

# EOD VII Explorer Videoscope System



## Features

- Lightweight (2.25Kg), portable workstation combines: software, camera/image control, light source and high resolution display
- Records in brilliant video quality, AVI Format (.avi)
- High resolution inspection images are stored on SD memory card (up to 32GB)
- 6.8" (17.5cm) TFT-screen provides razor-sharp images
- 3.5x image and video zoom
- Text generator for labelling annotations on inspection images
- Videoscope working length up to 7.5m with tip angulation upto 15m without
- Videoscope diameter 4, 6 or 8mm with 4-way tip articulation
- High resolution CCD camera technology, producing stunning picture quality
- Fiber optic achieves more intense and homogeneous illumination
- Wide range of focusable interchangeable lenses and 90° side view tip
- Battery or AC operation

## Applications

- Optical remote visual search and inspection
- Port Security (inside the compartments of metal walls of 20ft & 40ft containers)
- Aircraft and ship inspection and maintenance
- Research & development
- Turbine blade and wave guide inspection
- UV curing and crack detection (NDT)
- Examination of internal structures without teardown, or for 'machine vision' applications



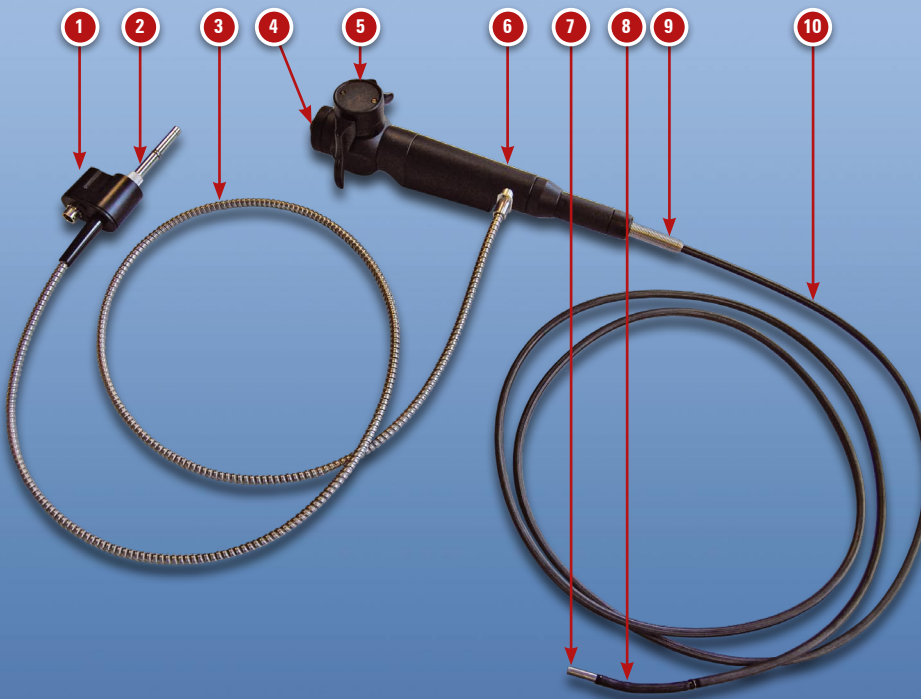
# Technical Specifications

WORKSTATION		
Operating unit	Display size	6.8" (17.5cm) TFT display
	Display resolution	VGA (640x480 Pixels)
	Operating system	Real-time operating system, with on-screen-menu
	User interface	Direct action keys, function keys, arrow keys
	Languages	English, French, Spanish, Italian, German
	Video interface	Composite video-out, composite video-in, S-Video-in
	Audio interface	3.5mm jack audio-in & audio-out
Measurement	Power supply, primary	12V via AC-adaptor / 12V via battery power-belt (optional)
	Method	Comparative measurement
Documentation	Video format	AVI (.avi)
	Image format	BMP(.bmp)
	Data storage	SD-HC-memory card up to 32GB (FAT32)
Camera control	Image sensor	High-resolution SUPER HAD TM CCD
	Camera control/exposure	Integration modes: Auto, Short, Long, Manual
	White balance/AGC-level/Gamma	Manually adjustable
Image control	Zoom	3.5x (digital)
	Inverting/Mirroring	Horizontal and vertical image inversion
	Brightness/Contrast/Colour	Manually adjustable
	Text annotation	Built in full-screen text overlay generator
Construction	Weight	2.25Kg / 4.96lb
	Dimensions	290mm x 190mm x 70mm
	Housing	Rugged PU, alloy frame and IP53 protection class
Illumination (Lightsource)	Type	24W Metal Halide
	Intensity control	Stepless manual shutter
	Colour temperature	5500K
	Average lamp lifetime	500h
	Voltage input	12V DC
	Power consumption	2.6A
	Operation/storage temperature	-20°C to +45°C
	Weight	600g
	Dimensions	175 (W) x 75(H) x 75(D)mm
Environmental conditions	Operating/system storage temp.	-13°F to 115°F (-25°C to +45°C)
	Relative humidity	95% max. – non condensing
VIDEOSCOPE		
	Tip articulation	4-way (160° up, 130° down, ±100° left / right)
	Direction-of-view (DOV)	0° (90°) with side-view tip
	Outer covering	Tungsten on PU
	Image sensor	¼" high resolution CCD chip with 330 TV lines
Dimensions	Diameter	8mm (4, 6mm optional)
	Length	3000mm (1500, 2000, 4000, 5000, 6000, 7500mm optional) with 4-way tip angulation (12000, 15000mm optional - no tip angulation)
Environmental conditions	Probe operating temperature	-10°C to +80°C (+14°F to 176°F)
	Liquid proof / waterproof	Probe and distal end up to 14.7 psi (1 bar / 10.2m H2O-not 6mm SVTA)
	Hazardous environments	Not rated for use in hazardous environments
	Storage	All components housed in lockable storage / transit case with protective foam (weather proof / shock proof)
CASE	Relative humidity	95% max. – non condensing
	Dimensions	Physical (L/W/H) Weight
		508mm x 373mm x 147mm 4.5Kg (total incl. videoscope & case 9.2Kg / 20lb)

## Videoscope Availability Table

Diameter	Lengths (mm) - with Tip Angulation (160° up, 130° down, ±100° left/right)	Lengths (mm) - without Tip Angulation
4mm	1500, 2000, 3000	
6mm	1500, 2000, 3000, 4000, 5000, 6000, 7500	12000, 15000
8mm	1500, 2000, 3000, 4000, 5000, 6000, 7500	12000, 15000

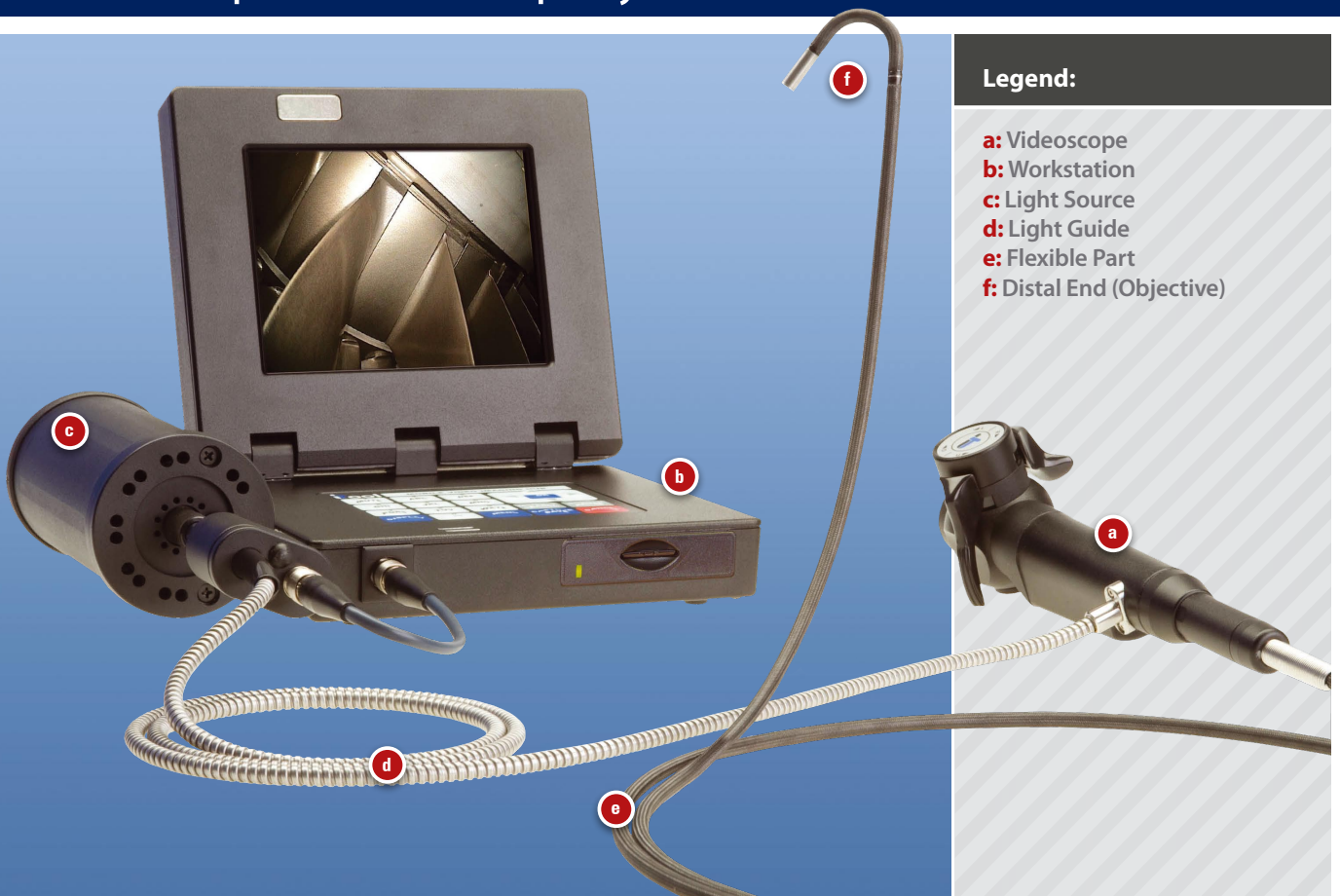
# Videoscope Guide



## Legend:

- 1:** Video/Power Lead Socket
- 2:** Light Guide Adapter
- 3:** Light Guide
- 4:** Image Capture Button
- 5:** Control Levers
- 6:** Head Section
- 7:** Distal End (Objective)
- 8:** Articulating Section
- 9:** Thread Connection for Guide Tube
- 10:** Flexible Part (Tungsten on PU sheathing)

# EOD VII Explorer Videoscope System



## Legend:

- a:** Videoscope
- b:** Workstation
- c:** Light Source
- d:** Light Guide
- e:** Flexible Part
- f:** Distal End (Objective)

The EOD VII Explorer Videoscope System sets new standards for remote visual inspection and is characterised by brilliant image quality, intuitive handling and high portability.

Features include MPEG video recording, still image capture, 3.5x zoom, a high capacity 32GB SD-memory card, shutter control and menu driven user friendly software.

The 6.8" (17.5cm) screen produces razor-sharp imagery providing easy and safe detection of defects and objects, with every single movement recorded in brilliant full digital video quality.

By means of the integrated text generator, information can be written directly on the inspection image. This valuable information will be saved as part of the image.

With the voice recorder, comment the results of your visual inspection and save the audio file together with the captured inspection images. Approx. 32,000 images or 500 hours of video recording fit on the 32GB SD memory card.

The portable 24W metal halide light-source provides high-quality illumination which is ideal for checking large cavities, containers and deep cavities in industrial and security applications.

The ergonomic lightweight videoscope with 4-way articulation control has been engineered for comfortable operation even during prolonged inspections. Navigating tight paths such as the insides of engines, has never been easier.

A high-resolution CCD image sensor is the core element of the videoscope producing clear images with realistic colour reproduction.

Given the tactile 360 degree articulation control, the distal end

tip can easily, quickly and accurately be manoeuvred into any position.

The mechanical articulation does not require a locking device. This reduces downtime of the videoscope and avoids unnecessary repair costs compared to videoscopes with joystick control and homing functions.

With its low-reflection display, the daylight-view monitor reproduces clear, vivid images even under sunlight. You can confidently bring the EOD VII to almost any difficult environment.

## Technology

Different resolution image bundles are used according to the particular diameter and length of the fiberscope supplied.

Some fiberscopes employ quartz imaging fiber bundles with fiber size down to 3 microns which give superb resolution and brightness previously unobtainable with flexible instruments. Others employ high resolution glass fiber image bundles for maximum light transmission.

Light is transmitted from a cold light source through optical fibers inside the instrument to the object being viewed. ■



The EOD VII is ideal for port security to search inside the compartments of metal walls of 20ft & 40ft containers

### Warranty

The EOD VII comes with a return-to-base warranty against defective materials and workmanship for a period of 2 years from delivery.

### After Sales Support

Technical Support business hours (GMT)  
Monday – Friday 8.30am – 5.30pm  
E: [technicalsupport@winkelmann.co.uk](mailto:technicalsupport@winkelmann.co.uk)

### Training

Winkelmann and its partners are able to offer training in the operation of products – contact us today for more information.

## Product Code

### EOD VII Explorer Videoscope - Full System

**3-299-078** EOD VII Explorer Videoscope System with fully mobile Video Workstation with 6.8" flip up high resolution TFT daylight viewable monitor, still and video recording onto SD-Memory Card up to 32GB, 3.5x image and video zoom. Digital Video Recording AVI Format (.avi), Image Capturing in BMP Format (.bmp), Audio Recording, Text generator for labelling annotations on inspection images, On-screen menu, Camera Control / Image Sensor Control (Automatic, Manual, Program), 25W metal halide light source, light intensity control. Power supply 12V via AC adapter, 12V via Battery (Power belt). Videoscope diameter 8mm, Length 3000mm with 4-way tip articulation. Interchangeable objectives 0°/58° and 0°/90° with side-view tip adapter 90°/60°. Resolution 1/4" CCD 330 TV lines, covering tungsten on PU, video signal: PAL (NTSC available on request), all housed in lockable, storage/transit case

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