

CR2227 Shielded CCD Nuclear TV Camera



The CR2227 camera has been designed specifically for use in relatively high radiation environments and can withstand dose rates of 50 Gy/Hr and survive an accumulated dose of 1000 Gy which is 10 times the dose rate of a standard CCD camera. The sensor module may simply be replaced, without specialist tools or knowledge when accumulated dose is reached, with the camera and optics being re-used. The shielding may also be increased to extend the life up to 100 times that of an unshielded camera (specified with order)

Key Features

- Uses state of the art CCD sensors to deliver high resolution pictures.
- Colour or black/white versions
- CCIR or EIA standard video signal output
- Resolution 530 TV lines
- Sensitivity 0.3 Lux
- Optical system fully radiation hard
- Range of lens options
- Zoom version available
- Radiation life of camera extended ten times in standard configuration.
- Radiation dose rate ten times higher than standard CCD in basic configuration
- Simple economic sensor module replacement to re-life camera
- Radiation life of camera can be extended to one hundred times

Construction

The camera has an outer case of stainless steel and is constructed from radiation hard materials. There are hard mounting points for lights, microphones and manipulator accessories. The camera is also suitable for mounting on pan and tilt unit.

CR2227 Camera Technical Specification

Video Signal	Composite to EIA (NTSC) or CCIR (PAL)
Power supply	12v dc: 160 mA
Image Format	1/3 inch colour or black and white
Resolution (limiting)	530 TV lines per picture height.
Sensitivity	0.3 lux
Camera housing	Stainless steel
Environmental Tolerance	Max Operating temperature: 0 - 50°C Standard IP54, IP67 and IP68 versions available
Camera Life without sensor change	Nuclear radiation (gamma): Total accumulated dose 1000 gy Dose Rate 50 gy/hour
Camera Life with sensor change	(excluding sensor) - 2×10^8 rads accumulated (gamma)
Cables	Standard PVC cable, terminated with a connector
Connector	Latching Fischer connector. Optical shroud for waterproof applications.
Signal transmission	Miniature multicore
Connector clearance	Allow 150mm at rear for installed connector and cable, 180mm if connector must be removed.
Control Unit (For Zoom)	2U high 19 inch rack mounted version unit with front panel controls.

	CR2227	CR2227Z
Lens	6, 9, 15 and 25mm fixed focus	7-25mm zoom - motorised zoom, focus and Iris 16-96mm zoom - motorised zoom, focus and iris
Focus Range	30mm to infinity in air	50mm to infinity in air
Dimensions:(excluding Lens)		
Weight	15 kg (approx)	15 kg (approx)
Height	150 mm (approx)	150 mm (approx)
Length	150 mm (approx)	150 mm (approx)
Width	90 mm (approx)	90 mm (approx)

Due to our policy of continual improvement Centronic Raditec Ltd reserves the right to change specification without notification

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