

# PSC-Ti396-HT

## Stand Alone Operation



### AUTONOMOUS HIGH TEMPERATURE THERMAL IMAGING CAMERA SYSTEM

#### OVERVIEW

The PSC-Ti396-HT is a high resolution Industrial thermal imaging camera with 396 x 300 pixels and 20 Hz frame rate, perfect for fast thermal processes. Its Stand-Alone operation (without continuous use of PC) with automatic hot spot finder and direct analog output make it ideal for a variety of manufacturing process applications. The camera covers a wide temperature range from 450°C (842°F) to 1800°C (3272°F) and can be switched from thermal imaging mode to line scanning mode.

The model PSC-Ti396-HT with an IP67 rating, offers a wide range of Protective, Cooling, Lens Purging and mounting accessories for ease of installation and operation in harsh plant conditions. Comprehensive PSC-Camera Connect software comes standard for camera programming or viewing real time images up to a 5 meter distance from the PSC-Ti396-HT camera.

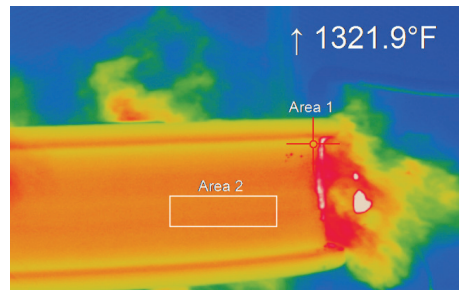
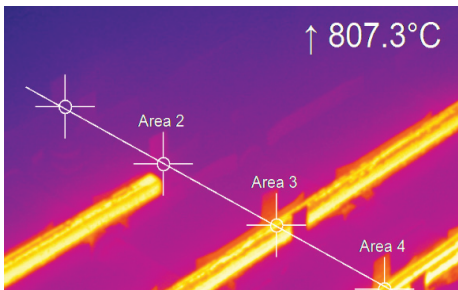
#### TYPICAL APPLICATION AREAS

- Cement / lime kilns
- Metals
- Steel
- Metal pouring streams
- Molten glass
- Furnaces - vacuum
- Silicon carbide
- Silicon growing reactors
- Induction
- Ceramics
- Flame treating
- Garbage incinerators
- OEM machines and R&D
- Forging



#### PSC-Ti396-HT FEATURES

- Stand Alone Operation \_ Set up & forget
- Camera parameter settings via a PC
- Analog and digital outputs for process control.
- Real-time imaging
- View multiple areas simultaneously for temperature and control
- Fast ethernet connection
- Stainless steel construction
- Motorized focusable optics
- Wide selection of camera lenses
- Wide array of protective accessories.



## TECHNICAL DATA

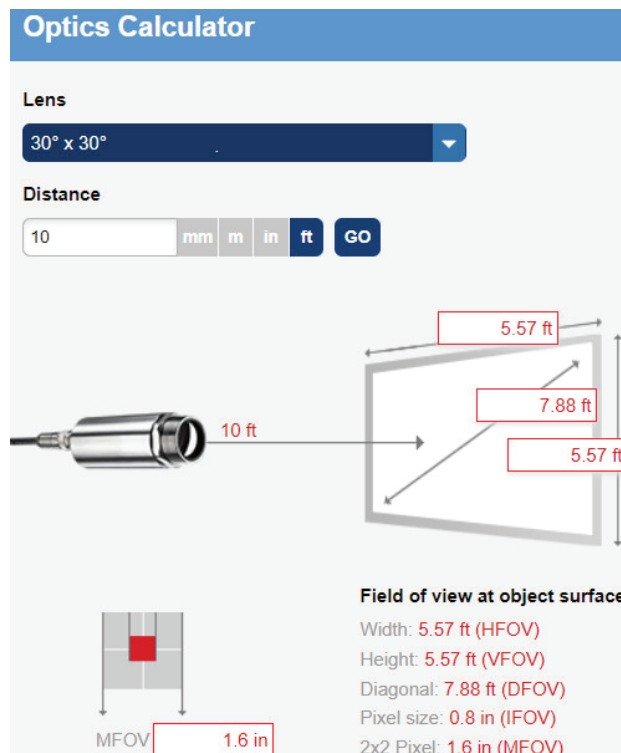
Temperature Range	450°C to 1800°C (842 to 3272°F)
Sub temperature Range	Adjustable within temperature range, minimum span 50°C
Spectral Range	0.85 μm to 1.1 μm
Optics Type	28°x 21°(f= 12 mm); 14°x 10°(f= 25mm); 7°x 5°(f= 50 mm)
Detector Resolution (Pixels)	Ethernet: 396 x 300; USB: 132 x 100; Autonomous: 132 x 100
Focus	Motorized focus
Field of View (D:S)	806:1 (7°optics)
Thermal Sensitivity (NETD) <sup>1</sup>	< 2 K (< 900°C); < 4 K (< 1400°C)
NETD <sup>1</sup>	0.1°C
System Accuracy (at T <sub>Amb</sub> = 23 ± 5 °C)	For object temperature < 1400°C: ± 1% of reading for 20 Hz For object temperature < 1600°C: ± 2% of reading for 20 Hz
PC Interfaces	Fast ethernet / USB 2.0 / RS485
Direct in-/outputs / Standard Process Interface (PIF)	1x 0/4-20 mA output 1x input (analog or digital) electrically isolated
Industrial Process Interface (PIF)	3x analog outputs (0/4-20 mA or 0-10 V) and 3x alarm outputs (relais) / 3x inputs (analog or digital) / fail-safe (LED and relay) stackable up to 3 PIFs; electrically isolated
Cable Length	USB: 1 m, 3 m, 5 m, Ethernet: 1 m (standard), 5 m, 10 m, 20 m (up to 100 m)
Ambient Temperature (T <sub>Amb</sub> )	5°C to 50°C (41°F to 122°F)
Size	Ø 36 mm x 112 – 126.5 , depending on lens (M30x1 thread)
Environmental Rating	IP67
Weight (Without Mounting Bracket)	270 g (depending on lens)
Power Supply	2.5 W
Scope of Delivery	PSC-Ti396-HT, ethernet / PoE cable (1 m) or USB cable (1 m), IN/OUT cable incl. terminal block (1 m), mounting bracket with tripod thread, mounting nut, PSC Camera Connect software

<sup>1</sup> Specified NETD value applies to all frequencies

## OPTICS CALCULATOR

The Optics calculator program, shown on the right, shows the size of the area under observation as well as each 2 x 2 pixel spot size within the overall viewing area. This provides the actual temperature measurement spot size and measurable Field of View (MFOV)

This determines the type of optical lens and resolution of the thermal imaging detector, ensuring that the PSC-Ti396-HT camera fits the intended application.



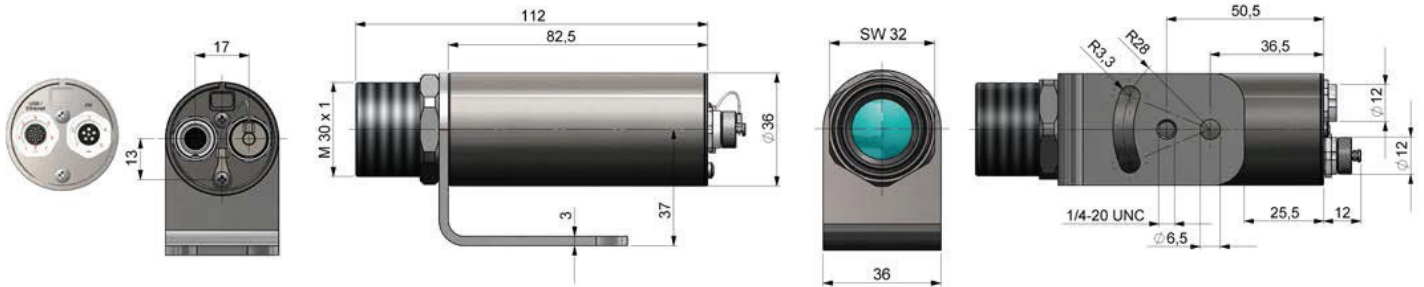
# PSC-Ti396-HT Stand Alone



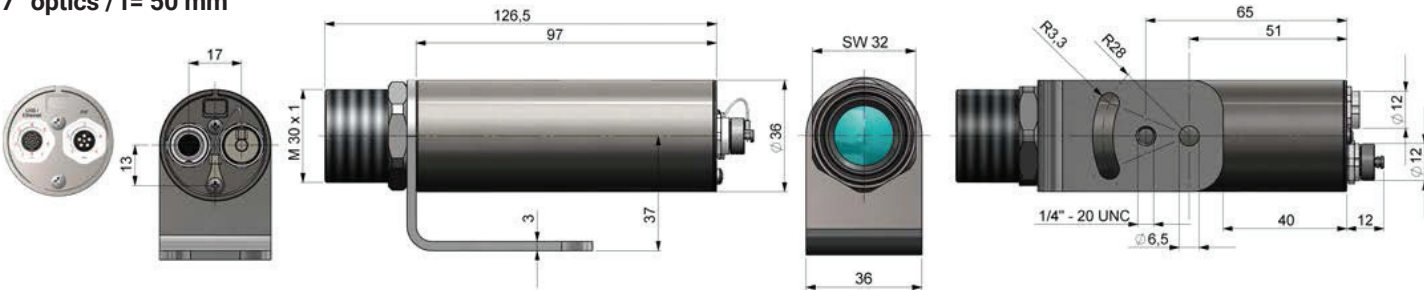
## DIMENSIONS (IN MM)

28° optics / f= 12 mm

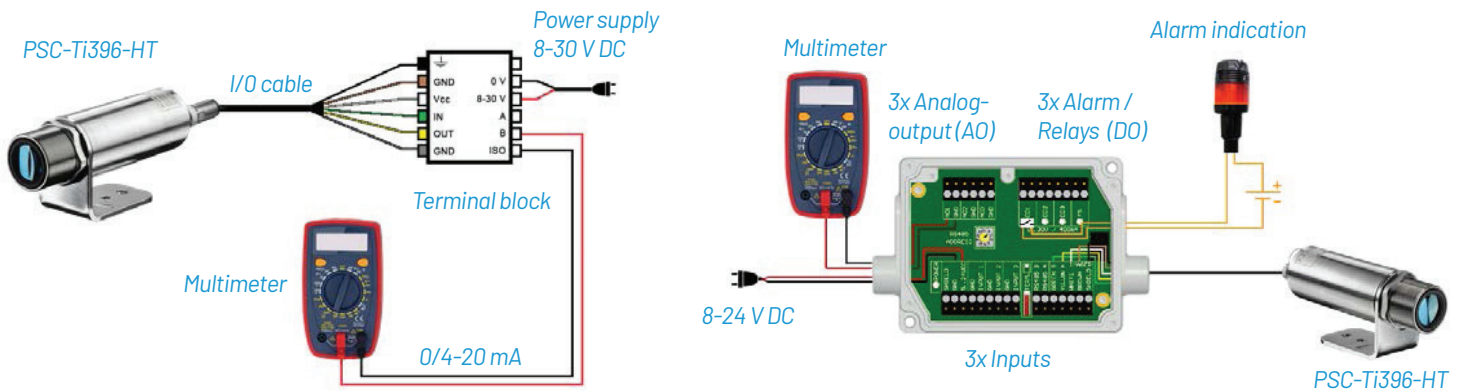
14° optics / f= 25 mm



7° optics / f= 50 mm



## STAND ALONE OPERATION (WITHOUT PC) WITH UP TO 3 ANALOG OUTPUTS / ALARM OUTPUTS



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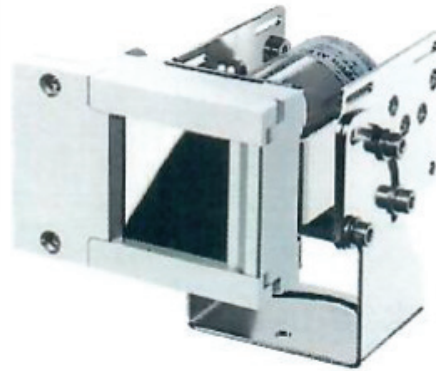


## ACCESSORIES

Part Number	Description
PSC-ACPIOPH24GE	Outdoor protective enclosure for thermal imaging camera (up to 90 FOV) with brackets for USB Server and industrial interface with integrated heater, incl. protective Germanium window (24 VDC operation)
PSC-ACOPHWM	Wall mount bracket for outdoor enclosure
PSC-ACPOPH24G	Air purge collar
PSC-ACXIAPLAB	Air purge with adjustable mounting bracket (2 axis)
PSC-ACXIMW	Stainless steel water-cooled jacket including adjustable mounting bracket (2 axis)



*Outdoor protective enclosure with IR window and air purge. P/N PSC-ACPIOPH24GE*



*Air purge unit with mounting bracket. P/N PSC-ACXIAPLAB*



*Water cooling jacket. P/N PSC-ACXIMW*

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