

# 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 Baker Hughes 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 GE 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.



Integrated insertion tube storage reel

# **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 H2 O, 33.5 ft of H2 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 transflective 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 (0.3	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)	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 Tip color (DOV)			Field of view Depth of field (FOV)(1) (DOF)		4.0 mm optical tip part #	6.1 mm optical tip part #	8.4 mm optical tip part #				
Standard tips											
FORWARD	NONE	$\boxtimes$	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 <sup>(2)</sup>				
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	$\boxtimes$	40°	250 mm-infinity	(9.84 in-infinity)			XLG3T8440FF <sup>(2)</sup>			
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"-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 <sup>(2)</sup>			
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 n	neasuremer	it 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.



<sup>(2)</sup>Indicates tips with maximum brightness.