EVIDENT

Unleash the Power of One

IPLEX™ One Videoscope Solution

Built for clarity.
Built for speed.
Built to evolve.

You don’t just need another inspection tool. You need a system that moves quicker, thinks smarter, and can grow with you.

IPLEX™ One Videoscope Solution

The 10th-generation evolution of the IPLEX videoscope system, IPLEX™ One is a unified, software-driven platform that empowers you to work faster, see more, and stay ahead—no matter the environment or application. Combining breakthrough optics, rugged design, and modular scalability, IPLEX One redefines what’s possible in remote visual inspection (RVI).

From groundbreaking Swoptix™ 3D measurement technology to measurement and viewing upgrades to secure wireless freedom—and the exceptional image quality that has always been a pillar of the IPLEX system—IPLEX One is more than next-gen. It’s the beginning of something better.

ims.evidentscientific.com

One System that Evolves with You

Designed to simplify today's inspections and seamlessly scale for tomorrow's challenges, IPLEX One features software performance tiers all based on the same hardware—upgrades can be easily done via IPLEX One software, allowing you to evolve your system without the need for hardware upgrades.

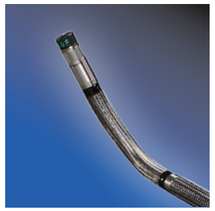
IPLEX One is a unified, scalable ecosystem that consolidates software, insertion tubes, and optical tip adapters into a shared platform. Reduce redundancy, improve inspection efficiency, and streamline inventory management across your entire organization.

Flexible, Software-Driven Scalability

Start with the features you need and unlock advanced capabilities like 3D modeling or measurement via modular software licensing—no hardware swap required.

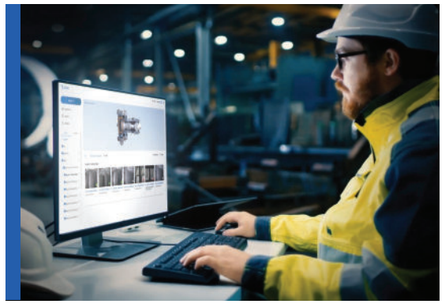
Limitless Configurations = Smarter Investment

With a variety of optical tips and a flexible "buy what you need" model, IPLEX One delivers customization and future-readiness without overextending your budget.



Connected by Design

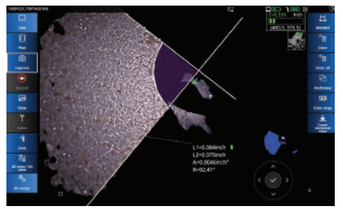
Compatible with ViSOL™ software and third-party applications, IPLEX One seamlessly integrates into digital workflows, enabling smarter data capture, reporting, and collaboration.



Accelerated Imaging, Analysis, and Measurement

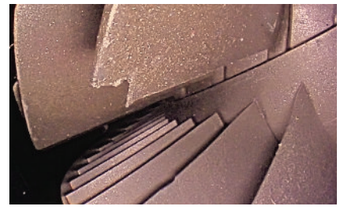
IPLEX One is driven by industry-first Swoptix multiview technology, which allows you to instantly switch between near and far focus and direct and side view focus, with no need to withdraw the scope to change tip adapters—cutting down on inspection time and reducing wear on optical tips. With fewer retractions and faster evaluations, IPLEX One delivers up to twice the productivity with half the fatigue and wear of traditional RVI systems.

IPLEX One also offers monocular 3D modeling powered by exclusive 3DAssist™ software, which lets you create 3D images from a single optical path—no stereo tip required.



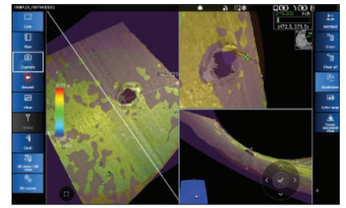
Single-Screen Measurement

With Swoptix 3D measurement, perform full-frame 4mm and 6mm measurements instantly, increasing speed and reducing interruptions to your inspection flow. Use a single full screen with a 120° view that allows you to easily find defects and conduct accurate, reliable measurements.



Instant Edge-to-Edge, Full-Screen Clarity

Real-time, high-resolution imaging across the entire display enables more accurate defect identification—and faster decision-making.



Split-Screen Viewing

Side-by-side visual comparisons and measurement overlays for deeper inspection insights—all within a single interface.

Built for How You Work

Designed for aviation, power generation, oil and gas, and security applications, IPLEX One delivers a clear view of inspection areas that are inaccessible to other NDT inspection methods. Ideal for bores, holes, pipes, cavities, and other challenging areas, IPLEX One is simple to use, offers bright inspection images in almost any lighting condition, and delivers the highest level of durability.

Smaller, Lighter, More Portable

IPLEX One is more compact than previous IPLEX models and features a brilliant 10-inch screen, making it easier to transport and use in tight or elevated environments.

Modular, Cable-Free Setup

With wireless remote operation and modular components, IPLEX One adjusts to preferred user configuration without any physical constraints.

Inspection-Grade Wireless

Ultra-low-latency peer-to-peer communication removes the need for tethered setups and enables more flexible workflows. Optional radio-disabled models for secure or classified environments.

Remote-Friendly Control

Wireless control unit allows you to operate the scope from a distance, reducing strain and improving ergonomics in complex setups.

Engineered for Extreme Weather

All-weather design withstands rain, snow, and extreme temperatures. AR-coated anti-reflection monitor with wide viewing angle allows operation under strong sunlight.

A Legacy of Rugged Reliability

Made to handle the job site—not just the spec sheet—IPLEX One absorbs impact, resists dirt and moisture, and performs through heavy vibration. It's also made for long shift use, with a lightweight compact footprint; a balanced, ergonomic design focused on portability; and a 10-inch anti-reflective touchscreen.

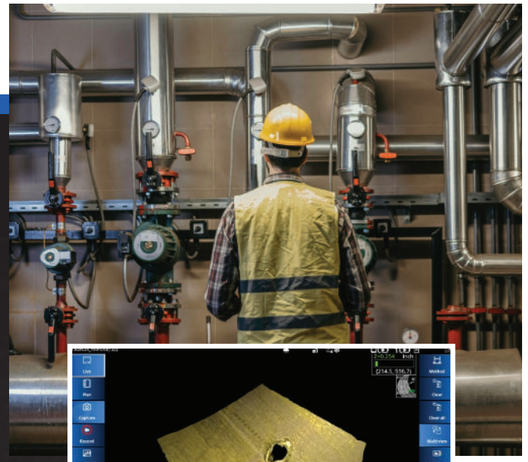
Engineered with real-world inspection in mind, IPLEX One delivers when and where it matters most—drop-tested to MIL-STD standards, IP65 rated for dust and water, and validated by third-party testing. From tarmacs to turbine decks, IPLEX One means performance you can trust—every shift, every day.

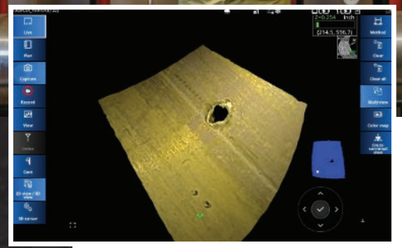
Reduced Wear and Tear
With a shorter distal end that enhances smooth insertion in tight areas, Swoptix technology reduces the risk of optical tips being stuck or damaged during inspection and reduces wear and tear on both optical tip adapters and the IPLEX One system as a whole.

Front Line-Ready
Across aerospace, energy, and security, IPLEX One delivers lasting reliability, long-term performance, and mission-critical confidence.

Global Service and Support
With a world-class service network behind every unit, IPLEX One comes with the training, maintenance, and expert help you need to stay mission-ready—no matter where or how you operate.

IPLEX One:
Mission-Critical Confidence





AEROSPACE
- Speed up routine and unscheduled inspections
- Reduce downtime and support regulatory compliance

POWER GENERATION
- Inspect boilers, turbines, and piping with confidence
- Count on durable performance in high-heat and high-vibration conditions

OIL & GAS
- Reach confined or remote assets with portable reliability
- Improve throughput and reduce rework

SECURITY
- Operate with or without wireless communication
- Perform inspections in secure, rugged environments

IPLEX™ One Videoscope Specifications

SCOPE UNIT									
Model No.		**IV10420**	**IV10435**	**IV10620**	**IV10630**	**IV10635**	**IV10650**	**IV10675**	**IV106100**
Insertion tube	Scope diameter	φ4.0mm		φ6.0mm					
	Scope length	2.0m (6.56 ft)	3.0m (9.84 ft)	2.0m (6.56 ft)	3.0m (9.84 ft)	3.5m (11.48 ft)	5.0m (16.4 ft)	7.5m (24.6 ft)	10.0m (32.8 ft)
	Exterior	High-durability tungsten braid							
	Tube flexibility	Uniform stiffness					Tapered Flex insertion tube with flexibility that gradually increases toward the distal end		
Optical system	Field of view	Selectable by optical adaptor							
	Direction of view								
Illumination		Laser Diode, White LED, Ultra Violet LED (365nm), Infrared LED (950nm)							
Articulation section	Articulation angle (all-way)	150°		180°				150°	130°
	Articulation operation	True Feel scope tip articulation with electronic power-assisted							

MAIN UNIT									
Model No.		**IV10000**							
Dimensions (W × H × D)		305mm × 220mm × 154mm (12.0 in × 8.6 in × 6.0 in) (protruding parts not included)							
Weight (main unit)		6.6kg (14.5 lb)							
Approx. system weight		When combined with IV10420: 7.78kg (17.1 lb)	When combined with IV10435: 7.84kg (17.2lb)	When combined with IV10620: 7.86kg (17.2 lb)	When combined with IV10630: 7.94kg (17.4 lb)	When combined with IV10635: 7.98kg (17.5 lb)	When combined with IV10650: 8.10kg (17.8 lb)	When combined with IV10675: 8.30kg (18.2 lb)	When combined with IV106100: 8.50kg (18.6 lb)
LCD monitor		10.1-inch WUXGA (1920 × 1200), IPS, High contrast Hard surface and multi-touch interface (10 point), capacitive Daylight readable display (Optical bonding + AR coating) 1100 NIT-backlight							
Video output		Type A HDMI 2.0							
Headset (microphone in/audio out)		Compatible with Bluetooth headset/microphone							
Data I/O Ports		USB Type-C Port × 3							
Power supply		Li-ion battery for Base Unit: 10.8 V nominal, approx. 360-minute operating time Li-ion battery for Tablet: 10.8 V nominal, approx. 180-minute operating time 100 V to 240 V, 50/60 Hz (with supplied AC adaptor)							
Recording media	Normal	Internal SSD (256 GB) or USB flash memory							
Image adjustment	Zoom function	Digital seamless zoom (up to 5 times)							
	Gain control	7-step adjustable gain control							
	Dynamic noise reduction	Available							
	Brightness control	16-step adjustable brightness control							
	Sharpness control	16-step adjustable sharpness control							
	Saturation control	20-step adjustable saturation control							
	Title text options	51-character display							
	Long exposure	Up to 10 seconds							
	Image display functions	Live image can be inverted to right and left, inverted to up and down, and rotated 180 degrees							
	Gravity indicator	Display gravity indicator according to the position of the scope's distal end (IV106 series only)							
Still image recording	Resolution	H960 × V752 (pixels)* *When Print Screen is on, the resolution becomes H1280 × V800 *Resolution is varied depends on optical adapter							
	Recording format	JPEG (.JPG), PNG (.PNG)							
Video recording	Resolution	H960 × V752 (pixels)* *When Print Screen is on, the resolution becomes H1280 × V800							
	Recording format	MPEG 4 AVC/H.264 (.MP4 file)							
Wi-Fi adapter		2.4GHz (802.11b/g/n)							
Bluetooth Adapter		Bluetooth 5.2 × 1							

Optical Adaptor Specifications

		φ4.0mm Optical Adaptors						
		AT80D/FF-IV104	AT120D/NF-IV104	AT120D/FF-IV104	AT120S/NF-IV104	AT120S/FF-IV104	AT80D/80D-IV104	AT60S/60S-IV104
Optical system	Field of view	80°	120°	120°	120°	120°	80°/80°	60°/60°
	Direction of view	Forward	Forward	Forward	Side	Side	Forward	Side
	Depth of field*1	52.9mm to inf	4.4 to 107mm	17mm to inf	2.7 to 9mm	10.3mm to inf	4.7 to 66mm	3.7 to 62mm
Distal end	Outer diameter*2	φ4.0mm	φ4.0mm	φ4.0mm	φ4.0mm	φ4.0mm	φ4.0mm	φ4.0mm
	Distal end*3	20.9mm	20.4mm	20.5mm	21.1mm	21.1mm	22.3mm	24.7mm

		φ4.0mm Swoptix 3D Measurement		φ4.0mm Swoptix Multiview			
		AT100DDNF-IV104	AT80SSNF-IV104	AT110DN/F-IV104		AT100D/S-IV104	
Optical system	Field of view	100°	80°	110°		100°	
	Direction of view	Forward	Side	Forward		Forward	Side
	Depth of field*1	5.7 to 67mm	4.7 to 63mm	3.8 to 26mm	17.3mm to inf	7.5mm to inf	6.5mm to inf
Distal end	Outer diameter*2	φ4.0mm	φ4.0mm	φ4.0mm		φ4.0mm	
	Distal end*3	21.0mm	23.2mm	20.9mm		22.4mm	

		φ6.0mm Optical Adaptors						
		AT80D/FF-IV106	AT120D/NF-IV106	AT120D/FF-IV106	AT120S/NF-IV106	AT120S/FF-IV106	AT90D/90D-IV106	AT70S/70S-IV106
Optical system	Field of view	80°	120°	120°	120°	120°	90°/90°	70°/70°
	Direction of view	Forward	Forward	Forward	Side	Side	Forward	Side
	Depth of field*1	23.4mm to inf	6.1 to 267mm	20.3mm to inf	2.7 to 9mm	10.3mm to inf	5.6 to 208mm	4.1 to 259mm
Distal end	Outer diameter*2	φ6.0mm	φ6.0mm	φ6.0mm	φ6.0mm	φ6.0mm	φ6.0mm	φ6.0mm
	Distal end*3	20.8mm	20.9mm	20.5mm	21.6mm	21.6mm	22.7mm	26.7mm

		φ6.0mm Swoptix 3D Measurement		φ6.0mm Swoptix Multiview			
		AT120DDNF-IV106	AT100SSNF-IV106	AT110DN/F-IV106		AT100D/S-IV106	
Optical system	Field of view	120°	100°	110°		100°	
	Direction of view	Forward	Side	Forward		Forward	Side
	Depth of field*1	5.6 to 69mm	5.0mm to inf	3.8 to 25mm	17.3mm to inf	7.5mm to inf	6.8mm to inf
Distal end	Outer diameter*2	φ6.0mm	φ6.0mm	φ6.0mm		φ6.0mm	
	Distal end*3	21.6mm	25.0mm	20.6mm		22.3mm	

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

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)
	Tablet	In air: -21 °C to 49°C (-5.8 °F to 120.2 °F) (with Li-ion battery)
		In air: 0 °C to 40 °C (32 °F to 104 °F) (with AC power adaptor)
	System	In air: -21 °C to 49°C (-5.8 °F to 120.2 °F) (with Li-ion battery)
		In air: 0 °C to 40 °C (32 °F to 104 °F) (with AC power adaptor)
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 under water with viewing tip adaptor attached Not operable underwater with stereo measurement tip adaptors IV104 series: Up to an equivalent to 3.5m (11.6 ft) deep IV106 series: Up to an equivalent to 10.0m (33.0 ft) deep
	Other parts	IP65* *It does not apply when the protective covers on the system are open.

MIL-STD Compliance

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

Type	Method
Low atmosphere	MIL-STD-810H, Method 500.6 Procedure I
High temperature	MIL-STD-810H, Method 501.7 Procedure I
Cold temperature	MIL-STD-810H, Method 502.7 Procedure I
Rain and Blowing rain	MIL-STD-810H, Method 506.6 Procedure I
Humidity	MIL-STD-810H, Method 507.6
Salt Fog/Corrosive Environments	MIL-STD-810H, Method 509.8
Blowing dust	MIL-STD-810H, Method 510.7 Procedure I
Explosive Atmosphere	MIL-STD-810H, Method 511.7 Procedure I
Vibration	MIL-STD-810H, Method 514.8 Procedure I
Shock	MIL-STD-810H, Method 516.8 Procedure IV
Icing/Freezing Rain	MIL-STD-810H, Method 521.4
Conducted Susceptibility, Power Leads	MIL-STD-461G, CS101 (System)
Conducted Susceptibility, Bulk Cable Injection	MIL-STD-461G, CS114 (System)
Conducted Susceptibility, Bulk Cable Injection, Impuls	MIL-STD-461G, CS115 (System)
Conducted Susceptibility, Damped Sinusoidal Transients, Cables and Power Leads	MIL-STD-461G, CS116 (System)
Conducted Susceptibility, Personnel Borne Electrostatic Discharge (ESD)	MIL-STD-461G, CS118 (System and Wireless Remote)
Radiated emission Magnetic Field	MIL-STD-461G, RE101 (System and Wireless Remote)
Radiated emission Electric Field	MIL-STD-461G, RE102 Above Deck (System and Wireless Remote)
Radiated susceptibility Magnetic Field	MIL-STD-461G, RS101 (System and Wireless Remote)
Electromagnetic Interference (EMI)	MIL-STD-461G, RS103 Above Deck (System and Wireless Remote)

IPLEX™ One Videoscope Solution

A Smarter, Faster Approach to Visual Inspection

Ready to unleash the power of one platform built for every inspector and every environment?

EVIDENT

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