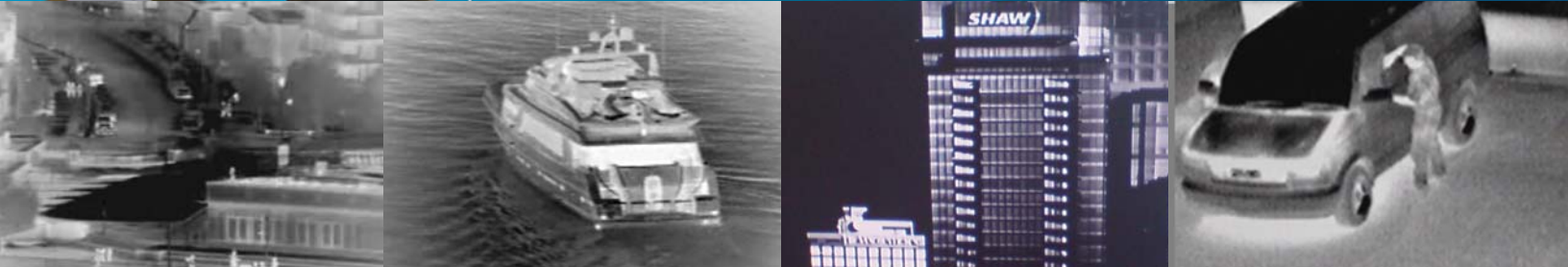


TR4000/TR4500

ULTRA LONG-RANGE THERMAL SECURITY SURVEILLANCE CAMERA



The Cantronic TR4000 Series of thermal security surveillance cameras consists of very high sensitivity thermal imaging cameras. They use either an InSb 320x256 IRFPA detector (TR4000) or an InSb 640 x 512 IRFPA detector (TR4500) operating in the middle infrared wavelength 3-5µm region (MWIR). The cameras are powerful long-range security surveillance products with exceptional detection range. These cameras incorporate advanced-cooled FPA technology, with either a 30-micron or 15-micron pitch, and come with pressurized enclosure. The enclosure is filled with dry nitrogen, for installation and operations under demanding environmental conditions. The cameras can be used as a standalone unit or be integrated with a customer's own system(s).

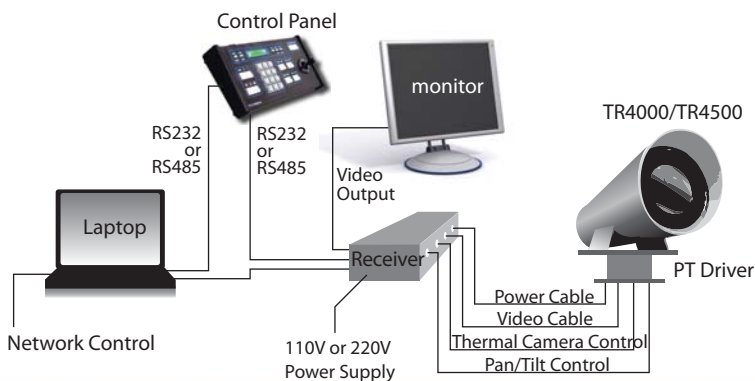


Typical Configuration

- All thermal camera functions including polarity, focus, lens FOV switch etc. are controlled either directly from controller or through Receiver/optional PT driver.
- Camera can be mounted either directly (fixed) or with an optional Pan-Tilt driver.

Features

- Remotely controlled
- Motorized lens
- Single FOV, dual FOV, and Triple FOV on selected model
- Plug and Play Operations
- Ge infrared optics with AR coating
- Environmentally Sealed and Pressurized housing



Showing highway bridge out 7.8 km using only TR4000 with 100mm lens

Typical wiring diagram with optional Pan-Tilt driver

Lenses and Typical Range Performances:

The nominal aperture is F/4. The following lenses are available:

Lens (mm)	Focus Method	FOV(°)		Detection range (km) for 2.3x2.3m Target	
		TR4000	TR4500	TR4000	TR4500
50	Manual	11 x 8.2	11.0 x 8.3	2.2	4.5
100	Motorized	5.5 x 4.1	5.5 x 4.1	4.6	9
250	Motorized	2.2 x 1.65	2.2 x 1.7	10.0	13
50/250	Dual FOV Motorized	11 x 8.2 / 2.2 x 1.65	11.0 x 8.3 / 2.2 x 1.7	10.0	13
100/500	Dual FOV Motorized	5.5 x 4.1 / 1.1 x 0.83	5.5 x 4.1 / 1.1 x 0.8	14.2	17.5
25/80/320	Triple FOV Motorized	22 x 16.5 / 6.9 x 5.2 / 1.7 x 1.3	22.0x16.5 / 6.9x5.2 / 1.7x1.3	13.0	15.5

Customized Lenses are available, upon special request.

Specifications

	TR4000	TR4500
Sensor :	InSb	InSb
Resolution :	320 x 256 pixels	640 x 512 pixels
Pitch :	30µm	15µm
Wavelength :	3-5 µm	3-5µm
Image mode :	Snap Shot	Snap Shot
Cooling :	Stirling cooler	Stirling Cooler
A/D :	14 bits	14 bits
NETD:	<20 mK	<20 mK
F number:	F/4	F/4
System control :	RS232 or RS422 from a remote computer or through a controller	RS232 or RS422 from a remote computer or through a controller
Video output :	CCIR (PAL) or RS 170 (NTSC)	CCIR (PAL) or RS 170 (NTSC)
Dimensions (with T320 lens):	220mm (W) x 260mm (H) x 600mm (L) including sunshield	220mm (W) x 260mm (H) x 600mm (L) including sunshield
Weight (with T320 lens):	<14kg	<15kg
Power supply:	Camera direct power input - 24VDC, 30W typical; with receiver - 110 or 220 VAC	Camera direct power input - 24VDC, 30W typical; with receiver - 110 or 220 VAC
Enclosure:	Sealed and dry nitrogen backfilled housing rated IP67	Sealed and dry nitrogen backfilled housing rated IP67
Camera Mounting:	fixed or with optional pan-tilt driver	fixed or with optional pan-tilt driver
Operating Temperature:	-20°C +55°C	-20°C +55°C
Storage Temperature:	-40°C +70°C	-40°C +70°C

How To Order TR4000 - 100 N TR4500 - 100 N

Lens Video Output

50:	50mm manual lens	N: NTSC (RS170)
100:	100mm motorized lens	P: PAL (CCIR)
250:	250mm motorized lens	
D250:	Dual FOV 50/250mm motorized lens	
D500:	Dual FOV 100/500mm motorized lens	
T320:	Triple FOV 25/80/320mm motorized lens	

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