OLYMPUS®

Industrial Videoscope

IPLEX GX/GT

iPLEX

The Right Tool for the Job

Versatility and Power for Multiple Jobs

With interchangeable insertion tubes and light sources, an 8 inch touch screen, and advanced imaging features, the IPLEX GX/GT videoscope delivers an optimal balance of versatility, imaging capabilities, and ease of use.

Get the Most Out of Your Videoscope

Powerful Features at Your Fingertips

- Easy-to-use touch screen and hot key controls
- Position the screen where it's comfortable for you
- Bright and clear images with smart video

One Tool for Many Jobs

- Change between white, ultraviolet, and infrared light sources
- Interchangeable scopes in a variety of diameters and lengths
- Tough enough to work in harsh environments

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LIVE
VIEW
THUMBNAIL
MEASURE
CAPTURE
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Powerful Features at Your Fingertips

Precise Movements with a Light Touch

Responsive TrueFeel articulation enables you to control the scope's tip with precise movement so that you can navigate to your target area quickly, and stay in position with locking capability.
A light touch of the control helps minimize fatigue when working for long hours.

Innovative Imaging Improves Inspections

Bright Illumination

The LED light source of IPLEX GX/GT is 30% brighter than its predecessor (IPLEX RX/RT).

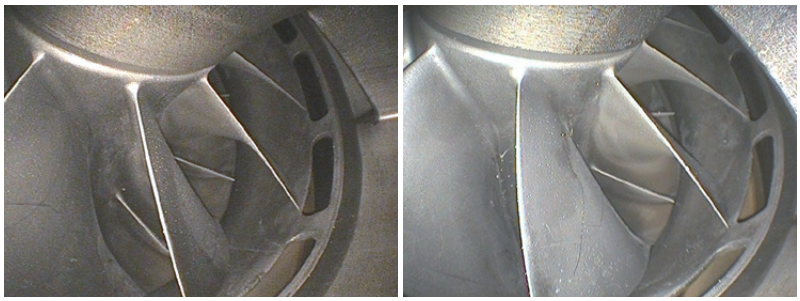
Crisp images

The videoscope uses a new noise reduction algorithm to make it easier to locate problems and defects in dark areas.

Smooth 60 fps video

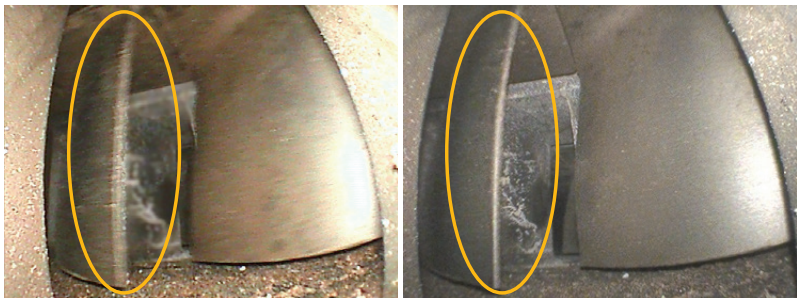
Capture smooth videos with the videoscope's high frame rate. If you are recording a moving object, you can obtain clear videos with no stutter.

Bright and Crisp images



IPLEX RX/RT (predecessor) IPLEX GX/GT

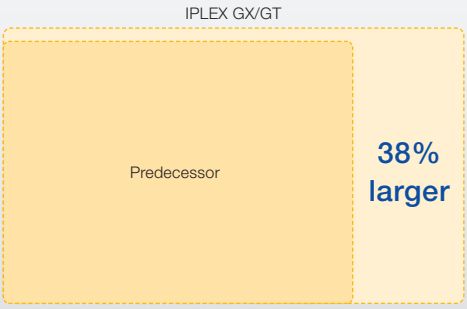
Smooth 60 fps video



IPLEX RX/RT (predecessor) IPLEX GX/GT

See the Difference

A vivid 8 inch LCD monitor delivers clear, bright images, helping you spot defects more quickly.



Convenient Controls

The large monitor leaves plenty of room to display both your inspection image and quick control buttons. Most functions can be controlled using the touch screen, including the articulation. If you want to use the full screen to view images, the hot keys on the controller give you control over the most important functions.

Smart Video Recording

Record still images and video simultaneously

With the push of a button, you can capture still images while recording a video without interruption.

Bookmark

Add bookmarks to save time and quickly find critical moments during video reviews.

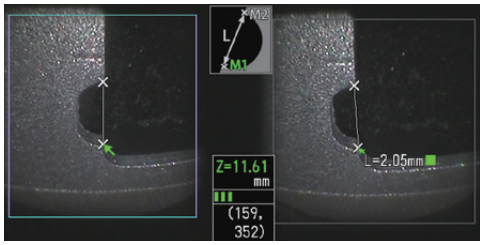
Constant video*

Never lose critical inspection recordings. The videoscope automatically records the last 30 minutes of your inspection even if you forget to press the record button.

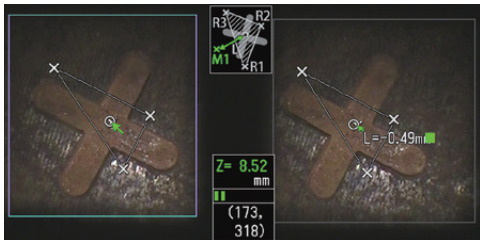
*Available only with IPLEX GX and requires optional microSDHC card

Powerful Measurement at Your Fingertips

The videoscope is equipped with scalar measurement as a standard feature, enabling you to size objects using a reference defect. For more advanced functionality, upgrade to the stereo measurement option to size objects using precise three-dimensional coordinates.



Distance



Depth

Visit our website for more information.

One Tool for Many Jobs

Interchangeable Scopes and Light Sources. Modular Components Enable You to Adapt the Videoscope to Your Inspection Tasks

Scopes are available in 4 mm and 6 mm diameters with lengths up to10 meters (32 feet). Interchangeable illumination modules also allow you to change between White LED, UV, or IR.

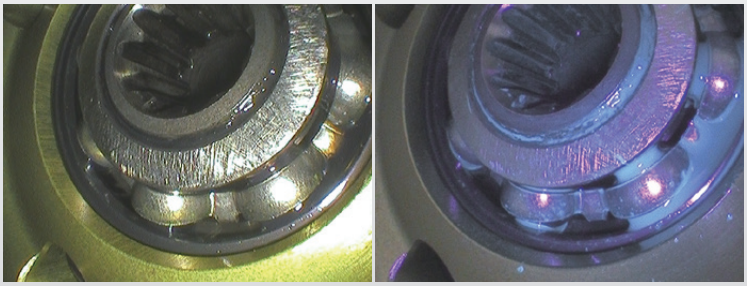
Scope unit

- Scope diameter 6.0 mm: length 2.0 / 3.5 / 7.5 / 10 m
- Scope diameter 4.0 mm: length 2.0 / 3.5 m

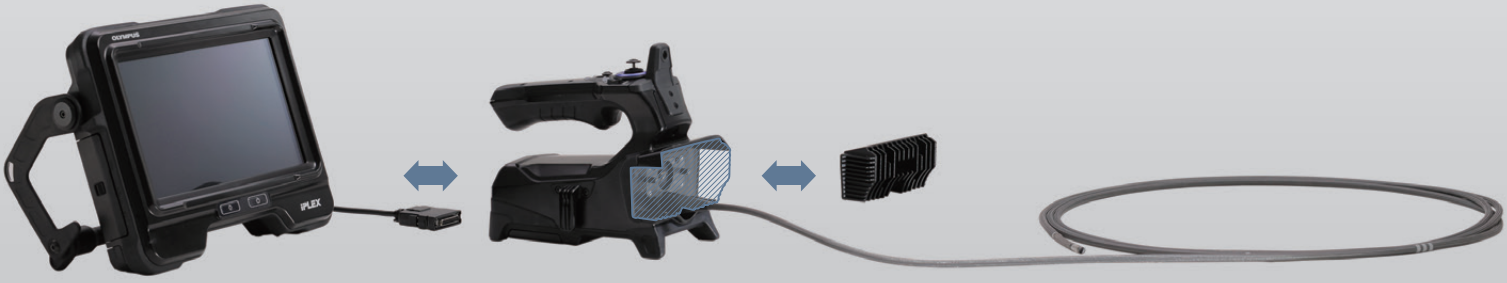
Light sources

- White light: standard inspections
- Ultraviolet (UV): detect hairline cracks, lubricants
- Infrared (IR): view objects in dark areas

The scopes and illumination modules can be changed on-site quickly and easily, reducing downtime.



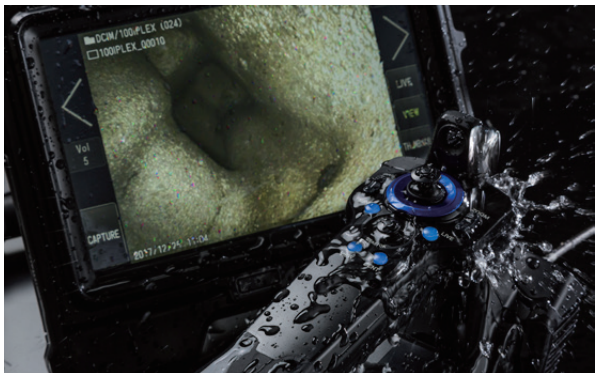
White light UV light



Stream Inspection Images for Quick Decision Making

Using the recommended USB wireless LAN adaptor, images can be shared with colleagues using smartphones or tablets during the inspection. This helps make it easy to diagnose problems with the assistance of other inspectors.

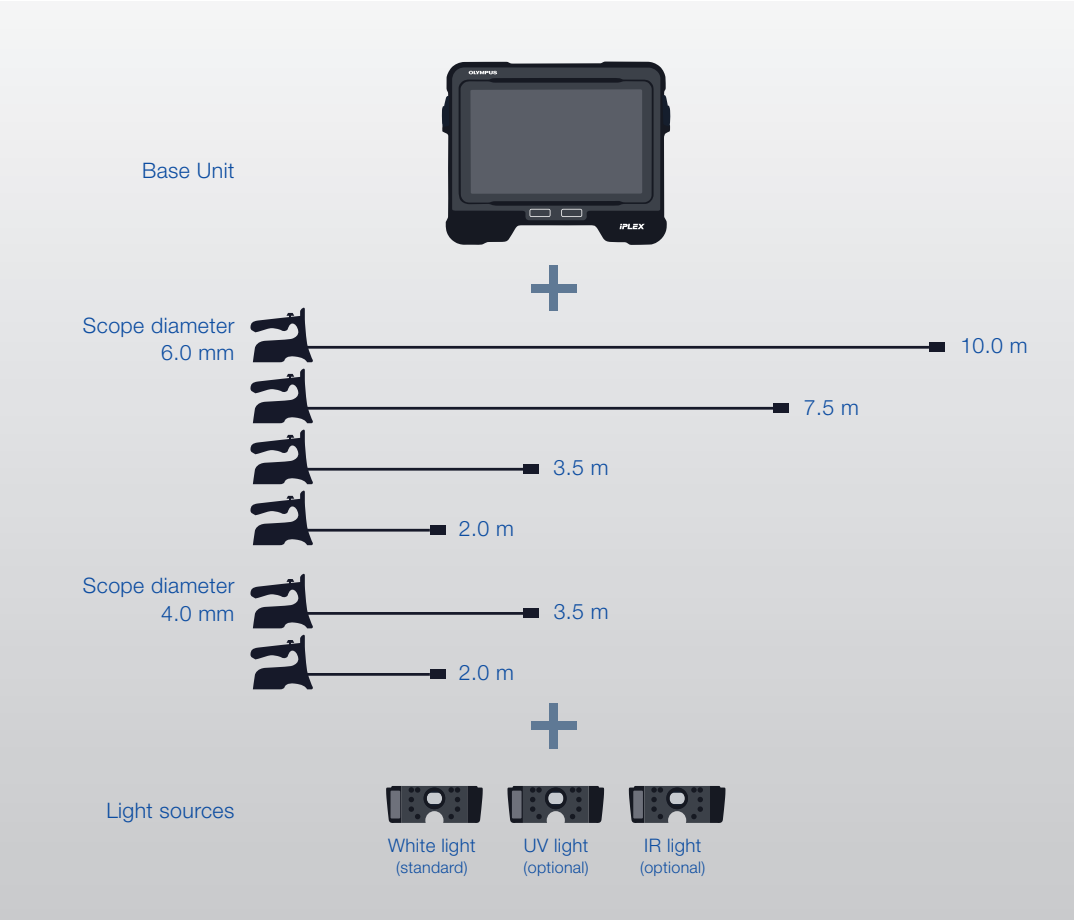
The Olympus IPLEX Image Share app is available on the App Store for compatible iOS devices.

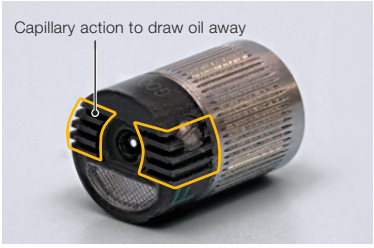


Tested Tough

The videoscope is designed to meet IP65 standards for dust and water resistance and built to pass U.S. Department of Defense testing (MIL-STD) for protection against:

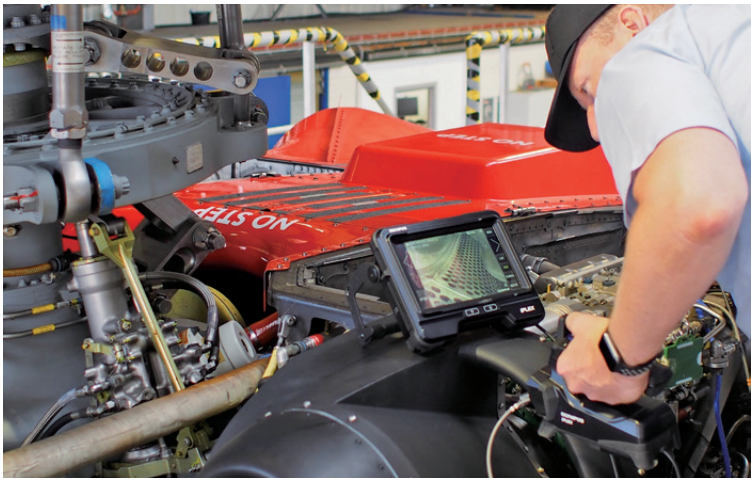
- Drops of up to 1.2 meters (4 feet)
- Vibration
- Blowing rain
- Dust
- High humidity
- Salt fog
- Freezing rain
- Electromagnetic environments
- Explosive atmospheres





See clearly in Oily Environments

The grooves on the oil clearing tip adaptor uses capillary action to draw oil away from the lens, keeping your images clear and visible so that you don't have to stop your inspection to wipe oil off of the scope's lens.



Visit our website for more information.

Accessories

Carrying Case

The hard-walled carry case is small enough to fit in the overhead bin of most airplanes, while protecting the videoscope against the rigors of travel.

Scope Case

(optional)
MAJ-2339

Lithium-ion Battery

The battery provides up to 150 minutes of operation.

Rigid Sleeve Sets

(optional)
MAJ-1253 (for 6.0 mm)
MAJ-1737 (for 4.0 mm)

Sets are available for 6 mm and 4 mm scopes. Each set comes with three rigid sleeves, measuring 250 mm, 340 mm, and 450 mm in length.

Optical Adaptors

(optional)

A variety of optical adaptors for the scope enable you to change the angle, direction, and depth of view.

Guide Tube

(optional)
MAJ-2341 (for 7.5 m)
MAJ-2342 (for 10.0 m)

IPLEX GX/GT Features and Specifications

BASIC FUNCTIONS

SCOPE UNIT

Model No.		IV9420G	IV9435G	IV9620G	IV9635G	IV9675G	IV96100G
Insertion tube	Scope diameter	ø 4.0 mm		ø 6.0 mm			
	Scope length	2.0 m (6.6 ft.)	3.5 m (11.5 ft.)	2.0 m (6.6 ft.)	3.5 m (11.5 ft.)	7.5 m (24.6 ft.)	10.0 m (32.8 ft.)
	Exterior	High durability tungsten braid					
	Tube flexibility	Uniform stiffness		Tapered Flex tube with flexibility gradually increasing toward the distal end			
	Temperature sensor	2-stage indicator for high temperature warning					
Articulation section	Articulation angle up/down/right/left	130°		150°		120°	110°
	Articulation operation	TrueFeel electronic scope tip articulation / Fine mode articulation control by touch screen menu					
Approx. weight		0.99 kg (2.2 lbs)	1.05 kg (2.3 lbs)	1.06 kg (2.3 lbs)	1.17 kg (2.6 lbs)	1.47 kg (3.2 lbs)	1.66 kg (3.7 lbs)
Dimensions (W x D x H)		97 mm × 188 mm × 158 mm (3.8 in. × 7.4 in. × 6.2 in.) Protruding parts not included					
Illumination		LED illumination					

BASE UNIT

Model No.		IPLEX GX	IPLEX GT
Weight (with battery)		1.77 kg (3.9 lbs)	
Dimensions (W x D x H)		241 mm × 190 mm × 70 mm (9.5 in. × 7.5 in. × 2.8 in.) Protuding parts not included	
Dimensions of carrying case		375 mm × 525 mm × 243 mm (14.8 in. × 20.7 in. × 9.6 in.) Carry-on size on most airlines	
Display		8 inch daylight view WVGA LCD with capacity-type touch screen, 5 step adjustable LCD backlight	
Power supply	AC power	100 V to 240 V, 50/60 Hz (with supplied AC adapter)	
	Battery	10.8 V nominal, approx.(with supplied battery) Battery operation time: approx. 150 minutes	
Video output standard	HDMI	TypeA HDMI 1.4	
Headset (microphone in/ audio out)		ø 3.5mm mini plug CTIA	
Live image streaming		Attach the recommended USB wireless LAN adapter to the Type A USB connector	
Scope unit interchangeability		Available for all scope model combination	Available between the same scope model

SOFTWARE FEATURES

Image features	5X digital zoom, 16-step brightness control	
Gain control	4-step adjustable gain control(Manual, Auto, Wider1, Wider2)	Auto
Dynamic noise reduction	Available	—
Sharpness control	4-mode adjustable sharpness control	—
Saturation control	3-step adjustable control of color saturation (Monotone, Natural, Vivid)	—
Display text options	30-character title display	
Note text options	30-character title display, mark, free drawing	—
Image display functions	Live image can be inverted to right and left, inverted to up and down and rotated 180 degrees	

RECORDING MANAGEMENT FUNCTIONS

Recording media	Normal	SDHC (with supplied SDHC)	
	Constant Video	micro SDHC (using the recommended parts) Set the Constant video function to ON	—
Internal memory		Available (only the still images are recorded)	—
Overlay		Zoom, Brightness, Date/Time, Title, Optical Tip Adaptor, OLYMPUS logo, and system setting	
Thumbnail image display		Recorded images can be displayed as thumbnails	
Still image recording	Resolution	H768 x V576 (Pixel)	
	Recording format	Compressed JPEG format	
Video recording	Resolution	H768 x V576 (Pixel)	
	Recording format	MPEG 4 AVC/H.264 conforms to Baseline Profile. Windows Media Player 12 compatible	
	Frame rate	60 fps / 30 fps	

MEASUREMENT FUNCTIONS

Scaler measurement	Using reference length to measure object length

STEREO MEASUREMENT FUNCTIONS

Distance	Distance between two points *1	—
Point-to-line	Perpendicular distance between a point and a user-defined line *1	—
Depth	Orthogonal depth/height distance between a point and a user-defined plane *1	—
Area/Lines	Multiple point circumference and area measurement *1	—

OPERATING ENVIRONMENT

Operating temperature	Insertion tube	In air: -25 °C to 100 °C (-13 °F to 212 °F); in water: 10 °C to 30 °C (50 °F to 86 °F)
	Other parts	In air: -10 °C to 40 °C (14 °F to 104 °F) (with battery)
		In air: 0 °C to 40 °C (32 °F to 104 °F) (with AC power adapter and battery charge)
Relative humidity	All parts	15 to 90%
Liquid resistance	All parts	Operable when exposed to machine oil, light oil or 5% saline solution
Dust proofing and water proofing	Insertion tube	Operable under water with viewing tip adaptor attached Not operable under water with stereo measurement tip adaptors IV94 series - Up to an equivalent to 3.5 m (11.5 ft) in depth IV96 series - Up to an equivalent to 10 m (32.9 ft) in depth
	Other parts	IP65; not operable under water (battery cover and others must be closed)

MIL-STD COMPLIANCE

Type	Method
Vibration	MIL-STD-810G, METHOD 514.7, Procedure I (General vibration test)
Shock	MIL-STD-810G, METHOD 516.7, Procedure IV (Transit drop test)
Water Resistance	MIL-STD-810G, METHOD 506.6, Procedure I (Rain and Blowing rain test)
Humidity	MIL-STD-810G, METHOD 507.6, Procedure II (Aggravated Cycle)
Salt Fog	MIL-STD-810G, METHOD 509.6
Sand and Dust	MIL-STD-810G, METHOD 510.6, Procedure I (Blowing dust test)
Icing/Freezing Rain	MIL-STD-810G, METHOD 521.4
Explosive Atmosphere	MIL-STD-810G, METHOD 511.6, Procedure I (Operation in an explosive atmosphere test)
Electromagnetic Interference (EMI)	MIL-STD-461G, RS103 Above decks

The operating environment performance is confirmed by the above MIL-STD-810G and MIL-STD-461G.
No warranty is given as to damage-free under any conditions. Please ask Olympus sales representative for details.

OPTICAL TIP ADAPTOR SPECIFICATIONS

6.0 mm Viewing Tip Adaptors

		AT40D-IV96G	AT80D/NF-IV96G	AT80D/FF-IV96G	AT120D/NF-IV96G	AT120D/FF-IV96G	AT80S-IV96G	AT120S/NF-IV96G	AT120S/FF-IV96G	AT220D-IV76	AT100D/100S-IV76
Optical system	Field of view	40°	80°	80°	120°	120°	80°	120°	120°	220°	100°/100°
	Direction of view	Forward					Side			Forward	Forward/Side
	Depth of field*2	200 to ∞ mm	9 to ∞ mm	35 to ∞ mm	2 to 200 mm	19 to ∞ mm	15 to ∞ mm	1 to 25 mm	3 to ∞ mm	1.6 to ∞ mm	2.0 to ∞ mm
Distal end	Outer diameter*3	ø 6.0 mm								ø 8.4 mm	ø 6.0 mm
	Distal end*4	18.4 mm	18.9 mm	18.8 mm	18.9 mm	18.8 mm	24.2 mm			21.1 mm	29.5 mm
Oil clearing		Available					—				

4.0 mm Viewing Tip Adaptors

		AT80D/ FF-IV94G	AT120D/ NF-IV94G	AT120D/ FF-IV94G	AT100S/ NF-IV94G	AT100S/ FF-IV94G
Optical system	Field of view	80°	120°	120°	100°	100°
	Direction of view	Forward			Side	
	Depth of field*2	35 to ∞ mm	2 to 200 mm	17 to ∞ mm	2 to 15 mm	8 to ∞ mm
Distal end	Outer diameter*3	ø 4.0 mm				
	Distal end*4	19.0 mm			21.7 mm	
Oil clearing		Available			—	

Stereo Tip Adaptors (4.0 mm and 6.0 mm)

		AT50D/ 50D-IV94	AT50S/ 50S-IV94	AT60D/ 60D-IV96	AT60S /60S-IV96
Optical system	Field of view	50°/50°		60°/60°	
	Direction of view	Forward	Side	Forward	Side
	Depth of field*2	5 to ∞ mm	4 to ∞ mm	5 to ∞ mm	4 to ∞ mm
Distal end	Outer diameter*3	ø 4.0 mm		ø 6.0 mm	
	Distal end*4	24.3 mm	28.4 mm	24.9 mm	31.3 mm

*1. Upgrade for optional function.
*2. Indicates the viewing distance with optimal focus.
*3. The adapter can be inserted into a ø4.0 mm , ø6.0 mm and ø8.4 mm hole when it is mounted on the scope.
*4. Indicates the length of the rigid portion at the scope's distal end when mounted.

- **OLYMPUS CORPORATION is ISO14001 certified.**
- **OLYMPUS CORPORATION is ISO9001 certified.**
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- Specifications and appearances are subject to change without any notice or obligation on the part of the manufacturer.

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