SEOSS300

2-AXIS STABILIZED SENSOR HEAD

TAKING RESPONSIBILITY IN A CHANGING WORLD

RHEINMETALL

The next level of tactical superiority with Rheinmetall's Military Stabilized Electro Optical Sight. Featuring an advanced Thermal Imager, two variants of Daylight Cameras and a tailored Laser Range Finder.

Gain the upper hand in combat with unmatched advantages:

Thermal Imaging: Detect targets with supreme clarity regardless of lighting conditions, offering enhanced visibility in low light or obscured environments. Stay one-step ahead of the enemy with precise thermal detection capabilities.

Daylight Cameras: Detect with two ruggedized cameras, tailored for either nearby situational awareness or long-range recognition. Utilize flexibility and growth with advanced technologies such as Short Wave Infrared (SWIR), generate advantages in combat via sensors.

Laser Range Finder: Accurately assess target distance in seconds, enabling swift and precise engagements. Enhance operational effectiveness with rapid target acquisition and engagement, ensuring maximum efficiency and minimizing collateral damage. Utilize variants of LRF with pulsed measurements for 3D fire control computing against fast targets.

Combining the power of high-class optics and laser range finding technologies, our sight empowers military personnel with unmatched precision, situational awareness, and operational effectiveness. Best fit for IFV and MBT.

Optional features: Integrated fire control calculation incl. airburst functionality. Combine SEOSS 300 with a tailored remote-controlled weapon station Rheinmetall Main Sight Slaved Armament (MSSA 300).

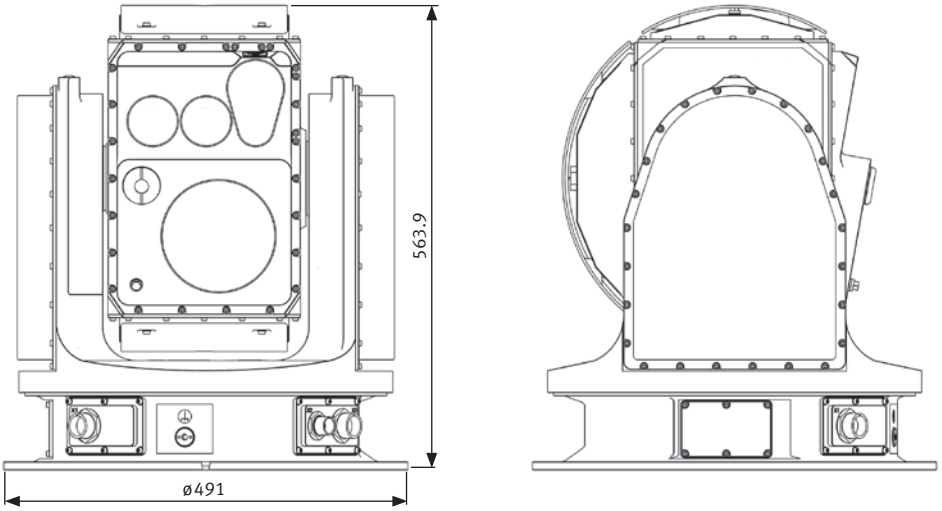
SPECIFICATION SEOSS 300	
Length x width x height (w/o connector panel)	458.5 x 563.9 x 458.5 mm
Weight	88 kg
Interfaces	Ethernet over fibre, CAN-BUS, EtherCat
Ballistic protection	up to STANAG Level 3
Motion control	
AZ-range	±7.5°
AZ-range as pano	360°
EL-range	–13° – 70°
LOS stabilization	
Stabilization error	≤50 µrad (1σ) for rotatory component only, ≤100 µrad (1σ) on APG track with 20 km/h vehicle speed (IFV/MBT)
Power supply	≤300 watt, 28 V nominal, 20 – 33 VDC, MIL-STD-1275 E and VG 96916-5
DC-Current	
Inrush	‹200 A ‹1 ms
Rated	30 A
Nominal at nominal voltage	10 A
Operational temperature range	–32°C to +49°C AECTP 300 (Ed3)
Shock/vibration	MIL-STD-810 and AECTP 400 (Ed3)

SPECIFICATION DAYSIGHT CAMERA			
Image sensor			
Technology			CMOS, RGB
Resolution			2464 x 2056
Framerate			60 Hz
Pixelpitch			3.45 µm
Wavelength			350 – 1,100 nm
FoV			2.2°; 4.4°; 8.9°; 16.7°
Additional information			Global shutter
DRI			
B3 Armoured vehicle (2.3 m x 2.3 m)			
1/3/6 LP STANAG 4347	D: ›17 km	R: ›8.5 km	I: ›4.9 km

SPECIFICATION THERMAL IMAGER			
Image sensor			
Technology			CMT FPA
Resolution			1024 x 768
Framerate			up to 60 Hz
Pixelpitch			10 µm
Wavelength			3 – 5 µm
FoV			2.2°; 4.4°; 8.9°; 16.7°
Cool down time			‹6:30 min. @21°C ambient temperature
NETD			‹38 mK (typ. 25 mK)
IETD			‹NETD
Cooler MTBF			›50,000 h
DRI			
B3 Armoured vehicle (2.3 m x 2.3 m)			
1/3/6 LP STANAG 4347	D: ›18 km	R: ›10 km	I: ›5.5 km

SPECIFICATION LASER RANGE FINDER	
Measureable range min./max.	
Range read-out limits	50 – 39,999 m
Ranging performance vehicle (2.3 m x 2.3 m) (Std. Clear; max.)	›12,400 m
Wavelength	1,565 – 1,575 nm
Firing rate	1 Hz
Beam divergence	(›50% of beam) ‹1 mrad
Range accuracy	±5 m
Extinction ratio	Extinction coefficient 0.0448 km-1 @ 1,570 nm (Modtran 3)
Safety classification	
Laser classification 4	Class 1M
NOHD	‹0 m
eNOHD with 7 x 50 binoculars	55 m
Visible emission filter	Blocking
Visible emission [@≥5 m]	nil
Audible emission [@≥5 m]	nil

MECHANICAL INTERFACE



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