

General Overview

Remote Visual Inspection Solutions



- \cdot Videoscopes
- · Light Sources
- Accessories

Satisfying the Remote Visual Inspection Demands of Diverse Industries

We are a world-renowned leader in remote visual inspection (RVI) technology with a comprehensive portfolio of industrial videoscopes that facilitate accurate inspections of small, enclosed spaces. Our RVI solutions are used in a wide range of industries and applications.

Applications

Industries	Applications	
Aerospace	• Turbine blades • Combustion chamber	• Landing gear • Airframe
Power Generation	• Heat exchanger pipes • Turbine blades	• Power plant equipment • Wind gearboxes
Oil/ Gas/ Chemical Plants	• Process pipes • Heat exchanger pipes	• Boiler maintenance • Tanks
Automotive	• Engine parts • Assembled units	• Cast parts • R&D, quality assurance
Defense/Security	• Aircraft maintenance • Customs & border control	• Search & rescue • Police & special forces
Architecture/ Construction	• Water pipes • Gas pipes	• Ceiling and flooring • Elevator maintenance
Manufacturing	• Small parts • Drilled parts	 Production facilities R&D, quality assurance
Infrastructure	• Bridge maintenance • Tunnel maintenance	• Railroad maintenance • Water (drain) pipe maintenance







Videoscopes

Advanced and Feature Packed

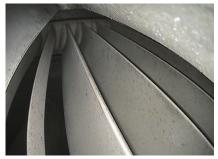
IPLEX[™] NX

Diameter: 4.0 mm/6.0 mm/6.2 mm Lengths: 3.5 m to 7.5 m (11.5 to 24.6 ft)

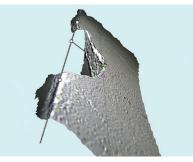
High-quality images and expanded measurement capabilities

Features

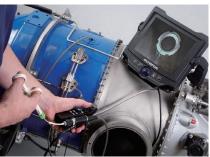
Intensely bright laser diode illumination



Measure with confidence using 3D modeling



Internal working channel scope



Advanced Extra-Long Videoscope

Diameter: 8.5 mm Lengths: 20.0 m to 30.0 m (65.6 to 98 ft)

Efficiently inspect complex piping systems up to 30 meters

Features

Precise articulation regardless of length



Clear wide-view images for faster inspections



See clearly from a safer distance



Versatile Visual Inspection

IPLEX GX/GT

Diameter: 4.0 mm/6.0 mm Lengths: 2.0 m to 10.0 m (6.6 to 32.8 ft)

A good balance of portability, imaging capabilities, and ease of use



Features

Easy-to-use touch screen and hot key controls



Bright and clear images with smart video



Interchangeable scopes and light sources (white, UV, IR)



The Portable, Powerful Videoscope IPLEX G Lite/G Lite-W

Diameter: 4.0 mm/6.0 mm (4.0 mm only for G Lite-W) Lengths: 2.0 m to 10.0 m (6.6 to 32.8 ft) (G Lite-W available in 2 m only)

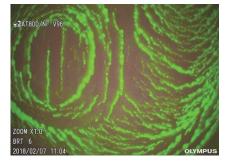
Small and tough enough to use almost anywhere

Features

Ergonomic and lightweight



Flexible UV and IR lighting options



IPLEX G Lite-W: Tailored for wind tower inspections



Videoscopes

Scopes up to 10 Meters (32.8 Feet) Long

Long Scopes

Diameter: 6.0 mm Lengths: 5.0 m to 10.0 m (16.4 to 32.8 ft)

Durable long insertion tubes with articulation

Features

- Various lengths, from 5.0 m to 10.0 m
- Simple user interface
- Stereo measurement available (depending on the model; stereo tip adaptor required)

Options

*Only for IPLEX GX/GT/G Lite

Flexible guide tube* (7.5 m and 10.0 m; 24.6 ft and 32.8 ft)

Increases the insertion tube's rigidness



Long Scopes General Specifications

	IPLEX NX	IPLEX GX/GT	IPLEX G Lite
Scope diameter	6.0 mm (0.24 in.)	6.0 mm (0.24 in.)	6.0 mm (0.24 in.)
Scope length	5.0 m / 7.5 m (16.4 ft. / 24.6 ft.)	7.5 m / 10.0 m (24.6 ft. / 32.8 ft.)	10.0 m (32.8 ft.)
Monitor size	8.4 inch	8.0 inch	4.3 inch
Interchangeable scope unit	1	1	_
Illumination	Laser diode	LED	LED
Light source White		White (standard) UV, IR (optional)	White (standard) UV, IR (optional)
Measurement	Stereo with 3D modeling Scalar	Stereo (optional, GX only) Scalar	Stereo (optional) Scalar

Ultra-Thin Videoscope

IPLEX TX

Diameter: 2.4 mm Length: 1.2 m (3.9 ft)

The videoscope's ultra-thin diameter enables you to view inside very narrow spaces



Features

An ultra-thin videoscope with articulation



Interchangeable scope system



Options Protective braid

Enhanced durability for IPLEX TX insertion tubes



Videoscope Comparison

Product image					
Product name					
Scope diameter	Scope length	IPLEX NX	IPLEX GAir		
ø2.4 mm (0.09 in.)	1.2 m (3.9 ft.)	_	_		
	2.0 m (6.6 ft.)	_	_		
ø4.0 mm (0.16 in.)	3.5 m (11.5 ft.)	<i>J</i>	_		
	5.0 m (16.4 ft.)	J	-		
	2.0 m (6.6 ft.)	_	_		
	3.5 m (11.5 ft.)	<i>J</i>	_		
ø6.0 mm (0.24 in.)	5.0 m (16.4 ft.)	1	_		
	7.5 m (24.6 ft.)	J	_		
	10.0 m (32.8 ft.)	-	_		
ø6.2 mm (0.24 in.)	3.5 m (11.5 ft.)	✓	_		
- 0 F (0 22 in)	20.0 m (65.6 ft.)	_	✓		
ø8.5 mm (0.33 in.)	30.0 m (98.4 ft.)	-	✓		
Interchangeable scope unit	t	<i>✓</i>	×		
Articulation method		TrueFeel electronic scope tip articulation	Pneumatic articulation with built-in air compressor		
Articulation direction		U/D/L/R	U/D/L/R		
Articulation angles		130° (IV9435N/IV9450N) 180° (IV9635N/IV9650N) 150° (IV9675N)	90°		
Dimensions (W × H × D)		320 mm × 310 mm × 180 mm (12.6 in. × 12.2 in. × 7.1 in.)	359 mm × 465 mm × 307 mm (14.1 in. × 18.3 in. × 12.1 in.)		
Approx. weight		7.1 to 7.6 kg (15.7 to 16.8 lbs)	15.3 to 16.4 kg (33.7 to 36.2 lbs)		
Monitor size (inches)		8.4	8.0		
Touch screen		1	1		
High temperature sensor		<i>J</i>	1		
SmartTip adaptor		J	_		
Oil clearing tip adaptor (dire	ect view only)	✓ (ø6.2 mm only)	1		
Illumination		Laser diode	LED		
Light sources		White	White		
Gain control (Auto, WiDER,	Manual)	✓ <i>✓</i>	<i>✓</i>		
Measurement		Stereo with 3D modeling Scalar	Scalar		
Spot Ranging		5 points	_		
Constant video recording		_	1		
Bookmark on video		-	J		
Recording media		USB flash memory (still image recording only) SDHC	SDHC (Normal) microSDHC (constant video)		
Still image recording	Resolution	H768 × V576 – 4 mm scopes H1024 × V768 – 6 mm scopes	H640 × V480		
- in integer ceording	Recording format	Compressed JPEG format	Compressed JPEG format		
	Resolution	H768 × V576 – 4 mm scopes H1024 × V768 – 6 mm scopes	H640 × V480		
Video recording	Recording format	MPEG 4 AVC/H.264 Windows Media Player 12 compatible	MPEG 4 AVC/H.264 conforms to Baseline Profile Windows Media Player 12 compatible		
Audio recording		J	l l l l l l l l l l l l l l l l l l l		
Video out		VGA	HDMI 1.4 Type A		
Battery operation time (app	prox. minutes)	100	180		
MIL-STD compliance		J	_		
IP standard		IP55			

*1 Extend the life of the battery by using the ECO mode lighting control

IPLEX GX	IPLEX GT	IPLEX G Lite	G Lite-W	IPLEX TX
				✓
1		1		-
1		1	—	-
-				-
1		1	—	-
1		1	—	-
-				-
1				-
1		1	_	_
_		_		_
-				_
-		_		_
1	Available between the same scope model	_		/
TrueFeel electronic sco	ope tip articulation	TrueFeel electronic so	ope tip articulation	Direct manipulation
U/D/L	/R	U/D/I	L/R	U/D
130° (IV9420G/IV9 150° (IV9620G/IV9 120° (IV9675G) 110° (IV96100G)	1435G) 1635G)	130° (IV9420GL/IV942 150° (IV9620GL/IV963 110° (IV96100GL)		135°
Main unit: 241 mm × (9.5 in. × 7.5 ir Scope unit: 97 mm × (3.8 in. × 7.4 ir	n. × 2.8 in.) 188 mm × 158 mm	128 mm × 203 r (5.0 in. × 8.0 i		Main unit: 239 mm × 215 mm × 99 mm (9.4 in. × 8.5 in. × 3.9 in.) Control unit: 49 mm × 59 mm × 334 mm (1.9 in. × 2.3 in. × 13.2 in.)
2.76 to 3.43 kg (6		1.15 to 1.83 kg (2.5 to 4 lbs)	1.16kg(2.6 lbs)	2.2 kg (4.9 lbs)
8.0		4.3		6.5
/		✓		_
1				_
				_
✓				_
LED		LEC		LED tip adaptor
White (standard), UV (White (standard), UV		White
✓	Auto only	✓ (Standard), 07		✓ ✓
Stereo (optional) Scalar	Scalar	Stereo (optional) Scalar	Scalar	_
1 point		1 po	int	
		1 po		
		· · · · · · · · · · · · · · · · · · ·		
SDHC (No microSDHC (con	ormal) (stant video)	SDHC (N microSDHC (co	ormal)	USB flash memory
H768 × \		H768 ×		NTSC: H640 × V480 PAL: H768 × V576
Compressed JF	PEG format	Compressed J	PEG format	Compressed JPEG format
H768 × \	/576	H768 ×	V576	H640 × V480
MPEG 4 AVC/H.26 Baseline F Windows Media Play	Profile	MPEG 4 AVC/H.20 Baseline Windows Media Pla	Profile yer 12 compatible	AVI MPEG-4 format Windows Media Player compatible
✓		1		_
HDMI Ty	pe A	HDMI T		RCA Composite
150		90*		150
✓		1		-
IP65	5	IP6	5	IP55

Optical Tip Adaptors for the IPLEX Series

		4.0 mm Optical T	ip Adaptors			4.0 mm Stereo	Fip Adaptors
AT80D/FF-IV94N	AT120D/NF-IV9	4N AT120D/FF-I	IV94N AT100S/	NF-IV94N A	100S/FF-IV94N	AT70D/70D-IV94N	AT50S/50S-IV94N
		6.0 mm Optica	al Tip Adaptors			6.0 mm Stere	eo Tip Adaptors
 AT50D/FF-IV96N	AT80D/FF-IV96N	6.0 mm Optica AT120D/NF-IV96N	AT120D/FF-IV96N	AT120S/NF-IV96	AT120S/FF-IV96N		AT70S/70S-IV96
AT50D/FF-IV96N	AT80D/FF-IV96N			AT120S/NF-IV96	AT120S/FF-IV96N		

			6.	6.2 mm Stereo Tip Adaptors				
		AT80D-IV96X1N	AT120D/NF-IV96X1N	AT120D/FF-IV96X1N	AT80S-IV96X1N	AT120S-IV96X1N	AT70D/70D-IV96X1N	AT60S/60S-IV96X1N
	Field of view	80°	120°	120°	80°	120°	70°/70°	60°/60°
Optical system	Direction of view	Forward	Forward	Forward	Side	Side	Forward	Side
	Depth of field*1	35 to ∞ mm	2 to 200 mm	17 to ∞ mm	30 to ∞ mm	8 to ∞ mm	5 to 200 mm	3 to 150 mm

IPLEX GAir

			8.5 mm Optical Tip Adaptors							
		AT120D/NF-IV98GA	AT120D/FF-IV98GA	AT120S/NF-IV98GA	AT120S/FF-IV98GA	AT220D-IV98GA				
	Field of view	120°	120°	120°	120°	220°				
Optical system	Direction of view	Forward	Forward	Side	Side	Forward				
	Depth of field*1	4 to 190 mm	25 to ∞ mm	1 to 25 mm	6 to ∞ mm	1 to ∞ mm				

IPLEX GX/GT, IPLEX G Lite

			4.0 mm Optical Tip Adaptors					4.0 mm Stereo	Tip Adaptors	6.0 mm Stereo	Tip Adaptors
		AT80D/FF -IV94 G	AT120D/NF -IV94G	AT120D/F -IV94G	F AT100S -IV94		00S/FF '94G	AT50D/50D -IV94	AT50S/50S -IV94	AT60D/60D -IV96	AT60S/60S -IV96
	Field of view	80°	120°	120°	100	1	00°	50%	50°	60%	60°
Optical system	Direction of view	Forward	Forward	Forward	Side	S	ide	Forward	Side	Forward	Side
	Depth of field*1	35 to ∞ mm	2 to 200 mm	17 to ∞ m	m 2 to 15	mm 8 to	∞mm	5 to ∞ mm	4 to ∞ mm	5 to ∞ mm	4 to ∞ mm
						6.0 mm Optic	al Tip Adapto				
								ĺ			1
			AT80D/NF	AT80D/FF	AT120D/NF	AT120D/FF	ATOOC IVO	AT1205/1	NF AT120S/FF	470000 DUTC	AT100D

		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
	Field of view	40°	80°	80°	120°	120°	80°	120°	120°	220°	100%100°
Optical system	Direction of view	Forward	Forward	Forward	Forward	Forward	Side	Side	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 to ∞ mm

IPLEX G Lite-W

			4.0 mm Optical Specification
		Field of view	120°
(Optical system	Direction of view	Forward
	,	Depth of field*1	4 to ∞ mm

*1 Indicates the range over which the image can be viewed clearly.

Accessories For Videoscopes

Rigid Sleeve

MAJ-1737 (For 4.0 mm dia. insertion tube) MAJ-1253 (For 6.0/6.2 mm dia. insertion tube)

Rigid sleeves allow easy insertion of videoscopes.



Light Sources LED Light Source LG-LSLED-RVI



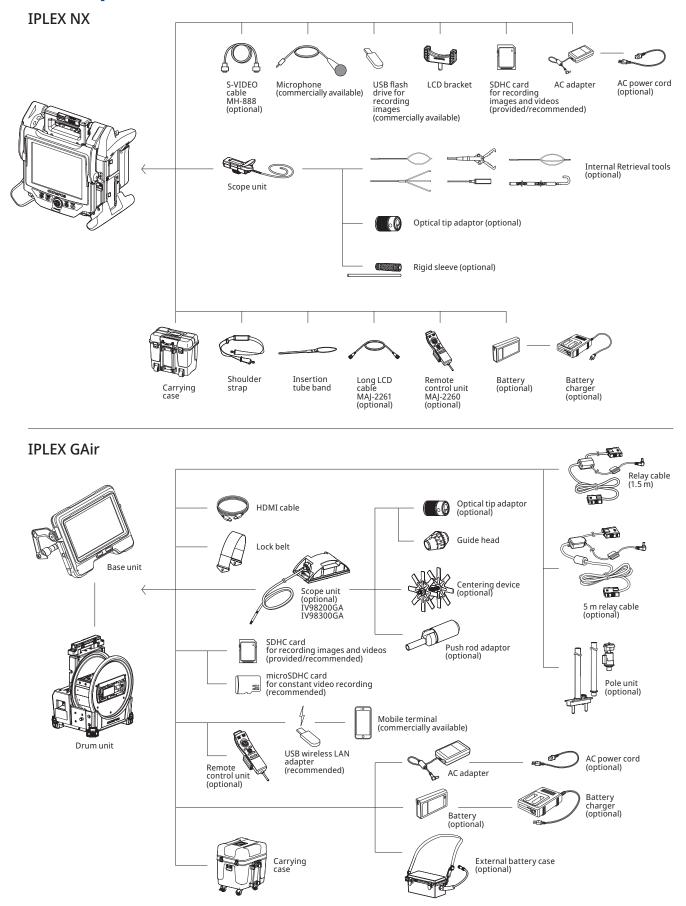
Featuring a long-life white LED, the LG-LSED-RVI light source is approx. 100 times brighter than the ILK-7 halogen light source yet consumes about half the power. This low consumption model meets most industrial needs.

Specifications

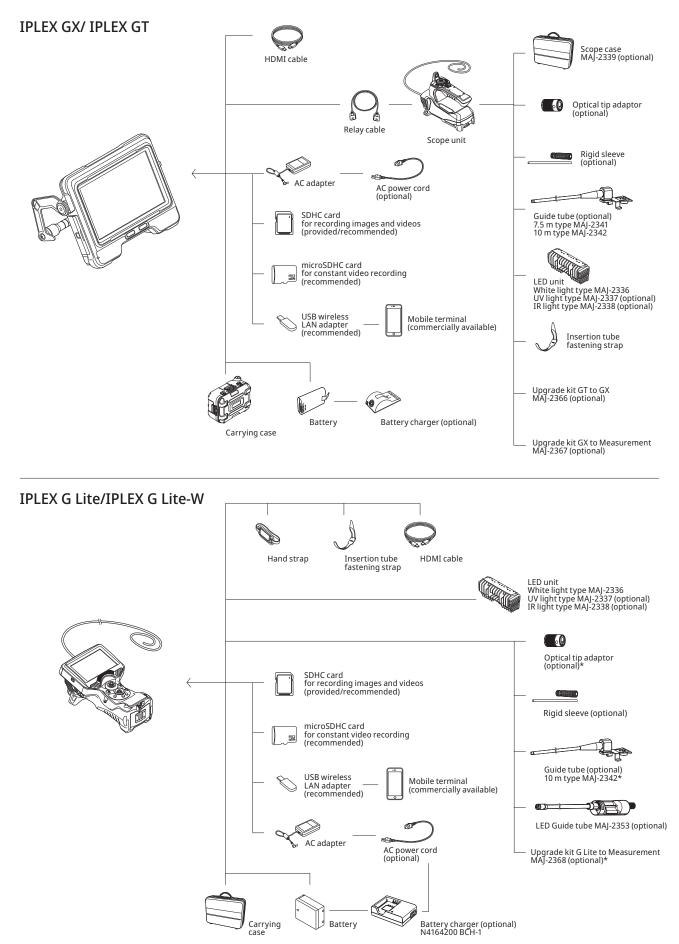
LG-LSLED-RVI
AC 100-240V, 50/60Hz
DC24V (with supplied AC adapter)
37 W
114 mm × 137 mm × 231 mm
2.45 kg
Approx. 60,000 hours

System Charts

Videoscopes

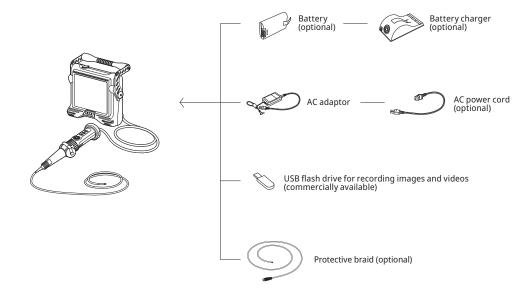


System Charts



System Charts

IPLEX TX







The IPLEX NX videoscope is equipped with laser light source.

EVIDENT CORPORATION is ISO14001 certified.
 EVIDENT CORPORATION is ISO9001 certified.
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 Using them in a residential environment may affect other equipment in the environment.
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