



Industrial Solutions

Support

IPLEX RX/ IPLEX RT

Request a Demo

Overview

Specifications

SCOPE VARIATION							
IPLEX RX Model No.	IV9420RX	IV9435RX	IV9620RX	IV9635RX	IV9650RX	IV9675RX	4549 IV9610
IPLEX RT Model No.	IV9420RT	IV9435RT	IV9620RT	IV9635RT	IV9650RT	IV9675RT	4549 IV9610
Scope diameter	φ4.0 mm (0.157 in.)		φ6.0 mm (0.236 in)				
Scope length	2.0 m (6.6 ft)	3.5 m (11.5 ft)	2.0 m (6.6 ft)	3.5 m (11.5 ft)	5.0 m (16.4 ft)	7.5 m (24.6 ft)	10.0 m ft'
Exterior	High durability tungsten braid						
Tube flexibility	Uniformed stiffness		Tough Tapered Flex™ tube with flexibility gradually increase toward the distal end.				
Articulation angle UP/DOWN/RIGHT/LEFT	130°	130°	150°	130°	120°	100°	*2
Approx. System weight (with battery)	2.9 kg (6.4 lb)	3.0 kg (6.6 lb)	3.1 kg (6.8 lb)	3.2 kg (7.1 lb)	3.3 kg (7.3 lb)	3.5 kg (7.7 lb)	3.7 kg lb

	IPLEX RX	IPLEX RT
INSERTION TUBE		
Articulation mechanics	Improved TrueFeel™ scope tip articulation with electronic power-assisted,	

	manual articulation	
Temperature sensor	2-stage indicator for high temperature warning.	N/A
Illumination	Ultra-high intensity LED illumination	
Optical tip adaptor locking mechanism	Double Threaded Attachment, with O-ring seal	
HANDHELD CONTROL UNIT		
Dimensions (W x D x H)	365 x 93 x 192 mm (14.4 x 3.7 x 7.6 in.)	
Weight	Approx. 1.0 kg	
Quick access button:	The following features have dedicated quick access buttons, levers or joysticks on the hand control unit: Scope articulation control, Image controls, Record still/video, Menu access	
MAIN UNIT		
Dimensions (W x D x H)	227 x 64 x 189 mm (8.9 in. x 2.5 in. x 7.4 in.) Maximum Demensions: 239 x 99 x 215 mm (9.4 in. x 3.9 in. x 8.5 in.)	
LCD monitor	6.5 in. daylight-view LCD, anti-reflective type	
Power supply	Battery: 10.8 V nominal, approx. 120-minute operating time. AC power: 100 V to 240 V, 50/60 Hz (with supplied AC adaptor)	
Video output standard	VGA	
USB connector	Type A connector, Version 2.0 standards	
SOFTWARE MANIPULATIONS		
Image manipulations	5X digital zoom, 10 step digital brightness control	
Gain control	3 step adjustable gain control with exclusive WiDER™ brightness level balancing technology.	N/A
Sharpness control	4 step adjustable sharpness control	N/A
Saturation control	3 step adjustable control of color saturation	N/A
Display text options	30-character title display	

RECORDING MANAGEMENT FUNCTIONS	
Recording media	USB flash memory (1GB standard, compatible with recommended USB flash device)
Overlay	Selectable 30 character title with date, time and system setting
Thumbnail image display	Recorded images can be displayed as thumbnails
Still image recording	Resolution -- H768 x V576 (Pixel)
	Recording Format -- Compressed JPEG format
	Size of a Single Image -- Approx. 300 KB (Approx. 3,400 images per 1 GB memory)
Video recording	Resolution -- H640 x V480 (Pixel)
	Recording Format -- AVI MPEG-4 format, Can be played on the Windows Media Player.
	Size of a Single Image -- Approx. 500 KB per second (Approx. 30 min. per 1 GB memory)

STEREO MEASUREMENT FUNCTIONS — Optional function for IPLEX RX*

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 circumstance and area measurement.

*Stereo Measurement functions are available by upgrading the IPLEX RX except IV98200RX.

OPERATING ENVIRONMENT		
Operating Temperature	Insertion Tube	In air: -25 ° to 100 °C (-13 ° to 212 °F) IPLEX RX -25 ° to 80 °C (-13 ° to 176 °F) IPLEX RT
		In water: 10 ° to 30 °C (50 ° to 86 °F)
	Other parts than above	In air: -10 °C to 40 °C (14 °F to 104 °F) with battery 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	Water pressure resistance: IV94 series -- Up to an equivalent to 3.5 m (11.5 ft) in depth IV96 series -- Up to an equivalent to 7.5 m (24.6 ft) in depth IV98 series -- Up to an equivalent to 20.0 m (65.6 ft) in depth
	Other parts than above	Operable in blowing rain conditions (Battery compartment must be closed). Not operable underwater.

MIL-STD COMPLIANCE

The operating environment performance is confirmed by the following MIL-STD-810G and MIL-STD-461F (excluding IV96100RX and IV96100RT).

No warranty is given as to damage-free under any conditions. Please ask Olympus sales representative for details.

Type	Method
Vibration	MIL-STD-810G, Method 514.6, Procedure I (General vibration test)
Shock	MIL-STD-810G, Method 516.6, Procedure IV (Transit drop test)
Water Resistance	MIL-STD-810G Method 506.5, Procedure I (Rain and Blowing rain test)
Humidity	MIL-STD-810G, Method 507.5
Salt Fog	MIL-STD-810G, Method 509.5
Sand and Dust	MIL-STD-810G, Method 510.5, Procedure I (Blowing dust test)
Icing/Freezing Rain	MIL-STD-810G, Method 521.3
Electromagnetic Interference (EMI) ^{*4}	MIL-STD-461F, RS103, (Radiated susceptibility test for non-metallic above deck shipboard conditions)
Explosive Atmosphere	MIL-STD-810G, Method 511.5, Procedure I (Operation in an explosive atmosphere test)

*1. Built-to-order

*2. 60 degree as reference value

*3. 70 degree as reference value

*4. Excluding IV9650RX/ IV9650RT/ IV9675RX and IV9675RT

Tip Adapter Optical Specifications									
OPTICAL TIP ADAPTOR VARIATION									
		6.0 mm Viewing Tip Adaptors							
		AT40D-IV96	AT80D/NF-IV96	AT80D/FF-IV96	AT120D/NF-IV96	AT120D/FF-IV96	AT220D-IV76 ^{*4 *5} ^{*6}	AT120D/FF-IV96	
Optical system	Field of view	40 °	80 °		120 °		220 °	150 °	
	Direction of view	Forward							
	Depth of field ^{*1}	200 to ∞ mm	9 to ∞ mm	35 to ∞ mm	2 to 200 mm	19 to ∞ mm	3 ~ 100 mm ^{*7}	150 mm	
Distal end	Outer diameter ^{*2}	ø6.0 mm					ø8.4 mm		
	Distal end ^{*3}	18.4 mm	18.9 mm	18.8 mm	18.9 mm	18.8 mm	21.1 mm		
		4.0 mm Viewing Tip Adaptors					Oil Clearing Tip		
		AT80D/FF-IV94	AT120D/NF-IV94	AT120D/FF-IV94	AT100S/NF-IV94	AT100S/FF-IV94	AT120D/NF-IV94R-W	AT120D/FF-IV94	
Optical system	Field of view	80 °	120 °		100 °		120 °	150 °	
	Direction of view	Forward			Side		Forward	Forward	
	Depth of field ^{*1}	35 to ∞ mm	2 to 200 mm	17 to ∞ mm	2 to 15 mm	8 to ∞ mm	2 ~ 200 mm	50 mm	
Distal end	Outer diameter ^{*2}	ø4.0 mm							

	Distal end ^{*3}	19.0 mm			21.7 mm		19.0 mm	24.	
		8.5 mm Viewing Tip Adaptors							
		AT120D/FF-IV98	AT80D/FF-IV88	AT120D/NF-IV88	AT120S/NF-IV88	AT120S/FF-IV88			
Optical system	Field of view	120 °	80 °	120 °					
	Direction of view	Forward			Side				
	Depth of field ^{*1}	25 to ∞ mm	35 to ∞ mm	35 to ∞ mm	1 to 25 mm	5 to ∞ mm			
Distal end	Outer diameter ^{*2}	ø8.5 mm							
	Distal end length ^{*3}	19.0 mm	22.9 mm	22.9 mm	29.5 mm	29.5 mm			

*1. Indicates the viewing distance with optimal focus.

*2. The adaptor can be inserted into a ø4.0 mm, ø6.0 mm and ø8.5 mm hole when it is mounted on the scope.

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

*4. This adapter has a lens protruding. Please handle with care so as not to scratch the lens by force insertion.

*5. These adaptors do not support scaler measurement.

*6. This adapter has protrusions for lens protection. Therefore, protrusions may appear in the vertical direction of the screen, however it is not a malfunction.

*7. This adapter is suitable for pipe inspection up to ø50 mm diameter.



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