INDUSTRIAL

IPLEX™ G Lite

Compact Video Borescope

The Portable, Powerful Video Borescope

EVIDENT

iPLEX

Small and Tough Enough to Use Almost Anywhere

The IPLEX™ G Lite industrial video borescope packs powerful imaging capabilities into a small, rugged body. Lightweight and able to go almost anywhere, the IPLEX G Lite video borescope provides users working in challenging environments with a remote visual inspection tool that has the image quality and ease of use to get the job done.

Get More, Do More

Go Anywhere

- Lightweight and easy to carry
- Rugged and durable

True to Your Image

- Twice as bright as its predecessor (IPLEX™ UltraLite)
- High frame rate for smooth videos

Fast and Easy

- Responsive joystick and precise movements
- Images that show fine details
- Interchangeable UV and IR light modules

Go Anywhere

Fits comfortably in your hand

Ergonomically designed and weighing only 1.15 kg (2.5 pounds), the IPLEX™ G Lite video borescope can be carried to almost any job site and used comfortably.

Made to travel

The video borescope and its accessories fit neatly in a lightweight travel case small enough to fit under an airplane seat.

Durable

Designed to meet IP65 standards for protection against dust and water, and built to pass U.S. Department of Defense testing (MIL-STD), IPLEX G Lite video borescopes can be used in harsh conditions, including rain, high humidity, salt fog, dust, freezing rain, electromagnetic environments, and even explosive atmospheres.

True to Your Image

Better Images through Innovation

Dynamic image optimization

The PulsarPic™ image processor constantly optimizes your images by reducing halation, balancing exposure, and optimizing gain quality.

Bright illumination

The IPLEX G™ Lite video borescope's LED light source is twice as bright as its predecessor (IPLEX UltraLite), helping you locate problems and defects in dark areas and lighting up large spaces.

60 frames per second (fps) video

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

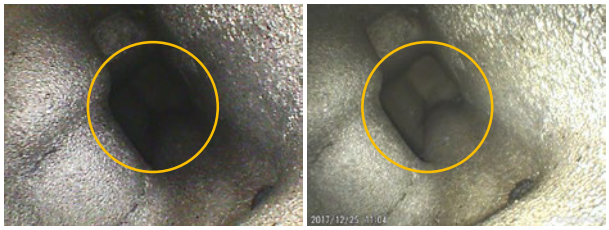
Contrast matching

WiDER™ image processing increases the contrast of dark areas in your images to match that of bright areas, enabling you to see fine details throughout the entire image.

True colors and reduced noise

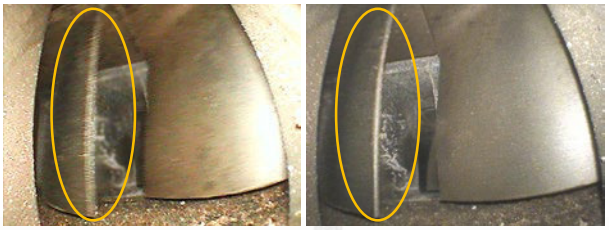
A noise reduction algorithm minimizes noise in dark videos and helps ensure accurate color reproduction.

Predecessor (IPLEX UltraLite) | IPLEX G Lite



Bright illumination, even in large and deep areas

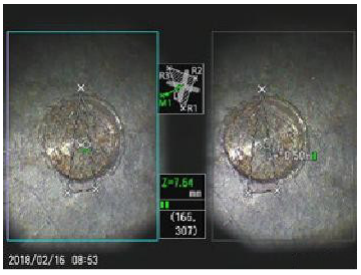
Predecessor (IPLEX UltraLite) | IPLEX G Lite



Smooth videos at 60 fps

Powerful measurement tools

IPLEX G Lite video borescopes are equipped with a scaler measurement tool that enables you to size objects using a reference defect. For more advanced functionality, add optional stereo measurement to size objects using precise three-dimensional coordinates.



Flexible UV and IR lighting options

Interchangeable ultraviolet (UV) and infrared (IR) lighting options are available to expand the video borescope's capabilities. UV is used to detect fine scratches that are hard to see with the naked eye while IR illumination works well for capturing images in the dark.

Fast and Easy

Responsive joystick, precise movements

The IPLEX™ G Lite video borescope's ergonomic design is complemented by TrueFeel™ articulation, making the joystick incredibly responsive. A light touch produces an immediate response and precise movement from the insertion tube so that it is easier to maneuver the scope.

Image Capture Made Easy

Smooth videos

The 60 fps recording speed renders smooth videos, even if the object is moving.

Take still images while recording video

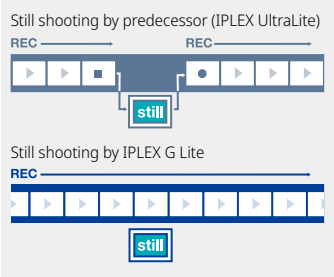
With the push of a button, take a still image while you're recording a video.

Constant video recording

Ever forget to hit record at the start of your inspection? No problem—the video borescope automatically records the last 30 minutes of your inspection, even between startups and battery changes.

Add bookmarks to your videos

When you're recording a video, it's simple to add a bookmark so you can find the location again quickly.



See clearly in oily environments

When inspecting in oily environments, such as the gearbox of a wind turbine, getting oil on the scope's lens can make it difficult to see. The oil clearing tip adapter uses capillary action to draw oil away from the lens so that you get clearer images without having to stop, withdraw the insertion tube, clean the lens, and resume the inspection.

Convenient controls

All the video borescope's functions can be controlled using the responsive touch screen or with the conveniently located quick access buttons.

Easy Data Sharing and Collaboration

There are two convenient wireless connectivity options.

1. Send saved images and videos to a PC using the IPLEX desktop app for secure file transfer.
2. Share live inspection images with iOS smartphones and tablets using the IPLEX Image Share app available in the App Store.

Note: Only iOS is supported.
The Image Share App is available in the App Store.

Accessories

❶ Carry case

The hard-walled carry case is lightweight and small enough to fit under an airplane seat while protecting the video borescope against the rigors of travel.

❷ Memory card

❸ AC power adapter

The instrument can be powered either by the battery or with the AC power adapter.

❹ Lithium-ion battery

BLH-1(MAJ-2340)

The battery powers the video borescope for up to 90 minutes of continuous use.

❺ Rigid sleeve sets

MAJ-1253 (for 6.0 mm insertion tube)
MAJ-1737 (for 4.0 mm insertion tube)

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.

Note: The carry case can only accommodate the 250 mm and 340 mm sleeves.

❻ Interchangeable light sources

MAJ-2336 (White light)
MAJ-2337 (UV light)
MAJ-2338 (IR light)

Ultraviolet (UV) and infrared (IR) lighting options are available to expand the videoscope's capabilities.

❼ Optical adapters

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

IPLEX™ G Lite dimensions

Carry case dimensions

IPLEX™ G Lite Specifications

BASIC FUNCTIONS

Model No.		IV9420GL	IV9435GL	IV9620GL	IV9635GL	IV96100GL
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)	10.0 m (32.8 ft)
	Exterior	High durability tungsten braid				
	Tube flexibility	Uniform stiffness		Tapered Flex tube with flexibility that gradually increases toward the distal end		
	Temperature sensor	2-stage indicator for high temperature warning				
Articulation section	Articulation angle up/down/right/left	130°		150°		110°
	Articulation operation	TrueFeel electronic scope tip articulation				
Approx. system weight (with battery)		1.15 kg (2.5 lb)	1.2 kg (2.6 lb)	1.23 kg (2.6 lb)	1.34 kg (3 lb)	1.83 kg (4 lb)
Dimensions (W x D x H)		128 mm × 203 mm × 110 mm (5 in. × 8 in. × 4.3 in.)				
Dimensions of carrying case		455 mm × 330 mm × 185 mm (18 in. × 13 in. × 7.2 in.) Carry-on size on most airlines				
Illumination		LED illumination				
Display		4.3-inch WVGA LCD with capacity-type touch panel				
Power supply	AC power	100 V to 240 V, 50/60 Hz (with supplied AC adapter				
	Battery	7.4 V nominal, approx. (with supplied battery); Battery operation time: approx. 90 minutes (use ECO mode to extend the life of the battery)				
Video output standard	HDMI	Type C HDMI 1.4				
Headset terminal (microphone input / audio output)		ø 3.5 mm mini plug CTIA				
Wireless live streaming		Using the recommended USB wireless LAN adapter, attach it to the Type A USB connector; available for iOS devices using the IPLEX Image Share app				
Wireless file transfer		Attach the recommended USB wireless LAN adapter to the Type A USB connector; available for PC using the IPLEX Desktop app				

SOFTWARE MANIPULATIONS

Image manipulations	5X digital zoom, 16 step brightness control
Gain control	4 step adjustable gain control (Manual, Auto, Wider 1, Wider 2)
Dynamic noise reduction	Available
Display text options	30-character title display
Note text options	30-character title display, mark, free drawing
Image display functions	Live image can be displayed right-to-left or left-to-right, inverted up-and-down, or rotated 180 degrees

RECORDING MANAGEMENT FUNCTIONS

Recording media	Standard recording	SDHC (with supplied SDHC)
	Constant video recording	micro SDHC (micro SD card required to use the constant video function)
Internal memory		Available (only still image recording)
Overlay		Selectable 30 character title with date, time, optical tip, logo, title, and system settings; Evident logo, title, and system settings
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: compatible with Windows Media Player 12
	Frame rate	60 fps / 30 fps

MEASUREMENT FUNCTIONS

Scaler measurement	Using a reference length to measure an object's length

STEREO MEASUREMENT FUNCTIONS — UPGRADE FOR OPTIONAL FUNCTIONALITY

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

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/when charging battery)
Relative humidity	All parts	15 to 90%
Relative humidity	All parts	Operable when exposed to machine oil, light oil, or 5% saline solution
Dust proofing and Waterproofing	Insertion tube	Operable under water with viewing tip adapter attached; Not operable underwater with stereo measurement tip adapters 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 (Battery cover and others must be closed); Not operable under water

MIL-STD COMPLIANCE

Environmental performance confirmed using MIL-STD-810G and MIL-STD-461G testing. No warranty is given that ensures the devices are free of damage under any conditions. Please ask an Evident representative for details.

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

OPTICAL TIP ADAPTER SPECIFICATIONS

6.0 mm Viewing Tip Adapters

		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* [1]	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* [2]	ø 6.0 mm								ø 8.4 mm	ø 6.0 mm
	Distal end* [3]	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 Adapters

		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* [1]	35 to ∞ mm	2 to 200 mm	17 to ∞ mm	2 to 15 mm	8 to ∞ mm
Distal end	Outer diameter* [2]	ø 4.0 mm				
	Distal end* [3]	19.0 mm			21.7 mm	
Oil clearing		Available			—	

Stereo Tip Adapters (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* [1]	5 to ∞ mm	4 to ∞ mm	5 to ∞ mm	4 to ∞ mm
Distal end	Outer diameter* [2]	ø 4.0 mm		ø 6.0 mm	
	Distal end* [3]	24.3 mm	28.4 mm	24.9 mm	31.3 mm

*1. Indicates the viewing distance with optimal focus.
*2. The adapter can be inserted into a ø 4.0 mm, ø 6.0 mm, and ø 8.4 mm hole when it is mounted on the scope.
*3. Indicates the length of the rigid portion at the scope's distal end when mounted.

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