

N-series(Digital)

Portable Industrial Endoscope



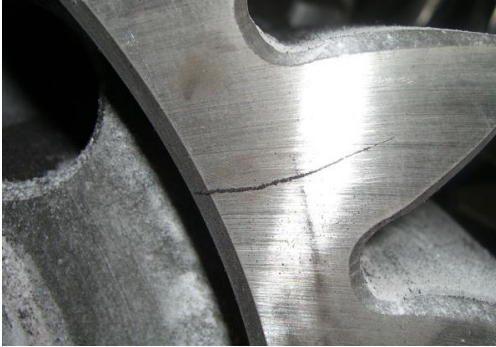
Industrial
Endoscope

Introduction:

N-series portable industrial endoscope is based on normal N series, adopting the latest digital platform and camera modules, which makes it available for color settings, white balance and picture annotations. As a portable instrument, it's flexible and diverse with the upgraded 5-inch high fidelity screen and digital camera. Visual field can be detected completely. Six patents are adopted to the body and different camera options such as forward and dual cameras for the customers to meet different working applications.

Features:

1. Intelligent image processing system to show very clean image.



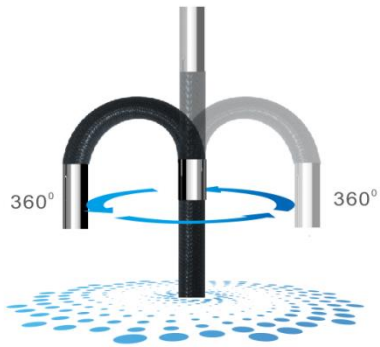
2. Color settings to meet different applications.



3. Step by step rocker controlling system makes precise camera location.



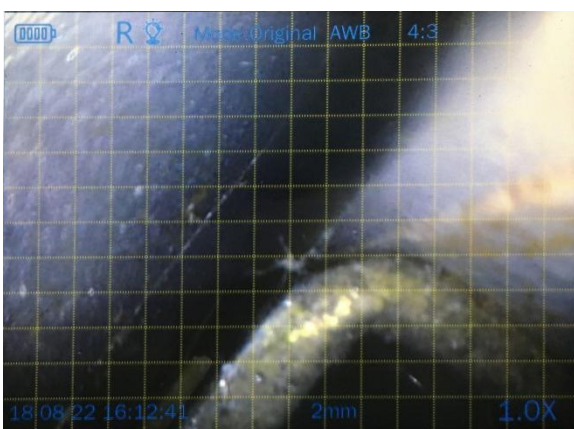
4. Probe bend for 180° with flexible 360° articulation



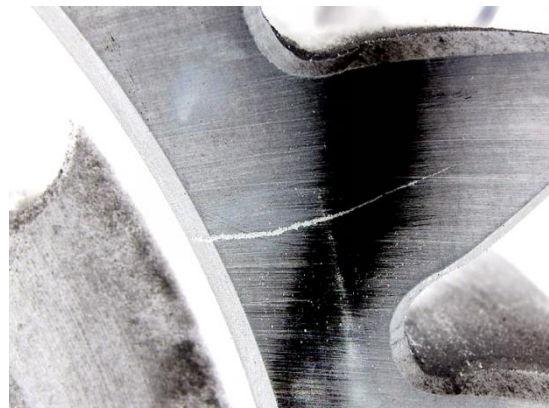
5. Customized settings, more user friendly.



6. Three types of reference rulers of 1mm, 2mm and 4mm to do basic comparison measurement.



7. Crack detection (the left is conventional effect, the right is the reverse color display effect).



Application field:

1. Aviation & Space Industry

It can be used to inspect regularly turbine, blades, engine, surface of welding and conductor pipes, combustion chamber in plane, and in development and manufacture of rocket.

2. Electrical Production and Construction Unit

It can be used to detect and monitor defects of important apparatus such as turbine, pipes.

3. Petro-Chemical and Pressure Container Industries

It can be used to inspect reserve tanks, heat exchangers and tank trucks in oil refinery, pipes in chemical plant and containers, steel cylinders and pipes in special inspection unit and pressure container plant.

4. Railway, Ship, Construction Engineering and Research Unit

Railway/Ship: It can be used to inspect electrical locomotive, air-conditioner, turbine, heater, gas-engine and flames of boiler.

Construction Engineering: It can be used to inspect erosion and fouling of pipes, rust of concrete iron, break of support shaft and bridge connection part; to observe caves inside

tunnel and construction model; to diagnose erosion and blockage of running water pipe.

Research Unit: It can be used in observation, research, trial, archaeological work and etc.



Specifications:

	Category	Description
System	Dimension/Weight	156 x 356 x 80mm/1.5KG
	Display screen	5" IPS LCD (640 x 480)
	Control lever /oriented control	Electric rocker with probe able to articulate in 360°, software navigation key/step-drive, automatic set
	Functions	Photography, video, brightness control, locking and fine tuning
	Storage	32G high speed Micro SD card (TF card)
	I/O port	TF card port, HDMI video port, DC charging port, Micro USB port, earphone port, update and expand port.
	Battery/Standby time	Li-on Battery 18650x2 / 2.5 hours N-D
	Brightness control	5 degrees each for high and low brightness adjustment, 10 degrees in total
	Software	Operation system
File management		File & Folder creation, naming, deleting, save to SD card or USB Drive
Image control		Zoom in/out(1.0X-1.5X,5 steps), playback, image freeze, image reversal, mirror image
Image format/Video format		JPEG,JPG/AVI(record date and time)
Language		English/Chinese/Korean/German/Russian/Japanese
Color settings		6 modes for different applications

	White balance	Automatic/manual white balance
	Exposure mode	Automatic/manual/shutter/aperture exposure
	Reference measure	Grid reference
	Upgrade	upgrade by Micro SD card service pack
Operating environment	Monitor working temperature	-10~50°
	video probe working temperature	-20~70°
	Relative humidity	Highest 90%, no condensation
	Waterproof	Monitor IP54/video probe IP67

Models for N-series

Model	Part No	Description																			
		Diameter [mm]	Insertion Tube Length [m]	System Platform	Camera				Optic		Light		Probe Bending								
					Location	Head Type	CMOS Sensor	Resolution	Depth of Field	Angle of View	Type	[Lux]									
N410FM	12141010	3.9	1	Non-digital	Front	PG	A	720*576	7-80mm	110°	LED	6000	170±10°								
	12241010		1	Digital									170±10°								
N415FM	12141015		1.5	Non-digital									170±10°								
	12241015		1.5	Digital									170±10°								
N420FM	12141020		2	Non-digital									150±10°								
	12241020		2	Digital									150±10°								
N430FM	12141030		3	Non-digital									120±10°								
	12241030		3	Digital									120±10°								
N450FM	12141050		5	Non-digital									100±10°								
	12241050		5	Digital									100±10°								
Model	Part No	Description																			
		Diameter [mm]	Insertion Tube Length [m]	System Platform	Camera				Optic		Light		Probe Bending								
					Location	Head Type	CMOS Sensor	Resolution	Depth of Field	Angle of View	Type	[Lux]									
N610FM	12161010	6	1	Non-digital	Front	QB	A	720*576	7-80mm	80°	LED	20,000	170±10°								
	12261010		1	Digital									170±10°								
N615FM	12161015		1.5	Non-digital									170±10°								
	12261015		1.5	Digital									170±10°								
N620FM	12161020		2	Non-digital									150±10°								
	12261020		2	Digital									150±10°								
N630FM	12161030		3	Non-digital									120±10°								
	12261030		3	Digital									130±10°								
N650FM	12161050		5	Non-digital									110±10°								
	12261050		5	Digital									120±10°								
N680FM	12161080		8	Non-digital									100±10°								
	12261080		8	Digital									100±10°								
Model	Part No		Description																		
			Diameter [mm]	Insertion Tube Length [m]									System Platform	Camera				Optic		Light	
		Location			Head Type	CMOS Sensor	Resolution	Depth of Field	Angle of View	Type	[Lux]										
N610DM	12263010	6	1	Digital	Front&Side	PD	A/A	720*576/720*576	F7-80mm/S3-30mm	F100°/S90°	Front&Side LED	F15,000/S10,000	170±10°								
N615DM	1263015		1.5										170±10°								
N620DM	12263020		2										150±10°								
N630DM	12263030		3										130±10°								
N650DM	12263050		5										120±10°								
N680DM	12263080		8										100±10°								



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