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Defence & Security
Products Division

TISI

Thermal Sight for Assault Rifles, SMGs and Machine Guns

Designed specifically for assault rifles, submachine guns, machine guns and sharpshooter roles, TISI represents cutting edge uncooled thermal night vision technology in a compact, low profile and lightweight weapon sight.

TISI is available with thermal detectors of either 384x288 or 640x480 resolutions and with a choice of optics giving either 3X or 5X basic magnification, horizontal angles of view of either 7 degrees (125 mils) or 12 degrees (210 mils) and detection ranges of up to 2760m (man) and 7000m (vehicle).

Standard Definition models (SD) also have a 2x electronic zoom giving a total of 6X or 10X magnification in addition to the basic 3X and 5X magnifications. High Definition models (HD) incorporate both a 2X and a 4X zoom giving total magnifications of 3X, 6X and 12X (HD 45 model) or 5X, 10X and 20X in the case of the HD 75 version

Rapidly attached with no tools to any Picatinny rail, TISI is operational within eight seconds from switch on. Simple, intuitive push button controls make it an extremely easy sight to use while offering the user a fully featured advanced night sight.

Large diameter eyepiece optics with very long eye relief make TISI extremely user friendly for rapid target acquisition on all weapons and enhanced ease of use in particular in sharpshooter and machine gun roles.

Affordable and virtually maintenance free, it is the ideal choice for Special Forces, Police elite units and regular forces requiring the best in night vision sights.

TISI is designed, developed and manufactured in the UK

TISI

Thermal Sight for Assault Rifles, SMGs and Machine Guns

Technical Specifications

Thermal Image

Detector

High Definition

Pitch 17μ
Pixels 640x480
Detector AmSi microbolometer
Spectral band 7-14μm
NETD<45 mK @ 20°C ambient and 30°C scene temperature
Refresh rate 25Hz

Standard Definition

Pitch 25μ
Pixels 384x288
Detector AmSi microbolometer
Spectral band 7-14μm
NETD<45 mK @ 20°C ambient and 30°C scene temperature
Refresh rate 25Hz

Display

Advanced OLED
852 x 600 pixels SVGA

Optics

High quality germanium F1.0 objective lens
75mm or 45mm focal length
5X magnification (75mm lens models)
3X magnification (45mm lens models)

Horizontal field of view	75mm lens	
8 Degrees	142 mils	HD
7 Degrees	125 mils	SD
Horizontal field of view	**45mm lens**	
13.7 Degrees	243 mils	HD
12 Degrees	213 mils	SD

Focus 2.5 metres to infinity 45mm lens
5.0 metres to infinity 75mm lens
Appararent field of view 26 degrees, 462Mils
Fully coated eyepiece lens optics
Dioptre adjustment +3 to -3
Eyepiece lens glass diameter 31mm
Eye relief 50mm

Performances

High Definition (HD)

Human	75mm lens	45mm lens
Detection:	2760m	1650m
Recognition:	1380m	825m
Identification:	920m	550m

Vehicle (Land Rover size)		
Detection:	7000m	4200m
Recognition	3500m	2100m
Identification	2300m	1400m

Standard Definition (SD)

Human	75mm lens	45mm lens
Detection:	1900m	1140m
Recognition:	950m	570m
Identification:	630m	380m

Vehicle (Land Rover size)		
Detection:	4760m	2850m
Recognition	2380m	1425m
Identification	1580m	950m

Controls

By single, simple, intuitive push buttons on right and left side of sight.

Left side

On/Off/NUC (additional NUC facility by remote pressure pad)
Windage (right and left buttons)
Elevation (up and down buttons)
0.22 mils per click HD75 0.38 mils per click HD45
0.32 mils per click SD75 0.55mils per click SD45
Windage/elevation range +/- 128 clicks
2X electronic zoom - Standard Definition models
2X and 4X - electronic zoom High Definition models
Polarity inversion (Black/hot : White/hot)

Right side

Screen brightness

Physical

One piece high strength anodised black aluminium alloy body and lens assemblies.
Quick release/attach Picatinny rail mount.
Nitrogen purged.

TISI		HD75 SD75	HD45 SD45
Length mm		225	185
Width mm		85	76
Height mm (inc Picatinny rail mount)		94	85
Weight gm	HD	1380	995
	SD	1380	995

Power Supply

4x "AA" type L91 Lithium 1.5V
or
4x "AA" Alkaline 1.5V
or
4x "AA" Rechargeable 1.2V

TISI Battery life **HD75** up to 7 hours
HD45 up to 7 hours
SD75 up to 10 hours
SD45 up to 10 hours
(with L91/LF1500 type at 21°C)

External 6v power in by Milspec socket
Live PAL Composite Video out via same socket

Environmental

Water resistance 20m for 1 hour.
Operating Temperature -40° to +60°

Ordering Information (All units are 25Hz refresh rate, 9Hz available on request)

TISI is delivered in its soft black or DPM or Sand colour padded pouch, four "AA" Lithium L91 batteries and full operating illustrated instructions.

High Definition

Part No	Description	
560-380	TISI HD75	NSN 5855-99-151-6865
560-381	TISI HD45	NSN 5855-99-709-1502

Standard Format

Part No	Description	
560-370	TISI SD75	NSN 5855-99-155-8828
560-371	TISI SD45	NSN 5855-99-226-6732

Optional Accessories

560-390 Remote pressure pad NUC switch
550-007T Shuttered eyeguard
560-391 Cable, 6V in/Video out
FBS-043 Medium hermetic case with custom made cutouts

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We reserve the right to amend design and specifications without prior notification. All values are nominal.

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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