

NV10

Go/not go tester of night vision devices



Fig. 1. Photo of the NV10 test station

NV10 is the simplest of a series of station for testing night vision devices offered by Inframet. It is a small portable test station optimized to carry out very basic tests of NVDs (monoculars, monocular goggles, binocular goggles) before important missions. In detail, the task of NV10 station is to check resolution of tested NVD at two illuminance levels and to enable optimal focus of oculars and objective of the tested night vision device.

NV10 station works as a single channel image projector. The station projects an image of a resolution target on an uniform background into direction of tested NVD located opposite to station optics. Light intensity of can be regulated at two steps to simulate typical light conditions that can be met during potential missions. The target is typically USAF1951 resolution target recommended by majority of military and civilian standards. It simulates the resolution target located at a single fixed distance: optical infinity (distance over about 250m). The station is characterized by compact size, small mass, extremely long battery operation time power and very simple operation.

Due to its single channel design it optimal to use NV10 for testing single channel night vision devices like monoculars, monocular goggles but it can be used also for basic tests of binocular goggles. However, in case of airborne night vision binocular goggles it is highly recommended to use more advanced dual channel test station coded NV20.

Modules	NV10 base block, PS12/3 external AC power supply, battery set, transport box, microfiber lens cleaning cloth, user manual,
Light Source	Monochromatic IR LED source: 780nm \pm 30nm
Aperture/resolution of the collimator	at least 35 mm/at least 5 lp/mrad
Simulated scenery	Dark USAF1951 target on uniform bright background
Spatial frequency range of resolution target	At least from 0.1 lp/mrad to 2.01 lp/mrad
Distance to simulated target	Optical infinity (distance over 250 m)
Simulated illuminance levels	Low – approx. moonless night sky illumination High – approx. quarter moon sky illumination
Power	1) Internal battery DC1.5V 2) cable 230/110 VAC 50/60 Hz
Battery operating time	At least 20 hours (at low illuminance mode)
Operating temperature	-10°C to 40°C
Average life time of LEDs source	>10000 hours
Mass of NV10 base module	<2kg
Dimensions NV10 block	200x100x150mm
Calibration	traceable to ILAC MRA
Recalibration interval	at least once per three years

*specifications are subject to change without prior notice

Version 1.5

CONTACT:

Tel: +48 22 6668780

Fax: +48 22 3987244
comV

Email: info@inframet.com

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