

FUSION SERIES

Micro Rugged Day and LWIR Vision System



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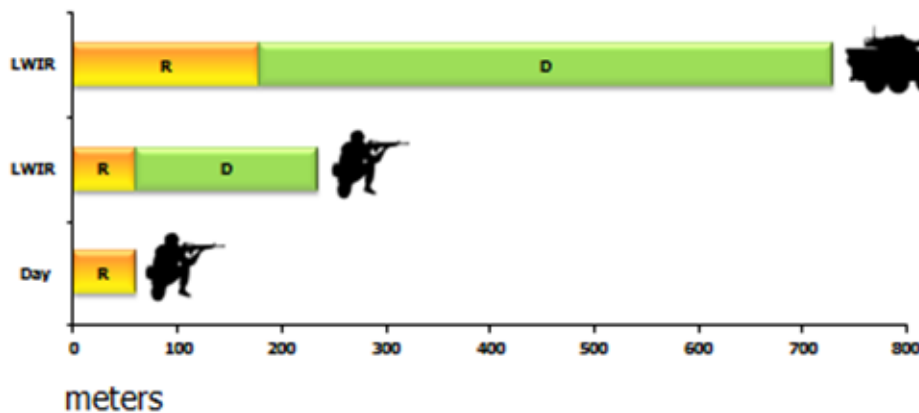
The FUSION SYSTEM is a rugged vehicle mounted electro-optic visual sensor designed for driver vision enhancement, perimeter intrusion detection, and automatic target tracking.



The sensor accommodates a variety of LWIR lenses from 7.5mm to 19mm for wide and narrow FoV. The "Drive by Video" capability allows safe off-road driving, as well as detection and tracking objects representing potential risks.

SD-640-7.5

Detection & Recognition



Second generation DDE

Digital Detail Enhancement™ for clearer imagery and edge sharpening

ACE - Active Contrast Enhancement™

dynamically adjust scene contrast for relative scene temperature

SSO - Smart Scene Optimization™

enhance extremes in a bi-modal scene

IBHEQ - Information Based HEQ™

automatically adjusts AGC for what matters most in a scene

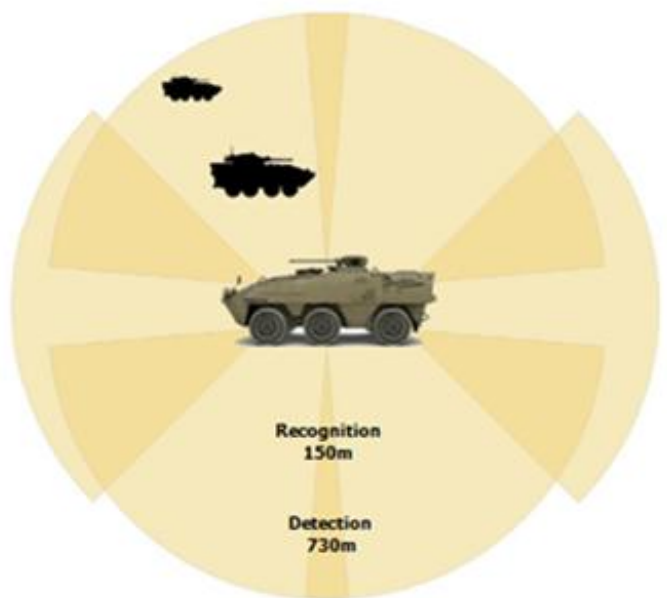
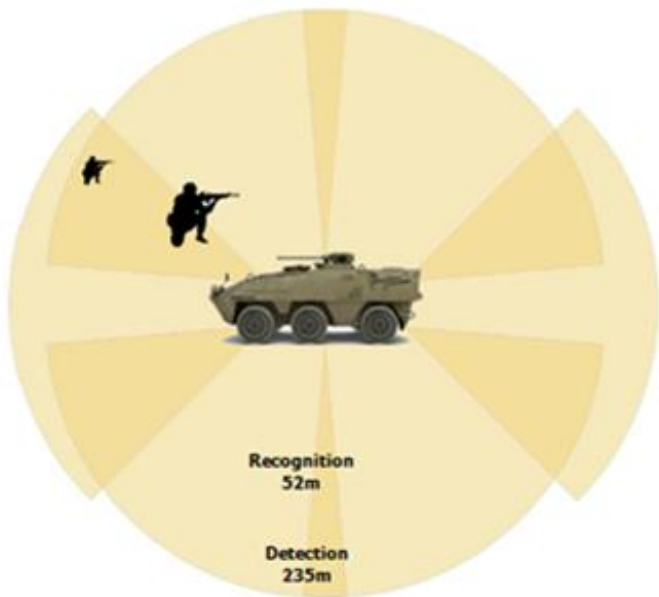
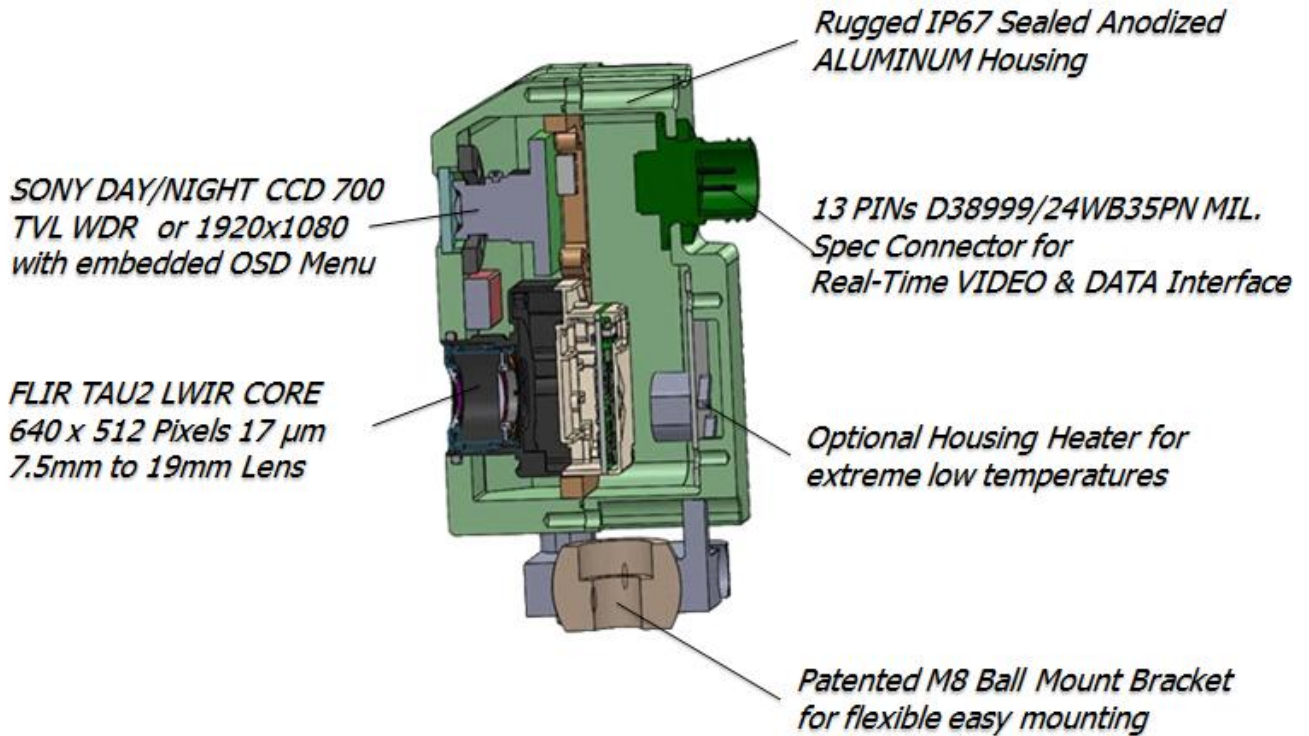
SSN - Silent Shutter less NUC™

for continuous image uniformity improvement



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Due to Nitrogen pressurization, Safedrive is resistant towards challenging environmental conditions, such as water damage, failure of electrical, mechanical, and optical components.

Reliability of Performance

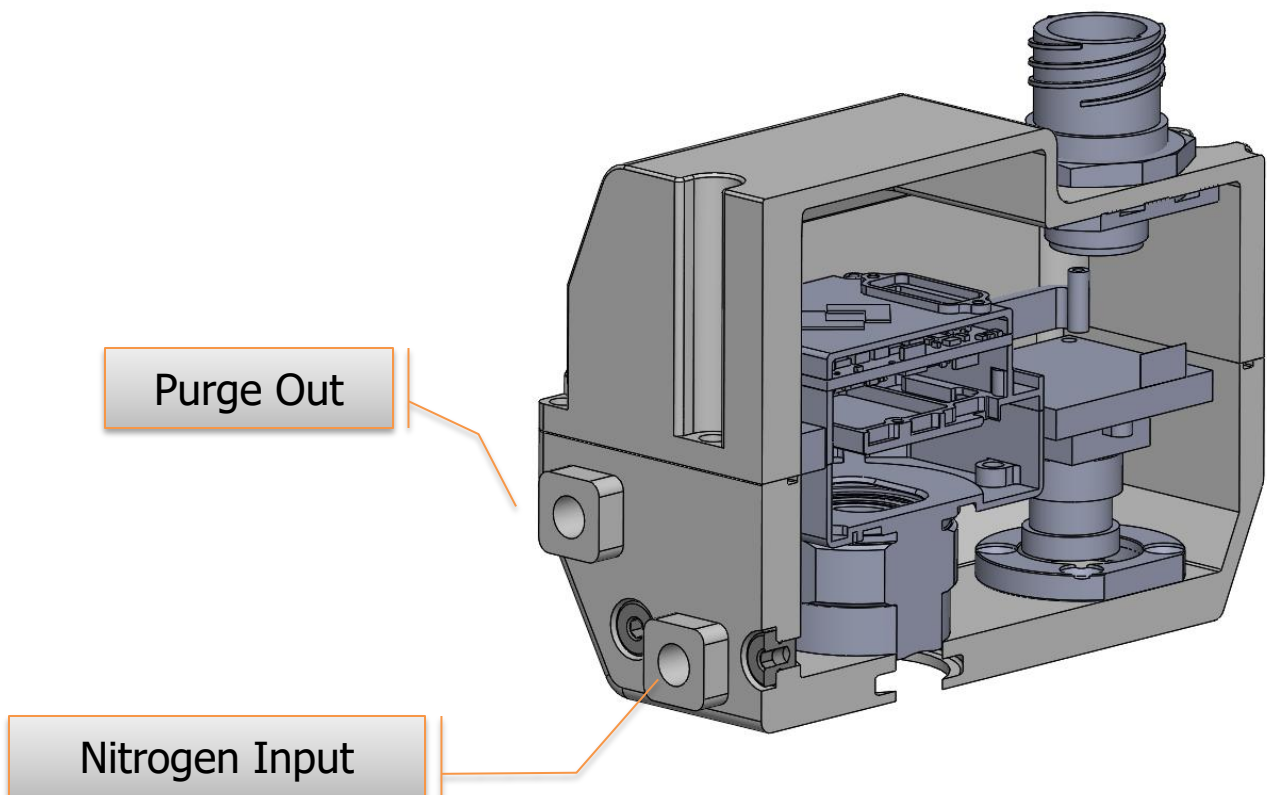
Sealing and pressurization ensure that electrical, mechanical, and optical components remain free from contaminants.

Controlled Environment For Optics and Lens

A sealed and pressurized enclosure prevents condensation on the lens and interior of the housing faceplate.

Corrosion Protection

No interior corrosion of circuit boards, solder joints, wiring, or metal parts.



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Lens Focal Length	Lens FoV
7.5mm	90°x69°
9mm	69°x56°
13mm	45°x37°
19mm	32°x26°

Thermal Sensor	Thermal Imager	Uncooled VOx Microbolometer
	Resolution (pixels)	640x512
	Thermal Lens	7.5/9/13/19 mm
	Min Wide FOV 7.5mm	90° x 69°
	Max Narrow FOV 19mm	32° x 26°
	Pitch	17 µm
	Spectral Band	7.5 - 13.5 µm
	Frame Rate	8HZ without Export License / 30Hz Export License Needed
	Sensitivity (NEdT)	<50 mK at f/1.0

Day Sensor	Day Sensor Resolution	2048 x 1536 / 1920 x 1080, 30 fps
	Day Lens	Synchronized with Thermal FOV
	Sensor Start up Time	6 sec.

Format	PAL/NTSC
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Power	Input	3-32VDC
	Consumption	2A Peak Max, Nominal 0.6A
	Heater operation	Start: <15° C, Stop>20° C

Housing	Material	Anodized Aluminum, Stainless Steel
	Color <td>N316 Screws</td>	N316 Screws
	Connectors <td>Black, White, Yellow, Blue, Red, Silver</td>	Black, White, Yellow, Blue, Red, Silver
		D38999/24WB98PN

Cables	Connectors	D38999/26WB98SM
	Length <td>8m</td>	8m

Physical	Dimensions (LWH, mm)	79x65x106 mm
	Weight <td>300gr</td>	300gr

Environmental	Operating Temp	-40°C to +80°C
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Certifications	Protection Rates	1275, IP67, Mil.Std 810F
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