

**INTECH NDE**

Inspection Solutions



**Waygate  
Technologies**

a Baker Hughes business

# XL Detect and XL Detect+ VideoProbes

Expect better inspections.



With the XL Detect and XL Detect+ VideoProbes, it's all in the details. Improve accuracy and speed up workflow with crisp image quality, plus an upgraded 5" LCD screen on the XL Detect+. Lower your maintenance costs with rugged durability. And get expert support from Baker Hughes anywhere, anytime. All in a lightweight, portable, and easy-to-use device. The high-end capabilities you need—without the high price.

**Be confident in your results.**

Complete fast, precise inspections with superior image quality, plus a 5" LCD screen and 3X brighter display on the XL Detect+.

**Cut down on costs.**

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

**Stay flexible.**

At just 4.3 lbs., the device is lightweight and portable, featuring a rugged carrying case with integrated insertion tube storage reel.

**Learn quickly.**

The intuitive interface includes Menu Directed Inspection (MDI) 1.1, an application to guide users through inspections and organize results for simpler reporting

**Experience true peace of mind.**

Get readily available assistance from Baker Hughes experts, wherever you are.

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

The new XL Detect+ display is 85% larger, with crystal clear image quality unmatched in the industry. That means a simpler interface, less eyestrain on long inspections, and more accurate 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

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

## System

<b>Case dimensions:</b>	48.8 x 38.6 x 18.5 cm (19.2 x 15.2 x 17.3 in)
<b>System weight:</b>	<b>In case:</b> XL Detect: 6.50 kg (14.30 lb) XL Detect+: 6.74 kg (14.87 lb) <b>Without case:</b> XL Detect: 1.73 kg (3.80 lb) XL Detect+: 1.98 kg (4.37 lb)
<b>Power (Lithium Ion battery)</b>	8.4 V, 38 Wh (2 hour) 8.4 V, 75 Wh (4 hour)
<b>Power supply:</b>	AC input: 100-240 VAC, 50-60 Hz, 1.5 A Max DC output: 9.5 V, 6.0 A
<b>Construction:</b>	Polycarbonate housings with integrated Versalon™ (JP) bumpers
<b>Dimensions:</b>	9.53 x 13.34 x 34.29 cm (3.75 x 5.25 x 13.50 in)
<b>LCD monitor:</b>	XL Detect: Integrated transfective 9.40 cm (3.70 in) active matrix VGA color LCD with XpertBright, 640 x 480 resolution  XL Detect+: Integrated 12.7 cm (5.0) active matrix  VGA color LCD, transmissive display.
<b>Joystick control:</b>	360 All-Way Tip articulation, menu access and navigation
<b>Button set:</b>	Access user functions, measurement and digital functions
<b>Audio:</b>	Integrated 2.5 mm headset/microphone jack
<b>Internal memory:</b>	XL Detect: 1GB Flash memory XL Detect+: 4 GB Flash memory
<b>Data I/O ports:</b>	One USB® 2.0 port
<b>Video port:</b>	VGA Video Out
<b>Brightness control:</b>	Auto and variable
<b>Illumination type:</b>	White LED
<b>Long exposure:</b>	Via auto and manual mode
<b>White balance:</b>	Factory default or user defined

## Standards compliance and classifications

<b>MIL-STD-810G</b>	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
<b>MIL-STD-461F</b>	XL Detect: Tested to United States Department of Defense Electromagnetic Interference RS103 - ABOVE DECK
<b>Standards Compliance</b>	Group 1 Class A: EN61326-1 UL, IEC, EN CSA-C22.2:61010-1 UN/DOT T1-T8
<b>IP Rating</b>	XL Detect: Tested to IP55 XL Detect+: Tested to IP65

## Camera

### 4.0 mm (0.157 in) diameter probes

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

### 6.1 mm (0.242 in) and 8.4 mm (0.331 in) Diameter Probes

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

## Software

<b>Operating system:</b>	Real-time multi-tasking operating system
<b>User interface:</b>	Simple drop-down menu-driven operation Menu navigation using articulation joystick
<b>File manager:</b>	Embedded file manager software supporting: File & Folder creation, naming, deleting Store to internal Flash (C:\) or USB ThumbDrive Copy between USB and C:\
<b>MDI software (optional):</b>	Provides user defined guided inspection Creates DICONDE compatible inspection files Creates MS Word® compatible inspection reports
<b>Audio data:</b>	PC compatible (.AAC) file format
<b>Image control:</b>	Invert, Zoom (5X digital) Image Capture and Recall
<b>Digital zoom:</b>	Continuous (5.0X)
<b>Image formats:</b>	Bitmap (.BMP), JPEG (.JPG)
<b>Video format:</b>	MPEG 4
<b>Text annotation:</b>	Built-in full screen text overlay generator Supports international language character sets 100 text line capacity
<b>Graphic annotation:</b>	User placement of arrows
<b>Articulation control:</b>	“Steer & Stay” articulation lock/fine articulation Tip “Home” return to neutral forward-tip orientation
<b>Software updates:</b>	Field updateable via USB ThumbDrive
<b>Languages:</b>	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)	4.5 m (14.8 ft)	6.0 m (19.7 ft)			
8.4 mm (0.331 in)		3.0 m (9.8 ft)					10.0 m (32.8 ft)

## Tip articulation

Insertion tube length	Straight tube
2.0, 3.0 or 4.5 m	Up/down – 140° min, Left/right – 140° min
6.0 m	Up/down – 120° min, Left/right – 120° min
10.0 m	Up/down – 100° min, Left/right – 100° min

Note: Typical articulation exceeds minimum specifications

## Tip optics

Tip view (DOV)	Tip color	Field of view (FOV) <sup>(1)</sup>	Depth of field (DOF)		4.0 mm optical tip part #	6.1 mm optical tip part #	8.4 mm optical tip part #
<b>Standard tips</b>							
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 <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 ☒	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)			XLG3T84120S

For more information on any of these products please visit

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