



## MicroCam

### SOLUTIONS: Remote Monitoring of Reactor Maintenance

- Low-cost color video camera for reactor maintenance monitoring
- Integrated LED lighting
- Exceptional image quality in low light
- Compact form factor: 1.13" diameter
- Plugs directly into monitor (no control unit required)



#### Compact Reactor Maintenance Surveillance Tool

The MicroCam offers the perfect mix of color imaging capabilities, small size, lighting, radiation tolerance, and economy. Due to its compact diameter of just 1.125" (29mm), this camera is perfectly suited for monitoring reactor activities in dry and submerged confined areas with relatively low dose rates. The MicroCam is also designed to be an economical choice and is available at a lower cost than other small diameter cameras on the market.

The MicroCam is engineered to meet the specific needs of reactor services and outage teams, ensuring that detail and fidelity remain strong throughout a range of distances, radiation levels, and environmental and lighting conditions. It's also environmentally sealed and has an ultra-wide vibration spec, rated to operate reliably underwater to depths of 200 feet with an incredibly high resistance to impact.

The MicroCam incorporates a state-of-the-art APS sensor with impressive picture quality, low-light capabilities, and tolerance to radiation.

#### A "Plug and Play" Solution

With zero tuning or set up required, the MicroCam is designed for ease of operation. Technicians using the MicroCam don't have to worry about any type of camera adjustments either; the iris and focus operate on their own. This utility tool simply needs to be plugged in and it's ready to go.

#### MicroCam Applications

This convenient surveillance tool is commonly deployed to monitor reactor maintenance activities such as:

- Robotic tooling situational awareness and operational support
- Manipulators, end effectors, and remote tooling
- Foreign material search and retrieval
- Reactor bottom-head and lower annulus viewing
- Maintenance and repair support
- Outage and fuel movement remote surveillance
- Reactor disassembly/reassembly support
- Remote monitoring of outage plant parameters such as steam generator nozzle dam panel indications

#### High Quality and Reliability

The MicroCam is designed and manufactured to stringent quality standards. All stages of the production cycle, through final factory acceptance testing of the finished products, are performed under the tight parameters of Diakont's ISO 9001-certified Quality Management System. High camera reliability is achieved through solid design, and incorporation of the highest quality components. Diakont routinely performs radiation tests of components and completed camera systems in order to validate performance to specifications.



**USA**  
Diakont Advanced Technologies  
3193 Lionshead Ave,  
Carlsbad, CA 92010 USA  
+1-858-551-5551 phone  
sales@diakont.us.com

## Dimensions

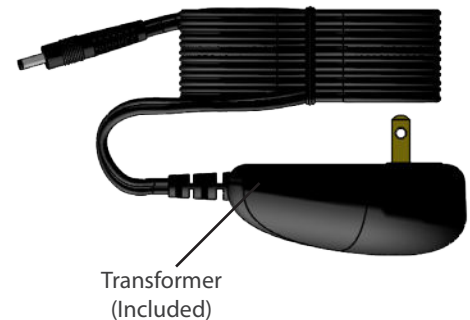
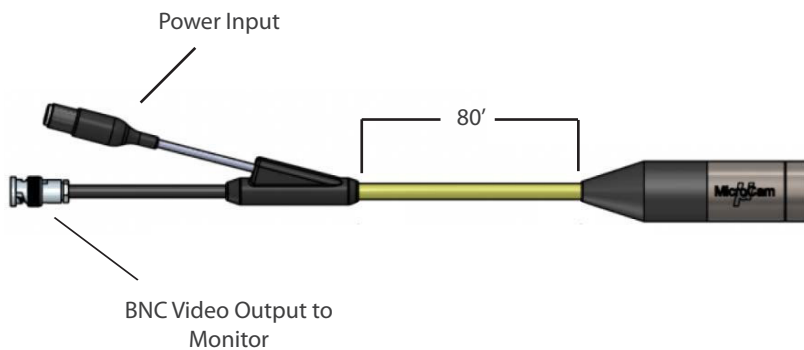


## Technical Specifications

Camera Sensor	APS
Resolution	420 H-TVL
Minimum object distance	2" [50 mm]
Sensitivity	0.025 lux
Field of View (diagonal, in air)	65°
Field of View (diagonal, in water)	42°
Environment	Water, air
Maximum Operating Temperature	140°F [60°C]
Lights	Integral, LED
Housing	316 Stainless Steel
Length	4.28"
Diameter	1.125"
Protection	200' submersible
Environmental	IP68
Cumulative Dose	50,000 Rads
Maximum Dose Rate	100,000 Rads/Hr

## Configuration

The MicroCam is equipped with an 80' cable which breaks out into a BNC video output connector and a DC power input connector. The video output plugs directly into a monitor, and the power is connected to a transformer (included), which plugs into a standard 120V outlet.



Contact Diakont today to schedule a demonstration. MicroCam video can stream over a network, so demonstrations can be provided over the Internet.



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03-1001-08