PT-602CZ

Thermal imaging camera for medium and long range security applications

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FLIR PT-602CZ thermal imaging camera for medium and long range security applications

The PT-602CZ multi-sensor is equipped with a highly reliable, mid-wave, cooled detector which offers mid- to long range detection in all weather conditions.

The thermal imaging camera offers a continuous optical and electronic zoom. This offers excellent situational awareness while also giving the possibility to zoom in at suspect activities, and have a closer look, once they are detected.

The PT-602CZ precision pan/tilt mechanism gives operators accurate pointing control while providing fully programmable scan patterns, radar slew-to-cue, and slew-to-alarm functionality. The multi-sensor configurations also includes a day/night 36× zoom color CCD camera on the same pan/tilt package.

The PT-602CZ can be integrated into existing networks or used as a stand alone unit.
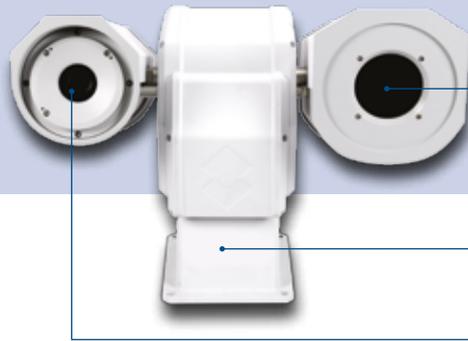
Crisp thermal images
The PT-602CZ is equipped with a cooled Mid-Wave InfraRed (MWIR) detector. This detector produces ultra-sharp thermal images of 640 x 512 pixels. This will satisfy users that want to see the smallest of detail and demand the best possible image quality.

Continuous optical zoom on the thermal image
The FLIR PT-602CZ is equipped with powerful continuous optical zoom capability on the thermal image. It offers excellent situational awareness but also the possibility to zoom-in, and see more detail, once a target has been detected. This way operators can see farther recognize more detail

and react more quickly to security threats. The advantage of continuously zooming compared to other systems that are using a rotating lens system is that there is no switch or swapping between the different images. You can gradually zoom in while keeping your focus all the time.

The PT-602CZ zooms between a 28º wide field of view and a 2º narrow field of view. It allows detecting a man-sized target at a distance of over 9 kilometers. A small car can be detected at a distance of more than 15 kilometers.

Thermal imaging camera

Pan/Tilt mechanism with TCP/IP compatible electronics

Daylight/low light camera

Precise Pan/Tilt mechanism

The PT-602CZ thermal imaging cameras come with a precision pan/tilt mechanism. It allows the user to rotate the camera 360° continuously and to tilt it +90° or -90°. This drastically increases situational awareness. The Pan/Tilt has 128 preset positions. Ideal if you want to scan an area continuously.

Radar Connection – "Slew to cue"

The PT-602CZ can be connected by the integrator to a radar system. If the radar detects an object, the PT-602CZ will automatically turn in the right direction and give you a visual image so that you can instantly see what the blip on the radar screen really means.

Daylight camera

All versions are equipped with a long range daylight/low light camera. The video output of the thermal imaging and daylight/low light camera are simultaneously available. The daylight camera offers an 36x optical zoom.

Advanced image processing

FLIR Systems has developed a powerful algorithm that helps to overcome the problem of finding low contrast targets in high dynamic range scenes. Advanced Digital Detail Enhancement (DDE) assures clear, properly contrasted thermal images. DDE delivers a high contrast image even in extremely dynamic thermal scenes. It provides high quality thermal imaging in any night- or daytime environmental conditions.

Auto focus

The PT-602CZ contains an exclusive auto focus feature which delivers crisp, clear images at the press of a button. Focus is kept while zooming in or out. The system allows you to experience better situational awareness in the wide field of view, while maintaining detailed recognition capabilities in the narrow field of view.

Designed for use in harsh environments

The PT-602CZ is extremely rugged systems. Their vital core is well protected against dust and water ingress.

IP control

The PT-602CZ can be integrated in any existing TCP/IP network and controlled over a PC. No additional cables are required. Using this configuration, you can monitor all activity over the network, even when you are thousands of kilometers away.
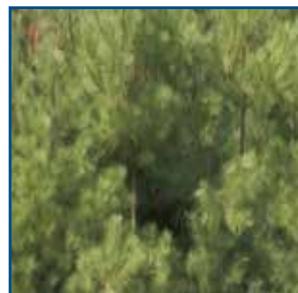
Serial control interface

Simply connect the PT-602CZ over RS-232 or RS-422 to a remote control panel. Pelco D or Bosch commands are used for common functions. A video cable can be connected to any existing multi-function display that accepts composite video.

Video Streaming

Multiple channels of streaming digital video are available in H.264, MPEG-4, or M-JPEG formats. Simultaneous digital and composite video output is possible.

FLIR Sensors Manager

Each PT-602CZ camera comes with a single sensor copy of FLIR Sensors Manager. This intuitive software allows users to manage and control a PT-602CZ camera in a TCP/IP network.

PT-602CZ

Technical specifications

The PT-602CZ can be easily integrated for a wide variety of mid- to long range applications

IMAGING PERFORMANCE
Thermal:

Detector type	Cooled Focal Plane Array (FPA) 640x512 pixels
Spectral range	3 to 5 µm
Thermal sensitivity	<30 mK @ 25 ℃
Image frequency	Video standard PAL/NTSC
Focus	Focus free at infinity, athermal continuous zoom
Optical zoom	Continuous
Digital zoom	Continuously adjustable
Field of view	WFOV 28° x 22,4° (PAL) 28° x 21° (NTSC)
	NFOV 2° x 1.6° (PAL) 2° x 1.5° (NTSC)
Image processing	Automatic Gain Control (AGC),
	Digital Detail Enhancement (DDE)

Visual:

Built-in digital video	1/4" Exview HAD CCD Color
Effective pixels	380.000 (NTSC) - 440,000 (PAL)
Standard lens performance	Field of view: 57.8° (H) to 1.7° (H)
	f=3.4mm (wide) to 122.4 mm (tele),
	F1.6 to F4.5
Electronic zoom	12x

PAN- TILT

Az Range; Az velocity	360° continuous, 0.1 to 60°/sec max.
El Range; El velocity	+/- 90°, 0.1 to 30°/sec. Max.
Programmable presets	128

SYSTEM FEATURES

Automatic heater	Clears ice from windows

IMAGE PRESENTATION

Video output	PAL thermal and visible - NTSC thermal and visible
Video over Ethernet	Two independent channels for each camera (4 total) of streaming MPEG-4, H.264, or M-JPEG

POWER

Requirements	24 VAC (20-30 VAC)
	24 VDC (21-30 VDC)
Consumption	24 VAC: 70 VA max w/o heaters
	260 VA w/heaters
	24 VDC: 60 W max w/o heaters
	230 W w/heaters

ENVIRONMENTAL SPECIFICATION

Operating temperature range	-32℃ to +55℃
Storage temperature range	-40℃ to +71℃
Encapsulation	IP66
Shock	IEC 60068-2-27
Vibration	Mil-Std-810F

PHYSICAL CHARACTERISTICS

Camera Weight	18.5 kg
Camera Size (L x W x H)	352 mm × 495 mm × 333 mm
Shipping weight (camera + packaging)	23 kg
Shipping size (camera + packaging) (L x W x H)	599 mm x 542 mm x 340 mm

INTERFACES

TCP/IP	Yes
RS-422	Yes
RS-232	Yes
Pelco D	Yes
Bosch	Yes

STANDARD PACKAGE
Thermal imaging camera, operator manual, FLIR Sensors Manager single sensor CD

Range performance 2° FOV lens

Man: 1.8 m x 0.5 m
Detection approx. 9.2 km
Recognition approx. 2.9 km
Identification approx. 1.2 km

Object: 2.3 m x 2.3 m
Detection approx. 15.5 km
Recognition approx. 6 km
Identification approx. 3.3 km

Actual object detection range performance may vary depending on camera set-up, environmental conditions, user experience, and type of display use. All specifications are subject to change without notice. Visit www.flir.com for the most up-to-date specifications.

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