



Advanced Test Equipment Rentals

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Industrial Videoscope



Dramatically improve your field inspections with a palm-sized, ultralight videoscope.

With its durable body and crush-resistant insertion tube with interchangeable tip adaptors, the IPLEX UltraLite is the industry's choice in handheld remote visual inspections.

ACTUAL SIZE



Outstanding Mobility

With its unique ergonomic design, the IPLEX UltraLite videoscope fits in the palm of your hand. Because it is extremely lightweight, it can be used to perform field inspections with the greatest of ease.

Surprisingly compact and lightweight

The IPLEX UltraLite weighs only 700 g with its lithium-ion battery. This easy-to-use videoscope is so small and light that it is the perfect companion for the inspector who works in areas with limited access or in cramped spaces or has to navigate narrow stair cases and steep ladders.

Palm-sized ergonomic design

The ergonomic IPLEX UltraLite fits snugly into the palm of your hand, and provides speedy, fatigue-free operation even during prolonged inspections.



Outstanding Usability

The IPLEX UltraLite offers intuitive manipulations for efficient, accurate inspections.



Icon-based menus for instant recognition and intuitive operations

IPLEX UltraLite menus feature simple, intuitive icons that let you quickly identify and activate the desired functions.

Quick-access hot buttons

IPLEX UltraLite eliminates complicated menu settings. The IPLEX UltraLite functions can be easily operated with just one hand. By pressing dedicated, direct-access keys, you can quickly articulate the scope tip, record images, adjust brightness, and input text.

Quick, precise scope articulation

The IPLEX UltraLite features quick, accurate articulation. The scope tip instantly and accurately responds to the articulation control and approaches targets precisely, enabling fast, efficient inspections.

Versatile optical options for a variety of objects

For optimal direction and magnification covering various types of objects, the IPLEX UltraLite offers a comprehensive range of interchangeable optical tip adaptors. In addition, the bright LED mounted on the tip adaptors clearly illuminates targets.



Outstanding Quality

With its innovative, compact design, the IPLEX UltraLite offers uncompromising, industry-leading durability and image quality.

Durable chassis withstands drops and falls

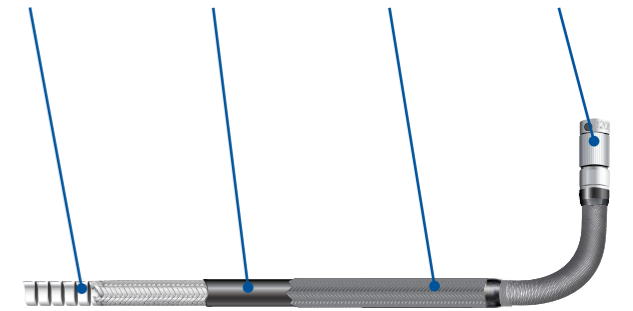
The IPLEX UltraLite's durability has been thoroughly proven. It passes our 1.2 m drop test, and withstands inspection-site drops and falls. Its LCD monitor passes a steel-ball drop test from a height of 100 cm.



Insertion tube resists crushing and abrasion

The IPLEX UltraLite's insertion tube is both crush and abrasion-resistant. It is also designed with unique Olympus Tapered Flex™ technology for outstanding scope maneuverability. With its durability and graduated flexibility, the IPLEX UltraLite insertion tube enables you to inspect objects inside winding and rough paths.

A crush-resistant steel coil layer makes the insertion tube more durable. The Tapered Flex™ tube features gradient flexibility for easy scope maneuverability and navigation. A high-density outer braid provides maximum wear resistance and durability. A bright LED illumination at the scope tip eliminates the need for fibre optic bundles.



Rugged design for reliable operation in harsh environments

Operators are often called on to conduct inspections in difficult environments. The IPLEX UltraLite stands up to rain, sand and dust, and is compliant with IP55.

Ideal for outdoor inspections, the IPLEX UltraLite faithfully produces brilliant images, even in sunlight.



Sharp live-image and clear movies for reliable observation and analysis

When it comes to remote visual inspections, image quality is one of the highest priorities. The IPLEX UltraLite is equipped with our unique Olympus image processor, and produces sharp and clear images. Along with its superb colour-reproducing capability, the IPLEX UltraLite enables you to accurately detect even small defects.

Observed images can be stored in a connected SD or SDHC card as high-quality JPEG still images and MPEG-4 movies.



Welded pipe

Accessories



Carrying case

Even when packed with the IPLEX UltraLite and all of its accessories, the standard carrying case weighs just 3.5 kg, and is light enough to be lifted with one finger. The lightweight package is also easy to transport and store. The interior layout of the case is well-organised and designed for efficient inspections, enabling you to remove or insert items smoothly and quickly.



Durable carrying case* MAJ-2019

This optional durable case fully protects the instrument from damage during shipment. It is small enough to fit in the overhead compartment of most aircraft, making it ideal for frequent transport.



Tripod adaptor* MAJ-2017

Makes it possible to mount the IPLEX UltraLite on a tripod for increased stability during prolonged inspections.



Rigid sleeve sets* MAJ-1253 (for 6.0 mm insertion tube)

MAJ-1737 (for 4.0 mm insertion tube)

Sets are available for 6.0 mm and 4.0 mm scopes. Each set consists of three rigid sleeves of 250 mm, 340 mm and 450 mm lengths.

Note: The carrying case can store 250 mm and 340 mm length types.



IB-1* lithium-ion battery BCS-1* charger

The battery provides approximately 90 minutes of operating time.



Optical tip adaptors*

The wide range of UltraLite tip adaptors meets the optical requirements of any application.



SDHC card

An SDHC card with a 4 GB capacity is supplied as standard.



AC power adaptor

The IPLEX UltraLite can be operated with either the provided AC adaptor or the battery.

IPLEX UltraLite Specifications

SCOPE VARIATION					
Model No.	IV8420U	IV8435U	IV8620U	IV8635U	
Insertion Tube	Scope Diameter*1	φ4.0 mm		φ6.0 mm	
	Scope Length	2.0 m	3.5 m	2.0 m	3.5 m
	Exterior	High-durability tungsten braid			
	Tube Flexibility	Uniform stiffness		Tough Tapered Flex™ tube with flexibility gradually increasing toward the distal end.	
Approx. System Weight (with battery)		700 g	760 g	800 g	900 g

*1. The insertion tube can be inserted into a φ4.0 mm or φ6.0 mm hole.

BASIC FUNCTIONS				
Dimensions (W x D x H)		120 x 190 x 190 mm		
Articulation Section	Articulation Angle (UP/DOWN/RIGHT/LEFT)	130 °		120 °
	Articulation Mechanics	Joystick controlled scope tip articulation with articulation lock mechanics		
Temperature Sensor	2-stage indicator for high temperature warning			
Quick Access Buttons	The following features have dedicated quick access buttons, levers, or joysticks on the palmheld system: Live mode, Brightness, Zoom, Freeze Image, Record Still/Video, Articulation Control, Menu Access, Saved Recording Index Access, Quick Last Image Recall.			
LCD Monitor	3.7 in. LCD			
Power Supply	Battery: 7.2 V, Approx. 90-minute operating time			
	AC power: 100 V to 240 V, 50/60 Hz (with supplied AC adaptor)			
USB Connector	Version 2.0 standards			
Harsh Environment Resistance	Rain and dust proof (compliant with IP55), Physical shock resistance			

SOFTWARE MANIPULATIONS				
Image Manipulations	5x digital seamless zoom 10-step digital brightness control (including Gain, Exposure, and Monochrome boost controls)			
Display Text Options	30-character title display			
RECORDING MANAGEMENT FUNCTIONS				
Recording Media	SD/SDHC Card (4 GB standard, compatible with recommended SD/SDHC cards)			
Overlay	Selectable 30 character title with date, time and system setting.			
Still image Recording	Resolution	H640 x V480 (Pixel)		
	Format	Compressed JPEG format (Exif 2.1 compliant)		
	File Size	Approx. 300 KB (Approx. 13,400 images per 4 GB memory)		
Movie Recording	Resolution	H640 x V480 (Pixel)		
	Format	AVI format Xvid MPEG-4 Compression		
	File Size	Approx. 600 KB per second (Approx. 120 min per 4 GB memory)		

OPERATING ENVIRONMENT				
Operating Temperature	Insertion Tube	In air: -25 to 100 °C		
	Other parts than above	In water: 10 to 30 °C		
Operating Atmospheric Pressure	Insertion Tube	In air: 1013 hPa		
	Other parts than above	In water: 1013 to 1368 hPa		
Relative Humidity	All parts	15 to 90 %		
Liquid Resistance	All parts	Operable when exposed to machine oil, light oil, or 5% saline solution.		
Waterproofing	Insertion Tube	Operable underwater.		
	Other parts than above	Operable in rain (battery compartment must be closed). Not operable underwater.		

Tip Adaptor Optical Specifications

OPTICAL TIP ADAPTOR VARIATION										
		6.0 mm Viewing Tip Adaptors								
		AT40D-IV86	AT80D/NF-IV86	AT80D/FF-IV86	AT120D/NF-IV86	AT120D/FF-IV86	AT80S-IV86	AT120S/NF-IV86	AT120S/FF-IV86	
Optical system	Field of view	40°	80°	80°	120°	120°	80°	120°	120°	
	Direction of view	Forward					Side			
	Depth of field*1	200 to ∞ mm	8 to ∞ mm	35 to ∞ mm	4 to 190 mm	25 to ∞ mm	18 to ∞ mm	1 to 25 mm	5 to ∞ mm	
Distal end	Outer diameter*2	ø6.0 mm								
	Distal end*3	19.8 mm					25.2 mm			

		4.0 mm Viewing Tip Adaptors				
		AT120D/NF-IV84	AT120D/FF-IV84	AT120S/NF-IV84	AT120S/FF-IV84	
Optical system	Field of view	120°	120°	120°	120°	
	Direction of view	Forward			Side	
	Depth of field*1	4 to 190 mm	25 to ∞ mm	1 to 20 mm	6 to ∞ mm	
Distal end	Outer diameter*2	ø4.0 mm				
	Distal end*3	19.7 mm	19.6 mm	22.2 mm		

1. Indicates the viewing distance with optimal focus.
2. The adaptor can be inserted into a ø4.0 mm or ø6.0 mm hole when mounted on the scope.
3. Indicates the length of the rigid portion at the scope's distal end when mounted.

TIP ADAPTOR GENERAL SPECIFICATIONS	
Locking Mechanism	Double-Threaded Attachment, with O-ring seal.
Illumination	Multiple ultra-high intensity LEDs.
Tip Adaptor Identification	Automatic recognition of tip adaptor attachment and detachment.

Environmentally Friendly Olympus Products Signature

This logo distinguishes Olympus products manufactured in accordance with the company's highest standards of environmental conservation. The IPLEX UltraLite complies with the European RoHS Directive. The use of lead, mercury, cadmium, hexavalent chromium, PBBs, and PBDEs is restricted.



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