## PETREL IRCA00 Series Integral Television Camera With Medium Radiation Tolerance and Minimum External Connections.

FEATURES

- Resolution Up To 700 TV Lines
- Radiation Tolerance 700kGy
- 2/3" Imaging Tube Standard
- Compact Form Factor
- Simple Power In, Video Out Operation
- Numerous Lens Options
- Internal Lighting Options
- Electronic Macro Focussing

## DESCRIPTION

The Petrel series of Cameras were designed to be a no compromise solution, for nuclear applications where high radiation tolerance, excellent picture quality, and versatile controls are required, but where there are only a minimal number of through connections available.

With this in mind, we started with the uncompromising core of the Puffin camera, and built around that industry proven technology. By adding onboard power regulation, onboard sync generation, and a specially designed Multiplex Control system, we were able to create a feature packed, radiation tolerant, Camera in a small form factor (Ø63mm with 8-24mm lens), which only requires four through conductors in its most basic form.

This configuration allows for a simple 'Power In/Video Out' operation. With adding only a few more cores, internal LED illumination is provided (lens dependent), and this is how we configure the camera as standard.

When combined with an appropriate Camera Control Unit, the user can expect straight forward access to Lens controls, Lighting and Gain controls, and Macro Focussing controls. If the Camera system is paired with one of our PT700 Pan & Tilt units, those controls will also be available on the front panel. HDMI & composite video outputs can be provided, depending on the type of unit, and more advanced Control Units offer highly portable and rugged Peli<sup>™</sup> Storm case form factors, with integrated high-resolution displays, and built in recording to on-board storage. USB export options are also available.

The Petrel series cameras have been reliably servicing our customers since its conception 30+ years ago, and has been sold in many different configurations since then. With a program of continual modernisation, we are able to offer today, an array of different lens types and options, including 3:1, 6:1, & 10:1, zoom lenses, as well as 6mm, 9mm, & 25mm fixed focus lenses. Optional motorised focus can be added internally to allow macro focussing on both zoom and fixed lenses, and most lens options allow for internal lighting too. Of course, our in-house design team is always on hand to try to accommodate any special requirements a particular application may have.



## **TECHNICAL DATA**

PERFORMANCE	
VIDEO SIGNAL:	PAL, 625 lines or NTSC, 525 lines 1V composite to CCIR standard Black level clamp, variable gamma correction, aperture correction
SIGNAL/NOISE RATIO:	>40dB (Un-weighted)
<b>RESOLUTION:</b>	Up to 700 TV lines (Centre)
SENSITIVITY: (TUBE TYPE DEPENDANT)	<ul> <li>&gt;20 lux - Full picture quality with an F1.4 lens - Chalnicon/Newvicon</li> <li>&gt;2 lux - At the limit of Automatic Gain Control - Chalnicon/Newvicon</li> <li>&gt;200 lux - Full picture quality with an F1.4 lens - Vidicon</li> <li>&gt;20 lux - At the limit of Automatic Gain Control - Vidicon</li> </ul>
<b>OPTICAL INTERFACE:</b>	C-Mount; optional internal focus racking in camera to allow remote focus with fixed focus lenses, macro focussing with zoom lenses or wide range focus with endoscopes
STANDARD LENS OPTIONS:	Fixed: 6mm, 9mm & 25mm Zoom: 8-24mm (3:1), 22-90mm (4:1), 12-72mm (6:1), & 12-120mm (10:1)

ENVIRONMENTAL	
<b>OPERATING TEMPERATURE:</b>	0 to +50°C
<b>RADIATION TOLERANCE:</b>	Total dose 700kGy (Gamma), Dose rate 10kGy/Hour
<b>INGRESS PROTECTION:</b>	IP65 or IP68, 50 metres (Depending on housing supplied)

Ø63mm x 208mm Long (excluding connector) 9mm - Weight 0.93Kg
Ø63mm x 237mm Long (excluding connector) 3:1 zoom - Weight 1.38Kg
Ø85mm x 310mm Long (excluding connector) 6:1 zoom - Weight 1.76Kg
2U 19" Rack mount, 280mmD
Desk mount case, 430mmW x 260mmD x 120mmH
Portable Peli™ Storm case, 600mmW x 450mmD x 350mmH

INTERCONNECTION	
CAMERA:	4 wire connection for Camera
	(balanced pair or coax for video + 2 wires for 12V DC supply)
	Standard connector: 7 pole Lemo push-pull type
CONTROL UNIT:	7 pole Lemo Camera connector
	2 x independent Composite Video outputs (75 Ohm BNC socket)

SUPPLIES	
CAMERA:	12V DC @ approximately 650mA (11-14V acceptable) Regulator required for over 14V
<b>CONTROL UNIT:</b>	Mains 100/115/230V 50/60 Hz

WE RESERVE THE RIGHT TO CHANGE THE ABOVE DATA WITHOUT NOTICE

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