

INDUSTRIAL



IPLEX™ G Lite-W

Industrial Videoscope

Better Wind Turbine Inspection



EVIDENT

IPLEX

Better Wind Turbine Inspection



If you're inspecting in the cramped quarters of a wind tower nacelle, the wind version of the IPLEX G Lite videoscope's combination of portability and powerful imaging features packed into a small body can make your job easier. This version of the IPLEX G Lite has features designed specifically for wind tower inspection, such as:

- A sealed, oil-clearing tip adapter
- Optics designed for wind tower gearbox inspections
- 4 mm scope to fit into tight spaces
- Bright LED guide tube*
- Oil-resistant insertion tube coating, making it easy to clean

*Optional

Finish Inspections Faster

The videoscope's sealed, oil-clearing tip adapter enables you to see more clearly in oily environments, like a gearbox. The sealed tip keeps oil from penetrating into the adapter while the channels on the oil-clearing tip use capillary action to draw oil away from the lens. Now, you can spend less time removing the scope to clean oil off the tip for faster inspections.

The videoscope is engineered for durability. Designed to meet IP65 standards and built to pass U.S. Department of Defense testing (MIL-STD), the IPLEX G Lite-W videoscope is up to the challenge of working at height in a wind tower nacelle for maximum uptime. The insertion tube's durable articulation mechanism helps protect the scope when inserting it in tight spaces where it can be easily damaged.

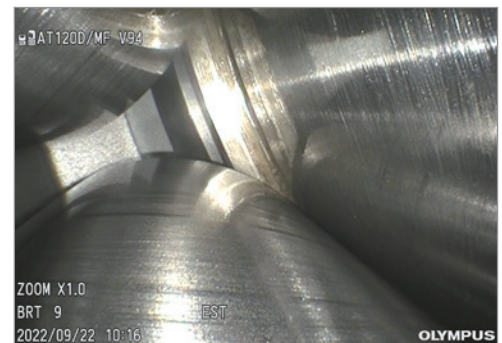
Tailored for Wind Turbine Inspections

The IPLEX G Lite-W videoscope has specially designed optics that balance the need to view areas of the wind turbine up close, such as bearings and gear teeth, as well as look for defects in large spaces while being small enough to fit into the space between the turbine's bearings to look for damage.

The optional LED guide tube is engineered for wind turbine inspection. Its ample illumination enables you to spot defects faster in large, dark spaces—like a gearbox—reducing the time needed to obtain good images. When you have to maneuver, the semiflexible guide tube makes it easier for you to position it where you want to capture the images you need. Using just one hand, you can easily control the 4 mm scope and maneuver it to view difficult-to-reach areas of the gearbox.

Easy to Carry, Easy to Clean

Weighing only 1.16 kg (2.56 lb), the compact IPLEX G Lite-W videoscope is easy to transport to challenging locations, like the top of the nacelle. Using a commercially available magnetic hook and arm, you can position both the main unit and scope where it's the most convenient. The ergonomic, handheld design and responsive touch screen enable you to use and control the videoscope while wearing gloves in the narrow confines of a nacelle. The scope's smooth oil-resistant coating makes cleaning the videoscope simple. Even if oil has adhered to the insertion tube, it easily wipes off using a clean cloth, so you can pack up and get back to the office faster.



IPLEX™ G Lite-W Specifications

Scope Unit

Model No.	IV9420GL-W	
Insertion tube	Scope diameter	Φ4.0 mm
	Scope length	2.0 m (6.6 ft)
	Exterior	High-durability tungsten braid with oil-stain-resistant coating (easy-to-clean outer braid)
	Temperature sensor	2-stage indicator for high-temperature warning
Articulation section	Articulation angle up/down/right/left	130°
	Articulation operation	TrueFeel™ scope tip articulation with electronic articulation Can be operated with articulation J/S; easy centering of scope
Approx. system weight (with battery)		1.16 kg (2.6 lb)
Dimensions (W × D × H)		128 mm × 203 mm × 110 mm (4.9 in. × 8 in. × 4.3 in.)
Dimensions of carrying case		455 mm × 330 mm × 185 mm (17.9 in. × 13 in. × 7.3 in.) protruding parts not included; size for carry-on baggage in narrow body aircraft
Illumination		LED illumination; you can extend the battery time using the ECO mode lighting control
Display		4.3-inch daylight-view, wide viewing WVGA LCD (800 × 480 pixels) with capacity-type touch panel
Power supply	Power supply	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
Video output standard	HDMI	TypeC HDMI 1.4
Headset terminal (microphone input/ audio output)		Φ3.5 mm mini plug CTIA
Wireless live streaming		Attach the recommended USB wireless LAN adapter to the Type A USB connector; available for iOS devices using the IPLEX Image Share app
Wireless file transfer		Using the recommended USB wireless LAN adapter, attach it to the Type A USB connector; available for PC using the IPLEX Desktop app

Software Functions

Image manipulations	5X digital zoom, 16-step brightness control (*long exposure works with BRT 12 or higher (up to 2 seconds))
Gain control	4-step adjustable gain control (Manual, Auto, WIDER 1, WIDER 2)
Dynamic noise reduction	Available (select the GUI menu: ON/OFF)
Display text options	30-character title display
Note text options	30-character text, mark, free drawing
Image display functions	The live image can be inverted right and left, 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 still image recording)
Overlay		Selectable 30-character title with date, time, optical tip, logo, and system setting
Thumbnail image display		Recorded images can be displayed as thumbnails
Still image recording	Resolution	H768 × V576 (pixels)
	Recording format	Compressed JPEG format
Video recording	Resolution	H768 × V576 (pixels)
	Recording format	MPEG 4 AVC/H.264 conforms to baseline profile; Windows Media Player12 compatible
	Index function	Maximum 100 index with 1 movie file
	Frame rate	Selectable 60 fps/30 fps

Measurement Functions

Scalar measurement	Using reference length to measure object length
--------------------	---

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 charger)
Relative humidity	All parts	15 to 90%
Liquid resistance	All parts	Operable when exposed to machine oil, light oil, or 5 % saline solution
Dustproofing and waterproofing	Insertion tube	Up to an equivalent to 2 m (6.5 ft) in depth
	Other parts	IP65; not operable under water: (battery and other covers must be closed)

MIL-STD COMPLIANCE

The operating environment performance is confirmed by the following: MIL-STD-810G and MIL-STD-461G.

No warranty is given as to being damage-free under any conditions. Please ask your Evident sales representative for details.

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
Electromagnetic interference (EMI)	MIL-STD-461G, RS103 Radiated susceptibility above decks

Optical Specifications

Optical system	Field of view	120°
	Direction of view	Forward
	Depth of field*1	4-∞ mm
Distal end	Outer diameter	Φ4.0 mm
	Rigid distal end length	19.7 mm
Oil clearing design		Available

Accessory: LED Guide Tube MAJ-2535

Specifications	
Outer diameter of distal end	ø17.9 mm
Outer diameter of tube	ø13 mm
Length of tube	889 mm (35 in.)
Outer diameter of main unit (including projections)	ø50 mm × 240 mm (2 in. × 9.4 in.)
Weight (including batteries)	500 g (1.1 lb)
Power supply	4 AAA size nickel metal hydride batteries that conform to IEC62133-1
Rated power supply	4.8 V (1.2 V × 4 in series)
Continuous lighting time	Normal mode: about 3 hours; economy mode: about 6 hours

Operating environment

Operating temperatures	Tube: -25 °C to 100 °C (-13 °F to 212 °F) Main unit: -10 °C to 40 °C (14 °F to 104 °F) (in air)
Operating environment humidity	15 to 90% (relative humidity)
Liquid resistance	Operable when exposed to machine oil, light oil, or 5 % saline solution
Dustproofing and waterproofing	IP55; not operable under water: (battery and other covers must be closed)

*1. Indicates the viewing distance with optimal focus.

• EVIDENT CORPORATION is ISO14001 certified.

• EVIDENT CORPORATION is ISO9001 certified.

For details on certification registration, visit <https://www.olympus-ims.com/en/iso/>.

• This product is designed for use in industrial environments for EMC performance. Using it in a residential environment may affect other equipment.

• All company and product names are registered trademarks and/or trademarks of their respective owners.

• Images on the PC monitors are simulated.

• Specifications and appearances are subject to change without any notice or obligation on the part of the manufacturer.

EvidentScientific.com

EVIDENT

EVIDENT CORPORATION
Shinjuku Monolith, 2-3-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo 163-0910, Japan

N8602689 - 022024