JF Series | Video Broescope

For Fast and Accurate Inspection

Feature Introduction

JF series video broescope







Feature Function

- 3.5" TFT LCD
- LED brightness adjustment
- 2X Zoom in and Mirror image
- AV out
- · Snap shot and Video recording
- Long duty hour up to 4 hrs



Standard Accessories



Basic Cleaning Kit

8G SD Card





Video Cable





USB Cable





Series Accessories



Φ 6 mm VGA Mirror Only for Φ 6.0 mm 2 way articulation



Φ 5.5 mm VGA Mirror Φ 5.5 mm Mirror Only for Φ 5.5 mm VGA probe Only for Φ 5.5 mm general probe

Application

- Architecture Mechanical equipment Generators Electricity
- Automobiles Aircrafts Ships Railways Welding
- Manufacture General equipment
- Gas petroleum, and chemicals
- Defense, security, and surveilliance
- Exploration, education, and research and experiments.





3.5" TFT LCD Display

Embedded with a 3.5" TFT LCD Monitor provides superior image quality photos for inspector to see.



Video Output

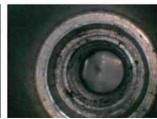
Recorded video & images can be displayed directly to a TV screen for large sereen viewing. Support " PAL " / " NTSC " video system.



Mirror Image

Support mirror image function on display.





USB Connection

JF Series is capable to transfer captured images and view from PC. Support Windows 2000™ or later version. No specific software is required to palyback the JPG and ASF files.



2.0X Zoom - In

Support up to 2X Digital Zoom.





P. 01 P.02 # JFR = Semi-Rigid, JFS = Soft-Metal, JFVS = VGA probe, JFVS-5501 = Φ 5.5mm, JFVS-5501 = 1M, JFS-4901S = Dual-Cameras, JFS-60012 = 2 way articulation, JFVS-60014 = 360° articulation, JFVS-5501N = Near Focus, JGS2222M = Meter

Item Model	Probe Category	Tip Diameter	Tube Length	Tube Material	Page
JFR-3901	General	Ф 3.9mm	1 M	Semi-Rigid	P. 27 - 28
JFR-3902	General	Φ 3.9mm	2 M	Semi-Rigid	P. 27 - 28
JFR-3903	General	Φ 3.9mm	3 M	Semi-Rigid	P. 27 - 28
JFR-5501	General	Φ 5.5mm	1 M	Semi-Rigid	P. 27 - 28
JFR-5502	General	Φ 5.5mm	2 M	Semi-Rigid	P. 27 - 28
JFR-5503	General	Φ 5.5mm	3 M	Semi-Rigid	P. 27 - 28
JFR-8501	General	Φ 8.5mm	1 M	Semi-Rigid	P. 27 - 28
JFR-8502	General	Φ 8.5mm	2 M	Semi-Rigid	P. 27 - 28
JFR-8503	General	Φ 8.5mm	3 M	Semi-Rigid	P. 27 - 28
JFS-5501	General	Φ 5.5mm	1 M	Soft-Metal	P. 27 - 28
JFS-5502	General	Φ 5.5mm	2 M	Soft-Metal	P. 27 - 28
JFS-5503	General	Φ 5.5mm	3 M	Soft-Metal	P. 27 - 28
JFS-5505	General	Φ 5.5mm	5 M	Soft-Metal	P. 27 - 28
JFS-5510	General	Φ 5.5mm	10 M	Soft-Metal	P. 27 - 28
JFS-5520	General	Φ 5.5mm	20 M	Soft-Metal	P. 27 - 28
JFS-5530	General	Φ 5.5mm	30 M	Soft-Metal	P. 27 - 28
JFR-4901S	Dual-Camera	Φ 4.9mm	1 M	Semi-Rigid	P. 29
JFR-4902S	Dual-Camera	Φ 4.9mm	2 M	Semi-Rigid	P. 29
JFR-4903S	Dual-Camera	Φ 4.9mm	3 M	Semi-Rigid	P. 29
JFS-60012	2 Way Articulation	Φ 6.0mm	1 M	Soft-Metal	P. 30
JFS-60022	2 Way Articulation	Φ 6.0mm	2 M	Soft-Metal	P. 30
JFS-60032	2 Way Articulation	Φ 6.0mm	3 M	Soft-Metal	P. 30
JFVS-60012	VGA, 2 Way Articulation	Φ 6.0mm	1 M	Soft-Metal	P. 31 - 34
JFVS-60022	VGA, 2 Way Articulation	Φ 6.0mm	2 M	Soft-Metal	P. 31 - 34
JFVS-60032	VGA, 2 Way Articulation	Φ 6.0mm	3 M	Soft-Metal	P. 31 - 34
JFVS-5501	VGA General	Φ 5.5mm	1 M	Soft-Metal	P. 31 - 34
JFVS-5502	VGA General	Φ 5.5mm	2 M	Soft-Metal	P. 31 - 34
JFVS-5503	VGA General	Φ 5.5mm	3 M	Soft-Metal	P. 31 - 34
JFVS-5505	VGA, General	Φ 5.5mm	5 M	Soft-Metal	P. 31 - 34
JFVR-5501	VGA, General	Φ 5.5mm	1 M	Semi-Rigid	P. 31 - 34
JFVR-5503	VGA, General	Φ 5.5mm	3 M	Semi-Rigid	P. 31 - 34
JFVR-5501N	VGA, Near Focus	Φ 5.5mm	1 M	Semi-Rigid	P. 31 - 34
JFVS-5501N	VGA, Near Focus	Φ 5.5mm	2 M	Soft-Metal	P. 31 - 34
JFVS-5503N	VGA, Near Focus	Φ 5.5mm	3 M	Soft-Metal	P. 31 - 34
JFVS-60014	VGA, 360° Articulation	Φ 6.0mm	1 M	Soft Stainless steel	P. 35 - 36
JFVS-60034	VGA, 360° Articulation	Φ 6.0mm	3 M	Soft Stainless steel	P. 35 - 36
JFVS-60011	VGA, 1 Way Short Tip	Φ 6.0mm	1 M	Soft Stainless steel	P. 37 - 38
JFVS-45022	VGA, 2 Way Short Tip	Φ 4.5mm	1.5 M	Soft Stainless steel	P. 37 - 38
JFVS-45032	VGA, 2 Way Short Tip	Φ 4.5mm	3 M	Soft Stainless steel	P. 37 - 38
JGS-2222M	Pipe Inspection, Meter	Φ 22.0mm	22 M	Hard Soft-Metal	P. 39 - 42
JGS-2805	Pipe Inspection	Φ 28.0mm	5 M	Hard Soft-Metal	P. 39 - 42
JGS-2810	Pipe Inspection	Φ 28.0mm	10 M	Hard Soft-Metal	P. 39 - 42
JGS-2830M	Pipe Inspection, Meter	Φ 28.0mm	30 M	Hard Soft-Metal	P. 39 - 42

Display	3.5"TFT LCD QGVA
Power	Battery rechargeable Li-Polymer battery 3
	Power supply AC100-240V 50-60Hz
	Power consumption DC5.5 1.8A
Interface	USB.20 / AV Out
Video out Format	NTSC & PAL
Storage	8 GB SD card
Compression Format	MPEG4
lmage Storage Format	JPEG (640 * 480)
Video Recording Format	AVI (320 * 240)
Frame Rate	~30 fps
S/N Rate	42dB or more
Exposure	Automatic
White Balance	Fix
Working temperature	0°C ~ 60 °C
Storage temperature	0°C ~ 60 °C
Languages	27 Languages: English / French / German / Italian /
	Spanish / Portuguese / Japanese / Traditional Chinese /
	Simplified Chinese / Danish / Dutch / Polish / Russian /
	Bulgarian / Turkish / Swedish / Finnish / Norwegian /
	Estonian / Lithuanian / Latvian / Hungarian / Czech /
	Slovak / Slovenian / Romanian / Greek
	Slovak / Sloveman / Nomanian / Greek
Dimension	117.5*207*37mm



Insertion Probe Options

Probe	Probe Diameter	Material	Detail
General Probe	Φ 3.9 mm / Φ 5.5 mm / Φ 8.5 mm	Soft-Metal / Semi-Rigid	P. 27 -28
Dual-Camera Probe	Φ 4.9 mm	Semi-Rigid	P. 29
2 Way Articulation	Φ 6.0 mm	Soft-Metal	P. 30
VGA 2 Way Articulation	Φ 6.0 mm	Soft-Metal	P. 31 - 34
VGA Probe	Φ 5.5 mm	Soft-Metal / Semi-Rigid	P. 31 - 34
VGA Near Focus Probe	Φ 5.5 mm	Soft-Metal / Semi-Rigid	P. 31 - 34
VGA 360° Articulation	Φ 6.0 mm	Stainless steel (soft-metal)	P. 35 - 36
VGA Short Tip Articulation	Φ 4.5 mm / Φ 6.0 mm	Stainless steel (soft-metal)	P. 37 - 38
Pipe Inspection Probe	Φ 6.0 mm, Φ 22 / Φ 28 mm (camera head)	Hard Soft-Metal	P. 39 - 42

General Probe



Φ 3.9 mm Probe Front view / Side view (Semi - rigid)

Φ 5.5 mm Probe (Semi - Rigid)

1m / 2m / 3m

Φ 5.5 mm Probe Front view / Side view (Soft - Metal)

1m/2m/3m/5m/10m/20m/30m

Φ 8.5 mm Probe (Semi - Rigid)

1m/2m/3m



3.9 mm Extremely Small

It's the smallest diameter Insert Probe on the market, only Ø3.9mm.



3.9 mm



Front / Side View optional

You can select the corresponding camera in accordance with the circumstances you need.

Only for Ø3.9mm, Ø5.5mm



90° Side View



Front View



JF Series JK Series



JL Series

Insertion tube & Camera System			
Diameter	Φ 3.9 mm Extremely small	Φ 5.5 mm	Φ 8.5 mm
Material	Semi-Rigid (SR)	Soft-Metal (SM) Semi-Rigid (SR)	Semi-Rigid (SR)
Type of Camera	Front / Side view	SM: Front / Side view SR: Side view	Front view
Length	1m / 2m / 3m	SM: 1m/2m/3m/5m 10m/20m/30m SR: 1m/2m/3m	1m / 2m / 3m
Light Source	Front view: White LED * 3 Side view: White LED * 2	Front / Side view White LED * 4	White LED * 6
F.O.V	57°		
D.O.F	1 ~ 6 cm		
Frame Rate	~ 30 fps		
Exposure	Automatic		
White Balance	Fixed		
Resolution Pixels (Dynamic / Static)	QVGA (320 * 240)		
Image Sensor		CMOS Image Sensor	
Main Console	JF Series, JK Series, JM Series, JL Series		eries

SM = Soft-Metal, SR = Semi-Rigid

Dual - Camera

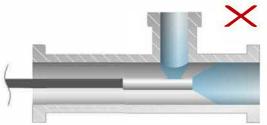
One Click Switch











Forward View / Side View One-click Swich

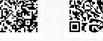


0° Frontward view



90° Side view











Daul Cameras Probe (Semi - Rigid) 1m / 2m / 3m

Diameter	Φ 4.9 mm	
Type of Camera	Daul Cameras (Front & Side view)	
Camera Resolution	320 * 240	
Head Length	28 mm	
Head Material	Stainless steel	
Connector	Metal	
Light Indicate	Green light (forward view), Red light (side view)	
Light Source	Forward: 140-224 mcd*2 LED Side: 210-330 mcd*1	
Length	1m/2m/3m	
Material	Semi-Rigid	
F.O.V	Horizontal field angle 45.2° Vertical field angle 34° Diagonal field angle 56°	
D.O.F	1 ~ 6cm	
Working Temperature	0°C ~ 55°C	
Waterproof	IP67	
Main Console	JF Series, JK Series, JM Series, JL Series	

2 Way Articulation



2 Way Articulation Wireless Probe (Front View / Side View)

1m / 2m / 3m



2 Way Articulation

2 WAY ARTICULATION

2 way articulation probe helping to check angles that hardly to be checked (over 300° of view). Front view and Side view optional.







Left / Right 155°

Side view







1m / 2m / 3m				
Insertion tube & Ca	amera System			
	2 Way Articulation Wireless Probe	2 Way Articulation Probe		
Type of Probe	Wireless	Wired		
Type of Camera	Front view	/ Side view		
Diameter	Φ6	mm		
Resolution	325(H)*	250(V)		
Head Material	Stainles	s steel		
Light Source	White	LED		
Length	1m / 2r	m / 3m		
		ngle 34°		
D.O.F	1~6	cm		
Material	Soft-M	letal		
Working Temperature	0°C ~	60°C		
Articulation Angle	Left: 155° / Right: 155°			
Articulation Radius	Front View: 48 +/-1mm / Side View: 60 +/-1mm			
Waterproof	IP67			
Dimension	139.3 * 34.9 * 31.8mm			
Weight	1m-260g / 2m-340g / 3m-420g	1m-370g / 2m-450g / 3m-530g		
Battery	Rechargeable Li-Polymer battery 3.7V	None		
Lightness Control	Variable	None		
Main Console	JM Series	JF Series, JK Series, JM Series, JL Series		

P.07 P. 08

VGA Series

2 Way Articulation Probe







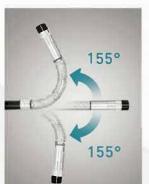


2 Way Articulation Wireless Probe (VGA)

1m / 2m / 3m

2 WAY ARTICULATION

2 way articulation probe helping to check angles that hardly to be checked (over 300° of view).





Front view

Left / Right 155°











2 Way Articulation Probe (VGA)

1m/2m/3m

	2 Way Articulation Wireless Probe(VGA)	2 Way Articulation Probe(VGA)
Type of Probe	Wireless	Wired
Type of Camera	Front view	
Diameter	Φ6	mm
Resolution	VGA (64	0 * 480)
Head Material	Stainle	ss steel
Light Source	White LED. 22	4mcd * 3 LED
ength	1m/2	m/3m
F.O.V	87.1 degree (Diagonal)	
D.O.F	1 ~ 10 cm	
Material	Soft-Metal	
Working Temperature	-20 ~ 65 °C	
Articulation Angle	Left: 155° / Right: 155°	
Articulation Radius	50mm+ / -5mm	
Waterproof	IP67	
Dimension	139.3 * 34.9 * 31.8mm	
Weight	220g	
Battery	Rechargeable Li-Polymer battery 3.7V	None
ightness Control	Variable	None
Main Console	JM Series	JF Series, JK Series

Basic / Near Focus



Φ 5.5 mm VGA Probe (Soft-Metal / Semi-Rigid)

SM: 1m/2m/3m/5m

SR: 1m/3m

Diameter	Φ 5.5 mm	
Camera Head Length	20mm	
Material	Soft-Metal (SM) / Semi-Rigid (SR)	
Length	SM: 1m/2m/3m/5m SR: 1m/3m	
Head Material	Stainless steel	
Resolution	VGA (640 x 480)	
Light Source	White LED. 224mcd * 4 LED	
D.O.F.	1 ~ 6cm	
F.O.V.	60.7 degree (Diagonal)	
Working Temperature	-20°C ~ 65°C	
Waterproof	IP67	
Video Out Format	NTSC	
Main Console	JF Series, JK Series, JM Series	

MATERIAL OF PROBE

Soft-Metal: Soft bendable and resilient. Semi-Rigid: Bendable and can be in fixed position.

> Soft-Metal Semi-Rigid



Φ 5.5 mm VGA Near Focus Probe (Soft-Metal / Semi-Rigid)

SM: 1m/3m SR: 1m

P.09 P. 10

Near Focus

Near Foucs / Short Focus Probe is suitable for a narrow working environment (e.g., gun barrel, tiny tube) or inspectors who would like to scrutinize a specific part in a short distance. You can obtain more detail image by this probe than observe by a normal focus probe.







2013 into 41 4 General Probe



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Near Focus Probe

Near Focus Probe

General Probe

Near Focus Probe

General Probe

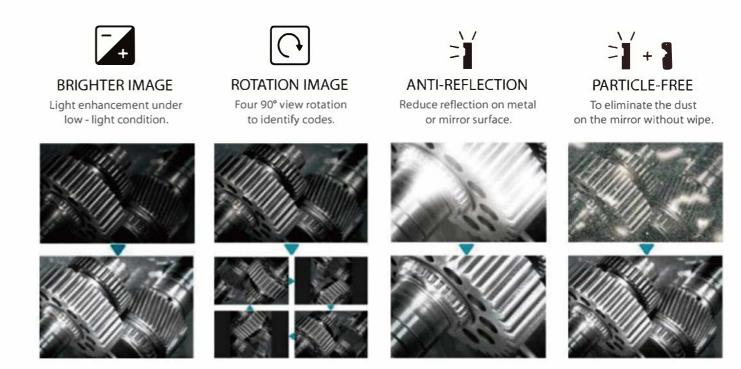
Insertion tube & Camera System		
Diameter	Φ 5.5 mm	
Camera Head Length	20 mm	
Material	Soft-Metal (SM) / Semi-Rigid (SR)	
Length	SM: 1m/3m SR: 1m	
Head Material	Stainless steel	
Resolution	VGA (640 x 480)	
Light Source	White LED. 224mcd * 4 LED	
D.O.F.	6 ~ 16mm (0.6cm ~ 1.6 cm)	
F.O.V.	60.7 degree (Diagonal)	
Working Temperature	-20°C ~ 65 ℃	
Waterproof	IP67	
Video Out Format	NTSC	
Main Console	JF Series, JK Series, JM Series	



Hyperion® Function

Hyperion, can further enhance the articulation probe with:

- Clearer images on monitor (640 x 480 resolution)
- · Brighter images in low-light conditions
- Anti-reflection and particle-free view on meatl or mirror surface
- 90° view rotations during inspection



VGA Series Probe







Φ 6.0 mm 2 Way Articulation Probe (VGA)



Φ 5.5 mm VGA Probe



Φ 5.5 mm VGA Probe (Near Focus)

P. 11 P. 12

360° Articulation







360° Articulation Probe (VGA)

1m/3m (Standard) 5m / 7m (Customized)





JK Series

Outer braided stainless steel

New stainless steel insertion probe is more durable and antifriction than previous design.

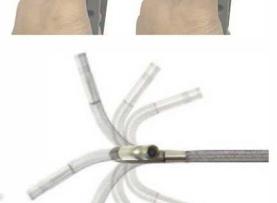


360° FULL WAY ARTICULATION

Thumb-driven joy stick provides full articulation control, 360 degrees camera articulation with the on-board image and video capture capability. The mechanized joystick uses the operator input to directly control camera articulation.

The result is smooth and accurate control of the articulating tip, with immediate response to joystick inputs.

360° articulation provide flexibilities in narrow space inspection. High density stainless steel braided tube provide durability, flexibility and also rusty, water and temperature resistant.





Insertion tube & Can	nera System	
Type of Probe	360° Articulation	
Diameter	Ø 6.0 mm	
Head Length	24	mm
Resolution	VGA 640(I	H) x 480(V)
Head Material	Stainless steel	
Light Source	Front (White LED * 3) / Side (White LED * 2)	
Length	1 m / 3m	5 m / 7m (Customized)
F.O.V	87°	
D.O.F	1 cm ~ 10 cm	
Material	Outer braided Stainless steel	
Working Temperature	-10°C ~ 60°C	
Articulation Angle	Full ways ≧ 110°	Full ways ≥ 80°
Angle Mirror	Available	
Available Main Console	JK Series, JF Series	

Short Tip Articulation







1 Way Short Articulation Probe (VGA)

1m only







2 Way Short Articulation Probe (VGA)

1.5m/3m





NEW MATERIAL OF PROBE

New stainless steel insertion probe is more durable and antifriction than previous design.

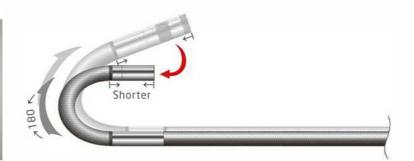


SHORT TIP ARTICULATION

Shorter tip and articulation can easily swing in the narrow environment. Easy and handy inspection by new super wide tip swing angle (180 degree).







Articulation

Type of Probe	1 way short articulation	2 way short articulation
Diameter	Ø 6.0 mm	Ø 4.5 mm
Head Length	10.0 mm	13.0 mm
Resolution	VGA 640(H	H) x 480(V)
Head Material	Stainle	ss steel
Light Source	5 x white LEDs	
Length	1 m	1.5 m / 3 m
F.QV	87°	90°
D.O.F	1 cm ~ 6 cm	1 cm ~ 10 cm
Material	Outer braided	Stainless steel
Working Temperature	-10°C ~ 60°C	
Articulation Angle	Right 180°	Right / Left 180º
Waterproof		
Available Main Console	JK Series. JF Series	

Pipe Inspection Probe





PASS THROUGH TWO 90° ELBOW BENDS







22 m / 30 m

Rock solid reel stand not only improves the image quality, but also provides the convenience and flexibility for your pipe inspection.

Recommended Combinations



Pass through two 90° elbow bends











Camera Head

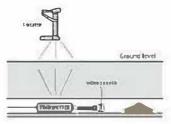
- Interchangeable Camera Head IP 68 Waterproof
- Bright & Clear Image 640*480 Resolution Stainless Steel
- 8 High Brightness LED (3000 lux)

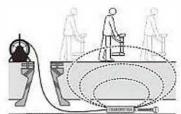


Wireless Detection

Locator & transmitter can detect camera position to know where the camera is.







Optional Accessories







Centering Metal Ring Ф50mm

Centering Brush Φ150mm (standard: @100mm)







Orbit Glider Φ150mm ~ Φ300mm

Locator & Transmitter (Only for @28mm Length 30m)

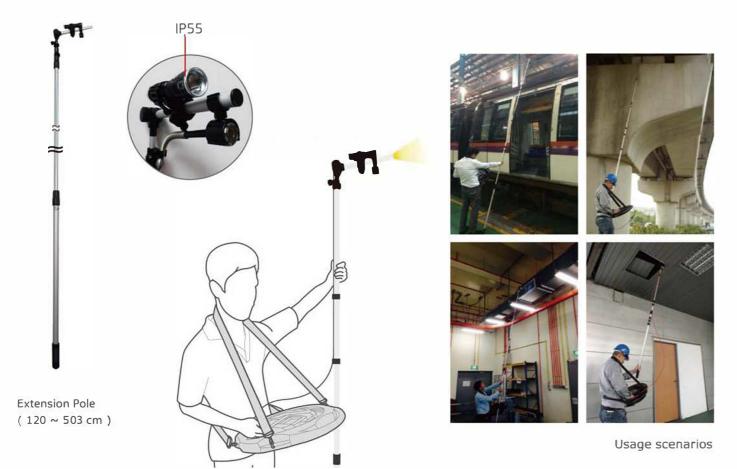
Locater		
Diameter	L: 293.5mm	
	W: 144mm	
	H: 486.5mm	
Weight	2kg	
Power Source	3.7V / 200mA Li battery	
Power Consumption	282mA	
Battery Charge	3 ~ 4 hours	
Power Cycle	6 ~ 7 hours	
Power Adaptor	5.5V,1.8A	
Working Temperature	-10° ~ 60°	
Storage Temperature	-20° ~ 80°	
Drop Resistance	60cm	
Waterproof	IP55	
Alailable	Φ 28mm Length 22m Only	

P. 17 P. 18

Optional Accessories

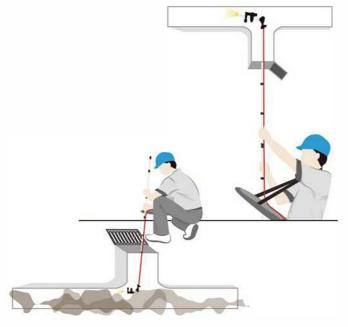
Extension Pole

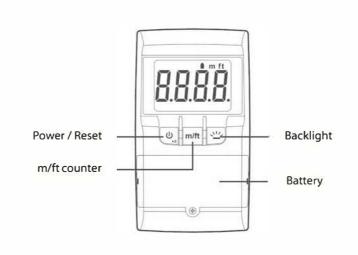
No climbing and no ladder. Ideal for easy accessing ceiling, air-condition duct, bridge, tunnel, sewwe...facilities.



- · Highly convenient for operation in heavy duty
- · Up to 5m inspection

Extension Pole		
Length	120 ~ 503 cm (main pole only)	
Weight	1275g (w/o flashlight)	
Probe Holding Pole	Angle adjustable	
Flashlight	IP 55	





Meter		
Screen display	LCD	
Switches	Power / Reset	
	m/ft m/ft counter	
	Backlight	
Dimension	62 x 110 x 24mm	
Meter counts	Forward / Rewind	
Display digits	3 (1 decimal place)	
Meter display	m/ft	
Deviation	± 0.4m(±1.3ft)	
Waterproof	IP 55	
Power source	2 x AAA (DC 3V)	
Power capacity	≥ 90hrs	

Camera Diameter	Φ 22 mm	Φ 28 mm	
Pipe Diameter	Φ 6 mm		
Camera Length	25mm	24.3mm	
Applicable Pipe	Φ40mm-70mm	Ф50mm-100mm	
Goose neck	27cm		
Pipe Length	22m	5m / 10m / 30m optional	
Interchangeable Head	NO	YES ,(non 5m / 10m)	
Meter	YES	YES ,(non 5m / 10m)	
Resolution	640 * 480		
Camera Material	Stainless Steel		
D.O.F	30mm - 100mm	10mm-∞	
F.O.V	62.5°(Diagonal)	150.8°(Diagonal)	
Illumination	High Brightness 8 White Led (3000 lux)		
Waterproof	Probe-IP68 , Reel-IP65		
Working Temperature	-10°C~60°C		
Operating Hour	3 Hours		
Material	Fiber Glass		
Flexibility	Continuously 90° sharp turn in Φ40mm / Φ50mm Water Pipe		
Whole Reel Diameter	30cm		
Main Console	JF Series, JK Series, JM Series JL Series	JF Series, JK Series, JM Series JL Series Length: 5m/10m JF Series Only	

P. 19 P. 20

Accessories

Side Mirror

The cap mirror allows lateral side view during inspection.



DIAMETER OF PROBE Ø 5.5mm,Ø 6.0mm, Ø 8.0mm









110°



P_ Series

DIAMETER OF PROBE Ø 3.9mm, Ø 5.5mm, Ø 8.0mm, Ø 10mm



35° view (= 70° viewing angle) 45° view (= 90° viewing angle) 55° view (= 110° viewing angle)

Carrier Bag

Sunshade, Protection and Easy Carry.





JM Series

Lens Cover

Protection Corn

Ø 25mm, Ø 28mm

Inspection Probe).

Available in 25mm, 28mm OD probe. (non Pipe Inspection Probe).

Available in 25mm, 28mm OD probe. (non Pipe





DIAMETER OF PROBE

Ø 25mm, Ø 28mm

Ø 25mm, Ø 28mm

Measure Software

Main Console System

JF Series, JM Series

Inspection Management Software is designed for image viewing, distance measuring, and image comparison. It helps inspectors to verifty measurement after leaving the inspection site.



DIAMETER OF PROBE Ø 5.5mm, Ø 6.0mm

P_ Series

DIAMETER OF PROBE

Ø 3.9mm, Ø 5.5mm(VGA) Ø 8.0mm, Ø 10mm







Storage Roller

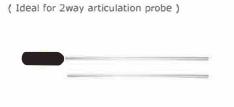
Easy use, easy storage (Designed for Long probe).





Extender

An extender helps straighten the probe to inspect areas lower or higher than eye level.



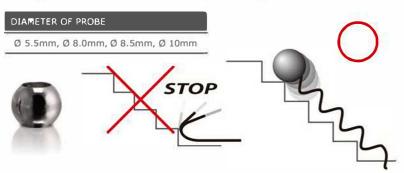
DIAMETER OF PROBE

Ø 6.0mm

LENGTH 540mm / 990mm

Guide / Climbing Balls

Guide ball helps the probe to turn smoothly in the edge or angle. It also helps to climb up if facing multiple edges.



Rotating Mirror

[For 3.9mm probe front view only] The roat mirror allows 360° side-view rotation durning inspection.



Magnet & Hook

Patented retriever that helps remove small items in narrow space.



Ø 3.9mm, Ø 5.5mm, Ø 8.0mm Ø 8.5mm, Ø 10mm

DIAMETER OF PROBE

P. 21 P. 22