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Second Generation Crewserved and Individual Served Weaponsights

Background. TRANSVARO Elektronik Aletleri Sanayi ve Ticaret A.S. of Istanbul, Turkey, is marketing second generation crew-served and individual-served weapon sights.

Description. TRANSVARO Model 9865A (crewserved) and Model 9866A (individual served) weaponsights are lightweight, passive night vision sights using 25-mm microchannel plate intensifier tubes. The sights are easily attached to a number of different weapons for night reconnaissance. Automatic Gain Control circuitry is employed to automatically maintain the viewed scene illumination constant during periods of changing light levels allowing the operator to use the sight without having to readjust the tube gain control every few minutes during these periods. Optional features available include 5x binocular eyepieces for viewing with both eyes 35-mm SLR relay and 16-mm video relay for night photography.

Both sights operate on AA batteries, both use Automatic Brightness Control (ABC) to maintain constant illumination during periods of changing light; both have illuminated reticle with brightness control and either standard or custom designed patterns; mounts and brackets to fit specific user needs; both have manually adjustable image tube gains to compensate for levels of ambient lighting; and both use second generation 25-mm image tubes featuring muzzle flash protection.

Specifications:

Optical	Model 9865A	Model 9866A
Magnification	X6.2	X3.7
Field of view	9 degrees	14 degrees
		30 minutes
Focus range	25 m to infinity	25 m to infinity
Objective		
Focal length	155 mm	95 mm
T number	1.6	1.6
MTF	70%;40 lp/mm	70%;40 lp/mm
Eyepiece		
Focal length	26.5 mm	26.5 mm
Eye relief	34 mm	34 mm
Diopter range	+2-5	+2-5

Mechanical

Length	31 cm	24 cm
Width	16 cm	12 cm
Height	17 cm	12 cm
Weight	3 kg	1.7 kg

Electrical

Power	2 "AA" batteries	same
25 ma, 3.0 VDC	same	
Battery life	15 hrs +	same

Environmental

	Model 9865A	Model 9866A
Temperature	Operating	same
		same
Non-operating	-65°F	same
	115°F	same
Humidity	Operating	same
	Non-operating	same
Altitude	Operating	same
	Non-operating	same

System Resolution

100% Contrast:		
001 lux	2.5 lp/mr	1.6 lp/mr
1 lux	4.2 lp/mr	2.8 lp/mr
30% Contrast:		
001 lux	1.9 lp/mr	1.2 lp/mr
1 lux	3.5 lp/mr	2.2 lp/mr

Image Intensifier Tube Model 3603-1 (Model 9856A and 9866A Weaponsights)

Nominal operating voltage	2.65 VDC
Minimum resolution (center)	28 lp/mm
Minimum resolution (off center)	25 lp/mm
Magnification	96 to 1.04
Gain	30,000 min
Focusing Method	Electrostatic
Photocathode	S-20 extended red
Cathode sensitivity	240 μa/lumen
Red Response	
8000A	15 ma/watt
8500A	10 ma/watt
9000A	On request
Useful cathode diameter	25 mm
Phosphor	Aluminized P-20
Equivalent background input	2X10 ⁻¹¹ lumen/cm ²

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Distortion 5% maximum
 Modulation transfer function
 2.5 lp/mm 90%
 7.5 lp/mm 80%
 15 lp/mm 25%

For further information, contact TRANSVARO Elektron Alet-
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ONREUR point of contact: CDR R. H. Taylor, USN, Under-
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