#### **Features**

1/3" Sony SuperHAD colour CCD – Fixed lens 6mm - 420TVL – Auto Electronic Shutter (AES) – Auto Gain Control (AGC) – 30 x 850nm Infra Red LEDs - Illumination up to 20 metres – 12v DC, 300mA (leds on) – Waterproof IP65 rated - Free cable managed bracket



## **Description**

The CAM820 6mm external Infra Red colour camera uses a 1/3" Sony SuperHAD colour CCD and solid state circuitry, which provides long life and high reliability. The camera is highly resistant to shock and vibration and is easy to install.

#### **Installation Instructions**

- Attach mounting bracket to wall ensuring that an adequate seal is made and the cable entry cut-out is at the bottom.
- 2) Adjust the camera protection cover.
- 3) Adjust securing bolts using Allen key provided and adjustment wheel, to set required view.
- 4) Connect the BNC video output to the monitor or other device utilising a 750hm type co-axial cable. We recommend the RG59 co-axial cable.



# Powering the camera

The 12v DC cameras require a power supply that has a continuous rating of at least 300mA to cater for the infra-red capability. It is recommended that a 500mA power supply or higher is used and is regulated and provides a smooth 12v DC output. The power supply used must not be a security type used in intruder alarms as the over voltage may damage the camera and void the warranty.

#### **Troubleshooting**

The camera cannot function without the correct working power supply. The power supply must be regulated and be capable of supplying 500mA minimum per camera continuously.

Check that the power supply is functioning correctly using a multimeter set on DC voltage (above 12v) and connect the probes to the power supply's output plug or terminal strip. The meter reading should be between 12 - 13 volts. If a negative voltage is read then either the power supply is incorrectly wired or the multimeter leads have been reversed in error. If the reading is over 13 volts DC you may be using an unregulated power supply, which can damage the camera. If the voltage is under 12 volts it has been known for a camera to work perfectly during the daytime without using the infra reds but not allowing the infrareds to operate during the night.

Make sure that the video lead that you connect between the camera and the monitor has no shorts or open circuits. If you are making your own lead ensure that you have two connections for video i.e. video and ground as the camera will not function correctly. Faulty leads are generally the most common problem found when connecting cameras.

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## External Infra-Red Camera

### **Interference on the camera picture**

Interference is usually caused by poor or inadequate cabling, not observing correct wiring techniques or not using a regulated power supply. If you want a good quality picture ensure that you do not use an intruder alarm power supply unit with 12-volt cameras.

### **Special Note**

When this unit is in use, avoid direct eye contact with the infrared lights.

The unit's outer case can heat up to 60°C when in use and care should be taken to ensure that this camera is fitted where it cannot be easily touched. It must also not be fitted in close proximity of any flammable materials.

Note that infrared light is polarised light and therefore acts rather like a torch beam with a narrow angle of illumination. It therefore may be necessary to provide additional infra red lighting.

Do not use this camera in temperatures below -10° C or higher than +50° C or where humidity is greater than 90%.

<b>Technical Specifications</b>	CAM820
CCD Type	1/3" Colour SuperHAD CCD sensor
Picture Elements	PAL: 582 (H) x 512 (V)
Horizontal Resolution	420TVL
Minimum Illumination	0 lux with IRs/ F2.0
S/N Ratio	More than 48dB
Auto Electronic Shutter	PAL: 1/50s – 1/100,000s
Lens	6mm fixed Lens
Water Resistance	IP65
Infra Red LEDs	30
IR Projection distance	20 metres
Scanning System	Interlace 2:1
Operating Temperature	-10°C ~ 50°C
Video Output	1 V p-p / 75 Ohms
Power consumption	$12V DC \pm 10\% 300 mA$ with leds on
Dimensions Body	180mm (L) bracket & camera (210mm with shade) x 60.0mm (D)

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