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**Defence & Security
Products Division**

PNP-MTHD

The world's smallest, lightest most versatile
HIGH DEFINITION THERMAL IMAGING monocular with zoom



PNP-MTHD

The world's smallest, lightest
and **most versatile Thermal Imaging** night
vision monocular

Pyser-SGI Limited is one of the world's leading manufacturers of Night Vision products.

Over the many years of our experience in the design, development and manufacture of night vision monoculars we have worked closely with British, other NATO and non-NATO Armed Forces, Special Forces and Police Special Forces in order to produce the products and features required for today's and tomorrow's threat situations.

The PNP-MTHD monocular range is the result of such close co-operations and is a state of the art world beating product which is complemented by a wide range of specially developed accessories enabling the user to perform a huge variety of missions based on just one sensor platform --- PNP-MTHD.

Designed, developed and manufactured in Britain by Pyser-SGI to ISO 9001 quality levels the PNP-MTHD is the world's smallest and lightest thermal imaging monocular. It uses an advanced glass reinforced polymer main body with a centre of mass as far to the rear as possible to minimise neck strain during prolonged operations. Two CR 123 batteries, for light weight, give up to 7 hours' continuous operation. High quality IR optics are used for maximum image quality and the entire monocular body, electronics and optics are filled with dry nitrogen for ultimate reliability in all missions.

The unique Near Eye OLED display always produces a large crisp image right in front of the eye and overcomes the "tunnel vision" problem common in inferior designs.

This gives an image having an apparent angle of view of 36° horizontally, which is similar to that of the human eye and therefore considerably aids speed and clarity of target acquisition. When head/helmet worn in the 17mm lens option model the image as seen by the user is 1:1 ratio to actual size, therefore considerably enhancing judgements of distance and safety of manoeuvre. The 25 mm & 35 mm give Search & Rescue capability with a 1.5 & 2x optical magnification respectively. All models accept the optional 3x rapid-attach magnifier lens which produces 3x, 4.5x and 6x basic optical magnification for the three models in addition to the 2x and 4x digital zoom function incorporated as standard.

Usable hand held, helmet mounted, head mounted or tripod mounted, the PNP-MTHD does everything. And this



includes optional anti-mist filters and adaptors for attaching instantly to camcorders, DSLR cameras and CCTV cameras for total darkness surveillance. You can even power the PNP-MTHD directly from a vehicle cigarette lighter socket (via optional Pyser adaptor) 6v supply and take the live PAL video directly to any compatible recording device or transmitter at the same time as viewing with the naked eye.

For security and convenience the PNP-MTHD monocular on its helmet or head mount auto switches off when flipped up and auto switches on with no switch resetting needed when flipped back down again. Shuttered rubber eyecups are also available which simply screw on without needing to remove the normal soft fold-back eyecup. For added security an icon inside the 27mm eye relief eyepiece illuminates to warn against a low battery charge situation.

And of course all accessories can be used with no tools required for attachment, adjustment or operation.

PNP-MTHD

The world's smallest, lightest most versatile Thermal Imaging monocular – and the best.



Technical Specifications

Thermal Image		Controls					
Detector	Amorphous Silicon Microbolometer 7-14 microns wavelength Uncooled 640 x 480 pixel array High Definition 17 micron pixel pitch 25Hz or 9Hz (optional) refresh rate		On/Off Polarity White hot / Black hot Electronic zoom 1x 2x and 4x ratio Screen brightness Automatic flip up / switch off, flip down / switch on when used on helmet or head mount with no re-set needed				
Display	Advanced OLED 852 x 600 pixels SVGA Monochrome 36° apparent image horizontal angle of view	Power	2 x CR 123 Lithium batteries (give up to 7 hours continuous operation)				
Optics	High quality IR objective lenses Fully coated eyepiece optics 25 mm glass aperture 27mm eye relief Dioptre adjustment -6 to +3	Input/Output	Single multipin socket for: PAL video out for recording or transmission. External power via battery power module				
		Physical					
Focal lengths		Model	Length	Height	Width	Weight w/o batteries*	
Actual field of view		17 mm	98mm	74mm	48mm	295g	
17 mm		25 mm	118mm	74mm	48mm	325g	
25 mm		35 mm	128mm	74mm	48mm	340g	
35 mm		Tripod mount Construction					
		Standard ¼" UNC thread Moulded glass filled polymer main body					
Detection Distances* (Human sized target)		Environmental					
17 mm		Waterproof					
25 mm		Water resistant to 1m for 30 min					
35 mm		Operation -20°C to +55°C					
		Storage -40°C to +65°C					
		Note: All specifications are nominal					

*without using electronic zoom



PNP-MTHD fits to any DSLR, camcorder or CCTV camera.



PNP-MTHD Thermal Night Vision Monocular

Part No.	Model Type
561-217*	PNP-MTHD with 17mm lens, 36° Horizontal fov 1x mag 25Hz, including pouch
561-225*	PNP-MTHD with 25mm lens, 25° Horizontal fov 1.5x mag 25Hz, including pouch
561-235*	PNP-MTHD with 35mm lens, 18° Horizontal fov 2x mag 25Hz, including pouch
561-317	PNP-MTHD with 17mm lens, 36° Horizontal fov 1x mag 9Hz, including pouch
561-325	PNP-MTHD with 25mm lens, 25° Horizontal fov 1.5x mag 9Hz, including pouch
561-335	PNP-MTHD with 35mm lens, 18° Horizontal fov 2x mag 9Hz, including pouch

All PNP-MTHD models are delivered in protective pouches, complete with 2 x CR 123 Lithium batteries and full pictorial operating instructions.

Accessories for PNP-MTHD	
550-003F	Relay lens for use with CCTV camera, NSN 5836-99-366-5780
550-007	Shuttered eyeguard, NSN 6650-99-789-6513
550-006AM	Head harness for left and right eye use and accepts binocular bridge, NSN 6650-99-407-0566
550-006HM	Helmet mount, universal fitting for ballistic helmets for left and right eye use and accepts binocular bridge, NSN 5340-99-812-6225
589-997M*	Rail mount adaptor for fitting to Picatinny rail, NSN 5340-99-574-0422
560-010	Anti-mist filter for eyepiece, NSN 6650-99-731-1262
561-400	Clip-on 3x lens. Converts 1x to 3x, 1.5x to 4.5x and 2x to 6x
589-840-300	Camcorder/camera 30mm adaptor
589-840-305	Camcorder/camera 30.5mm adaptor, NSN 6650-99-412-0360
589-840-035	Camcorder/camera 35mm adaptor, NSN 6650-99-000-5183
589-840-040	Camcorder/camera 37mm adaptor, NSN 6650-99-595-0780
589-840-043	Camcorder/camera 43mm adaptor,
589-840-046	Camcorder/camera 46mm adaptor,
589-840-042	Camcorder/camera 49mm adaptor, NSN 6650-99-323-6896
589-840-041	Camcorder/camera 52mm adaptor, NSN 6650-99-329-3201
589-840-058A	Camcorder/camera 58mm adaptor, NSN 6650-99-180-7670
589-840-072	Camcorder/camera 72mm adaptor, NSN 6650-99-297-7873 Others available on request
560-015	Diopetre Locking Clamp (guarantees diopetre position when using DSLR/camcorder)
	Optical Modules to connect PNP-MT directly to a photographic camera body
589-840-400A	Nikon photographic module
589-840-401A	Canon photographic module
589-855	Lanyard
561-409S	External Battery Power Module fed by 6 Volts DC
561-410S	6 Volts DC Power Supply for 561-409 (UK)
561-411S	6 Volts DC Power Supply for 561-409 (EU)
561-401	Video Out Cable to phono plug
FBS-034	Small Hermetic Case, holds PNP-MTHD in its pouch
FBS-043	Medium Hermetic Case with custom made foam cut-outs
FBS-037	Large Hermetic Case with custom made foam cut-outs, NSN 6650-99-778-3635

*Export of this product from the UK is controlled under U.K. Export Licence Regulations. All goods are supplied under our standard conditions of trade. We reserve the right to amend design and specifications without prior notification

Visit our website on www.pyser-sgi.com for further information on the complete range of products available from Pyser-SGI Limited.



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