RADIATION TOLERANT CAMERA

C983™

Compact System Camera

FEATURES

- Telemetry (RS-485), video and power over three twisted pairs

- Integral pan/tilt with ±180° travel and variable speed which can automatically reduce as the camera is zoomed in

- Outstanding viewing performance achieved by using a high performance CCD module with 18:1 optical and 4:1 digital variable speed zoom

- Position feedback system to provide for preset positioning and adjustable end stops

- Camera internal temperature monitoring and over-temperature alarm

- Sealed housing for in-air and underwater operation

- Optional high power tracking lights

- Simple camera cable

- One 19 in. controller to control up to eight cameras

- Option of dedicated controller (C983 cameras only) or flexible sub-rack (mixed R981™/C983 cameras)

- 8-channel lighting and microphone sub-racks

- RS-485 telemetry to camera and lighting controllers

- Software protocol and hardware can address up to 128 cameras/16 controllers

DESCRIPTION

Mirion's C983 Camera offers a compact, sealed, underwater capable, high performance pan/tilt/zoom color CCD camera. Ideal for locating in areas where space is at a premium, the camera features an integral pan and tilt with mounting provision for additional lights and microphone. The integrated microcontroller supports many additional features, including position feedback, temperature monitoring and optional radiation dosimetry for when the camera is used in radiation environments. The camera controller options provide for easy and cost-effective integration of multi-camera systems including those requiring a mix of C983 and R981 radiation tolerant cameras.

Mirion Technologies is a recognized leader in turnkey television surveillance systems design for the nuclear industry providing experience, innovation and reliability for your inspection and surveillance needs.

C983 | COMPACT SYSTEM CAMERA

SPECIFICATIONS AND PERFORMANCE

Camera Specification	
Image Sensor	¼ type Super HAD CCD
Temperature Rating (camera module)	0 to 50 °C (32 to 122 °F)
Resolution	NTSC 470 TV Lines PAL 460 TV Lines
Zoom	18:1 optical (4.1 mm - 73.8 mm) 4:1 digital
Focus	Manual or Auto
Iris Control	Manual or Auto
Construction	Stainless steel housing
Weight	3.2 kg (7 lb) without lights or microphone
Depth Rating	60 m (197 ft)
Radiation Tolerance	100 Gy [^{60}Co] (H_2O) 10^4 Rad [^{60}Co] (H_2O)
Operating Dose Rate	100 Gy/h (10^4 Rad/h)
Range - Pan	± 180° (adjustable)
Range - Tilt	± 180° (adjustable)
Speed - Pan	Variable (up to 6°/sec)
Speed - Tilt	Variable (up to 6°/sec)

Accessories

Lighting in-air/underwater lamps (tracking up to 100 W using 50 W lamps
Microphone (in-air use only)
Camera attachments
8-Channel lighting sub-rack
8-Channel microphone sub-rack

8-Channel C983 Controller Specification	
Power Input	85 to 264 V ac, 47 - 440 Hz, 80 VA max
Dimensions	88 x 483 x 360 mm (H x W x D) (3.5 x 19 x 14.2 in.) Excluding handles and connectors
Weight	6 kg (13.2 lb)
Video Outputs	Composite, 75R, BNC
RS-485 Termination	On/off switch
Front Panel Controls	Cable compensation switches to set three different cable length ranges
	Rotary switch to select one of eight cameras for configuration via RS-232 port
Front Panel Connector	RS-232 port for camera configuration
Front Panel Indicators	Camera control: Data from host and data from camera
	Camera configuration: Data in/data out

8-Channel Flexible Sub-rack Specification (for a mix of C983 and R981 cameras)	
Power Input	85 to 264 V ac, 47 - 440 Hz, 80 VA max
Dimensions	134 x 483 x 300 mm (H x W x D) (5.3 x 19 x 11.8 in.) Excluding handles and connectors
Weight	7 kg (15.4 lb)
Video Outputs	Composite, 75R, BNC
Genlock Input	BNC with switched 75R termination
Serial Control Input	9-way Type D plug
Serial Control Loop Through	9-way Type D socket
Serial Protocol	Mirion or Pelco D (selected by sub-rack part numbers)

MIRION TECHNOLOGIES

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