

ThermalTronix
TT-H-BFTC Series
Thermal Imaging Camera

User Manual





Warnings

- Please avoid aiming the lens at extreme high temperature radiation source, such as the sun, molten steel or laser in any situation; otherwise the detector may be damaged.
- Please do not touch the lens to avoid contaminating and damaging. Please pay attention to protect the lens to avoid causing abrasion, scratches even breaches, otherwise, it will affect the device performance badly, even damage the device.
- This device is a precise optoelectronic product. Please protect it properly during usage, storage and transportation, where improper use (such as drop and collision) will cause damage to the device. If the internal connection is broken during the assembly process or the apparatus is damped (rain wet), the performance will be reduced and even the device will be damaged.
- Make sure that the power control connection is reliable. If the power control wire is in bad connection, it will damage the device.
- Ensure the proper connection of power control cable and data cable. Wrong connection may cause damage to the device.
- Do not swag fiercely or collide the device during transportation, otherwise it will cause performance-reduction and even damage to it.
- Please use the specified power supply; otherwise it will cause improper working, even damaging the apparatus.

If the product works abnormally, please contact the dealer or the nearest after-sale service center. Please do not dismantle or replace it in any manners.

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1. Overview

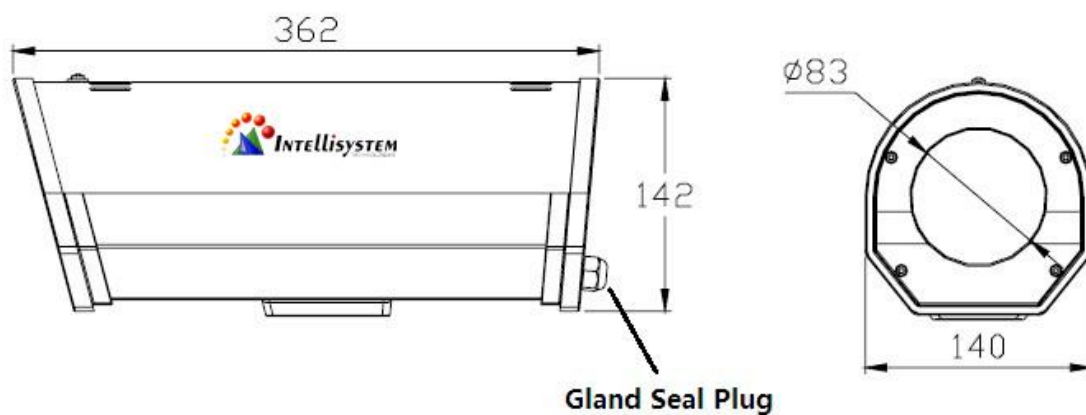
1.1 Features:

- 640*480 uncooled detector.
- 2X ,4X Digital zoom.
- Black hot/White hot switch.
- Automatic/Manual calibration.
- RS485 interface, support PELCO-D protocol.
- Weatherproof, IP66.

1.2 Applications:

Road monitoring, perimeter guard, channel management, marine reconnaissance patrol, etc.

1.3 Interface definition

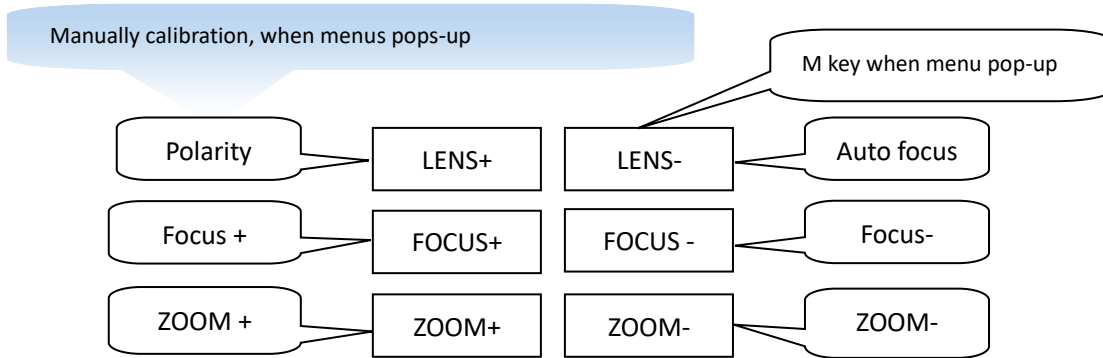


The control wire is from gland seal plug of housing.

Definition as follows:

No.	Description	Remark
1	RS485	RS485+
2		RS485-
5	IR Video	Analog video output of thermal imaging camera
6	DC12V	Power supply
7		

1.4 Function key chart



1.5 Guide for call the Preset

call preset 100 ,menu pops-up ,M key (lens-) to switch ,Focus± key to change the value

Call preset 101, manually calibration

Call preset 102, electrical zoom pops up, Focus± key to change the value

Preset 103,104,105, pre-reservation

Call preset 106, gain menu pops up, Focus± key to change the value

Call preset 107, brightness menu pops up, Focus± key to change the value

Call preset 108, shutter status option, Focus± key to change the status

Call preset 109, enhance menu pops up, Focus± key to change the value

2. Operations

Send “call preset 100” command, activate the menu, refer to the image below:



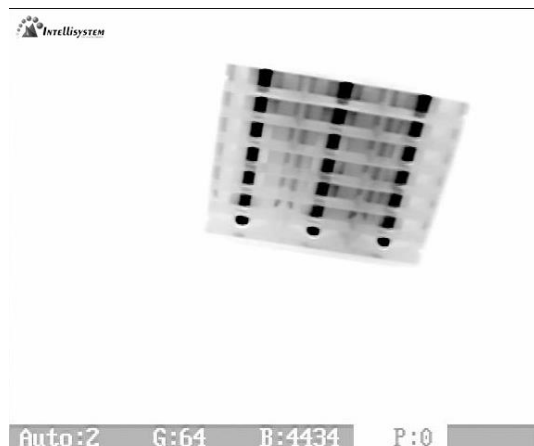
5

Press “LENS-” button to cycle the option, press “Focus+” and “Focus-” button to modify the value of option.

- 1.Auto: X** Image adjust mode
 - 0: manual brightness, manual gain mode
 - 1: auto brightness, manual gain mode
 - 2: auto brightness, auto gain mode
- 2. G** Stands for Gain
- 3. B** Stands for Brightness
- 4. P** Stands for Polarity (white/black hot), refer to the image below
 - 0: black hot 1: white hot



Black hot



White hot

Intellisystem Technologies S.r.l.

Via Augusto Murri, 1 – 96100 Siracusa

Phone +39 (0)931-1756256 / +39 (0)2-87167549 - Mobile (+39) 335 1880035
 em@il: info@intellisystem.it WEB: <http://www.intellisystem.it>

5. Z Digital zoom(X1/X2/X3/X4)
 6. **Setting:** Pls contact manufacturer to get more details.
 7. **Exit:** Press “Focus+” button or “Focus-” button to exit the menu

3. Specifications

Items		ThermalTronix			
		TT-1009H-BFTC	TT-1018H-BFTC	TT-1037H-BFTC	TT-1050H-BFTC
Detector characteristics	Detector type	Uncooled FPA microbolometer			
	Array size	640x480			
	Pixel	17um			
	Spectral range	8 ~ 14um			
	Frame rate	50HZ			
Lens	Focal length	9mm	18mm	37mm	50mm
	F number	F1.1			
	Focus	Athermalized, focus-free			
	Free focus range	0.8m~∞	3m~∞	12m~∞	23m~∞
Functions	NETD	≤100mK			
	Gain/Brightness adjustment	Manual brightness/gain; auto brightness/manual gain; auto brightness/gain			
	Polarity inversion	White/black hot mode			
	Digital zoom	2X,4X			
	Calibration	Automatic/manual			
Interface	External power	DC10V-15V			
	Power consumption	≤2.2W			
	Video output	PAL			
	Remote control interface	RS485 , PELCO-D/P Protocol			
Environment	Operation temperature	-20°C~ +50°C			
	Storage temperature	-40°C~ +70°C			
	Weight	≤3KG			
	Size (mm)	362*140*145			

Note: Specifications are subject to change without notice