

Teledyne FLIR



FLIR CONDITION MONITORING PRODUCTS

FLIR VS80 SERIES HIGH PERFORMANCE VIDEOSCOPE NEW PRODUCT INTRODUCTION

MAY 2022

VIDEOSCOPE MARKET INFORMATION

- \$3B USD Industrial Videoscope market value in 2020
- 13% CAGR, \$7B in 2027
- Videoscopes range in price from <\$100 to > \$25,000

Widely-used tool in many industries:

- Aerospace
- Power Generation
- Automotive
- Metals
- Pulp & Paper
- Manufacturing
- Pipelines
- Plant Maintenance
- Building Inspection
- Research & Development
- Reliability Consultants
- Specialty Service Providers
- NDT Services
- Law Enforcement/ Search & Rescue



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VS80 VIDEOSCOPE APPLICATION OVERVIEW



- The FLIR VS80 is an industrial videoscope designed to help professionals quickly and safely find hidden dangers in difficult-to-access locations.
- VS80 enables users to catch degrading equipment before catastrophic failure. This results in lower maintenance costs, lower capital costs of replacement, higher productivity and improved safety.
- Videoscopes are used in industries to inspect large gearboxes or motors and other equipment that is difficult to access and inspect with a standard camera.
- Videoscopes are used in automotive inspections to look for carbon deposits and signs of wear on engine components.
- Videoscopes are used in building inspections to look for HVAC and pipe blockages, signs of rodents, mold, or moisture, and generally to see what is going on in difficult to access locations.

INDUSTRIAL PROFESSIONALS

- I need to inspect hard to reach components without disassembling to improve plant safety and reliability
- I inspect gearboxes, production machinery and other mechanical equipment in my plant
- I need high quality **visual** imagery to identify signs of wear over time
- I need high quality visual images and videos for documentation and reporting



BUILDING TRADES

- I need to inspect difficult to access areas like attics, crawl spaces and inside wall cavities
- I need to inspect inside HVAC equipment or plumbing
- I need high quality **visual** imagery to accurately identify what is happening
- I need high quality visual images and videos for documentation and reporting because I value the quality of reports I provide my clients



Building Inspectors



HVAC Technician



Plumber



Restoration Contractors

CONDITION MONITORING / NDT TECH

- Industrial Equipment - hard to inspect or unsafe to inspect locations
 - Large gearboxes, large motors, machinery, aircraft, heat exchangers
- Catch degrading equipment prior to failure
- Reduce maintenance costs, lower capital cost of replacement, reduce downtime
- Improve productivity
- Improve plant and inspector Safety
- Saves cost and time to disassemble equipment in order to inspect
- Some product features that will resonate more for this market
- Several Interchangeable probe options to perform any inspection job
 - Standard definition & HD forward facing probes
 - Dual HD probe provides simultaneous HD front and side views
 - 2 way and 4-way standard definition Articulating probes
 - Thermal camera probe
 - 25 m spool probe for plumbing and heat exchanger inspection
- Ability to compare reference image on-screen with live simultaneous video feed to make better decisions about the condition of the equipment
- Highly detailed close-up imagery with 10 mm to infinity DOF for all 6 visible camera probes
- Ruggedness
- Ultra sharp image quality
- Recording capabilities
- Range of different probes to do any job



Manufacturing - Maintenance Manager / Reliability Specialist / NDT Technician

Oil & Gas - Maintenance Manager / Reliability Specialist

High End Consultants - Reliability Consultant / Wind Turbine Inspector

BUILDING / HVAC INSPECTOR

- Enables easy inspection of difficult to access areas such as attics, crawl spaces, wall cavities, air ducts, plumbing pipes, etc, without need to create large holes or disassemble
- Some product features that will resonate more for this market
 - 7 Interchangeable probe options to perform any inspection job
 - Standard definition & HD forward facing probes
 - Dual HD probe provides simultaneous HD quality front and side views
 - 2-way and 4-way standard definition Articulating probes
 - Plumbing probe
 - Thermal camera probe
 - Ruggedness
 - High image quality
 - Recording capabilities
 - Best value price point



Building inspector, Indoor Air quality inspector, HVAC, Home Inspector, Plumber

AUTOMOTIVE TECHNICIAN

- Catch degrading vehicle components prior to failure
- Improve technician productivity
- Improve vehicle reliability
- Saves cost and time to disassemble equipment in order to inspect
- Some product features that will resonate more for this market
 - Probes are interchangeable
 - Ability to compare reference image on-screen with live simultaneous video feed to make better decisions about the condition of the equipment
 - Dual HD probe provides simultaneous HD quality front and side views
 - Articulating probes
 - Thermal camera probe (VS80 product gives this user the advantage of one tool for both thermal and normal videoscope functionality, plus thermal is now able to get into difficult to reach areas)
 - Ruggedness
 - High image quality
 - Recording capabilities



VS80 VALUE PROPOSITION

INSPECTIONS MADE SAFER AND EASIER

The VS80 is the most versatile and powerful videoscope in its class. It is designed for professionals who need a reliable tool capable of virtually any job.

- The FLIR VS80 High Performance Videoscope is an affordable, professional inspection tool for equipment maintenance, HVAC/R, and other applications requiring inspection in difficult to access or unsafe to access locations.
- The VS80 is designed to perform almost any videoscope inspection so professionals can get virtually any job done.
- Features include:
 - Best-in-class camera and screen resolution / size for sharp imagery
 - Best-in-class 7 different probe options, including thermal camera, 2- and 4-way articulating visual probes to perform the widest range of inspections
 - Best-in-class 10 mm to infinity visual probe depth of field
 - Unique Live reference image comparison to make historical or standard image comparisons easier
 - Text & Voice annotation for easier reporting



VS80 KEY DIFFERENTIATED FEATURES

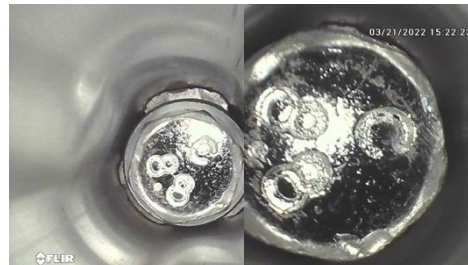
7 POWERFUL CAMERA PROBE OPTIONS

- 7 interchangeable camera probes to take care of any job
 - General Purpose
 - 2-way & 4-way Articulating
 - HD / Dual HD
 - Thermal 160x120 general purpose
 - Pipe/plumbing with spool



SIMULTANEOUS REFERENCE IMAGE

- Reference image can be displayed simultaneously with the live videoscope imagery
- Reference images allow the professional user to compare what they are seeing to a standard image or to see if a component has changed since last inspected
- Improves decision making for higher quality reports



FIELD DOCUMENTATION CAPABILITY IN CAMERA

- Field annotation of images to eliminate guesswork during reporting
 - Text
 - Audio voice recording
 - Time stamp display
 - Images & Videos



UNIQUE THERMAL CAMERA PROBE

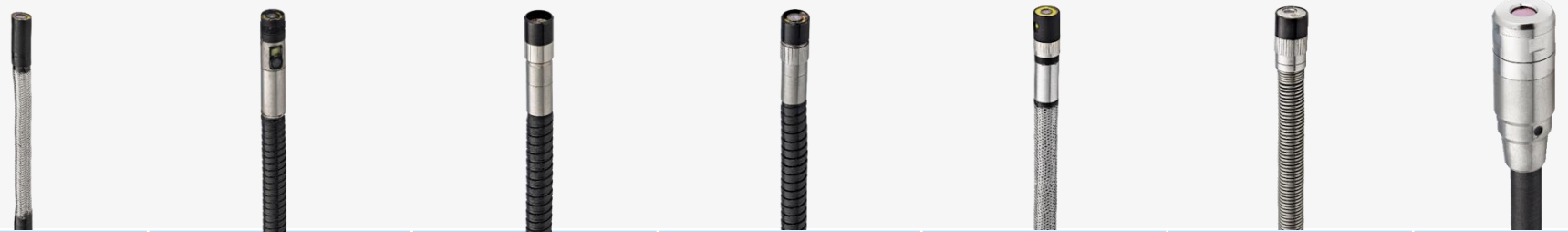
- VS80 is the only common videoscope style product with an available thermal camera probe
- Used to inspect attics, crawl spaces, inside walls, inside industrial gearboxes and other mechanical equipment
- Probe specifications are identical to the VS290 IR-21 general purpose thermal camera probe
 - Forward facing, 160x120 general purpose
 - Thermal only, no visual/MSX
 - Non-CAT Rated – **NOT** for insertion into electrical equipment
 - 19 mm diameter
 - Same tools – color palettes, center spot, Area Hot/Cold, Auto or Manual Level/Span, Object Parameter adjustment
 - Captures standard JPEG, not RJPEG like VS290



VS80 PROBE OPTIONS

	PROBE	PART NUMBER
	VS80 IR Thermal Probe 19mm x 1m long	VS80CIR-21
	VS80 4-way articulating probe 6.0mm x 2m long	VS80A4-60-2RM
	VS80 2-way articulating probe 4.5mm x 1m long	VS80A2-45-1RM
	VS80 Dual HD Camera Probe 4.9mm x 1m long	VS80C2-49-1RM
	VS80 Camera Probe 5.5mm x 1m long	VS80C55-1RM
	VS80 HD Probe 5.5mm x 1m long	VS80CHD-55-1RM
	VS80 Plumbing Probe 10mm x 25m long	VS80C10-25RM

VS80 CAMERA PROBE SPECS



FLIR Item No.	VS80A2-45-1RM	VS80C2-49-1RM	VS80C55-1RM	VS80CHD-55-1RM	VS80A4-60-2RM	VS80C10-25RM	VS80CIR-21
Probe diameter	3.9 mm	4.9 mm	5.5 mm	5.5 mm	6.0 mm	10 mm	10.4 mm
Scope diameter	4.5 mm	4.9 mm	5.5 mm	5.5 mm	6.0 mm	10 mm	19 mm
Scope length	14 mm	21.3 mm	20 mm	20 mm	23.5 mm	16.74 mm	53.7mm
Articulating Probe	2 ways 180°	N/A	N/A	N/A	4 ways 110°	N/A	N/A
Exterior	Stainless Steel Mesh	Semi-rigid	Semi-rigid	Semi-rigid	Stainless Steel Mesh	FRP	Semi-rigid
Available Length (m)	1 m	1 m	1 m	1 m	2 m	25 m	1 m
Depth of Field (DOF)	1cm to infinity	1cm to infinity	1cm to infinity	1cm to infinity	1cm to infinity	1cm to infinity	15 cm to infinity
Field of View (FOV)	90°	90°	90°	90°	87.1°	87.1°	71°
Side-view solution	N/A	Side-view camera	N/A	N/A	Mirror adapter	Mirror adapter	N/A
Camera Resolution	640(H)*480(V)	1280(H)*720(V)	640(H)*480(V)	1280(H)*720(V)	640(H)*480(V)	640(H)*480(V)	160(H)*120(V)
Waterproof Probes	IP67 - Protected from immersion in water with a depth of up to 1 meter (or 3.2 ft) for up to 30 mins						
LED Illumination (Front/Side)	5	F : 5 S : 1	F : 4 S : 2	F : 4 S : 2	F : 3 S : 2	F : 1 S : 1	N/A
White Balance	Controllable						
Working temperature	-10° to 60° C (14° to 140° F)						
Exposure	Automatic						

VS80 KIT & CAMERA PROBE PRICING

PART NUMBER	Long Description [max 70 characters]	US \$ MSRP	EUR € MSRP	GBP £ MSRP	CAD MSRP	MEA \$ MSRP
VS80	VS80 Videoscope Screen (No Probes)	\$1,899.00	€ 1,649.00	£1,499.00	\$2,420.00	\$1,899.00
VS80-KIT-1	General Purpose Videoscope Kit with 5.5mm x 1m long probe	\$2,299.00	€ 1,999.00	£1,849.00	\$2,930.00	\$2,299.00
VS80-KIT-2	Videoscope Kit with 2-Way Articulating 4.5mm x 1m long probe	\$3,599.00	€ 3,149.00	£2,899.00	\$4,585.00	\$3,599.00
VS80-KIT-3	Videoscope Kit with Dual HD Camera 4.9mm x 1m long probe	\$3,099.00	€ 2,749.00	£2,499.00	\$3,950.00	\$3,099.00
VS80-KIT-4	Videoscope Kit with 4-Way Articulating 6.0mm x 2m long probe	\$6,099.00	€ 5,349.00	£4,899.00	\$7,770.00	\$6,099.00
VS80-KIT-5	Videoscope Kit with Plumbing Spool and 10mm x 25m long probe	\$6,099.00	€ 5,349.00	£4,899.00	\$7,770.00	\$6,099.00
VS80-KIT-6	Videoscope Kit with HD 5.5mm x 1m long probe	\$2,599.00	€ 2,299.00	£2,099.00	\$3,310.00	\$2,599.00
VS80-IR21	Videoscope Kit with IR Thermal 19mm x 1m long probe	\$2,599.00	€ 2,299.00	£2,099.00	\$3,310.00	\$2,599.00
CAMERA PROBE OPTIONS						
VS80CIR-21	VS80 IR Thermal Probe 19mm x 1m long	\$999.00	€ 899.00	£799.00	\$1,275.00	\$999.00
VS80C55-1RM	VS80 Camera Probe 5.5mm x 1m long	\$699.00	€ 599.00	£549.00	\$890.00	\$699.00
VS80A2-45-1RM	VS80 2-way articulating probe 4.5mm x 1m long	\$1,999.00	€ 1,749.00	£1,599.00	\$2,545.00	\$1,999.00
VS80A4-60-2RM	VS80 4-way articulating probe 6.0mm x 2m long	\$4,499.00	€ 3,949.00	£3,599.00	\$5,730.00	\$4,499.00
VS80C10-25RM	VS80 Plumbing Spool and probe 10mm x 25m long	\$4,499.00	€ 3,949.00	£3,599.00	\$5,730.00	\$4,499.00
VS80CHD-55-1RM	VS80 HD Probe 5.5mm x 1m long	\$999.00	€ 899.00	£799.00	\$1,275.00	\$999.00
VS80C2-49-1RM	VS80 Dual HD Camera Probe 4.9mm x 1m long	\$1,499.00	€ 1,299.00	£1,199.00	\$1,910.00	\$1,499.00

Pricing subject to change – consult latest price list

WHAT'S IN THE BOX? KIT CONTENTS



7 Kit Options Containing:

- Metal Shipping/Carrying case
- VS80 High Performance Videoscope Display
- Neck Strap
- Hand Straps
- Audio Headset
- Videoscope Probe
- Removable / Retractable Sun Visor
- Power Adapter with universal plugs
- Printed documentation
- 32 GB SD Memory Card
- USB C to USB A cable
- Micro HDMI to HDMI video cable
- Getting Started Documents

Optional Probes:



User Manual – download from
flir.custhelp.com in several languages

FLIR / EXTECH VIDEOSCOPE RELATIVE POSITIONING

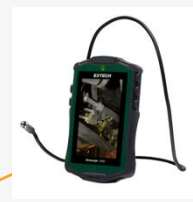
MSRP



Functionality



Extech BR90
4.3"
640 x 480
8 mm Dia x 77 cm Probe
\$130



FLIR VS70
5.7"
Wired Video Output
2-way articulating
Kits \$4K-\$8K



Extech HDV600
5.7"
Wired Video Output
2-way articulating
Kits \$2K-\$6K



VS80
7" Touchscreen
HD & 640x480
2- & 4-way articulating
Thermal Probe
Front & Side View probes
Wireless & Wired Video Output
Kits \$2.3K -\$6.1K

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PROPRIETARY INFORMATION – TELEDYNE FLIR CHANNEL PARTNERS ONLY

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PRODUCT LINE POSITIONING - VS80 / VS70 / VS290

FEATURE	FLIR VS80	FLIR VS70	FLIR VS290
Approximate Price (\$USD)	Dual HD kit MSRP \$2999	Standard Kit \$4299	Standard Kit \$4499
Display Size (diagonal)	7 inch	5.7 inch	3.5 inch
Display IP Rating	IP54	IP67	IP56
Display Resolution	1024x600	640x480	320x240
Battery Life	8-10 hours	6-8 hr	> 5 hr
Data Capture Modes	JPEG, Video, Photo Notes, Voice Comment	JPEG, Video, Voice Comment	RJPEG
2nd Video Screen Capable	Yes, HDMI	Yes, A/V output	No
Live Reference Image Comparison	Yes	No	No
Wireless Mobile App Compatibility	FLIR Tools Mobile	No	No
Text Image Annotation	Yes – Photo Notes	No	No
Voice Annotation	Yes - headset included	Yes - headset included	No
Data Transfer	USB, Micro SD, Wireless	USB	USB
Instant Cloud Upload	No * as of Jan 2022	No	No
CAMERA PROBES			
# of probe options	7	11	3
HD Camera Resolution	1280x720	N/A	N/A
General Purpose Probe Options	Yes - Standard & HD	Yes	N/A
Dual View Probe Options	Yes - HD	Yes - Standard	N/A
2 Way Articulating Probe Options	Yes - SD	Yes - Standard	N/A
4 Way Articulating Probe Options	Yes - SD	No	N/A
Pipe Inspection Probe Options	Yes - 25 m	Yes - 20 to 30 m	N/A
UV Inspection Probe Options	No	No	N/A
Non-Thermal probe FOV	90 Deg typical	56 Deg typical	N/A
General Purpose Thermal Camera	Yes - 160x120 General Purpose	No	Yes - 160x120 General Purpose
CAT IV Thermal Probes	No	No	Yes
Smallest Probe Diameter (mm)	4.5 mm	3.9 mm	N/A
Probe Typical Depth of Field	10 mm to infinity Macro to infinity DOF visual probes	Separate Macro and Infinite DOF probes	10 cm to infinity
Production	In Production	Discontinued Q2 2022	In Production

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* Ignite connection to Tools Mobile in development as of launch date

WHICH DO I SELL – VS290 OR VS80?



	VS290	VS80
Description	VS290 is a thermography camera at the end of a long cable	VS80 is a high performance “videoscope” that happens to have a thermal probe as one of 7 probe options
Primary Markets	Electrical Utilities in Cities	Manufacturing / Building
Primary Use Case	Underground Vault Inspection for heat	Maintenance & NDT Inspection for wear
Key Product Feature	<ul style="list-style-type: none"> • Two CAT IV 600V Rated Thermal Camera Probes (Round + Rectangular) to get through manhole cover openings • RJPEG image with MSX 	<ul style="list-style-type: none"> • 6 Small Diameter Visual Camera Specialty Probes + 1 General Purpose Thermal Camera Probe

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VS80 MARKETING PLAN

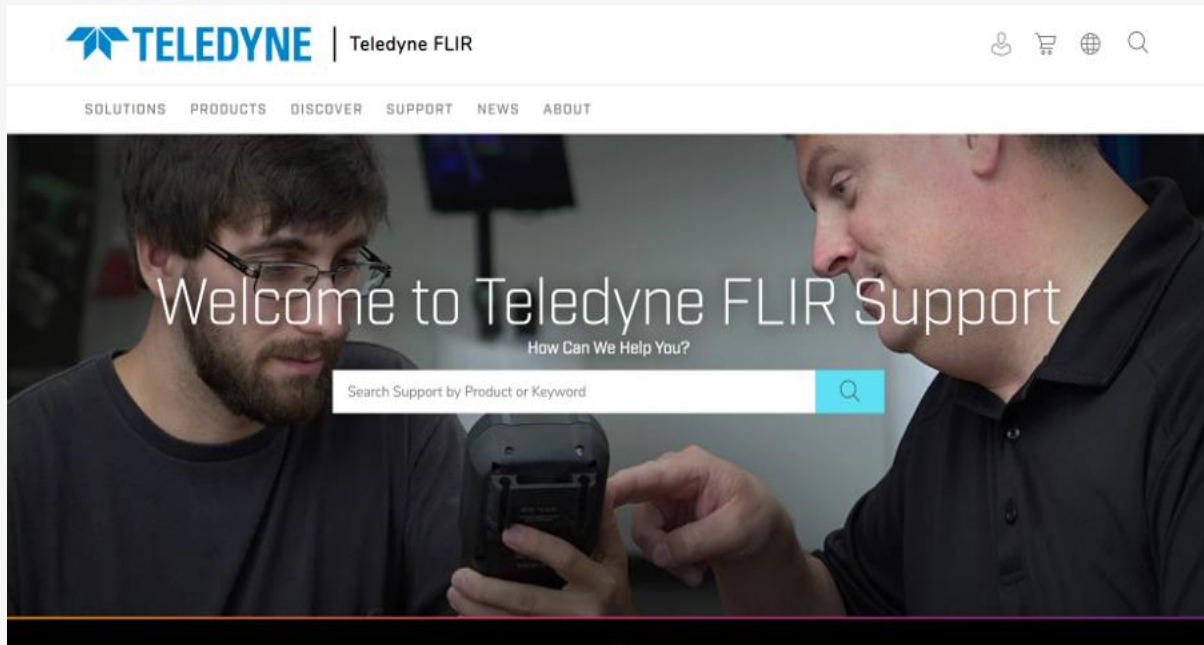


- Provision of materials via BigTinCan to sales teams and channel partners for self-promotion
- Editable HTML in a variety of languages including:
 - English
 - French
 - Spanish
 - Portuguese
- Web Banners in various sizes in the same languages
- NPI Sales/Channel Partner decks
- Product Web Page / Product Datasheet



VS80 SUPPORT

Teledyne FLIR



- VS80 Support will be available at [FLIR Support Center | Teledyne FLIR](#)
- In addition to support, your customers will have the opportunity to register their VS80 product at [Teledyne Flir \(b2clogin.com\)](#)
- Information about support and previous orders [FLIR Online Store | FAQs](#)

WHERE TO GET INFO

- ONE FLIR Launch Page: [Industrial Technologies Announcements](#)
 - Includes PM, BD, Marketing assigned contact, special communication, links and more...
- Bigtincan Master Intelligence Template
 - Summary of all product lines including markets, personas, key selling points and more
- Bigtincan Product Matrix
 - Includes links to images, banners, brochures, datasheets, quick start guide, upload sheet and more...
- Bigtincan Competitive Matrix
 - Master Competitive Matrix includes VS80 and FLIR Thermography Cameras
- VS80 Specification on FLIR.CUSTHELP.COM – Official: Includes CE declaration, MSDS, test reports, links to accessories, and more...
- VS80 Operators Manual on FLIR.CUSTHELP.COM

SUMMARY

FLIR VS80 HIGH PERFORMANCE VIDEOSCOPE



Videoscopes market approaches \$3B annually and covers several industries including industrial maintenance/NDT, building inspection and automotive inspection



The FLIR VS80 can be used for almost any videoscope application to improve inspection speed and easily share results



FLIR VS80 High Performance Videoscope has best Performance/Price ratio available

- 7 powerful probe options to inspect almost anything
- Excellent image quality
- Unique thermal camera probe
- 2- & 4-way articulating probes
- Simultaneous reference image
- Text & Voice annotation of images and video



The VS80 is the most versatile and powerful videoscope in its class. It is designed for professionals who need a reliable tool capable of virtually any job.



Teledyne FLIR

VS80 VIDEOSCOPE SERIES

HIGH PERFORMANCE VIDEOSCOPE FOR INSPECTION THROUGH SMALL OPENINGS AND IN DIFFICULT TO REACH OR UNSAFE AREAS

Teledyne FLIR

FLIR.com/products/VS80



Improve Inspection Speed

Inspect hard to reach components without disassembling to improve plant safety and reliability

- **Reference Image** Simultaneous on screen with live video for easy standard or historical image comparison
- **HDMI and Wireless Video Output** For a live second opinion

Versatile, Rugged and Reliable

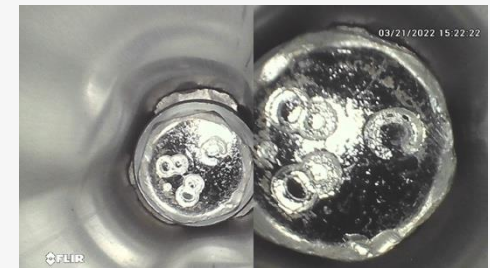
Catch degrading components prior to failure

- **7 Small Diameter Probe Options** To respond to any inspection requirement
- **2 HD Probes** Regular and dual HD probes for detailed inspection requirements
- **Thermal Camera, Articulating & Pipe Probes** To go places your old videoscope has never gone before

Identify, Document & Share

Report your findings quickly and easily

- **Capture 1280x720 HD Stills & Video** For the best quality report results
- **Photo Notes & Voice Annotation** Ensure field insights are captured easily



Ordering #	Model Description	UPC	USD \$ MSRP
VS80-KIT-1	General Purpose Videoscope Kit with 5.5mm x 1m long probe	793950410813	2,299
VS80-KIT-2	Videoscope Kit with 2-Way Articulating 4.5mm x 1m long probe	793950410820	3,599
VS80-KIT-3	Videoscope Kit with Dual HD Camera 4.9mm x 1m long probe	793950410837	3,099
VS80-KIT-4	Videoscope Kit with 4-Way Articulating 6.0mm x 2m long probe	793950410844	6,099
VS80-KIT-5	Videoscope Kit with Plumbing Spool and 10mm x 25m long probe	793950410851	6,099
VS80-KIT-6	Videoscope Kit with HD 5.5mm x 1m long probe	793950410868	2,599
VS80-IR21	Videoscope Kit with IR Thermal 19mm x 1m long probe	793950410875	2,599

VS80 VIDEOSCOPE SERIES

HIGH PERFORMANCE VIDEOSCOPE FOR INSPECTION THROUGH SMALL OPENINGS AND IN DIFFICULT TO REACH OR UNSAFE AREAS

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FLIR.com/products/VS80



Industrial



Building



Automotive

VERTICAL

Sub-Markets

Manufacturing | Oil & Gas | Metals
Petrochem | Service Providers | NDT

Building Inspection | HVAC | Home Inspection |
Indoor Air Quality | Plumbing | Pest Removal

Automotive Repair

How We Win

Unmatched probe options to perform any job. Rugged, reliable device with superior quality imagery. Live simultaneous reference image for improved decision making. Superior saved images & video with notation and voice comment.

Personas

Maintenance Technician | NDT
Specialist | Maintenance Manager

Building Inspector | Air Quality Inspector |
Plumber | Pest Removal Specialist

Automotive Maintenance Technician

Questions to Ask

Do you need to disassemble or open up equipment in order to inspect? When inspecting, how valuable would it be to be able to compare what you are seeing to a reference? What additional jobs could you do if you could use thermal or articulating probes, or a simultaneous front and side view probe?

Elevator Pitch

The VS80 is the most versatile and powerful videoscope in its class. It is designed for professionals who need a reliable tool capable of virtually any job.