

# TSC

The Thermal-Eye Thermal Security Camera (TSC) is a plug-and-play, long-range security surveillance camera that senses heat. It requires no lighting or infrared illumination and allows for cost-efficient monitoring of large land or water areas, even in inclement weather.



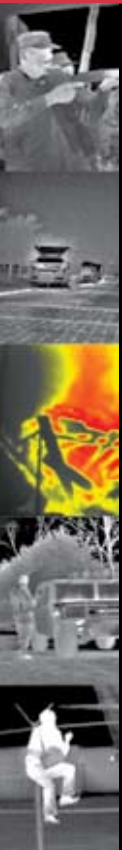
Person hiding in the trees

## Applications:

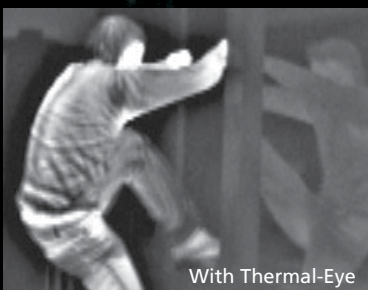
- Long-range perimeter surveillance, *i.e. harbors, waterfronts and airfields*
- Medium-range facility surveillance, *i.e. power plants and public utility facilities*
- Wide-angle security surveillance, *i.e. entrances, gates and equipment storage*
- Day and night detection of people, cars, boats and more

## Benefits:

- Rugged, dependable and ideal for long-range security surveillance applications
- Reduces the number of cameras required to secure a large area, decreasing overall costs and equipment required
- Designed to fit into standard enclosures and integrate with existing CCTV architecture



With natural light



With Thermal-Eye

Breaking and entering

- Works well with intelligent software
- High performance and low maintenance with no expensive lighting or illuminators to install and maintain
- Sees easily through shadows, glare and challenging weather

## Features:

- Uses proven Amorphous Silicon Microbolometer detector technology
- Equipped with a serial data port for camera diagnostics
- Detects human activity at a variety of ranges: long range (2100 feet), medium range (1000 feet) or short range (300 feet)

# See the Unseen™

# TSC TECHNICAL SPECIFICATIONS:

FEATURES		TSC <sub>ss</sub> (STANDARD SERIES)			TSC <sub>xp</sub> (EXTENDED PERFORMANCE)		
Focal Plane Array	Material & Structure	Amorphous Silicon Microbolometer (160 x 120 pixel array)					
	Spectral Response	7-14 μm (filter bandwidth)					
	Thermal Sensitivity	≤100 mK					
Thermal Imaging Performance	Start-up Time	~ 7 seconds					
	Contrast/Brightness	Enhanced Image Processing					
Optics	FOV Alternatives	Wide-Angle (50°x35°)	Med.-Range (17°x12°)	Long-Range (9°x6°)	Wide-Angle (50°x35°)	Med.-Range (17°x12°)	Long-Range (9°x6°)
	Range to Detect Human Activity	Up to 300ft (90m)	Up to 1000ft (300m)	Up to 2100ft (640m)	Up to 300ft (90m)	Up to 1000ft (300m)	Up to 2100ft (640m)
	Focus	Fixed	Manual adjust	Manual adjust with passive athermalized lens	Fixed	Manual adjust with passive athermalized lens	Manual adjust with passive athermalized lens
Video	Output Format	Analog: SMPTE-170 (cf. NTSC compatible, monochrome)					
	Synchronization	Line sync when 24 VAC power used					
Power	Input Voltage	24 VAC or 9-30 VDC (Note: Full Function Rear Cover option required for 9-30 VDC.)					
	Input Power	< 2.0 W for 9-30 VDC input and <3 W for AC input at all temperatures					
Environmental Characteristics	Operating Temperature (Ambient air temperature)	For indoor use without an enclosure: 6°C to 40°C (42.8°F to 104°F) For outdoor use with a protective enclosure: -14°C to 40°C (6.8°F to 104°F) (notes 1 and 2)			For indoor or outdoor use: -20°C to 60°C (-4°F to 140°F) (see notes 2 and 3 below)		
	Storage Temperature	-40°C to 85°C (-40°F to 185°F)			-40°C to 85°C (-40°F to 185°F)		
	EMC Compliance	FCC Part 15 & CE Mark			FCC Part 15 & CE Mark		
Physical Characteristics	Size	7.7"L x 1.9"W x 2.3"H (3.8cm x 0.75cm x 0.91cm)			8.0"L x 1.9"W x 2.3"H (3.1cm x 0.75 cm x 0.91 cm)		
	Color	Silver Extruded Anodized Aluminum			Black Extruded Anodized Aluminum		
	Weight	14 oz. (460g)			16 oz. (525g)		
	Mounting Bracket	¼" – 20 UNC-2B Universal top or bottom mount			¼" – 20 UNC-2B Universal top or bottom mount		
Ordering Information	FOV Alternatives	Wide FOV (50°x35°)	Medium FOV (17°x12°)	Wide FOV (50°x35°)	Medium FOV (17°x12°)	Narrow FOV (9°x6°)	
	24 VAC Rear Cover, NTSC Line Lock (note 3)	4978510-0002	4978510-0001	4978510-0004	4978510-0003	4978510-0015	
	Full Function Rear Cover, NTSC Line Lock (note 4)	4978520-0002	4978520-0001	4978520-0004	4978520-0003	4978520-0011	
Additional Camera	Full Function Rear Cover (required)	Choice of power input: 24 VAC or 9-30 VDC					
Optional Enclosure Window Kits – Part Numbers	For Pelco 2500 Series	4" dia. window frame 4978525 -1* or -2**					
	For Pelco 3500 Series	2.9"x 2.5" dia. window frame 4978535 -1* or -2**					
	For Pelco 4700 Series	4.3"x 3.9" dia. window frame 4978547 -1* or -2**					
	For Philips 948x Series	2.75" dia. window frame 1669398 -1* or -2*					
	For Universal Series (note 5)	6"x 6" dia. window frame 4978540 -1* or -2**					
		-1* Germanium window (96% Trans in 7-14 μm) 2.25" diameter -2** Silicon window (73% Trans in 7-14 μm) 2.25" diameter					

Specifications subject to change without notice

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## Notes:

- For outdoor use, the TSC<sub>ss</sub> is assumed to be installed in a Pelco enclosure, model EH4718-2, with heater, defroster, blower, and sun shroud options, and with the vent covers installed, or equivalent NEMA 4 rated enclosure.
- When used in an enclosure, an infrared-transmitting window must be installed. Infrared window conversion kits are available for the following Pelco enclosure products: Pelco Series 2500 enclosures, Pelco Series 3500 enclosures, Pelco Series 4700 enclosures.
- For outdoor use, a UL approved protective enclosure with NEMA 4 rating must be used.
- Other video formats also available.
- Universal Series Enclosure window comes as a kit designed to fit the intended enclosure after being sized by the installer. The silicon or germanium window is then bonded into the frame using the provided bonding material and instructions, to ensure proper fit and function.

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