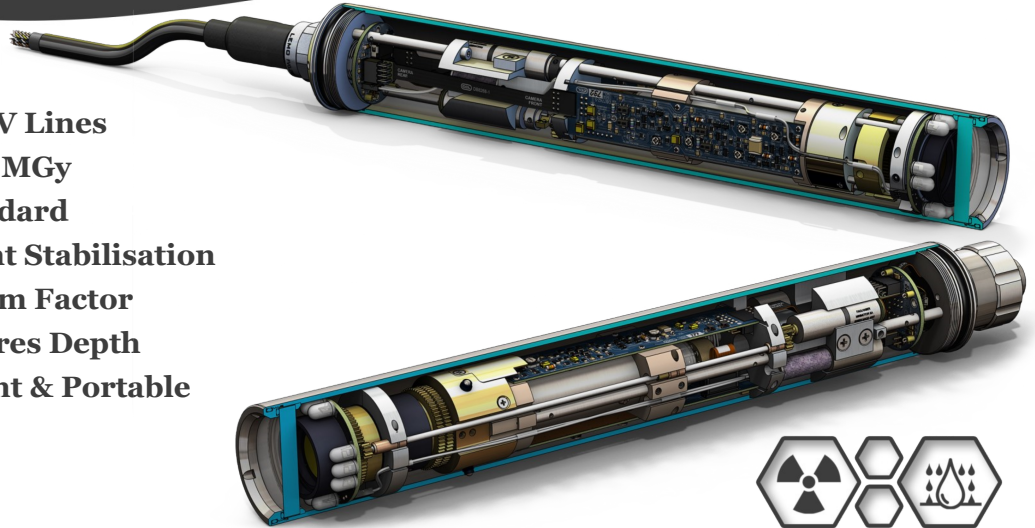


# VHR PUFFIN UTC300 Series

Miniature Very High Radiation Tolerant Camera  
Certified to 2.2MGy Total Dose.

## FEATURES

- Resolution Up To 700 TV Lines
- Radiation Tolerance 2.2MGy
- 2/3" Imaging Tube Standard
- Electronic Beam Current Stabilisation
- Extremely Compact Form Factor
- Sealed To IP68, 50 Metres Depth
- Rack Mount, Desk Mount & Portable CCU's Available



## DESCRIPTION

The Puffin series of Cameras were designed to have the highest radiation tolerance, in the smallest possible form factor.

Incorporating a 2/3" imaging tube, the VHR Puffin Camera utilises wide-band video processing circuitry comprised of critically selected, high grade, batch tested electronic components, to deliver unrivalled resolution and sensitivity over a wide spectral range. In the same manner, precision scanning circuitry combined with a unique, custom designed and built scanning coil, allow for excellent geometric reproduction, in the smallest of form factors.

By opting for a 'Split-Head' design, whereby only minimum circuitry is housed within the part of the Camera exposed to high doses of radiation, we have successfully been Certified by an independent test facility, that the VHR Puffin Camera will give excellent images and will withstand a total integrated Radiation dose of 2.2MGy.

One of the design goals for the Puffin Camera was to eliminate the requirement for regular adjustments throughout the life of the system, allowing engineers to simply use the system without concern for regular, and costly, maintenance periods. The beam current stabilisation circuit within the Camera, ensures that once set, no further adjustment is necessary, compensating automatically as the imaging tube's cathode emission declines with age.

The accompanying Camera Control Unit is available as a 2U rack-mounting module, a compact bench-mounting cabinet, or a Peli™ Storm case housed portable unit with an integrated high-resolution display, and built in recording to on-board storage. USB export options are available. The multi-core coupling cable is specifically designed and manufactured to offer high radiation tolerance, while being as flexible as possible.

Being a split-head design, the remainder of the camera drive circuitry is housed safely within the Camera Control Unit. Depending on the type of Control Unit supplied, various controls, inputs, and outputs will be available, but each type will always have the same core options in place. These include lens controls, such as Zoom, Focus, & Iris. Image controls, such as Manual Gain control, Lighting control, and Peak-Mean adjustment. A Lemo connector provides the camera input, and video output is provided by two BNC connectors. A Genlock input is also provided as standard.



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## TECHNICAL DATA

### PERFORMANCE

|  |  |
|--|--|
| <b>VIDEO SIGNAL:</b>                         | PAL, 625 lines or NTSC, 525 lines<br>1V composite to CCIR standard<br>Black level clamp, variable gamma correction, aperture correction  |
| <b>SIGNAL/NOISE RATIO:</b>                   | >40dB (Un-weighted)  |
| <b>RESOLUTION:</b>                           | Up to 700 TV lines (Centre)  |
| <b>SENSITIVITY:</b><br>(TUBE TYPE DEPENDANT) | >20 lux - Full picture quality with an F1.4 lens - Chalnicon/Newvicon<br>>2 lux - At the limit of Automatic Gain Control - Chalnicon/Newvicon<br>>200 lux - Full picture quality with an F1.4 lens - Vidicon<br>>20 lux - At the limit of Automatic Gain Control - Vidicon |
| <b>OPTICAL INTERFACE:</b>                    | Internal 9mm motorised lens<br>Internal 8-24mm motorised zoom lens<br>Internal 22-90mm motorised zoom lens and 2x extender   |

### ENVIRONMENTAL

|                               |   |
|-------------------------------|---|
| <b>OPERATING TEMPERATURE:</b> | 0 to +50°C (short term up to 60°C)                      |
| <b>RADIATION TOLERANCE:</b>   | Total dose 2.2MGy (Gamma), Dose rate 10kGy/Hour         |
| <b>INGRESS PROTECTION:</b>    | IP65 or IP68, 50 metres (Depending on housing supplied) |

### DIMENSIONS AND WEIGHT

|   |   |
|---|---|
| <b>CAMERA:</b><br>(EXCLUDING CONNECTOR) | Ø41.5mm x 288mm Long, 9mm - Weight 0.98Kg<br>Ø41.5mm x 288mm Long, 3:1 zoom - Weight 1.17Kg<br>Ø44mm x 332mm Long, 4:1 zoom+2x Extender - Weight 1.50Kg |
| <b>CONTROL UNIT:</b>                    | 2U 19" Rack mount, 280mmD<br>Desk mount case, 430mmW x 260mmD x 120mmH<br>Portable Peli™ Storm case, 600mmW x 450mmD x 350mmH                           |

### INTERCONNECTION

|                         |   |
|-------------------------|---|
| <b>CAMERA:</b>          | Standard connector: 19 pole Sealed Lemo   |
| <b>CONTROL UNIT:</b>    | Lemo 26 pole self-latching connector<br>2x Independent composite video outputs (75 Ohm BNC socket)<br>RJ45 PELCO Control Interface (Optional) |
| <b>INTERFACE CABLE:</b> | Miniature multi twisted pairs, radiation tolerant - Approx. 8.5mm diameter  |

### SUPPLIES

|                      |                                |
|----------------------|--------------------------------|
| <b>CONTROL UNIT:</b> | Mains 100V/115V/230V - 50/60Hz |
|----------------------|--------------------------------|

WE RESERVE THE RIGHT TO CHANGE THE ABOVE DATA WITHOUT NOTICE



SCAN ME



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