



TFN VS02 Audio Video Life Detector



Product Introduction

The VS02 Audio-Video Life Detector is a professional search and rescue tool designed for hazardous environments including earthquake ruins, tunnels, mines, and vehicle inspections. Equipped with a 8-meter telescopic pole, a 160° wide-angle camera with Sony STARVIS sensor, and 9 adjustable LED lights, it captures clear video even in 0.005lux extreme low light. The 7-inch high-brightness monitor supports 1080P recording, 4x zoom, and up to 128GB storage. Two-way audio with 300 m² pickup range enables real-time communication with trapped victims. Ideal for fire rescue, counter-terrorism, customs inspection, and under-vehicle search, the VS02 combines portability, ruggedness, and advanced imaging for life-saving operations.

Product Key Selling Points

Ultra-Long 8-Meter Telescopic Pole for Deep and Hard-to-Reach Areas

The VS02 features a 6-section telescopic pole that extends from just 1.6m to over 8 meters, yet weighs only 2.4kg. This allows rescuers to probe deep shafts, elevator pits, tunnels, and collapsed structures from a safe distance. The progressive diameter (35mm down to 11mm) ensures stability without excessive weight, reducing operator fatigue during prolonged missions. No more dangerous climbing or risky entries – reach farther and deeper with confidence.

Crystal-Clear Sony STARVIS Sensor & 8-Level Adjustable Lighting

Equipped with a 1/2.7" 5MP Sony CMOS sensor and 0.005lux ultra-low illumination, the VS02 delivers sharp, color video even in near-darkness. Nine built-in LEDs offer 8 brightness levels, adjustable directly from the monitor, eliminating overexposed or pitch-black blind spots. Whether inspecting a dark sewer, a smoke-filled room, or a vehicle undercarriage at night, you get reliable, high-contrast images for accurate assessment.

Two-Way Full-Duplex Audio with 300 m² Pickup Range

Unlike ordinary inspection cameras, the VS02 integrates a 1W speaker and a high-sensitivity



microphone inside the camera head. It picks up sounds within a 300 m² area and allows clear voice communication with trapped persons or suspects. This bidirectional audio is critical for comforting victims, directing rescue steps, or negotiating in anti- terrorism operations. You don't just see the situation – you hear and speak to it.

Portable 7" Monitor with 1080P Recording & 4x Digital Zoom

The detachable 7-inch LCD monitor boasts 800 × 480 resolution and 500 cd/m² brightness for outdoor visibility. It supports real-time 1080P video recording, 5MP photo capture, and 4x digital zoom to inspect tiny details like cracks or suspicious objects. Built-in 7500mAh rechargeable battery lasts for hours, and the microSD slot accepts up to 128GB (optional). No external power needed – review, record, and zoom instantly on site.

Flexible Snake Cam & Lightweight Maneuverability

The front section of the camera is a 0.3-meter manually bendable snake tube, allowing you to look around corners, over edges, or under low obstacles without moving the entire pole. The compact camera head (only 0.3m in length) fits into narrow gaps like vehicle undercarriages, concrete cracks, or pipe outlets. This flexibility, combined with the pole's lightness, makes the VS02 a one-person operation tool – reducing team size and increasing search efficiency.

Product Specifications

Parameter	Specification
Camera Head	
Image Sensor	1/2.7" 5 Megapixel Progressive Scan CMOS (Sony STARVIS)
Minimum Illumination	0.005 lux
Lens Field of View	160°
Speaker Power	1W
Pickup Range	300 m ²
DVR Monitor	
Video Recording Resolution	1920 × 1080 (1080P)
Photo Resolution	5 Megapixels
Battery Capacity	7500 mAh (rechargeable lithium, built-in)
Screen Resolution	800 × 480 pixels
Screen Brightness	500 cd/m ²
Storage Card	microSD, 2 – 128GB (optional)
Power Input	DC12V
8m Telescopic Pole	
Retracted Length	<1.6 meters
Extended Length	>8 meters
Weight	2.4 kg
Section Diameters (thick to thin)	35mm > 30.4mm > 25.5mm > 21.3mm > 16.4mm > 11mm
Others	
Snake Tube Length	0.3m (manual bending)



LED Lights	9 pcs, 8- level brightness control
Digital Zoom	4x

Product Features

Feature 1: Extended Reach with 8m Telescopic Pole – Access Danger Zones Without Risk

Traditional search methods often require rescuers to physically enter unstable ruins, deep wells, or narrow tunnels – exposing them to secondary collapses, toxic gases, or entrapment. The VS02’s 8- meter pole eliminates this danger. One operator can extend the pole to drop the camera 8 meters down a shaft or push it 8 meters into a collapsed pipeline. The progressive diameter design ensures the pole doesn’t sag or vibrate, even at full extension. You can systematically scan large areas without moving heavy equipment or climbing. This function directly solves the pain point of “unsafe access” – keeping your team at a safe distance while still obtaining visual and audio intelligence. For mine rescues, elevator pit inspections, or under-floor searches, the extended reach transforms impossible missions into routine checks.

Feature 2: Ultra- Low Light Sony Sensor & 8- Step LED – See Clearly in Total Darkness

Poor lighting is the 1 enemy of visual inspection. Standard cameras produce noisy, colorless images at dusk or in sewers. The VS02 adopts a Sony STARVIS sensor with 0.005 lux sensitivity – meaning it can capture clear, full- color video under starlight alone. When no ambient light exists, nine high- intensity LEDs can be adjusted across 8 brightness levels directly from the monitor. This prevents over- exposure when inspecting shiny surfaces (e.g., wet vehicle undercarriages) or under- exposure in deep black holes. The result: you never miss a victim’s hand, a suspicious wire, or a structural crack. Firefighters, anti- terrorism units, and disaster response teams gain 24/7 visual capability without carrying bulky external lights. The pain point solved? “I can’t see what’s in there” becomes “I see everything with detail.”

Feature 3: Two- Way Audio with 300 m² Pickup – Communicate and Detect Sound

A video alone cannot confirm if a trapped person is conscious, nor can it calm a panicked child buried under rubble. The VS02 integrates a powerful 1W speaker and a highly sensitive microphone inside the waterproof camera head. It can capture whispers or tapping sounds from up to 300 square meters – covering most search cells. Rescuers can speak directly to victims, guiding them to move toward light or stay still until help arrives. For counter- terrorism, officers can issue verbal commands through the camera before entering a room. The two- way audio also helps locate victims who cannot wave or shout loudly. The key pain point addressed: traditional life detectors show only visuals, leaving a critical gap in human connection and situational awareness. With the VS02, you hear breathing, crying, or knocking – and you can respond instantly.

Feature 4: 7” High- Brightness Monitor with 1080P Recording & 4x Zoom – On- Site Evidence & Analysis

Search and rescue missions often require instant review and documentation. The VS02’s detachable 7- inch monitor offers 500 cd/m² brightness, making it readable even under direct



sunlight – a common challenge for outdoor operations. It records 1080P video and captures 5MP photos directly to a microSD card (up to 128GB). The 4x digital zoom allows you to magnify small details like a victim’s finger movement, a serial number on an explosive device, or a crack in a concrete wall. Recorded footage can be replayed on-site for team briefings or submitted as legal evidence later. The built-in 7500mAh battery powers the monitor for extended shifts. This function solves the pain point of “no reliable record” and “hard to see small details” – turning the VS02 into both a search tool and an investigation tool.

Feature 5: Manual Bending Snake Cam – Inspect Corners & Confined Spaces Without Moving the Pole

Rigid pole cameras force you to reposition the entire pole every time you need to look sideways, upward, or around an obstacle. This is time-consuming and sometimes impossible in tight spaces. The VS02 features a 0.3-meter manually bendable snake section right behind the camera head. You can pre-shape it to a specific angle (e.g., 90° downward for vehicle undercarriages, or 45° upward for ceiling cavities) and then insert it. The bend holds its shape during use, giving you a side-looking or upward-looking capability without complex articulation mechanisms. This is ideal for checking car trunks, air ducts, behind walls, or inside machinery. The pain point solved: “I can’t see around that corner” is eliminated – you simply bend the snake, insert, and view from a new perspective. It dramatically reduces search time and increases thoroughness.

Applications & Pain Points Solved

Scenario	Customer Pain Point	VS02 Solution
Earthquake / Collapsed Building Search	Victims may be trapped deep under debris. Visual access is blocked, and voice contact is impossible. Rescuers risk secondary collapse if they enter narrow gaps.	The 8-meter pole reaches deep into rubble piles. Sony low-light camera sees in dust and darkness. Two-way audio allows calling out and hearing responses. No need for rescuer to enter unsafe zones.
Underground Shaft / Well / Sewer Inspection	Dark, wet, and often toxic environments. Standard flashlights are insufficient. Climbing down is extremely dangerous.	9-level adjustable LEDs cut through darkness. 160° wide lens covers large areas quickly. Lightweight pole can be lowered by one person. 1080P recording documents pipe conditions for maintenance or rescue planning.
Vehicle Undercarriage Bomb Search	Checking under hundreds of vehicles at checkpoints is slow and risky. Lying on the ground exposes security personnel to explosives.	The manual-bend snake cam angles upward under any vehicle. 8-meter pole allows standing inspection from a safe distance. 4x zoom examines suspicious packages or wires. Two-way audio for communication with driver.
Counter-Terrorism / Customs Concealment Search	Smugglers hide contraband in elevator shafts, ventilation ducts, false ceilings, or luggage compartments. Ordinary borescopes have limited reach.	Extended 8-meter pole reaches deep into hotel AC ducts or train overhead bins. High-brightness screen works in dark warehouses. Recording captures evidence for prosecution. Lightweight design for rapid deployment.



Mine / Tunnel Collapse Rescue	Narrow tunnels with unstable roofs. Any movement can trigger further collapse. Remote visual is critical but most cameras are too short or lack audio.	6- section pole slides through small openings. Snake cam bends around fallen rocks. 0.005lux sensor works with zero headlamp. Audio helps locate trapped miners by their voice or tapping.
-------------------------------	--	--

Q&A

Q1: What is the maximum recording time on a full battery?

A: The built-in 7500mAh lithium battery powers the 7-inch monitor for approximately 6 – 8 hours of continuous recording (depending on LED usage and screen brightness). The camera head draws power from the monitor via the cable, so no separate battery is needed for the camera. For extended missions, you can connect an external 12V power source (e.g., car socket or power bank with DC12V output).

Q2: Can the telescopic pole be used underwater?

A: The camera head is rated IP67 waterproof for temporary submersion (e.g., dropping into a water-filled well or sewer). However, the telescopic pole and the cable connection are not designed for prolonged underwater use. Always avoid submerging the pole joints or the monitor. For wet environments, wipe the pole after each use to prevent corrosion.

Q3: Does the VS02 support wireless transmission or WiFi?

A: The standard VS02 is a wired system (cable runs through the pole) for reliable, interference-free video in underground or shielded areas. No WiFi is included to ensure stable performance in disaster zones with radio interference. However, you can connect the monitor to an external transmitter if remote viewing is needed (not included in standard package).

Q4: How do I adjust the brightness of the 9 LEDs?

A: The monitor provides an intuitive on-screen menu (OSD). Navigate to “LED Control” and select a level from 0 (off) to 8 (maximum). This allows you to adapt to different environments – lower levels for close-up reflective surfaces, higher levels for deep darkness. The setting is saved until changed.

Q5: Is the 128GB microSD card included in the package?

A: The package includes a microSD card slot and a 32GB card as standard (subject to change; please confirm with your sales representative). Cards up to 128GB are supported but sold separately. We recommend using Class 10 or UHS-I cards for smooth 1080P recording.

Package Contents

Item	Quantity	Description
VS02 Camera Head with Built-in Speaker & Mic	1 pc	0.3m snake tube, 160 ° lens, 9 LEDs, IP67



8-meter Telescopic Pole (6 sections)	1 pc	Retracted <1.6m, extended >8m, weight 2.4kg
7" DVR Monitor with 7500mAh Battery	1 pc	800 × 480, 500 cd/m ² , 1080P recording
Video & Power Cable (through pole)	1 pc	Pre-installed inside pole
DC12V Power Adapter (charger)	1 pc	For monitor battery charging
32GB microSD Card (Class 10)	1 pc	Inserted in monitor (optional; 128GB max support)
USB Card Reader	1 pc	For transferring files to PC
Cleaning Cloth	1 pc	For lens and screen maintenance
User Manual (English)	1 pc	Detailed operation guide
Carry Case (Hard Shell)	1 pc	Foam-padded for protective transport

- > Note: The 128GB card, external monitor transmitter, and spare battery are optional accessories
– please contact us for a customized quote.