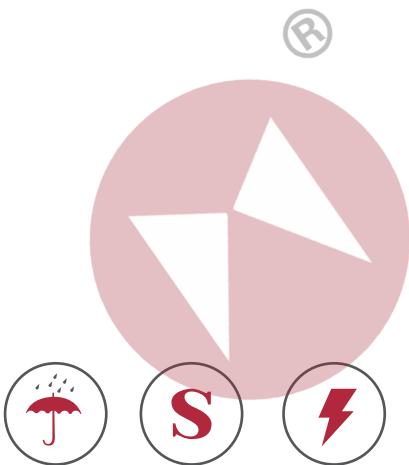


MITECH MVD SERIES INDUSTRIAL ENDOSCOPE

- Professional manufacturer, best quality with competitive price
- Recommended by the world UT NDT inspection association for training and examination
- Core technology with independent intellectual property rights, certificate of CE, GOST and etc..



Overview

MITECH MVD series of industrial endoscope, based on the CMOS image sensor principle, can realize image shooting in the pipe or narrow area which can not be directly observed. And the results can be displayed with high-definition, so as to achieve non-destructive testing. MITECH MVD series endoscope is a high-precision video electronics industry endoscope, the use of color LCD display and highly integrated CMOS image sensor to ensure that the video endoscopic image of the clear, realistic; its low power consumption, quick signal transmission speed, and easy to carry, operate. It can detect pipe or narrow spaces without tearing apart or damaging machine while not working. Cracks, welds, foreign body, wear and internal processing of parts and other circumstances can be detected with high quality images. It is widely used in aerospace, petrochemical, mechanical casting, national defense military, power production, automobile transportation and other fields, and is the important detection and monitoring equipment of industrial equipment testing and maintenance and other aspects.

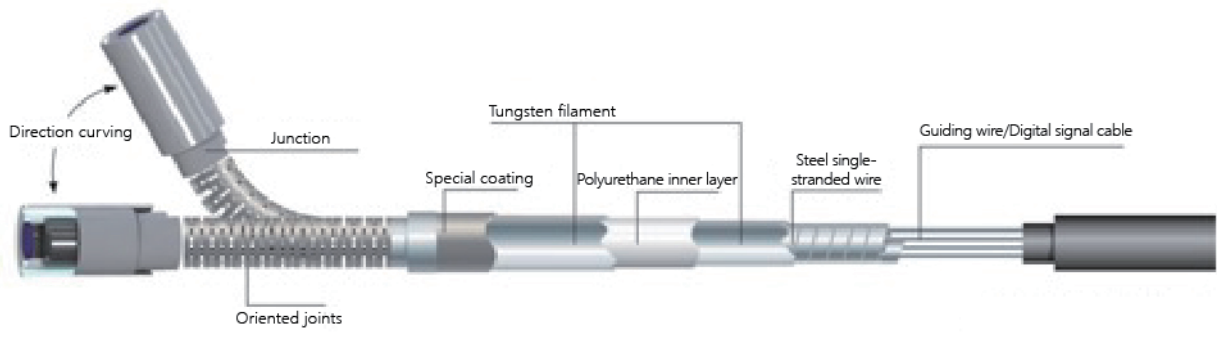
Technical Parameters

Technical specifications	Technical parameters
Probe diameter	φ2.4, φ2.8, φ4.5, φ6.2, φ8.4 (unit: mm)
Probe material	The stainless steel with Ti coating
Imaging sensor	CMOS
Field angle	> 90°
FNO	2.8, 4.9
Depth of focus	8mm~80mm, 15~∞
Brightness	LED18000Lux, 30000Lux, 50000Lux
Brightness control	5 gears adjustable
Probe length	15mm
Camera pixels	160,000 410,000 1000,000
Video Output	NTSC/PAL
Storage	32 G (Micro SD Card)
Picture format	JPG, 1024×768pixel
Video format	AVI, 720×576pixel
Frame rate	15~30fps
Line length	1.5m, 3m, 6m
Line material	Tungsten wire
Probe direction	360°
Screen size	4.3 inches
Screen resolution	800×480
USB port	Mini-USB B type
Battery	Li-On rechargeable, 3.7V/6000mAh
Working time	>4h
Charging time	5h
AC Adapter	AC 100-240V~50/60HZ
Shell material	ABS
Weight	960g(main unit)
Protection level	IP65, IP67 (Optional)

Features

- High brightness LCD, can work in direct sunlight conditions. The enlarged video signal is clearly showed on a 4.3-inch screen. High reliability, good stability, with excellent real-time field detection;
- Micro CMOS sensor designed with high sensitivity and integration but low power consumption, available for low brightness detection;
- High resolution camera module, to provide a smooth, clear, stable dynamic (static) detection screen;
- Photo and video storage, 32GB SD Card, can save and record tons of image data;
- Cold light source adopted in probe, 5 gears adjustable;
- Precise oriented joints controlled by rocker, angle of bending $\geq 90^\circ$;
- Independent battery design makes it more convenient to use;
- Probe shell is titanium, multi-layer tungsten wire braided, more anti-corrosion wear, durable, detection distance up to 6m;
- The instrument operating system has a variety of image settings such as white balance, AGC, exposure, image mode, screen brightness, screen contrast, screen ratio adjustable; Can surely get excellent photos and precise detection.

Working Principle



Based on the CMOS image sensor principle, MITECH MVD industrial endoscope can collect picture information in narrow spaces. The digital signal can be transferred to the host through video signal cable plugged in pipe, thus to achieve picture display and storage. The oriented joints connect the probe with insert tube and the guide wire inside the joints can turn around freely in all directions controlled by mechanical device. As a result, the CMOS sensor can shoot excellent photos as required in time.

Applications

- Turbine overhaul: Turbine cleaning, paddle and nozzle / nozzle block check, find off parts, corrosion inside and outside the pipe;
- Aerospace: Aircraft parts, large diesel engines, various engines and pipelines for routine maintenance and inspection;
- Petrochemical Industry: Used for detection of oil refineries in the storage tank, heat exchangers, ball tankers, chemical industry pipeline facilities, special inspection and pressure vessel production units of containers, cylinders, pipelines;
- Military: Used to check the mechanical gear parts wear, loose, oil spills, barrel internal situation;
- Motor traffic: Car engine cleaning and maintenance;
- Machine casting: Automotive parts casting, hydraulic casting, pump body casting, mechanical parts casting, pipe fittings casting; Used to check the situation of sand casting, burr and staggered hole quality control;
- Power industry: Power generation, equipment defect detection and condition monitoring.

Working condition

- Probe working temperature: $-10^{\circ}\text{C}\sim 50^{\circ}\text{C}$
- Host working temperature: $-10^{\circ}\text{C}\sim 50^{\circ}\text{C}$
- Storage temperature: $-10^{\circ}\text{C}\sim 50^{\circ}\text{C}$
- Water proof level :IP65(IP67 custom)
- Oil proof level : IP 67

Serial products comparison

Name	Probe diameter (mm)	Focus Depth (mm)	Camera pixels	Bending direction	Length of line (m)	Application
MVD2400	2.4	5-30/8-50	160,000	Electric 180°	1.5	Suitable for narrow space detection, for small space, piping, engines, parts,
MVD2800	2.8				1.5	
MVD4150	4.5	5-25/8-80	410,000		1.5	hydraulic, pneumatic parts, castings to detect the internal.
MVD4300	4.5				3	
MVD6150	6.2	15-∞/5-50	1000,000	Electric 360°	1.5	Applicable to large space inspection, large castings, automotive market, short-distance pipeline inspection,
MVD6300	6.2				3	
MVD8150	8.4	15-∞/5-50	1000,000		1.5	transformers, power supply bureaus, special boiler inspection, food and pharmaceutical, wind power maintenance, aerospace, machinery manufacturing, etc
MVD8300	8.4				3	
MVD8600	8.4				6	

Note: All of the products have two ways of depth focus settings. User should choose the suitable one, for example, choose 8-80mm when aperture is below 10mm.

Instrument configuration

	Num	Name	Quantity	Note
Standard config	1	Main unit	1	
	2	Detection line	1	Connect to host
	3	Probe	1	Connect to host
	4	32G SD Card	1	Insert in the host
	5	Camera case	1	
	6	Card reader	1	
	7	Cloth	1	
	8	Li battery	1	In the host
	9	AC adapter	1	
	10	ABS case	1	
	11	Attached files	1	