

Extremely Low Light Level SIT Camera

Insite Pacific has defined a new standard in low light, Silicon Intensified Target (SIT) video technology with the introduction of the **GEMINI** TV Camera. This camera is truly in a class of its own.

Unrivalled microprocessor circuit design allows control of features not available from manufacturers of similar cameras. Using our exclusive Windows™ software control panel and a PC Computer you can enhance video features of marine life or offshore structures by adjusting video bandwidth, gamma, agc, video level, and high frequency response. All this can be done without retrieving and opening the pressure housing.

A 3,000 meter titanium pressure housing is available with either a quartz hemispherical viewport or an acrylic plano concave viewport. The quartz hemispherical viewport minimizes optical distortion and is virtually scratch resistant. This gives a superior optical interface over traditional acrylic windows.

Titanium has the well-deserved reputation of being superior to all other materials for use in harsh offshore environments due to its superior strength-to-weight ratio and its non-corrosive properties.

This camera will provide excellent image quality and performance, and is well suited for all environments requiring high resolution and long range viewing in turbid or low light level conditions.



Features

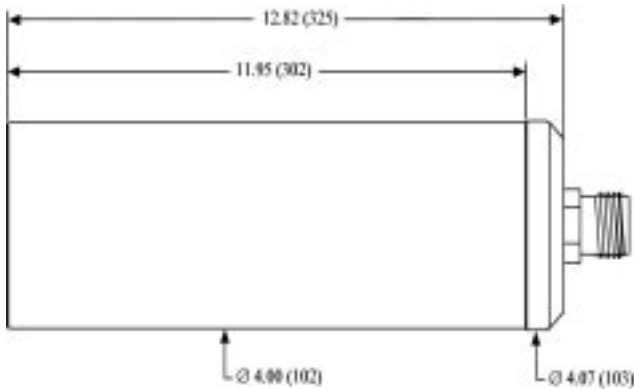
- ☐ *Low light Silicone Intensified Target camera*
- ☐ *3,000 Meter 6AL/4V Titanium Pressure Housing*
- ☐ *State-Of-The-Art Microprocessor Controlled*
- ☐ *Exclusive Windows™ Software for remote control via RS232 or RS485 interface For Camera Setup, Remote Control, And Online Diagnostics.*
- ☐ *Automatic protection of SIT tube*

Applications

- ☐ *Work class ROV principal lowlight camera*
- ☐ *Many military uses*
- ☐ *Ideal for turbid conditions*

Insite Pacific - Gemini

Specification



All measurements in inches (mm)

Electrical

Sensor Silicon Intensified Target (SIT)
1 inch Vidicon Format

Resolution 700 Horiz TV Lines typical

Sensitivity	Full Video 700 HTVL	Usable Video >400 HTVL
Scene illum. (lux)	2.5 x 10E-3	2.5 x 10E-4
Faceplate illum. (lux)	1 x 10E-4	1 x 10E-5

Scanning System RS170, 60 kHz, 525 lines
or CCIR 50Hz, 625 Lines

Video Output 1.0 V pp
75 ohms unbalanced

Video Line Drivers Remotely adjustable for
various types of cables
Up to 5,000ft for full video
Up to 9,000ft for usable video

Auto Light Range ~1,000,000 : 1

Camera Power Auto Select
Constant voltage: 18 to 30 Vdc, at 850mA
or Constant current: 900mA - 1100mA

Windows™ Software Controls

Video line driver gain and high frequency response

Full remote control of camera and video set-up with
diagnostic displays

Communication Interface

Serial Interface RS232 or RS485
Protocol ASCII-Based
Baud Rate 9600 Standard

Optical

Lens 6.5mm	Standard Port	Hemispherical Port
Iris	Auto Iris, f1.8 - f64 with full closure on power off	Auto Iris, f1.8 - f64 with full closure on power off
Field of View	86° Diagonal	110° Diagonal
	73° Horizontal	98° Horizontal
	58° Vertical	81° Vertical
Focus Range	Fixed Focus, 150mm (6") to Infinity	Fixed Focus, 150mm (6") to Infinity

Environmental

Depth 3,000m (10,000')
6,000m optional

Operating temperature 23°F to 104°F
(-5°C to 40°C)

Storage temperature -4°F to 140°F
(-20°C to 60°C)

Mechanical

Size See Drawing Above

Weight

In Air 11 lb. (5.0 kg)

In Water 3.9 lb. (1.8 kg)

Housing Material Titanium Optically Polished Port

Connector 8 pin Mini Burton standard

Options

External synchronization

Balanced line drivers

Option of 12.5mm lens with Remote Focus

Other housing materials and pressure ratings are
available.

Other connectors available on request

All specifications are subject to change in line with Insite Pacific's policy of continual product development.

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