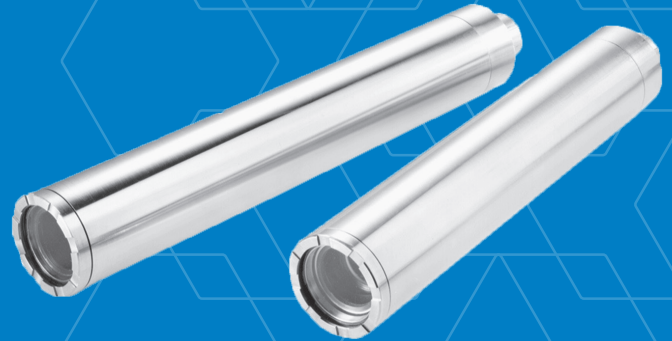




RADIATION TOLERANT CAMERA

R941™

High Radiation Zoom Camera



A compact radiation-tolerant zoom camera capable of being remotely controlled and designed to be configured based on user needs.

The R941 compact zoom camera from Mirion has been developed to provide a radiation tolerant zoom facility in a compact 55 mm diameter case. The zoom facility features a non-browning 8 to 24 mm, f/2.8 to f/16 zoom lens. Lense is capable of all the optical functions (i.e., focus, zoom, iris and macro) while being fully motorized to allow complete remote control via the R90 Mk 3 Camera Control Unit. Housed in a stainless steel case, the R941 camera incorporates a zoom lens that can focus and track from 50 mm to infinity.

The R941 camera is designed to be used in conjunction with Mirion's R90 Series Mk 3 Camera Control Units. Fully compatible with international video standards, R90 Mk 3 Control Units can be integrated or locked to external sources, image processors or machine vision systems. A range of portable or rack mounted versions are available with local control, or remote control over twisted pair or video coaxial cables.

FEATURES

- ✓ Compact Casing
- ✓ Radiation Tolerant
- ✓ Non-browning Zoom Lens
- ✓ Remotely Controlled

APPLICATIONS

- ✓ Fuel Inspection
- ✓ Search and Retrieval
- ✓ Reactor Inspection
- ✓ Robotics and Manipulator Surveillance

R941 HIGH RADIATION ZOOM CAMERA

SPECIFICATIONS AND PERFORMANCE

GENERAL

- Length: 269 mm (10.6 in)
- Diameter: 55 mm (2.16 in)
- Weight (approximate): 1.8 kg (2.16 in)

SYSTEM PERFORMANCE

- Resolution: 600 TV lines per picture height (center zone)
- Sensitivity: 30 lux scene illumination
(1 volt composite video signal, chalnicon, 80% average scene reflectivity, tungsten illumination 2856K)

ENVIRONMENTAL

- Operating Temperature: 0 to 55 °C (32 to 130 °F)
- Storage: 0 to 60 °C (32 to 140 °F)
- Depth Rating: 50 meters (165 ft)
- Radiation Tolerance:
2 MGy (H₂O) [⁶⁰Co] (2 x 10⁸ rads) Total dose
>30 kGy/hour (>3 x 10⁶ rads/hour) Vidicon
1 kGy/hour (1 x 10⁵ rads/hour) Chalnicon

OPTICS

- Iris Range: f/2.8 to f16
- Viewing Angles in Air:
Zoom Out
Horizontal 57.6°
Vertical 44.8°
Zoom In
Horizontal 20.8°
Vertical 15.7 °
- Focus Range: Tracking 50 mm (1.96 in) to infinity 0 mm to infinity
(using macro and fully zoomed out)
- Cable Length: 100 m (328 ft)

SPECIFICATION NOTES

1. A “good” picture is defined as one where the illumination available is sufficient for the camera to produce a 1 volt composite video signal with a fully open aperture.
2. A “usable” picture can usually be obtained, dependent on the scene viewed and environmental factors, etc, when the illumination available is only one third that required to achieve a 1 volt composite video signal at full aperture.
3. Mirion Technologies should be consulted for very critical viewing requirements, or in cases where there are important lighting, resolution, environmental or viewing angle considerations.
4. In applications where there are severe space constraints, care should be taken to allow for the size of the camera cable mating connector and if necessary, the bend radius of the connecting camera cable. Please refer to the R90 series cables and connectors data sheets.
5. Mirion Technologies should be consulted if longer cable lengths are required.



MIRION
TECHNOLOGIES

Copyright ©2024 Mirion Technologies, Inc. or its affiliates. All rights reserved. Mirion, the Mirion logo, and other trade names of Mirion products listed herein are registered trademarks or trademarks of Mirion Technologies, Inc. or its affiliates in the United States and other countries. Third party trademarks mentioned are the property of their respective owners.

Specifications may vary according to system configuration. We reserve the right to modify or amend the information herein without prior warning. Please contact your Mirion representative for further information.

Mirion Technologies (IST) Ltd and Mirion Technologies (Imaging), LLC are ISO 9001:2015 certified companies (certificates available on request or at www.mirion.com).

Please note that the products and accessories described in this data sheet may be subject to UK export control or US re-export control. Please check with your authorized representative when enquiring about this product.