

P-series

High-definition Industrial Endoscope



Introduction:

P series industrial videoscope is a creative one composed of a flexible tube and a small size body. Its CMOS image process system with 1,000,000 pixels provides ultra clarity and a perfect original display. A component design with 8 - inch ultra clear touch screen, 100,000 LUX brightness, an electronic magnetic rocker which can adjust omnidirectionally for 360°, and its lower price, 30% - 50% cheaper than similar specifications, which helps the P Series enjoy its superiority.

Technical Advantages:



1. Intelligent image processing system with megapixels module to show super clean image.



Built-in color setting and module automatically identify systems.



One base unit can match all kinds of probes.



4 Fiber and LED with 10 degree brightness adjustment.



5、 8 inch high resolution screen, image visible under sun light.



6. Side lens, dual lens and interchangeable lens are available.

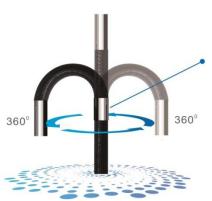


Locking automatically and fixed position memory

Holding on for 3 seconds to lock when probe bent; Open fixed position memory function after locking. Probe will bend around locking point when the rocker is operated again.

Electromagnetic rocker control structure

Probe bends arbitrarily for 360°, so flexible that a controller can easily control probe with one thumb.



Electronic magnetic rocker which can adjust omnidirectionally for 360°

Step by step rocker controlling system provides precise camera location.



original



short distance



high rendition



long distance

presetting four color setting modes



Variety Choices front LED, side LED, dual lens with both front and side LED, fiber+LED are all available to meet different demands.

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				
	Dimension/Weight	246*321*123mm/2.3KG				
	Display screen	8" IPS industrial HD touch LCD screen with resolution 1024*768(ratio 4:3)				
	Control lever	Electric rocker with lens able to rotate in 360-degree,automatic set, direction fine tuning adjustable				
System	Functions	Photography, video, brightness control, locking and fine tuning				
Cyclem	Storage	32G high speed SD card (UP TO 128G)				
	I/O port	SD card, VGA port (1024*768) ,charge and mini USB				
	Battery/Standby time	Four 18650 Lithium batteries(replaceable)				
	Brightness control	5 degrees each for high and low brightness adjustment,10 degrees in total				
	Combining form	Monitor + probe Separable group				

	Compatibility	Support different diameter probes				
	Operation system	Real time multitasking operation system				
	User interface	Touch screen operation menu				
	File management	Support image and video play, delete, format memo				
	Image control	Zoom in/out(1.0X-1.5X,5 steps),playback, picture freeze-frame, image reversal, mirror image				
Software	Image format/Video format	JPEG,JPG/AVI(record date and time)				
Software	Language	English/Chinese/Korean/German/Russian/Japanese				
	Color settings	4 modes for different applications				
	White balance	Automatic/manual white balance				
	Exposure mode	Automatic/manual/shutter/aperture exposure				
	Upgrade	Upgrade by SD card service pack				
	Monitor working temperature	-10∼50°				
Operating	video probe working temperature	-20∼70°				
environment	Relative humidity	Highest 90%,no condensation				
	Waterproof	Monitor IP54/video probe IP67				

Models for P-series

						Description					
		Tube				Optic		Light		Probe	
Woder	[mm]	Length	Location	Head Type	CMOS Sensor	Resolution	Depth of Field	Angle of View	Туре	[Lux]	Bending
P310FN P315FN P320FN	2.8	1 1.5 2	Front	YA	D	600*600	3-25mm	80°	LED	4,000	130±10° 120±10° 110±10°
			ı			Description	ı				
Mandal	D: .	inseriion		Camera				Optic Light			
Model	Diameter [mm]	Tube Length	Location	Head Type	CMOS Sensor	Resolution	Depth of Field	Angle of View	Туре	[Lux]	Probe Bending
P410SM		1									170±10°
P415SM P420SM	3.9	1.5 2	Side	SC	С	1280*720	5-80mm	90°	LED	10,000	170±10° 150±10°
P430SM		3									120±10°
		insertion				Description					
Model	Diameter	Tube		Can				otic	Lig	ght	Probe
	[mm]	Length	Location	Head Type	CMOS Sensor	Resolution	Depth of Field	Angle of View	Туре	[Lux]	Bending
P410FM		1		PG	Α		7 - 80mm		LED	6,000	170±10°
		1		YC	С		5-80mm		Fiber + LED	100,000	170±10°
P415FM		1.5	1	PG	Α		7 - 80mm		LED	6,000	170±10°
		1.5]	YC	С		5-80mm		Fiber + LED	100,000	170±10°
P420FM	3.9	2	Front	PG	Α	1024*768	7 - 80mm	110°	LED	6,000	150±10°
F4201 W	3.9	2	HIOIIL	YC	С	1024 700	5-80mm	110	Fiber + LED	100,000	150±10°
DAGGENA		3		PG	Α		7 - 80mm		LED	6,000	120±10°
P430FM		3		YC	С		5-80mm		Fiber + LED	100,000	120±10°
	İ	5		PG	Α		7 - 80mm	1	LED	6,000	110±10°
P450FM		5		YC	С		5- 80mm		Fiber + LED	100,000	100±10°
			1			Description				,	
		insemon						Optic Light			
Model	Diameter	Tube			CMOS		Depth of	Angle of			Probe
	[mm]	Length	Location	Head Type	Sensor	Resolution	Field	View	Туре	[Lux]	Bending
P610FN		1									170±10°
P615FN	1	1.5		0.0		4004+700		000		0.4.000	170±10°
DESOUN	6		Front	QB	Α	1024*768	5 - 25mm	80°	LED	24,000	
P620FN	1	2	110111	α.Σ		1024 700	3 - 2311111	00		,	150±10°
P620FN P630FN		3	110111		^	1024 700	3 - 2311111			,	150±10° 120±10°
			·			Description	3 - Z3IIIII			,,,,,,	
P630FN	Diameter	3	Tion.	Can				otic	Lig		120±10°
	Diameter [mm]	3	Location								
P630FN Model		3 Tube		Can	nera CMOS	Description	Op Depth of	otic Angle of	Lig	ght	120±10° Probe
P630FN		Tube Length		Can Head Type	nera CMOS Sensor	Description	Op Depth of Field	otic Angle of	Liç Type	ght [Lux]	120±10° Probe Bending
P630FN Model P610FM		Tube Length		Can Head Type QB	CMOS Sensor	Description	Op Depth of Field 7 - 80mm	otic Angle of	Liç Type LED	[Lux] 24,000	Probe Bending 170±10°
P630FN Model		Tube Length 1		Can Head Type QB YE	CMOS Sensor A	Description	Op Depth of Field 7 - 80mm 8-150mm	otic Angle of	Liç Type LED Fiber + LED	[Lux] 24,000 100,000	Probe Bending 170±10°
P630FN Model P610FM P615FM		Tube Length 1 1 1.5		Can Head Type QB YE QB	CMOS Sensor A C	Description	Op Depth of Field 7 - 80mm 8-150mm 7 - 80mm	otic Angle of	Liç Type LED Fiber + LED LED	[Lux] 24,000 100,000 24,000	Probe Bending 170±10° 170±10° 170±10°
P630FN Model P610FM	[mm]	3 Insertion Tube Length 1 1 1.5 1.5	Location	Cam Head Type QB YE QB YE TYE	CMOS Sensor A C A	Description	Op Depth of Field 7 - 80mm 8-150mm 7 - 80mm 8-150mm	Angle of View	Type LED Fiber + LED LED Fiber + LED	[Lux] 24,000 100,000 24,000 100,000	Probe Bending 170±10° 170±10° 170±10° 170±10°
P630FN Model P610FM P615FM P620FM		3 Insertion Tube Length 1 1 1.5 1.5 2		Can Head Type QB YE QB YE QB YE QB	CMOS Sensor A C A C	Description	Op Depth of Field 7 - 80mm 8-150mm 7 - 80mm 8-150mm 7 - 80mm	otic Angle of	Type LED Fiber + LED LED Fiber + LED LED LED	24,000 100,000 24,000 100,000 24,000 24,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10°
P630FN Model P610FM P615FM	[mm]	3 Insertion Tube Length 1 1 1.5 2 2	Location	Can Head Type QB YE QB YE QB YE QB YE PYE QB	CMOS Sensor A C A C	Description	Opt	Angle of View	Type LED Fiber + LED LED Fiber + LED LED Fiber + LED Fiber + LED	24,000 100,000 24,000 100,000 24,000 100,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 170±10° 150±10° 150±10°
P630FN Model P610FM P615FM P620FM P630FM	[mm]	3 Insertion Tube Length 1 1 1 1.5 2 2 3	Location	Can Head Type QB YE QB YE QB YE QB YE QB YE QB YE QB	CMOS Sensor A C A C A C	Description	Op Depth of Field 7 - 80mm 8-150mm 7 - 80mm 7 - 80mm 8-150mm 7 - 80mm	Angle of View	Type LED Fiber + LED LED Fiber + LED LED LED Fiber + LED LED Fiber + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10° 150±10° 120±10°
P630FN Model P610FM P615FM P620FM	[mm]	3 Insertion Tube Length 1 1 1.5 2 2 3 3 5	Location	Can Head Type QB YE QB QB	CMOS Sensor A C A C A C A C	Description	Op Depth of Field 7 - 80mm 8-150mm 7 - 80mm 8-150mm 7 - 80mm 8-150mm 7 - 80mm 8-150mm	Angle of View	Type LED Fiber + LED LED Fiber + LED LED Fiber + LED LED Fiber + LED LED LED Fiber + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 120±10° 110±10°
P630FN Model P610FM P615FM P620FM P630FM	[mm]	3 Insertion Tube Length 1 1 1.5 2 2 3 3 3	Location	Can Head Type QB YE QB YE QB YE QB YE QB YE YE QB YE YE	CMOS Sensor A C A C A C A	Description	Opt Depth of Field 7 - 80mm 8-150mm 8-150mm 8-150mm	Angle of View	Type LED Fiber + LED LED Fiber + LED LED Fiber + LED Fiber + LED Fiber + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 120±10° 110±10°
P630FN Model P610FM P615FM P620FM P630FM	[mm]	3 Insertion Tube Length 1 1 1.5 2 2 3 3 5 5 5	Location	Can Head Type QB YE THE TYPE THE	CMOS Sensor A C A C A C A C	Description Resolution	Opt Depth of Field 7 - 80mm 8-150mm 7 - 80mm	Angle of View	Type LED Fiber + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 110±10° 110±10° 110±10° 110±10°
P630FN Model P610FM P615FM P620FM P630FM	[mm]	3 Insertion Tube Length feet 1 1 1.5 1.5 2 2 3 3 5 5 8	Location	Can Head Type QB YE QB QB QB QB	nera CMOS Sensor A C A C A C A C A C A C A C A C A C A	Description Resolution	Opt Depth of Field 7 - 80mm 8-150mm 8-150mm 8-150mm	Angle of View	Type LED Fiber + LED Fiber + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 120±10° 110±10°
P630FN Model P610FM P615FM P620FM P630FM P650FM	[mm] 6	3 Insertion Tube Length 1 1 1.5 2 2 3 3 5 5 8 8	Location	Can Head Type QB YE	nera CMOS Sensor A C A C A C A C A C A C A C A C A C A	Description Resolution 1024*768	Opt Depth of Field 7 - 80mm 8-150mm 8-150mm 8-150mm 8-150mm 8-150mm 8-150mm	Angle of View	Type LED Fiber + LED LED Fiber + LED LED Fiber + LED LED LED LED LED Fiber + LED LED Fiber + LED LED Fiber + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 110±10° 110±10° 110±10° 110±10° 100±10°
P630FN Model P610FM P615FM P620FM P630FM	[mm]	3 Insertion Tube Length [res] 1 1 1.5 1.5 2 2 3 5 5 8 8 Insertion Tube	Location	Can Head Type QB YE CB CAN	CMOS Sensor A C A C A C A C A C	Description Resolution - 1024*768 Description	Op Depth of Field 7 - 80mm 8-150mm 7 - 80mm 8-150mm 7 - 80mm 8-150mm 7 - 80mm 8-150mm 7 - 80mm 8-150mm	Angle of View	Type LED Fiber + LED LED LED Fiber + LED LED LED Fiber + LED LED Fiber + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 120±10° 110±10° 110±10° 110±10° 170±10° 170±10° 170±10° 170±10° 170±10°
P630FN Model P610FM P615FM P620FM P630FM P650FM	[mm] 6	3 Insertion Tube Length Insertion 1 1 1.5 1.5 2 2 3 3 5 5 8 8 Insertion Tube Length	Location	Can Head Type QB YE	CMOS Sensor A C A C A C A C A C	Description Resolution 1024*768	Opt Depth of Field 7 - 80mm 8-150mm 8-150mm 8-150mm 8-150mm 8-150mm 8-150mm	Angle of View	Type LED Fiber + LED LED Fiber + LED LED Fiber + LED LED LED LED LED Fiber + LED LED Fiber + LED LED Fiber + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 110±10° 110±10° 110±10° 110±10° 100±10°
P630FN Model P610FM P615FM P620FM P630FM P650FM	[mm]	3 Insertion Tube Length [res] 1 1 1.5 1.5 2 2 3 5 5 8 8 Insertion Tube	Location	Can Head Type QB YE CB CAN	CMOS Sensor A C A C A C A C A C A C C A C C A C C A C C A C C A C C A C C A C	Description Resolution - 1024*768 Description	Oppeth of Field 7 - 80mm 8-150mm 7 - 80mm 9-150mm 9-150mm	Angle of View 80° Angle of Angle of Angle of Angle of	Type LED Fiber + LED LED LED Fiber + LED LED LED Fiber + LED LED Fiber + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 120±10° 110±10° 110±10° 110±10° 170±10° 170±10° 170±10° 170±10° 170±10°
P630FN Model P610FM P615FM P620FM P630FM P680FM Model	[mm]	3 Insertion Tube Length 1 1 1 1.5 1.5 2 2 3 3 5 5 8 8 Insertion Tube Length Ingth	Location	Can Head Type QB YE CB CAN	CMOS Sensor A C A C A C A C A C A C C A C C A C C A C C A C C A C C A C C A C	Description Resolution - 1024*768 Description	Op Depth of Field 7 - 80mm 8-150mm 7 - 80mm 8-150mm 7 - 80mm 8-150mm 7 - 80mm 8-150mm 7 - 80mm 8-150mm	Angle of View 80° Angle of Angle of Angle of Angle of	Type LED Fiber + LED LED LED Fiber + LED LED LED Fiber + LED LED Fiber + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 110±10° 110±10° 100±10° Probe Bending
P630FN Model P610FM P615FM P620FM P630FM P650FM Model P680FM	[mm] 6 Diameter [mm]	3 Insertion Tube Length free1 1 1 1.5 1.5 2 2 3 3 5 5 8 8 Insertion Tube Length free1 1	Location Front Location	Can Head Type QB YE AB YE AB YE AB Head Type	CMOS Sensor A C A C A C A C A C A C A C A C A C A	Description Resolution - 1024*768 Description	Oppeth of Field 7 - 80mm 8-150mm Oppeth of Field	Angle of View 80° Angle of View	Type LED Fiber + LED LED LED Fiber + LED LED LED Fiber + LED LED Fiber + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000	Probe Bending 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 110±10° 100±10° 100±10° Probe Bending 170±10°
P630FN Model P610FM P620FM P630FM P630FM Model P610DM P610DM P615DM P620DM	[mm]	3 Insertion Tube Length Insertion 1 1 1.5 1.5 2 2 3 3 5 5 8 8 Insertion Tube Length Insertion In	Location	Can Head Type QB YE CB CAN	CMOS Sensor A C A C A C A C A C A C C A C C A C C A C C A C C A C C A C C A C	Description Resolution 1024*768 Description Resolution	Oppens of Field 7 - 80mm 8-150mm	Angle of View 80° Angle of Angle of Angle of Angle of	Type LED Fiber + LED LED Tiper + LED LED Tiper + LED LED Tiper + LED LED Tiper + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 120±10° 110±10° 110±10° 110±10° 170±10° 170±10° 170±10° 170±10°
P630FN Model P610FM P620FM P630FM P650FM Model P610DM P615DM P620DM P630DM	[mm] 6 Diameter [mm]	3 Insertion Tube Length Insertion 1 1 1.5 1.5 2 2 3 3 5 5 8 8 Insertion Tube Length Insertion In	Location Front Location	Can Head Type QB YE AB YE AB YE AB Head Type	CMOS Sensor A C A C A C A C A C A C A C A C A C A	Description Resolution 1024*768 Description Resolution 720*576/72	Oppeth of Field 7 - 80mm 8-150mm Oppeth of Field	Angle of View 80° Angle of View	Type LED Fiber + LED LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 110±10° 110±10° 110±10° 110±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10°
P630FN Model P610FM P620FM P630FM P650FM Model P610DM P615DM P620DM	[mm] 6 Diameter [mm]	3 Insertion Tube Length Insertion 1 1 1.5 1.5 2 2 3 3 5 5 8 8 Insertion Tube Length Insertion In	Location Front Location	Can Head Type QB YE AB YE AB YE AB Head Type	CMOS Sensor A C A C A C A C A C A C A C A C A C A	Description Resolution 1024*768 Description Resolution 720*576/72	Oppens of Field 7 - 80mm 8-150mm	Angle of View 80° Angle of View	Type LED Fiber + LED LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000	Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 120±10° 110±10° 110±10° 110±10° 170±10° 170±10° 170±10° 170±10°