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 smaller 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. Metal braiding was added to the articulation section for additional protection from crushing and wear resistance. Designed to reduce the chance 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**	**Rigid scope unit: IV10212TR**
Weight		255 g (0.56 lb)	182 g (0.4 lb)
Insertion tube	Scope diameter	Φ2.2 mm	Φ1.8 mm
	Scope length	1.2 m (3.9 ft)	180 mm (0.59 ft)
	Distal end length*1	7.85 mm (0.31 in.)	-
	Exterior	High durability metal braid with special processed resin	-
	Tube flexibility	Uniform stiffness	-
Optical system	Direction of view	Forward	
	Field of view	120°	
	Depth of field*2	3–80 mm	
Articulation Section	Articulation angle	120° (up/down)	-
	Articulation mechanics	Direct manipulation	-

Control Unit

Model No.	**IV10200T**
Weight	350 g (0.77 lb)
Dimensions (L x Φ)	172 × 52 mm (6.77 × 2 in.)
Illumination	High-intensity white LED
Power supply	USB power supply
USB connector	Type C connector, Version 2.0 standards

Software Functions

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		Date/Time, logo, and system setting
Still image recording	Resolution	H500 × V500 (pixels)
	Recording format	Compressed JPEG format
Video recording	Resolution	H392 × V392 (pixels)
	Recording format	MPEG-4 AVC/H.264
	Frame rate	30 fps

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 (14 to 104 °F)
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 Box

Model No.	MAJ-2536
Dimensions (W × H × D)	400 × 300 × 150 mm (15.7 × 5.9 × 11.8 in.) (excluding protrusion)
Weight	2.2 kg (4.85 lb)
Waterproofing	IP52 dustproof and splashproof

Protection Sleeve for IV10212TR

Model No.	MAJ-2538
Weight	32 g (0.07 lb)
Outer diameter	Φ2.3 mm (0.09 in.)
Sleeve length	162 mm (0.5 ft)
Air tube outer diameter	Φ4 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 × 14 mm (1.2 × 0.6 in.) 48 × 14 mm (1.9 × 0.6 in.)

Carrying Case

Dimensions (W × H × D)	455 x 185 x 330 mm (17.9 × 7.3 × 13 in.) (excluding protrusion)
Weight	2.1 kg (5 lb)

*1 Indicates the length of the rigid portion at the scope's distal end.
*2. Indicates the viewing distance with optimal focus.

EVIDENT

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