

XL Flex and XL Flex+ VideoProbes

Shed light on your inspections.



The XL Flex and XL Flex+ VideoProbes provide unmatched image quality and powerful light output to boost probability of detection (POD) and speed up workflow. Rugged durability lowers your maintenance costs. Stereo measurement lets you evaluate defects in depth. And expert support from Waygate Technologies gives you peace of mind. All in a lightweight, portable, and easy-to-use device. Now featuring 16GB of memory and an upgraded 5" LCD screen on the XL Flex+.

Get accurate results, fast.

Complete efficient, precise inspections with unmatched image quality, plus a 5" LCD screen on the XL Flex+.

Believe it when you see it.

Reduce eyestrain with powerful light output and a 3X brighter display in the XL Flex+.

Cut down on costs.

Lower your maintenance spending with durability you can trust, even in the harshest inspection environments.

Evaluate defects in depth.

Stereo measurement provides accurate analysis as you work.

Stay flexible.

At just 4.3 lbs., the device is lightweight and portable, with a wheeled carry-on case for easy transport.

Learn quickly.

The intuitive interface includes Menu Directed Inspection (MDI) 2.0, an application to guide users through inspections and organize results for simpler reporting.

Experience true peace of mind.

Get readily available assistance from Waygate Technologies experts, wherever you are.

Now with a 5" LCD screen for clear-cut inspections.

The new XL Flex+ display is 85% larger and 3X brighter, with crystal clear image quality unmatched in the industry. Paired with advanced optics and powerful light output, that means sharper images right on your device. Because when you can see clearly, you improve POD, speed up your workflow, and deliver results with confidence.



Technical specifications

Operating environment

Tip operating temp:	-25°C to 100°C (-13°F to 212°F) Reduced articulation below 0°C (32°F)
System operating temp:	-20°C to 46°C (-4°F to 115°F) LCD requires warm-up period below 0°C (32°F)
Storage temperature:	-25°C to 60°C (-13°F to 140°F)
Relative humidity:	95% max, non-condensing
Waterproof:	Insertion tube and tip to 14.7 psi (1 bar, 10.2 m of H ₂ O, 33.5 ft of H ₂ O)
Environmental:	XL Flex: Tested to IP55 XL Flex+: Tested to IP65

System

Wheeled case:	54.9 x 34.6 x 23.6cm (21.61 x 13.62 x 29)
System weight:	In case: XL Flex: 6.50 kg (14.30 lb) XL Flex+: 8.39 kg (18.5 lb) Without case: XL Flex: 1.73 kg (3.8 lb) XL Flex+: 1.98 kg (4.37 lb)
Power (Lithium Ion battery)	8.4 V, 38 Wh (2 hour) 8.4 V, 75 Wh (4 hour)
Power supply:	AC Input: 100-240 VAC, 50-60 Hz, 1.5 A Max DC Output: 9.5 V, 6.0 A
Construction:	Polycarbonate housings with integrated Versalon™(JP) bumpers
Dimensions:	9.53 x 13.34 x 34.29 cm (3.75 x 5.25 x 13.50 in)
LCD monitor:	XL Flex: Integrated transfective 9.40 cm (3.70 in) active matrix VGA color LCD with XpertBright, 640 x 480 resolution XL Flex+: Integrated 12.7 cm (5.0) active matrix VGA color LCD, Transmissive display.
Joystick control:	360° All-Way tip articulation with XpertSteer, bump gesture, menu access and navigation
Button set:	Access user functions, measurement and digital functions
Audio:	Integrated 2.5 mm headset/microphone jack
Internal memory:	XL Flex: 4 GB Flash memory XL Flex+: 16 GB Flash memory
Data I/O ports:	Two USB® 2.0 ports
Video port:	VGA Video Out
Brightness control:	Auto and Variable
Illumination type:	White LED
Long exposure:	Via auto and manual mode
White balance:	Factory default or user defined

Standards compliance and classifications

MIL-STD-810G	Tested to United States Department of Defense Environment Tests Sections 506.5, 507.5, 509.5, 510.5, 511.5, 514.6, 516.6, 521.3
MIL-STD-461F	XL Flex: Tested to United States Department of Defense Electromagnetic Interference RS103 - ABOVE DECK XL Flex+: Available upon request
Standards compliance	Group 1, Class A: EN61326-1 UL, IEC, EN CSA-C22.2:61010-1 UN/DOT T1-T8
IP rating	XL Flex: Tested to IP55 XL Flex+: Tested to IP65

Camera

4.0 mm (0.157 in) diameter probes

Image sensor:	1/10 inch Color SUPER HAD CCD camera
Pixel count:	290,000 pixels
Housing:	Titanium

6.1 mm (0.242 in) and 8.4 mm (0.331 in) diameter probes

Image sensor:	1/6 inch Color SUPER HAD™ CCD camera
Pixel count:	440,000 pixels
Housing:	Titanium

Software

Operating system:	Real-time multi-tasking operating system
User interface:	Simple drop-down menu-driven operation Menu navigation using articulation joystick
File manager:	Embedded file manager software supporting: File & Folder creation, naming, deleting Store to internal Flash (C:\) or USB ThumbDrive Copy between USB and C:\
Measurements:	StereoProbe and Comparison
MDI software (optional):	Provides user defined guided inspection Creates DICONDE compatible inspection files Creates MS Word® compatible inspection reports
Audio data:	PC compatible (.AAC) file format
Image control:	Invert, Zoom (5X digital) Image Capture and Recall
Digital zoom:	Continuous (5.0X)
Image formats:	Bitmap (.BMP), JPEG (.JPG)
Video format:	MPEG 4
Text annotation:	Built-in full screen text overlay generator Supports international language character sets 100 text line capacity
Graphic annotation:	User placement of arrows
Articulation control:	"Steer & Stay" articulation lock/fine articulation Tip "Home" return to neutral forward-tip orientation Userselectable fine or coarse control XpertSteer probe articulation offers quick steering responsiveness for tight probe control - bump steering enables slight adjustments to probe position
Software updates:	Field updateable via USB ThumbDrive
Languages:	English, Spanish, French, German, Italian, Russian, Japanese, Korean, Portuguese, Chinese, Polish

Insertion tube length and diameter options

Camera diameter	Insertion tube working length						
4.0 mm (0.157 in)	2.0 m (6.6 ft)	3.0 m (9.8 ft)					
6.1 mm (0.242 in)	2.0 m (6.6 ft)	3.0 m (9.8 ft)	3.5 m (11.48 ft)	4.5 m (14.7 ft)	6.0 m (19.7 ft)	8.0 m (26.2 ft)	
8.4 mm (0.331 in)	2.0 m (6.6 ft)	3.0 m (9.8 ft)	4.5 m (14.8 ft)	6.0 m (19.7 ft)	8.0 m (26.2 ft)		10.0 m (32.8 ft)

Tip articulation

Insertion tube length	Straight tube
2.0, 3.0 or 4.5 m	Up/down – 160° min, Left/right – 160° min
6.0 m	Up/down – 140° min, Left/right – 140° min
10.0 m	Up/down – 120° min, Left/right – 120° min

Note: Typical articulation exceeds minimum specifications

Tip optics

Tip view (DOV)	Tip color	Field of view (FOV) ⁽¹⁾	Depth of field (DOF)	4.0 mm optical tip part #	6.1 mm optical tip part #	8.4 mm optical tip part #
Standard tips						
FORWARD	NONE	☒	80°	35 mm–infinity (1.38 in–infinity)	T4080FF	
FORWARD	BLACK	●	115°	4 mm–infinity (0.16 in–infinity)	T40115FN	
FORWARD	NONE	☒	50°	50 mm–infinity (1.97 in–infinity)		XLG3T6150FF ⁽²⁾
FORWARD	WHITE	○	50°	12–200 mm (0.47–7.87 in)		XLG3T6150FG
FORWARD	ORANGE	●	80°	3–20 mm (0.12–0.79 in)		XLG3T6180FN
FORWARD	YELLOW	●	90°	20 mm–infinity (0.79 in–infinity)		XLG3T6190FF
FORWARD	BLACK	●	120°	5–120 mm (0.20–4.72 in)		XLG3T61120FG
FORWARD OBLIQUE	PURPLE	●	50°	12–80 mm (0.47–3.15 in)		XLG3T6150FB
FORWARD	BLACK	●	120°	5–200 mm (0.20–7.87 in)		XLG3T84120FN
FORWARD	NONE	☒	40°	250 mm–infinity (9.84 in–infinity)		XLG3T8440FF ⁽²⁾
FORWARD	WHITE	○	40°	80–500 mm (3.15–19.68 in)		XLG3T8440FG
FORWARD	YELLOW	●	80°	25–500 mm (0.98–19.68 in)		XLG3T8480FG
FORWARD	GRAY	●	120°	20–infinity (0.79 in–infinity)		T61120FF
SIDE	BLUE	●	120°	6 mm–infinity (0.24 in–infinity)	T40120SF	
SIDE	RED	●	115°	1–30 mm (0.04–0.18 in)	T40115SN	
SIDE	BROWN	●	50°	45 mm–infinity (1.77 in–infinity)		XLG3T6150SF
SIDE	GREEN	●	50°	9–160 mm (0.35–6.30 in)		XLG3T6150SG
SIDE	BLUE	●	120°	4–100 mm (0.16–3.94 in)		XLG3T61120SG
SIDE	RED	●	80°	1–20 mm (0.04–0.79 in)		XLG3T6180SN
SIDE	BROWN	●	40°	250 mm–infinity (9.84 in–infinity)		XLG3T8440SF ⁽²⁾
SIDE	GREEN	●	80°	25–500 mm (0.98–19.68 in)		XLG3T8480SG
SIDE	BLUE	●	120°	4–200 mm (0.16–7.87 in)		XLG3T84120SN
Stereoprobe measurement tips						
FORWARD	BLACK	●	55°/55°	5 mm–infinity (0.2 in–infinity)	TM405555FG	
FORWARD	BLACK	●	60°/60°	4–80 mm (0.16–3.15 in)		XLG3TM616060FG
FORWARD	BLACK	●	60°/60°	4–50 mm (0.16–1.97 in)		XLG3TM846060FG
SIDE	BLUE	●	55°/55°	4 mm–infinity (0.16 in–infinity)	TM405555SG	
SIDE	BLUE	●	50°/50°	2–50 mm (0.08–1.97 in)		XLG3TM615050SG
SIDE	BLUE	●	60°/60°	4–50 mm (0.16–1.97 in)		XLG3TM846060SG

⁽¹⁾FOV is specified diagonally.

⁽²⁾Indicates tips with maximum brightness.

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