

# OLYMPUS®

Your Vision, Our Future

Industrial Videoscope

## IPLEX Long Scope Solution

# IPLEX



# IPLEX Long Scopes ensure efficient and accurate long pipe inspections

As a world-renowned manufacturer of industrial endoscopes with a vast experience in providing innovative inspection solutions, Olympus offers various videoscopes for long pipe inspections.



## Inspection Examples

### Objects

Heat exchangers, boilers, reactors, tanks, pressure vessels, process piping

### Inspections

Corrosion, erosion, scaling, clogging, residues, cracks, welding conditions



Welded Pipe



Weld of a Heat Exchanger Tube



Corroded Pipe



Corroded Pipe



Stainless Steel Ball Valve

## Benefits of IPLEX Long Scopes

- Wide Range of Long Scopes available up to 30 m long to cover diverse applications
- Bright and high quality images revealing small defects in deep, dark areas
- Specially-processed insertion tubes achieving excellent durability and maneuverability
- Portable design suitable for field inspections
- Rain, dust, and physical shock-proof systems to provide reliable inspections even in harsh environments\*
- Stereo Measurement capability increasing inspection reliability

\*Excluding IPLEX YS



Portable Design (IPLEX RX)

# Product Lineup for IPLEX Long Scopes

## IPLEX FX

This high-end industrial videoscope system combines portability with advanced functionality, and ease of use with durability. The interchangeable scopes cover various inspection applications with a single IPLEX.



## IPLEX RX/IPLEX RT

Featuring unsurpassed image quality yet user-friendly, and boasting a portable design. Ideal for inspectors who require uncompromised and precise inspections.



## IPLEX LX/IPLEX LT

The 8.5 mm outer diameter scope is suitable for large space inspections, featuring excellent brightness and scope insertion capability.



## IPLEX YS

The extra-long 30 m scope is equipped with various innovative technologies, being optimized for extra-long pipe inspections.



# IPLEX Long Scope Comparison Chart

### COMPARISON OF MAIN SPECIFICATIONS

	IPLEX FX				IPLEX RX/RT				IPLEX LX/LT				IPLEX YS	
Dimensions of main/base unit <sup>1</sup> (WxDxH)	216 x 126 x 249 mm (8.5 x 5.0 x 9.8 in.)				227 x 64 x 189 mm (8.9 x 2.5 x 7.4 in.)				227 x 64 x 189 mm (8.9 x 2.5 x 7.4 in.)				472 x 380 x 522 mm (18.6 x 15 x 20.5 in.)	
Model No.	IV8650	IV8675	IV86120 <sup>2</sup>	IV86180 <sup>2</sup>	IV9650RX	IV9650RT	IV9675RX	IV9675RT	IV88100L1	IV88100L2	IV88200L1 <sup>2</sup>	IV88200L2 <sup>2</sup>	IV88300Y <sup>2</sup>	
Approx. system weight	6.9 kg <sup>3</sup> (15.2 lb)	7.1 kg <sup>3</sup> (15.7 lb)	7.5 kg <sup>3</sup> (17.2 lb)	8.0 kg <sup>3</sup> (17.6 lb)	3.3 kg <sup>3</sup> (7.3 lb)	3.3 kg <sup>3</sup> (7.3 lb)	3.5 kg <sup>3</sup> (7.7 lb)	3.5 kg <sup>3</sup> (7.7 lb)	3.9 kg <sup>3</sup> (9.0 lb)	3.9 kg <sup>3</sup> (9.0 lb)	5.2 kg <sup>3</sup> (11.5 lb)	5.2 kg <sup>3</sup> (11.5 lb)	26.0 kg (57.3 lb)	
Outer diameter	6 mm (0.236 in.)				6 mm (0.236 in.)				8.5 mm (0.334 in.)				8.5 mm (0.334 in.)	
Scope length	5 m (16.4 ft)	7.5 m (26.4 ft)	12 m (39.4 ft)	18 m (59.1 ft)	5 m (16.4 ft)	7.5 m (26.4 ft)	7.5 m (26.4 ft)	7.5 m (26.4 ft)	10 m (32.8 ft)	10 m (32.8 ft)	20 m (65.6 ft)	20 m (65.6 ft)	30 m (98.4 ft)	
Brightness comparison <sup>4</sup> / Appropriate observation area	Normal mode													
	Small area	Small area	Small area	Small area	Middle-Large area	Middle-Large area	Middle-Large area	Middle-Large area	Middle-Large area	Middle-Large area	Middle-Large area	Middle-Large area	Middle-Large area	Middle-Large area
	Hi-Beam mode													
	Middle area	Middle area	Middle area	Middle area	-	-	-	-	Large area	-	Large area	-	-	
Articulation angle (UP/ DOWN/ RIGHT/ LEFT)	110°	90°	70°	50°	120°	120°	100°	100°	115°	115°	70°	70°	60°	
Scope insertion performance	-	-	-	-	-	-	-	-	The stiffer insertion tube can reach 3x deeper areas. <sup>4</sup>					
Operating temperatures of Insertion tube	-25 to 100 °C (-13 °F to 212 °F)				-25 to 100 °C (-13 to 212 °F)	-25 to 80 °C (-13 to 176 °F)	-25 to 100 °C (-13 to 212 °F)	-25 to 80 °C (-13 to 176 °F)	-25 to 80 °C (-13 to 176 °F)				-25 to 100 °C (-13 to 212 °F)	
Insertion tube durability	Abrasion/Crush-proof insertion tube													
Waterproof performance of Insertion tube	Water-proof													

<sup>1</sup> Excluding protrusions <sup>2</sup> Built-to-order <sup>3</sup> With battery <sup>4</sup> Internal comparison test with a φ6 mm videoscope

# IPLEX Long Scope Comparison Chart

## FUNCTIONAL COMPARISON

Category	Function	IPLEX FX	IPLEX RX	IPLEX RT	IPLEX LX	IPLEX LT	IPLEX YS	
Operability	Scope tip articulation	Articulation mechanics					TrueFeel™ electronic power-assisted system	
	6.5 in. daylight-view LCD monitor	Low-reflection display, the daylight-view monitor reproduces clear, vivid images even under the brightest sunlight.					Pneumatic pressure	
	Battery operation	150 minutes	120 minutes	120 minutes	100 minutes	100 minutes	120 minutes	
	Interchangeable optical adaptor	A comprehensive range of optical adaptors for optimal magnification and direction is available.						
	Interchangeable scope unit	Scopes of different lengths are available with one base unit by changing the scope units.						
Recording management	Still image recording	JPEG/TIFF	JPEG	JPEG	JPEG	JPEG	JPEG/TIFF	
	Movie recording	AVI M-JPEG	AVI MPEG4	AVI MPEG4	AVI MPEG4	AVI MPEG4	AVI M-JPEG	
	Audio recording	WAV (Max. 60 sec.)						
	Image title entry	IPLEX FX/ YS - In addition to 30-character title, up to 10 descriptions can be put into images. IPLEX RX/ RT/ LX/ LT - Up to 30 characters						
	Thumbnail image display	Recorded images can be displayed as thumbnails.						
	USB terminal							
Brightness/ Image quality	High-intensity illumination	LED	LED	LED	LED	LED	Laser diode	
	Hi-Beam mode							
	Long time exposure							
	WiDER™ (Wide Dynamic Extended Range)	The unique image processing capability which brings out detail in shadowed and highlighted areas to produce bright, contrast-balanced images across the entire depth of field.						
	Color adjustment	3 step adjustable control of color saturation						
	Sharpness adjustment	4 step adjustable sharpness control						
Advanced functionality	Basic stereo measurement		■ <sup>1</sup>		■ <sup>1</sup>			
	Advanced stereo measurement							
	Image comparison							
	Internal Memory	1GB						
	Air Articulation	Enables to unroll only the length which is needed for the inspection and manipulate scope articulation with the compact palmheld controller.						
	Gravity sensor	Indicates gravity directions of the scope tip.						
	Inserted scope length detection <sup>2</sup>	Displays the scope length inserted into an object on the screen.						
	Lens cleaning function	Removes fine drip and dust on the scope tip by blowing air.						
Environment resistance	Physical shock-proof	■ <sup>3</sup>	■ <sup>3</sup>	■ <sup>3</sup>	■ <sup>3</sup>	■ <sup>3</sup>		
	Drip-proof/ Dust-proof	■ <sup>4</sup>	■ <sup>4</sup>	■ <sup>4</sup>	■ <sup>4</sup>	■ <sup>4</sup>		
	Temperature sensor							

<sup>1</sup> System upgrade is required to activate the stereo measurement function.

<sup>2</sup> The optional length indicator is required.

<sup>3</sup> Excluding the LCD monitor of the IPLEX FX. Complies with MIL-STD 810G ( United States Defense Standards), Method 516.5.

<sup>4</sup> Complies with IP55 (A degree of protection defined by the International Electrotechnical Commission [IEC], which indicates the ability of a device to withstand the ingress of dust or water.)



The IPLEX YS industrial videoscope is equipped with laser illumination.

OLYMPUS CORPORATION is ISO 9001 and ISO 14001 certified

\*All specifications are subject to change without notice.

This product is designed for use in industrial environments for the EMC performance. Using it in a residential environment may affect other equipment in the environment.

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