

# QUANTUM

NEW

THERMAL IMAGING  
SCOPES HD50S  
LD50S



## MAIN FEATURES

- The largest detection distance in the Quantum line (1250m)
- High magnification (2.8 / 5.6x)
- Detector size 384x288 pixels
- Wide range of operation temperatures (-25...+50°C)
- Image optimization depending on the place and observation conditions
- Three calibration modes (manual (silent), semiautomatic and automatic)
- Large number of auxiliary functions
- External power supply availability
- Energy efficient
- User-friendly graphic interface
- Rubberized composite body
- Video out (video recording capability)
- Lightweight

“black hot”



“white hot”



# QUANTUM S | DESCRIPTION & COMPETITIVE ADVANTAGES

## LONG DETECTION RANGE

Actual detection range of a human figure (1.8x0.5m) in the field (wearing an outerwear, in the field against forest background) for the Quantum HD/LD50S units is 1250 ... 1300 m.

## CALIBRATION

The Quantum S offers three calibration modes: silent manual mode ("M"), automatic ("A") and semiautomatic ("H"). The "A" mode implies automatic calibration without user's participation. In the "H" mode the user decides on his own if calibration is required depending on the image quality. The "Cal" button is pressed in this mode. Manual calibration ("M") is carried out by pressing the "Cal" button when the lens cap is closed. The "M" mode is recommended for hunting due to silent operation.

## EXTERNAL POWER SUPPLY

Operation time can be significantly increased with the help of external power supplies (e.g., Pulsar EPS3/EPS5) that are connected into a special power socket. When used in frosty weather, the power supply can be stored under the clothes.

## USER INTERFACE

Actual information about the status of thermal imager, depicted in the form of blue icons and numbers, is located in the status bar below the screen, and does not interfere with observed image. During switching between various functions (digital zoom, colour inversion, brightness/contrast settings), the respective large icons appear in the screen.

## OPERATING MODES

The Quantum S offers three operating modes, each designed to deliver the best possible image in specific viewing conditions: "City" (enhanced contrast), "Forest" (low contrast) and "Identification" (improved rendering of hot objects' details).

## WIDE RANGE OF OPERATION TEMPERATURES

The Quantum S thermal imagers operate stably even in freezing conditions at a temperature of -25°C thanks to the frost-resistant OLED display applied in the unit (image remains the same as during the observation in the conditions of positive temperature of the surrounding atmosphere).

## BRIGHTNESS AND CONTRAST SETTINGS

The Quantum S Thermal imager allows a 20-step brightness and contrast adjustment.

## QUANTUM S | SPECIFICATIONS

MODEL	77321	77322
Product name	Quantum HD50S	Quantum LD50S
Type of microbolometer	$\alpha$ -Si	$\alpha$ -Si
Resolution of microbolometer sensor, pixel	384x288	384x288
Refresh rate, Hz	30	9
Spectral range, $\mu\text{m}$	7.7...13.2	7.7...13.2
Objective Lens	F50/1.2	F50/1.2
Magnification, x	2.8	2.8
Digital zoom, x	2	2
Range of detection	1250	1250
Display type	OLED	OLED
Display resolution, pixel	640x480	640x480
Field of view, HxV, degree	11x8.3	11x8.3
Eyepiece adjustment, dptr	$\pm 5$	$\pm 5$
Power supply	4 ... 6 B / 4xAA	4 ... 6 B / 4xAA
External power supply	8.4 ... 15 B	8.4 ... 15 B
Video output signal	PAL / NTSC	PAL / NTSC
Operating temperature, $^{\circ}\text{C}$	-25 ... +50	-25 ... +50
Dimensions, mm	207x86x59	207x86x59
Weight without batteries, kg	0.43	0.43

# QUANTUM S | RECOMMENDED ACCESSORIES

## EXTERNAL POWER SUPPLIES

### EPS3/EPS5

External power supplies are designed for use with digital units and NV riflescopes, thermal imagers. They feature greater capacity as compared to regular batteries which increases operation time of digital NV units and thermal imagers several times. The EPS3 (2.4Ah) has a rigid plastic case and can be installed on any devices outfitted with a Weaver rail or ¼ tripod mount. The EPS5 (5Ah) is outfitted with a one meter cable which allows it to be placed underwear in freezing conditions and to prolong operation time (EPS3 unit is supplied with an extension cable).

MODEL	79111	79112
Product Name	EPS3	EPS5
Battery Type	Li-Pol	Li-Pol
Rated Capacity (Ampere-hour Rating), Ah	2,4	5
Nominal Voltage, V	12	12
Voltage at end of discharge, V	8,9	8,9
Charging voltage, V	12,3	12,6
Full charge time, hour	2	4
Full discharge time (I=250 mA), hour	9	20
Degree of protection (acc. to IEC60529), IP Rating	IPX5	IPX3
Mount type	Weaver	-
Length, mm	85x76x40	106x75x20
Weight, kg	0.23	0.35



## QUANTUM S | RECOMMENDED ACCESSORIES

### NEWTON CVR640 VIDEO RECORDER

The NEWTON CVR640 video recorder is a compact device for video recording of a signal from the CCD array of night vision devices or thermal imagers. The NEWTON CVR640 can be used with any Pulsar, Yukon, or Newton digital or thermal device equipped with a video output.

<b>MODEL</b>	<b>17044</b>
Product name	Newton CVR640
Recording resolution, pixel	640x480
Frame frequency	25 frames/sec
Video signal standard	PAL/NTSC
Power supply	3 – 4.5 B
Battery type	3xAAA (LR03)
Operating time with one set of batteries (stand-by/recording mode), hour	7 / 6
Type of memory card (max. capacity)	SD (32 Gb)
Recording time with a 1 Gb card	50 min
Dimensions, mm	70x50x40
Weight (with/without batteries), g	100 / 65

### Main features:

- Recording parameters –640x480 pix @ 25 fps
- SD Memory card
- Operating voltage 4.5 V (3xAAA)
- Operating time on a battery set – 6 hours
- MiniUSB port for uploading recorded information to PC
- Compact dimensions, lightweight

