

SC-18 SHIELDED COLOR CAMERA



Shielded, radiation resistant, color camera

18:1 optical zoom with 4x digital zoom

5×10^4 RADs total dose



The shielded camera provides high resolution video for close-up inspection in both PWR and BWR facilities.

Specifically developed for close-up viewing during reactor vessel inspections, the SC-18 utilizes a high-resolution SuperHAD image sensor coupled to a miniature 18:1 zoom lens. A stainless steel housing with internal metal shielding protects the camera and allows for closer and longer viewing while operating in radioactive environments.

The SC-18 has been field proven in both PWR and BWR reactor vessels for general inspections requiring a color image while operating in lower radiation levels.

ROS has been manufacturing an array of harsh environment cameras, lights, positioners, and specialized systems designed for oceanographic, nuclear, industrial, and military applications for over 30 years.

SC-18 - Shielded Color Camera

PERFORMANCE

Horizontal Resolution:	470 TV Lines - NTSC 460 TV Lines - PAL
Faceplate Sensitivity:	0.2 lux
Scene Illumination:	1.0 lux - full resolution
Sensor Type:	1/4" SuperHAD CCD
Signal to Noise:	> 50 dB
Power Input:	11 - 30 VDC, 400 mA (max)
Scanning:	525 line / 60 Hz - NTSC 625 line / 50 Hz - PAL
Video Output:	Composite, 1.0 V peak to peak into 75 ohm
Recommended Controller:	ROS CVS III controller
Electro-Magnetic Compatibility:	EN50081-1 Emission / EN50082-1 Immunity
Optical Zoom:	18:1 (4.1 mm to 73.8 mm focal length)
Digital Zoom:	4x
Iris Control:	Automatic, f/1.4 - f/22
Focus Control:	10 mm to infinity (wide angle) 800 mm to infinity (full zoom)
Field of View in Air:	48° (H) x 37° (V)
Field of View in Water:	36° (H) x 27° (V)

MECHANICAL

Housing Material:	316 stainless steel
Length (w/o connector):	149 mm (5.85 in)
Diameter:	81.0 mm (3.19 in)
Weight in Air:	1.9 kg (4.2 lbs)
Weight in Water:	1.1 kg (2.4 lbs)
Viewing Port:	Dynasil non-browning with acrylic protective cover
Standard Connector:	Flexible penetrator to MHDG Series

ENVIRONMENTAL

Operating Depth:	70 m (230 ft)
Operating Temperature:	0° C to +50° C (32° F to 122° F)
Storage Temperature:	-20° C to +60° C (-4° F to 140° F) in air
Radiation Tolerance	
Dose Rate:	400 Rad (4 Gy) / hour
Total Integrated Dose:	40,000 Rad (400 Gy)

Specifications subject to change without notice



5618 Copley Drive
San Diego, CA 92111 USA
Tel (858) 565-8500
Fax (858) 565-8808
East Coast Office (804) 754-3936

www.rosys.com
sales@rosys.com 98-51016 REV A