

# yateks®usa P Series Industrial Video Borescope



#### Introduction:

The Yateks P series industrial video borescope is 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 a clean image.



2. Built-in color setting and module automatically identify systems.



3. 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.

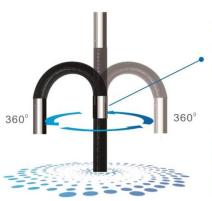


## Locking automatically and fixed position memory

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

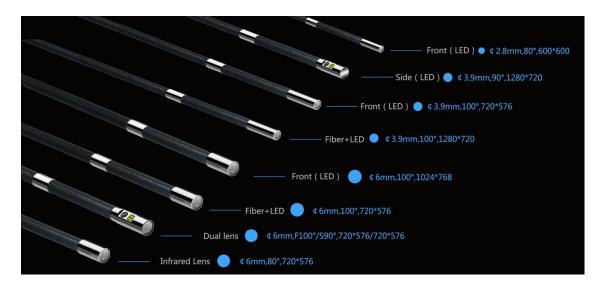


high rendition



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:

	T	T				
	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 an fine tuning				
<b>2,</b> 2	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 and naming				
	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)				
Sonware	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					
		inseriion	Camera			<u> </u>	Optic			Light	
Model	Diameter [mm]	Tube Length	Location	Head Type	CMOS Sensor	Resolution	Depth of Field	Angle of View	Туре	[Lux]	Probe Bending
P310FN P315FN	2.8	1.5	Front	YA	D	600*600	3-25mm	80°	LED	4,000	130±10° 120±10°
P320FN		2				L					110±10°
		insertion				Description	_				ı
Model	Diameter	Tube		Can		1	•	otic	Lıç	ght	Probe
	[mm]	Length	Location	Head Type	CMOS Sensor	Resolution	Depth of Field	Angle of View	Туре	[Lux]	Bending
P410SM		1	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	1	3									120±10°
			-			Description			-		
Model	Diameter	Tuba		Can	nera		Op	otic	Liç	ght	Probe
Woder	[mm]	Tube Length	Location	Head Type	CMOS Sensor	Resolution	Depth of Field	Angle of View	Туре	[Lux]	Bending
		1		PG	Α		7 - 80mm		LED	6,000	170±10°
P410FM		1	1	YC	С		5- 80mm		Fiber + LED	100,000	170±10°
DAASENA	1	1.5	1	PG	Α	1	7 - 80mm		LED	6,000	170±10°
P415FM		1.5	1	YC	С		5- 80mm	1	Fiber + LED	100,000	170±10°
D.10	1	2	<b>1</b>	PG	A	100/	7 - 80mm		LED	6,000	150±10°
P420FM	3.9	2	Front	YC	С	1024*768	5- 80mm	110°	Fiber + LED	100,000	150±10°
	†	3	1	PG	A		7 - 80mm		LED	6,000	120±10°
P430FM		3	1	YC	С		5- 80mm		Fiber + LED	100,000	120±10°
	†	5	1	PG	A		7 - 80mm		LED	6,000	110±10°
P450FM		5	1	YC	C	-	5- 80mm	•	Fiber + LED	100,000	100±10°
		·	L	10	·	Description	0 00111111		I IDOI I LLD	100,000	100210
		insertion		Can	nera		Optic		Light		
Model	Diameter	Tube			CMOS	1	Depth of		Ĭ		Probe
	[mm]	Length	Location	Head Type	Sensor	Resolution	Field	View	Type	[Lux]	Bending
P610FN		1									170±10°
P610FN P615FN		1 1.5	-	0.0		4004+700	5 05	000	150	04.000	170±10° 170±10°
	6		Front	QB	A	1024*768	5 - 25mm	80°	LED	24,000	
P615FN	6	1.5	Front	QB	A	1024*768	5 - 25mm	80°	LED	24,000	170±10°
P615FN P620FN	6	1.5	Front	QB	Α	1024*768  Description	5 - 25mm	80°	LED	24,000	170±10° 150±10°
P615FN P620FN P630FN		1.5 2 3	- Front	QB Can				80°		24,000 ght	170±10° 150±10° 120±10°
P615FN P620FN	Diameter [mm]	1.5 2 3	Front							,	170±10° 150±10°
P615FN P620FN P630FN Model	Diameter	1.5 2 3		Can	nera CMOS	Description	Op Depth of	otic Angle of	Liţ	ght	170±10° 150±10° 120±10°
P615FN P620FN P630FN	Diameter	1.5 2 3 Insertion Tube Length		Can Head Type	nera CMOS Sensor	Description	Op Depth of Field	otic Angle of	Lię Type	ght [Lux]	170±10° 150±10° 120±10° Probe Bending
P615FN P620FN P630FN Model P610FM	Diameter	1.5 2 3 Insertion Tube Length		Can Head Type QB	CMOS Sensor	Description	Op Depth of Field 7 - 80mm	otic Angle of	Liq Type LED	ght [Lux] 24,000	170±10° 150±10° 120±10° Probe Bending 170±10°
P615FN P620FN P630FN Model	Diameter	1.5 2 3 Insertion Tube Length 1 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	170±10° 150±10° 120±10° Probe Bending 170±10° 170±10°
P615FN P620FN P630FN Model P610FM P615FM	Diameter	1.5 2 3 Insertion Tube Length Insertion 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	Lig Type LED Fiber + LED LED	[Lux] 24,000 100,000 24,000	170±10° 150±10° 120±10°  Probe Bending 170±10° 170±10° 170±10°
P615FN P620FN P630FN Model P610FM	Diameter [mm]	1.5 2 3 Insertion Tube Length 1 1 1.5 1.5	Location	Cam Head Type QB YE QB YE TYE QB YE	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	170±10° 150±10° 120±10°  Probe Bending 170±10° 170±10° 170±10° 170±10°
P615FN P620FN P630FN Model P610FM P615FM P620FM	Diameter	1.5 2 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	ght [Lux] 24,000 100,000 24,000 100,000 24,000	170±10° 150±10° 120±10°  Probe Bending 170±10° 170±10° 170±10° 170±10° 150±10°
P615FN P620FN P630FN Model P610FM P615FM	Diameter [mm]	1.5 2 3 Insertion Tube Length 1 1 1.5 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	Op Depth of Field 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 Fiber + LED	ght [Lux] 24,000 100,000 24,000 100,000 100,000 100,000	170±10° 150±10° 120±10° 120±10°  Probe Bending 170±10° 170±10° 170±10° 150±10° 150±10°
P615FN P620FN P630FN Model P610FM P615FM P620FM P630FM	Diameter [mm]	1.5 2 3 Insertion Tube Length fee1 1 1.5 1.5 2 2 3	Location	Can Head Type QB YE QB YE QB YE QB YE QB YE QB	CMOS Sensor A C A C A	Description	Op Depth of Field 7 - 80mm 8-150mm 7 - 80mm 8-150mm 7 - 80mm 8-150mm 7 - 80mm	Angle of View	Type LED Fiber + 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	170±10° 150±10° 120±10° 120±10°  Probe Bending 170±10° 170±10° 170±10° 150±10° 150±10° 120±10°
P615FN P620FN P630FN Model P610FM P615FM P620FM	Diameter [mm]	1.5 2 3 Insertion Tube Length feel 1 1 1.5 1.5 2 2 3 3 3	Location	Can Head Type QB YE	CMOS Sensor A C A C A C	Description	Opt Depth of Field 7 - 80mm 8-150mm 8-150mm	Angle of View	Type  LED Fiber + LED LED Fiber + LED LED Fiber + LED LED Fiber + LED Fiber + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000	170±10° 150±10° 120±10° 120±10°  Probe Bending 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 120±10°
P615FN P620FN P630FN Model P610FM P615FM P620FM P630FM	Diameter [mm]	1.5 2 3 INSCRIPTION Tube Length 1 1 1.5 1.5 2 2 3 3 5	Location	Can Head Type QB YE QB	CMOS Sensor A C A C A C A C	Description	Opt Depth of Field 7 - 80mm 8-150mm 7 - 80mm	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	170±10° 150±10° 120±10° Probe Bending 170±10° 170±10° 170±10° 150±10° 120±10° 120±10° 110±10°
P615FN P620FN P630FN Model P610FM P615FM P620FM P630FM	Diameter [mm]	1.5 2 3 INSERTION Tube Length 1 1 1.5 2 2 3 3 5 5 5	Location	Can Head Type  QB YE THE TYPE THE	nera  CMOS Sensor  A  C  A  C  A  C  A  C  A  C  A  C  C	Description	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	170±10° 150±10° 120±10°  Probe Bending 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 110±10° 110±10°
P615FN P620FN P630FN Model P610FM P615FM P620FM P630FM	Diameter [mm]	1.5 2 3 Insertion Tube Length 1 1 1.5 1.5 2 2 3 3 5 5 8 8	Location	Can Head Type QB YE QB	nera  CMOS Sensor  A  C  A  C  A  C  A  C  A  C  A	Description	Opt Depth of Field 7 - 80mm 8-150mm 7 - 80mm	Angle of View	Type LED Fiber + LED LED FIDER + LED LED FIDER + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 24,000	170±10° 150±10° 120±10°  Probe Bending 170±10° 170±10° 170±10° 150±10° 120±10° 110±10° 110±10° 110±10°
P615FN P620FN P630FN Model P610FM P615FM P620FM P630FM P630FM P630FM P650FM	Diameter [mm]	1.5 2 3 INSCRICTION Tube Length 1 1 1.5 1.5 2 3 3 5 5 8 8	Location	Can Head Type QB YE QB	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 7 - 80mm 8-150mm 8-150mm 8-150mm 8-150mm	Angle of View	Type  LED Fiber + LED LED Fiber + LED LED Fiber + LED LED LED LED Fiber + LED LED Fiber + LED 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 24,000 24,000	170±10° 150±10° 120±10° 120±10°  Probe Bending 170±10° 170±10° 170±10° 150±10° 120±10° 110±10° 110±10° 110±10° 110±10° 100±10°
P615FN P620FN P630FN Model P610FM P615FM P620FM P630FM	Diameter [mm]	1.5 2 3 Insertion Tube Length 1 1 1.5 1.5 2 2 3 3 5 5 8 8	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 7 - 80mm 8-150mm 8-150mm 8-150mm 8-150mm	Angle of View	Type  LED Fiber + LED LED Fiber + LED LED Fiber + LED LED LED LED Fiber + LED LED Fiber + LED 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 24,000 100,000	170±10° 150±10° 120±10°  Probe Bending 170±10° 170±10° 170±10° 150±10° 120±10° 110±10° 110±10° 110±10°
P615FN P620FN P630FN Model P610FM P615FM P620FM P630FM P630FM P650FM Model	Diameter [mm]	1.5 2 3 INSCRIPTION Tube Length 1 1 1.5 1.5 2 2 3 3 5 5 8 8 INSCRIPTION Tube Length Tube Length Tube Length Tube	Location	Can Head Type QB YE CB YE CAN	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	Opt Depth of Field 7 - 80mm 8-150mm 8-150mm	Angle of View  80°  Angle of Angle of Angle of Angle of	Type  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 24,000 100,000 24,000 100,000 24,000 100,000	170±10° 150±10° 120±10° Probe Bending 170±10° 170±10° 170±10° 150±10° 120±10° 110±10° 110±10° 100±10° 100±10° Probe Bending
P615FN P620FN P630FN Model P610FM P615FM P620FM P630FM P630FM P630FM Model P650FM P650FM P680FM	Diameter [mm]	1.5 2 3 INSERTION Tube Length foot 1 1.5 1.5 2 2 3 3 5 5 8 8 INSERTION Tube Length foot 1 1 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	Location	Can Head Type QB YE CB YE CAN	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	Op Depth of Field 7 - 80mm 8-150mm 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 Fiber + LED LED LED Fiber + LED	[Lux] 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000	170±10° 150±10° 120±10°  Probe Bending 170±10° 170±10° 170±10° 150±10° 150±10° 120±10° 110±10° 110±10° 100±10° Probe Bending
P615FN P620FN P630FN Model P610FM P615FM P620FM P630FM Model P640FM P650FM P650FM P650FM Model	Diameter [mm]  6  Diameter [mm]	1.5 2 3 INSERTION Tube Length fool 1 1.5 1.5 2 2 3 3 5 8 8 INSERTION Tube Length fool 1 1.5 1.5 2 1.5 2 1.5 2 1.5 2 1.5 2 1.5 8 8 8 1 1.5 1.5 1.5 1.5 2 1.5 1.5 2 1.5 1.5 2 1.5 1.5 2 1.5 1.5 1.5 2 1.5 1.5 1.5 2 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	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	Oppeth of Field 7 - 80mm 8-150mm	Angle of View  80°  Angle of View	Type 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 24,000 100,000 24,000 100,000 24,000 100,000 24,000 100,000	170±10° 150±10° 120±10° 120±10°  Probe Bending 170±10° 170±10° 170±10° 150±10° 120±10° 110±10° 110±10° 100±10°  Probe Bending 170±10° 170±10° 170±10°
P615FN P620FN P630FN Model P610FM P615FM P620FM P630FM P650FM P650FM P650FM P680FM Model	Diameter [mm]	1.5 2 3 INSERTION Tube Length feel 1 1.5 1.5 2 2 3 3 5 5 8 8 INSERTION Tube Length feel 1 1.5 2 2 3 3 5 5 5 8 8 1 INSERTION Tube Length feel 1 1.5 2	Location	Can Head Type QB YE CB YE CAN	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	Opt Depth of Field 7 - 80mm 8 - 150mm 8 -	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	170±10° 150±10° 120±10° 120±10°  Probe Bending 170±10° 170±10° 170±10° 150±10° 120±10° 110±10° 110±10° 100±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10°
P615FN P620FN P630FN Model  P610FM P615FM P620FM P630FM  P650FM  P650FM  Model  P610DM P610DM P615DM P620DM P630DM	Diameter [mm]  6  Diameter [mm]	1.5 2 3 Insertion Tube Length feel 1 1.5 1.5 2 2 3 5 5 8 8 Insertion Tube Length feel 1 1 1.5 2 3 3 5 5 5 8 8 1 Insertion Tube Length feel 1 1.5 2 3 3 3 5 5 3 5 8 8	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	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 54,000 100,000 100,000 100,000 100,000 100,000	170±10° 150±10° 120±10° 120±10°  Probe Bending 170±10° 170±10° 170±10° 150±10° 120±10° 110±10° 110±10° 100±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10°
P615FN P620FN P630FN Model P610FM P615FM P620FM P630FM P650FM P650FM P650FM P680FM Model	Diameter [mm]  6  Diameter [mm]	1.5 2 3 INSERTION Tube Length feel 1 1.5 1.5 2 2 3 3 5 5 8 8 INSERTION Tube Length feel 1 1.5 2 2 3 3 5 5 5 8 8 1 INSERTION Tube Length feel 1 1.5 2	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	Opt Depth of Field 7 - 80mm 8 - 150mm 8 -	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 54,000 100,000 100,000 100,000 100,000 100,000	170±10° 150±10° 120±10° 120±10°  Probe Bending 170±10° 170±10° 170±10° 150±10° 120±10° 110±10° 110±10° 100±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10° 170±10°