

# Colour CCD Camera

# PL-4000



## PL-4000 Series ROBOT Camera

### 1,Features

#### 1),Unique Features:

- The ball is made from aluminum alloy (thickness: 5mm -15mm). It is solid and airproof and the design is up to the following standards:

**Shock proof**

**Vandal proof**

**Water proof (IP66)**

**Erode proof**

- flat designed optical window uses toughened glass whose thickness is 5mm, which prevents distorted images and protects the built-in integrated camera.
- 360°continuous pan rotation, 125° tilt rotation
- IR lamps view 100 metres at 0LUX

#### 2) Other Features:

- Accurate step motor driving, smart operation, sensitive reaction and accurate orientation
- 24 privacy zone.
- For indoor/outdoor use
- Supports presets, auto scanning mode and preset tour
- RS-485 communication for pan, tilt, zoom & focus
- Baud rate: 1200/2400/4800/9600b selectable
- Supports Pelco P/D, FV and VCL protocol
- Pedestal stand mode and pedestal with angle of 30°

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- High reliability with auto-store to prevent data loss on power-outages.
- On-screen display of pan/tilt orientation and zoom magnification.
- Built-in function menu, with on-screen display for settings.
- Powering on state setting: can be set by in-built menu
- Several kinds of auto scanning mode, the speed can be set by built- in menu
- Functions of video freeze, WDR and BLC.
- Multi privacy zones.
- Day&night camera can be set into auto/single color/single black mode according to the individual requirements.
- Pattern track memory function, can record the preset transfer and all standard P/T/Z tracks.
- Control speed can be adjusted automatically with proportional pan/tilt speed dependant upon zoom position.
- 128 preset positions, precision error less than 0.05° Preset target speed: 80°/ sec for pan;40°/sec for tilt
- Alterable auto scan speed: 1°~40°/sec can be set by the in-built menu
- 8 preset tour functions, dwell time can be set to 2-60/sec
- Pan rotation: 360° continuously rotating, with 180°auto-flip function for tilt
- Tilt rotation for pedestal stand mode:-35°~ +90° (0°for pan)
- Tilt rotation for pedestal with pitching angle of 30°: -65°~+90° (0°for pan)
- Tilt rotation for conversed mount: -35°~ +90° (0°for pan)
- Manual control speed for pan: 0.1° ~80°/sec
- Manual control speed for tilt: 0.1° ~40°/sec
- Preset target speed: 80°/sec for pan, 40°/sec for tilt
- Video output (PAL/NTSC) composite video output: 1.00VP-P;
- Built-in wiper, heater, fan components
- IR lamps are available.
- Embeded surge and lightning protection
- Meeting IP66, CE, ROHS, FCC standards
- Working temperature range: -40°~ +55° C

## 2, Applications

PL-4000 Series shock-proof integrated high speed camera is designed to be resistant to impact from stones, bricks, even short gun bullets. It is ideal for high security and hazardous environments applications, such as: vehicle tracking, prison, navy, military, seafronts, harbors, marine, embassy, police vehicles, armored vehicles, airports, high crime area, government research labs and so on.

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**3, Electric specification :**

POWER	18VAC
	18VDC to 24VDC is optional
Heat up and defrost	controlled by teperature sensor
Operation temperature	-40°C~55°C

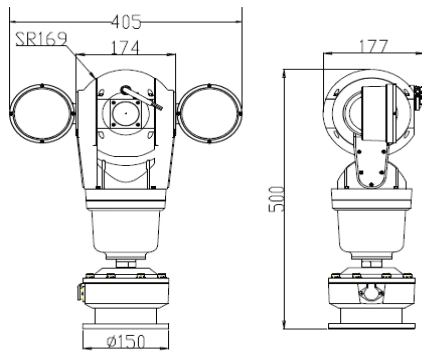
**4, Pan/Tilt specification**

Manual control speed of pan & tilt	
Pan speed	0.1°-90°/sec
Tilt speed	0.1°-40°/sec
Preset target speed	
Pan speed	90°/sec
Tilt speed	40°/sec
Pan running	360° continuous pan rotation
Tilt running	125° continuous tilt rotation
Preset tour	8 preset tours , dwell time can be set
Auto scan speed	can be set to 1°-40°/s
Threescan modes	Auto/random/preset tour routes

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## 1,Dimension of product



**2, Dimension of package:43\*63\*28 mm**

**3, Gross Weight: 15KG**

**4, Net weight: 10KG**

## **6,Camera/lens parameter**

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## 6, Camera/lens parameter

Mode	SONY (FCB-EX980P) 26xD/N	SONY (FCB-EX980SP) 26xD/N (for vehicle tracking)	SONY (FCB-EX1000P) 36xD/N
Optical zoom	26	26	36
Digital zoom	12		
Signal system	PAL/NTSC		
Scan system	2:1 interlacing scan		
CCD	1/4"CCD		
Effective Pixel	795(H)×596(V)		
Horizontal resolution	>480TVL	>480TVL	>540TVL
Lens focus	F1.4(f=2.5-91mm)	F1.4(f=2.5-91mm)	F1.4(f=3.4-122.4mm)
Horizontal angle	3.5mm wide angel 54.2° 91mm narrow angle 2.2°	3.5mm wide angel 54.2° 91mm narrow angle 2.2°	3.4mm wide angel 57.8°, 119mm narrow angle 1.7°
Focus Ctrl	Auto/ Manual first		
Minimum illumination	1/50sec Shutter Speed (color) 1.0Lux 1/3 sec Shutter Speed (color) 0.1Lux	1/50 sec Shutter Speed (color) 1.0Lux 1/3sec Shutter Speed (color) 0.1Lux	1/50 sec Shutter Speed (color) 1.4Lux 1/3sec Shutter Speed (color) 0.1Lux
Sync system	built-in Sync/AC linear lock		
Shutter Speed	auto、1/4-1/10000	auto、1/4-1/10000	auto、1/4-1/10000
Iris Ctrl	Auto/ Manual first		
Gain Ctrl	Auto/ Manual		
Video Output	1.0±0.2VP-P (75Ω, complex)		
S/N Ratio	50dB		
White Balance	Auto/ Manual		
Stabilizer	NO	YES	NO

## Infrared light Parameter

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## Infrared light Parameter

### IR Lens Feature :

Integrated with 7 pieces of 1W (850nm) IR Lens and 6 pieces of  $\Phi 8$  (850nm) new model visible LED Chip. The efficiency of light conversion is increased by using two kinds of different IR Lens, and the effective distance of transmission is over 100 metres. The element adopts high capacitance cooling technology to enhance the efficiency of light conversion by more than 15%, and prolonging the life-span at the same time.

The circuitry adopts constant flows to ensure the IR lens tube is working in constant flows at any time. Effectively avoiding elevated temperatures, increasing lamp life over conventional IR bulbs and improved power saving.

These measures offer sufficient guarantee for IR lighting tube's reliability and duration.

### Technical Parameter

Distance	>100m
Angle	45°
IR Lens	two pairs of 7X 1W, 6X $\Phi 8$
Voltage	DC12V
Power	2X6W
Measurement (LXWXH)	two units of $\Phi 108 \times 85$ mm
Net Weight	2X 0.5kg

### Operating the IR Lens

1. Press 75, press "7"+"5"+"preset"
2. Enter INFRARED in the AUX menu. ON means open IR, it will start to work when the illumination is lower than 1 LUX. OFF means close IR.