling switching between color palettes
11. Status bar: Serial number, optic, temperature range, cursor position, device framerate/ display framerate, emissivity, ambient temperature, flag status

