

Support

IPLEX FX

Discontinued Products

Specifications

SCOPE UNIT			
Moel No.	IV86120*1	IV86180*1	IV8635X1
Scope diameter	φ6.0 mm (0.236 in.)		φ6.2 mm (0.244 in.)
Scope length	12.0 m (39.4 ft)	18.0 m (59.1 ft)	3.5 m (11.5 ft) with working channel
Exterior	High durability tungsten braid		
Tube flexibility	Uniformed stiffness		Tapered Flex™ tube with flexibility gradually increasing toward the distal end.
Articulation angle UP/DOWN/RIGHT/LEFT	70°	50°	120°
Approx. weight	2.6 kg (5.7 lb)	3.1 kg (6.8 lb)	1.9 kg (4.2 lb)
Articulation mechanics	TrueFeel™ scope tip articulation with electronic power-assisted, manual articulation		
Temperature sensor	2-stage indicator for high temperature warning		
Illumination	Multiple ultra-high intensity LEDs, 2-stage setting for extra-bright illumination		
Optical Tip Adaptor Identification	SmartTip™ automatic recognition technology		
Optical Tip Adaptor Locking Mechanism	Double threaded attachment with O-ring seal		
Handheld control unit	Dimensions	311 mm x 93 mm x 192 mm	365 mm x 93 mm x 192 mm
	Weight	Approx. 750 g	



	Quick access buttons	The following features have dedicated quick access buttons, levers or joysticks on the hand control unit: Live mode, WiDER™ Gain Control, Brightness, Zoom, Freeze Image, Record Still/Video, Articulation Control, Articulation Lock, Menu Access, Saved Recording Index Access, Quick Last Image Recall.
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*1. Built-to-order

BASE UNIT		
Model No.		V8000-2
Dimensions (W x D x H)		250 mm x 160 mm x 285 mm (9.8 in x 6.3 in x 11.2 in)
Approx. weight (with battery)		4.9 kg (10.8 lb)
LCD monitor		6.5-inch daylight-view LCD, anti-reflective type
Power supply		Internal battery: 14.8 V nominal, 150-minute operating time AC power: 100 V to 240 V, 50/60 Hz (with supplied AC adaptor)
Hardware connectors	Video output	S-Video, Composite BNC
	Audio input	External microphone, 3.5 mm mono jack
	Auxiliary connector	Two-way communication connector
	USB	One USB connector
Software controls	Image controls	3X digital zoom, 9 step digital brightness control, 5 step contrast adjustment for frozen and retrieved images
	Adjustable gain control	4 step adjustable gain control with exclusive WiDER™ brightness level balancing technology.
	Exposure control	Adjustable CCD exposure time. PAL: 20 ms to 500 ms, NTSC: 17 ms to 500 ms
	Colour enhancement	Monochrome mode or Colour Emphasis of red, blue or all primary colours
Recording management	Recording media	Compact Flash card (1 GB standard, compatible with recommended Compact Flash cards up to 4 GB). USB Flash Drive recommended.
	Internal memory	1 GB standard
	Image management functions	Search by date, Live/Saved image comparison
	Overlay	30-character title with date, time and system settings. ImageNotepad™ allows up to 10 descriptions to be added to an image, displayed by categories and contents.



	thumbnail image display	Recorded images can be displayed as thumbnails.
	Still image recording	Resolution (pixel) -- NTSC: 640 x 480, PAL: 768 x 576
		Recording format -- JPEG: Super high quality, high quality, standard quality, TIFF: Uncompressed (for Stereo Tip Adaptors only)
	Video recording	Resolution (pixel) -- NTSC: 320 x 240/640 x 480, PAL: 384 x 288/768 x 576
		Recording format -- AVI format, Motion JPEG compression, Windows Media Player compatible
	Audio recording	Recording format -- WAV format, 60 sec max.
Stereo measurement	Distance	Distance between two points.
	Point-to-Line	Perpendicular distance between a point and a user-defined line.
	Depth	Orthogonal depth/height distance between a point and a user-defined plane.
	Area/Lines	Multiple point circumference and area measurement
	Profile	Plot of cross section between two points
	Multi	Multiple measurements (distance, point-to-line, area and line) between two points
	Offset	Point-to-Line measurement with a parallel line passing on a measurement point
Scaler measurement		Distance between two points based on a known measurement in the same plane.

OPERATING ENVIRONMENT

Operating temperature	Insertion tube	In air: -25 to 100°C (-13°F to 212°F) In water: 10 to 30°C (50°F to 86°F)
	Other parts	In air: -21 to 49°C (-5.8°F to 120°F)
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.*1 Not operable underwater with stereo measurement tip adaptors. Water pressure resistance: IV84 series: Up to an equivalent to 3.5 m in depth IV86 series: Up to an equivalent to 7.5 m in depth
	Other parts	Operable in blowing rain conditions (Battery compartment must be closed). Not operable underwater.

*1 Excluding IV8675X1



MIL-STD COMPLIANCE

The operating environment performance is confirmed by the following MIL-STD-810F/G and MIL-STD-461F under battery operation.

Type	Method
Vibration	MIL-STD-810F, Method 514.5, Procedure I
Shock (Drop)	MIL-STD-810G, Method 516.5, Procedure IV
Rain and Blowing Rain	MIL-STD-810F, Method 506.4, Procedure I
Humidity	MIL-STD-810F, Method 507.
Salt Fog	MIL-STD-810F, Method 509.4.
Blowing Dust	MIL-STD-810G, Method 510.4, Procedure I
Icing/Freezing Rain	MIL-STD-810F, Method 521.2.
Electromagnetic interference (EMI)	MIL-STD-461F, RS-103, (Radiated susceptibility test for non-metallic below deck shipboard conditions).
Explosive atmosphere ^{*1}	MIL-STD-810F, Method 511.4, Procedure I

*1. IPLEX FX is not explosion-proof.

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*1. The adaptor can be inserted into a $\phi 4.0$ mm, $\phi 6.0$ mm or $\phi 6.2$ mm hole when it is mounted on the scope.

*2. Indicates the length of the rigid portion at the scope's distal end when mounted.

OPTICAL TIP ADAPTOR VARIATION

		Optical system			Distal end	
		Field view of	Direction of view	Depth of field	Outer diameter*1	Distal end*2
6.0 mm Viewing Tip Adaptors	AT40D-IV86	40°	Forward	200 to ∞ mm	ø6,0 mm	19,8 mm
	AT80D/NF-IV86	80°		8 to ∞ mm		
	AT80D/FF-IV86			35 to ∞ mm		
	AT120D/NF-IV86	120°		4 to 190 mm		
	AT120D/FF-IV86			25 to ∞ mm		
	AT80S-IV86	80°	Side	18 to ∞ mm		25,2 mm
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	AT120S/NF-IV86	120°		1 to 25 mm		
	AT120S/FF-IV86			5 to ∞ mm		
4.0 mm Viewing Tip Adaptors	AT120D/NF-IV84	120°	Forward	4 to 190 mm	φ4,0 mm	19,7 mm
	AT120D/FF-IV84			25 to ∞ mm		19,6 mm
	AT120S/NF-IV84		Side	1 to 20 mm		22,2 mm
	AT120S/FF-IV84			6 to ∞ mm		
6.2 mm Viewing Tip Adaptors	AT120D/NF-IV86X1	120°	Forward	4 to 190 mm	φ6,2 mm	20,6 mm
	AT120D/FF-IV86X1			25 to ∞ mm		20,5 mm
	AT80S-IV86X1	80°	Side	18 to ∞ mm		24,7 mm
	AT120S-IV86X1	120°		6 to ∞ mm		
Stereo Tip Adaptors (4.0 mm, 6.0 mm and 6.2 mm)	AT50D/50D-IV84	50°/50°	Forward/Forward	5 to ∞ mm	φ4,0 mm	25,0 mm
	AT50S/50S-IV84		Side/Side	4 to ∞ mm		28,8 mm
	AT60D/60D-IV86	60°/60°	Forward/Forward	5 to ∞ mm	φ6,0 mm	25,9 mm
	AT60S/60S-IV86		Side/Side	4 to ∞ mm		32,2 mm
	AT60D/60D-IV86X1		Forward/Forward	5 to ∞ mm	φ6,2 mm	25,9 mm
	AT60S/60S-IV86X1		Side/Side	4 to ∞ mm		32,9 mm

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