

NTC

THERMAL CAMERA AND STAINLESS STEEL HOUSING

MAIN FEATURES

- Made of AISI 316L electropolished stainless steel
- IP66/IP67
- Uncooled VOx microbolometer
- Resolution 320x256 or 640x512 (PAL)
- Sensitivity 50mK at F/1.0
- Wide range of lenses with different focal length: 9mm, 13mm, 19mm, 25mm, 35mm, 50mm, 60mm
- PAL/NTSC video output and RS422 serial control for remote camera configuration
- Configuration through OSD
- Germanium window

DESCRIPTION

The thermal camera provides vision also in complete darkness, fog, rain, smoke or for long-range distances.

The thermal camera is an Uncooled Vanadium Oxide microbolometer (VOx) with spectral band 7.5-13.5 µm; it delivers a thermal video of 320x256 (PAL) and 320x240 (NTSC), with an image frequency of 8.3fps or 25 fps (PAL) and 7.5 or 30fps (NTSC). The high sensitivity NEΔT 50mK at f/1.0 ensures an optimal thermal imaging. It supports 2x or 4x digital zoom. A choice of lens sizes is offered depending on the detection distance required.

It is possible to use it for a wide range of high-security day/night surveillance systems, such as: monitoring and rescue in the event of a fire, public safety, along with airport, industrial and environmental surveillance.

The stainless steel housing allows it to be installed in environments with highly corrosive external agents, such as marine, industrial or chemical environments.

The NTC housing can be installed on NXPTH Pan & Tilt head, to obtain a complete positioning system.



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NTC - CONFIGURATION OPTIONS					
	Camera resolution	Focal length	25/30Hz		
NTC2K1	3	320X256	09	9mm	H
	6	640X512	13	13mm	
			19	19mm	
			25	25mm	
			35	35mm	
			50	50mm	
			60	60mm	

TECHNICAL DATA

GENERAL

Constructed from electropolished stainless steel (austenitic alloy stainless steel, corrosion and heat resistant according to the following standards):

AISI 316L

UNI 6900-71: X 2 Cr Ni Mo 17 12 2

DIN 17006: X 2 Cr Ni Mo 17 13 2

N° werkstoff 1.4404

AFNOR: Z2 CND 17-12

BSI: 316S11

The screws utilised are in austenitic alloy stainless steel, corrosion and heat resistant according to the following standards:

- UNI 6900: X 5 Cr Ni Mo 1712
- AISI: 316
- ISO quality: A4
- Resistance class ISO: 80

UNI: Ente Nazionale Italiano di Unificazione, AISI: American Iron and Standard Institute, DIN: Deutsche Industrie Normen, AFNOR: Association Française de Normalisation, BSI: British Standard Institution, ISO: International Organization for Standardization.

MECHANICAL

Cable glands: 3xPG13.5 (nickel-plated brass for external connections)

External body polishing

9mm (0.3in) thick front and back flange

O-ring gaskets

Dimensions (WxHxL): 182x164x460mm (7.2x6.5x18.1in)

Unit weight: 7.5kg (16.5lb)

ELECTRICAL

Input voltage: 24Vac

Current consumption: 1.25A

Power consumption:

- 20W, with heating switched off
- 30W, with heating switched on

Heating: Ton 15°C±3°C (59°F ±5°F), Toff 22°C±3°C (77°F±5°F)

Dimensions of the power cables: AWG 16

Dimensions of signal cables: minimum AWG 26

Video line: coaxial cable (1Vpp, 750hm)

COMMUNICATIONS

RS422 Full Duplex for complete control of the camera

OPTICAL

Germanium window

- Dimensions (Ø): 35mm
- Thick:1.5mm (0,06in)
- Dimensions (Ø): 55mm (2.1in)
- Thick:2mm (0.07in)
- External scratch-resistant treatment: Hard Carbon Coating (DLC)
- Internal antireflection treatment
- Spectral range: From 7.5µm to 14µm
- Medium transmittance (from 7.5µm to 11.5µm): 94%
- Medium transmittance (from 11.5µm to 14µm): 90%

ENVIRONMENT

Indoor/Outdoor

Operating temperature with heating: -40°C / +60°C (-40°F / +140°F)

CERTIFICATIONS

CE EN61000-6-3, EN60065, EN50130-4

IP66/IP67 EN60529

RELATED PRODUCTS

NXPTH Stainless steel Pan & Tilt

BRACKETS AND ADAPTORS

NXWBS1 Stainless steel wall bracket with joint

SPARE PARTS

OCTMAN NTC and NTM housing maintenance kit

ONTMFA Front cover complete with germanium window

PACKAGE

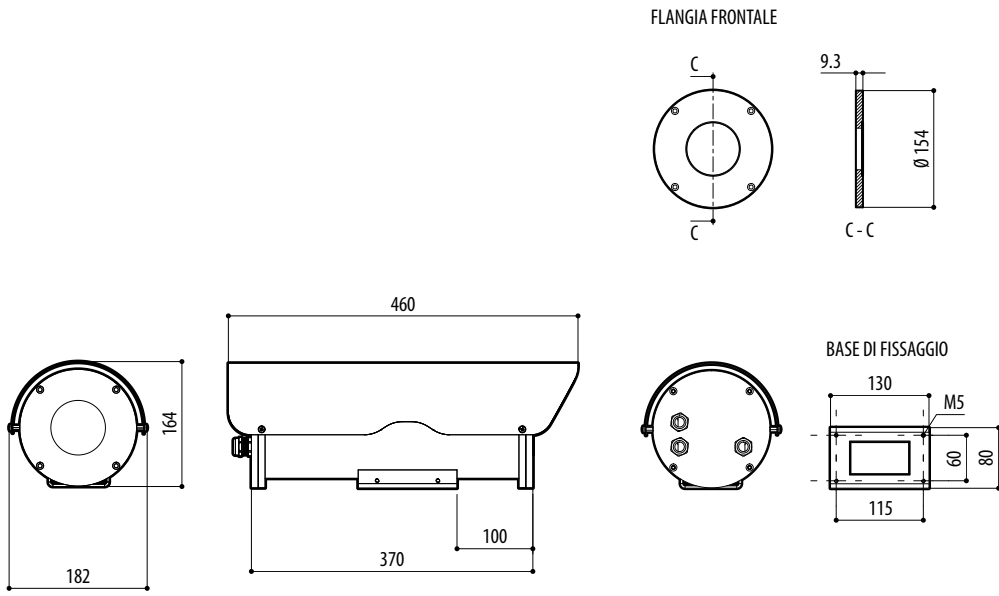
Model Number	Weight	Dimensions (WxHxL)	Master carton
NTC2K1A309	-	24.5x24.5x62cm	-

THERMAL CAMERAS AVAILABLE (RESOLUTION 320X256)														
	Lens 60mm		Lens 50mm		Lens 35mm		Lens 25mm		Lens 19mm		Lens 13mm		Lens 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC
Image sensor	Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer	
Resolution	320x256	320x240	320x256	320x240	320x256	320x240	320x256	320x240	320x256	320x240	320x256	320x240	320x256	320x240
Pixel dimensions	25µm		25µm		25µm		25µm		25µm		25µm		25µm	
Spectral response - long wave infrared (LWIR)	from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm	
Internal shutter (only for sensor compensation)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	✓		✓		✓		✓		✓		✓		✓	
Digital Zoom	2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x	
Image updating frequency	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Image updating high frequency	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps
Scene temperature range	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Horizontal field of view	7.6°		9°		13°		18°		24°		34°		48°	
Vertical field of view	5.7°		7°		10°		14°		18°		26°		37°	
F-number	F/1.25		F/1.2		F/1.2		F/1.1		F/1.25		F/1.25		F/1.25	
Thermal sensitivity (NEdT)	< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0	
Person (detection / recognition / identification)	1320m / 340m / 170m (4331ft / 1115ft / 558ft)		1125m / 290m / 145m (3691ft / 951ft / 476ft)		800m / 200m / 105m (2625ft / 656ft / 344ft)		590m / 148m / 75m (1936ft / 486ft / 246ft)		450m / 112m / 56m (1476ft / 367ft / 184ft)		300m / 74m / 37m (984ft / 243ft / 121ft)		205m / 52m / 26m (673ft / 171ft / 85ft)	
Auto (detection / recognition / identification)	3600m / 960m / 480m (11811ft / 3150ft / 1575ft)		3100m / 810m / 415m (10171ft / 2657ft / 1361ft)		2250m / 590m / 290m (7382ft / 1936ft / 951ft)		1650m / 430m / 215m (5413ft / 1411ft / 705ft)		1280m / 330m / 165m (4199ft / 1083ft / 541ft)		840m / 215m / 108m (2756ft / 705ft / 354ft)		590m / 150m / 74m (1936ft / 492ft / 243ft)	

THERMAL CAMERAS AVAILABLE (RESOLUTION 640X512)														
	Lens 60mm		Lens 50mm		Lens 35mm		Lens 25mm		Lens 19mm		Lens 13mm		Lens 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC
Image sensor	Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer	
Resolution	640x512	640x480	640x512	640x480	640x512	640x480	640x512	640x480	640x512	640x480	640x512	640x480	640x512	640x480
Pixel dimensions	17µm		17µm		17µm		17µm		17µm		17µm		17µm	
Spectral response - long wave infrared (LWIR)	from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm	
Internal shutter (only for sensor compensation)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	✓		✓		✓		✓		✓		✓		✓	
Digital Zoom	2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x	
Image updating frequency	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Image updating high frequency	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps
Scene temperature range	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Horizontal field of view	10.4°		12.4°		18°		25°		32°		45°		69°	
Vertical field of view	8.3°		9.9°		14°		20°		26°		37°		56°	
F-number	F/1.25		F/1.2		F/1.2		F/1.1		F/1.25		F/1.25		F/1.4	
Thermal sensitivity (NEdT)	< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0	
Person (detection / recognition / identification)	1750m / 450m / 225m (5741ft / 1476ft / 738ft)		1500m / 380m / 190m (4921ft / 1247ft / 623ft)		1140m / 280m / 142m (3740ft / 919ft / 466ft)		820m / 210m / 104m (2690ft / 689ft / 341ft)		570m / 144m / 72m (1870ft / 472ft / 236ft)		390m / 95m / 47m (1280ft / 312ft / 154ft)		250m / 63m / 31m (820ft / 207ft / 102ft)	
Auto (detection / recognition / identification)	4500m / 1240m / 640m (14764ft / 4068ft / 2100ft)		3900m / 1060m / 540m (12795ft / 3478ft / 1772)		3000m / 800m / 200m (9843ft / 2625ft / 656ft)		2200m / 580m / 290m (7218ft / 1903ft / 951ft)		1550m / 400m / 200m (5085ft / 1312ft / 656ft)		1080m / 275m / 140m (3543ft / 902ft / 459ft)		720m / 175m / 88m (2362ft / 574ft / 289ft)	

TECHNICAL DRAWINGS

Sizes in millimeters.



NTC