

INDUSTRIAL

Better Imaging in Small Spaces

IPLEX™ TX II Videoscope



EVIDENT

The ultra-thin IPLEX™ TX II videoscope is available with a 2.2 mm diameter flexible scope or a 1.8 mm rigid scope. Using the flexible scope, you can obtain a wide field of view in spaces where the opening is very small for faster inspections and easier decision making. Combining high image quality and user comfort, the IPLEX TX II videoscope enables efficient inspection of castings, molds, and other parts with small cavities.



Repeatable Results

The IPLEX TX II videoscope offers easier insertion to help you reach your target faster as well as improved image quality that supports your decision making.

See More

With a 120-degree field of view, you can observe a wide area at once. This helps make inspections faster as you can see more in each image. The wide field of view is combined with a high-pixel CMOS sensor that provides excellent image quality.



IPLEX TX (predecessor)



IPLEX TX II

To enable you to see well in both narrow and large spaces, the videoscope has bright illumination as well as image adjustment methods, like image tuning and halation reduction to create clear, low-noise images that enable confident decision making. The scene mode enables you to create two image setting configurations and then seamlessly switch between them during the inspection by pressing a button.

Inspect in Smaller Spaces

The 2.2 mm flexible scope enables you to access very small openings. Compared to the original IPLEX TX, the IPLEX TX II insertion tube has a 2 mm shorter rigid distal end and improved hardness and articulation control, making it easier to maneuver in small spaces. The insertion tube's articulating section has a tungsten outer braid for added protection, while its shortened length helps keep it from getting stuck.

During an inspection, water and other liquids can obscure the surface of some complex parts, complicating the inspection. The IPLEX TX II rigid scope's air injector can be used to blow a puff of air on the liquid droplets to move them out of the way so that you can obtain a clear image.*

*The protection sleeve is required to use the air injector.



Stay Comfortable During Long Inspections

With an ultra-lightweight design, the IPLEX TX II videoscope's rigid scope weighs about as much as a ballpoint pen, so there's less strain on your wrists when holding it for long periods of time. The grip can be extended so that you can grasp it close to the insertion point for finer control.

The images from the scope are displayed on a tablet, saving you from having to bend down and physically look through the scope while you're working. Instead, you can position the tablet where it's comfortable so that you can remain in an upright position while you work.



Durable and Flexible

The flexible insertion tube's articulation section uses a curved mechanism rather than rivets, greatly improving the overall durability. Designed to reduce the change of damage when passing through a small opening, the flexible tube balances durability and mobility, so you can more easily navigate to your inspection area.

For applications that require a rigid scope, this option is available for more flexibility. Using the rigid scope, you can acquire high-quality images and pass through openings as small as 1.8 mm.

Unlike borescopes that use lenses inside a tube to transmit an image to an ocular, the IPLEX TX II rigid scope has a CMOS imaging sensor on the lens tip. If the tube is slightly damaged, the sensor will still transmit an image to the screen.



Flexible scope unit



Rigid scope unit

IPLEX™ TX II Videoscope Specifications

Scope Unit			
Model No.		Flexible scope unit: IV10212TF	
Weight		255 g (0.56 lb.)	
Insertion Tube	Scope diameter	φ2.2 mm	
	Scope length	1.2 m (3.9 ft.)	
	Distal end length	7.85 mm (0.31 in.)	
	Exterior	High durability resin tube with special processing	
	Tube flexibility	Uniform stiffness	
Optical System	Direction of view	Forward	
	Field of view	120°	
	Depth of field*	3 - 80 mm	
Articulation Section	Articulation angle	135° (up/down)	-
	Articulation mechanics	Direct manipulation	-
Control Unit			
Model No.		IV10200T	
Weight		350 g (0.77 lb.)	
Dimensions (L x Φ)		172 x 52 mm (6.77 x 2 in.)	
Illumination		High-intensity white LED	
Power Supply		USB power supply	
USB Connector		Type C connector, Version 2.0 standards	
Operation Unit			
Model No.		IV10-OPERATION	
Weight		2.1kg	
Dimensions (W x H x D)		300 mm x 230 mm x 49 mm (11.8 in. x 9.1 in. x 1.9 in.) (protruding parts not included)	
LCD Monitor		10.1-inch WUXGA (1920 x 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 x3	
Power Supply		100 V to 240 V, 50/60 Hz (with supplied AC adaptor), 10.8V (with supplied battery)	
Recording Media		Internal SSD (256 GB) or USB flash memory	
Title Text Options		51-character display	
Wi-Fi		2.4GHz (802.11 b/g/n/ax) x 2ch (Built in operation unit)	
Bluetooth®		Bluetooth® 5.2 x 1	
Software Functions - IPLEX One App			
Image Manipulations		2x digital zoom, 12-step manual, or 8-step auto brightness control	
Gain Control		2-step adjustable gain control (manual or auto)	
Sharpness Control		3-step adjustable sharpness control	
Saturation Control		3-mode adjustable color saturation (monotone, natural, vivid)	
Overlay		51 character title, Zoom, Bright, Light date/time, Scene, Logo, Scope serial	
Still Image Recording	Resolution	H512 x V512 (Pixel) (when Print Screen is on, resolution becomes H1280 x V800)	
	Recording format	Compressed JPEG format, PNG format	
Video Recording	Resolution	H392 x V392 (Pixel) (when Print Screen is on, resolution becomes H1280 x V800)	
	Recording format	MPEG4 AVC/H.264 (.MP4 file)	
	Frame rate	30	
Plan		Displays the folder tree and lists thumbnails within the folders	
File		Copy, rename, delete, add mark, add title for file Create, copy, rename, delete for folder USB and internal flash storage Inspection data synchronization with Evident Connect using WiFi	
Operating Environment			
Operating Temperature	Insertion tube	In air: -25 to 80 °C (-13 to 176 °F), In water: 10 to 30 °C (50 to 86 °F)	
	Other parts	In air: -10 to 40 °C	
Relative Humidity	All parts	15 to 90% (Relative Humidity)	
Liquid Resistance	All parts	Operable when exposed to machine oil, light oil, or 5% saline solution.	
Waterproofing	Insertion tube	Operable underwater up to a water pressure equivalent to a depth of 1.2 m.	
	Other parts	Operable in blowing rain conditions; not operable under water.	

Accessories	
Protection Braid for IV10212TF	
Model No.	MAJ-2537
Weight	5.6 g (0.01 lb.)
Outer Diameter	φ2.8 mm (0.1 in.)
Braid Length	Approx. 1 m (3.3 ft.)
Protection Sleeve for IV10212TR	
Model No.	MAJ-2538
Weight	2.85 g (6.3 lb.)
Outer Diameter	φ2.3 mm (0.09 in.)
Sleeve Length	160 mm (0.5 ft.)
Air Tube Outer Diameter	4 mm
Maximum Air Pressure	0.7 Mpa
Grip Extender for IV10212TR	
Model No.	MAJ-2540
Weight	53 g (0.12 lb.) (total of three)
Dimensions (L x φ)	30 x 14 mm (1.2 x 0.6 in.) 48 x 14 mm (1.9 x 0.6 in.)
Protection Box	
Model No.	MAJ-2536
Dimensions (W x H x D)	400 x 300 x 150 mm (15.7 x 5.9 x 11.8 in.) (excluding protrusion)
Weight	2.85 kg (6.3 lb.)
Waterproofing	IP52 dustproof and splashproof
Carrying Case	
Dimensions (W x H x D)	455 x 185 x 330 mm (17.9 x 7.3 x 13 in.) (excluding protrusion)
Weight	2.1 kg (5 lb.)

*Indicates the viewing distance with optimal focus

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