







Joystick Controller Four-Way Articulations 4W Series



Two-Way Articulations 2L Series



Two-Way Articulations 2W Series

# **Application**

- Vehicle repair and maintenance.
- Household cleaning & maintenance.
- Underwater exploration and observation.
- Pipeline investigation & maintenance.
- Fire rescue search.
- Large precision instrument detection.
- Inspection of hard-to-reach and hard-to-see places.

# Specification

Specification  Series		100	164	209	311	363				
Resolution		Half-VGA	1 MP	1 MP	2 MP	5 MP				
Dimension (mm)		Ø 2.8	Ø 4.2	Ø 4.2	Ø 6~7.9	Ø 6~7.9				
Dimension										
Interface	USB 2.0	•	•	•	•	•				
	USB 3.0	N/A	•	N/A	•	•				
UVC	H.264	N/A	N/A	N/A	•	N/A				
Format	MJPEG	•	•	•	•	•				
	YUV	•	•	•	•	•				
Arti		One-Way Rigid Tube Length 45.6 cm / Bending Angle 180°								
	Radius Of Gyration (mm)	N/A	N/A	N/A	28 / 35	28 / 35				
	Bending Length (mm)	N/A	N/A	N/A	33	33				
Articulation	Two-Way Tungsten Wire Braided Sleeving 200 cm / Bending Angle 190°									
tion	Four-Way Tungsten wire Braided Sleeving 200 cm / Bending Angle 135°									
	Radius Of Gyration (mm)	17.8	TBD	TBD	38	38				
	Bending Length (mm)	24	TBD	TBD	43	43				
Image Sensor		1/18"	1/11"	1/9"	1/6"	1/5"				
Image Are	ea (mm)	0.714 x 0.707	1.446 × 0.91	1.819 × 1.033	2.788 x 1.5498	2.90 x 2.18				
Pixel Size (µm)		1.75 x 1.75	1.116 × 1.116	1.4 × 1.4	1.4 x 1.4	1.12 x 1.12				
Power Source		DC 5V								
Power Current		190 mA								
Focus Distance (mm)		FID 45-20-70								
Storage Temperature		-30 to 60 Degree C								
Working Temperature		-10 to 45 Degree C								
Operating		Windows XP, Windows Vista, Window 7, Windows 8, Windows 10, Linux, MAC OSX								

# **Two / Four-Way Articulation**

Series	311 (2 MP) / 363 (5 MP)							
Lens	77 / 81	88, 93 / 94, 99	158 / 169					
Drawing	Ø 6 10.4	Ø 7 11.5	Ø 7.9 13					
Series	100 (Half-VGA)	164 (1 MP)	209 (1 MP)					
Lens	120	120	76					
Drawing	Ø 2.8 10.4	Ø 4.2 TBD	Ø 4.2 TBD					

# **One-Way Articulation**

Series		311 (2 MP) / 363 (5 MP)						
Lens		77 / 81	88, 93 / 94, 99	158 / 169				
ROG	Short	Ø 7 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ø 7 7 7 TO	Ø 7.9 8				
	Long	Ø 7 10	Ø 7 10	Ø 7.9 10				



# <u>10-SVD408-164-2W-120</u>

CABLE	INTERFACE	VIDEO FORMAT	CONNECTOR	PROBE O.D	DISPLAY	SERIES	CONTROLLER		LENS	
Two-Way Four-Way 10 Tungsten hose braided sleeving	All Series N/A USB 2.0	All Interface V MJPEG / YUV	D USB Type A M USB Micro Type B (OTG) T USB Type C I USB Mini Type B	Two / Four-Way 2 Ø 2.8 mm 4 Ø 4.2 mm	Short ROG 08 Color M8 B/W	100 Half-VGA 164 1 MP 209 1 MP	Four-Way 4W Joystick  Two-Way 2L Lever 2W Knob  One-Way 1W Press	91 120 120 76 128 140	Specifica 0.5 mm / 0.418 mm 0.878 mm 1.32 mm 1.00 mm 0.92 mm	F 3.6 n / F 5.0 n / F 5.0 / F 3.5 / F 4.8
One-Way 80 Rigid tube	164/311/363 S USB 3.0	311 / Interface 2.0 H MJPEG / YUV / H.264		Two / Four-Way 6 Ø 6~6.9 mm 7 Ø 7~7.9 mm One-Way 7 Ø 7~7.9 mm	311 / 363 <u>Long ROG</u> 00 Color M0 B/W	311 2 MP 363 5 MP	11000	311 <u>Code / Angle</u> 77 88 93 158	363 <u>Code / Angle</u> 81 94 99 169	Specification 1.83 mm / F 5.0 1.55 mm / F 5.7 1.5 mm / F 5.7 1.523 mm / F 4.8

<sup>\*</sup> Probe OD 6 and OD 7 for 311 / 363 only

# Two / Four-Way articulation

Select the camera type according to the specifications.

<u>O.D</u> Ø 2.8	Resolution Half-VGA	View Angle 120°	Orientation Front view
 Ø 4.2	1 MP	76°	Front view
Ø6	2 MP / 5 MP	77° / 81°	Front view
Ø 7	2 MP / 5 MP	88° / 94°	Front view
Ø 7.9	2 MP / 5 MP	158° / 169°	Front view
Ø 6.9	2 MP	77°	Side view

# Camera Parameter Adjustable (MISUMI APP)

Camera parameter can be adjusted on smartphone via the Misumi app and PC viewer software AMCAP.



NOTE for MISUMI APP: UVC Camera does not support Android 10

# All MISUMI UVC Camera are Compatible With MP-WF580KP (WiFi DVR)

For example:

Our extremely lightweight 1920 x1080 (1080p) 1/6" CMOS UVC glasses camera is compatible with MP-WF580KP (WiFi DVR).

Supports H.264 video format input, loop recording, snapshot functions. Supports max memory 128 GB (micro SD).

Users can view live streaming video via a smartphone.











About MP-WF580KP:

It deliver the best 1080p live streaming performance when using H.264 camera. When using MJPEG cameras, it can only live stream at resolutions of 720p and below. MJPEG cameras delivers the best live streaming performance at 640 x 480 resolution.

<sup>\*</sup> ROG Radius of Gyration

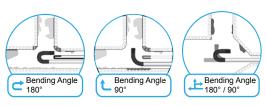


# **One-Way Articulation**











## Locked / Unlocked Camera Head!

Flexible control of camera articulation angle can be locked / unlocked at any angles by using the press controller.



#### Two Materials of Camera Cable

Different material for different application.

- Tungsten wire braided sleeving
- Steel Tube

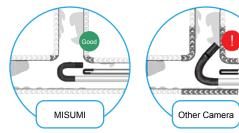


## 180 Degree Bending Angle!

180 Degree bending angle makes it easier to inspect!













## **High Brightness LED & Dimmer**

With high-brightness LED, the camera can capture clear images in a completely dark environment.

Camera is equipped with dimmer function to control LED brightness for micro focal distance or long focal distance, to prevent exposure in micro focal distance.

(IR 940nm & IR 850nm - specify when ordering)











## **Short Camera Head!**

Camera diameter is 7mm and length is 11mm. Short tube head helps to inspect hard-to-reach places or angles.



## Waterproof IP 68

Protected from total dust ingress.
Protected from long term immersion and
1 meter in depth.



# **Two-Way Articulation**







## Two Types of Two-Way Articulation Borescope.

- 1. Turn the turntable controller to adjust the bending angle.
- 2. Move the level controller to adjust the bending angle.



## Tighten / Loosen To Control Camera Head!

Turn the adjustable wheel to flexibly control camera articulation angle. Articulation angle can be tighten / loosen at any degree.



## Freeze Frame & Snapshot Function

Freeze frame function is perfect during inspection or surgery to pause image and do analysis.

Snapshot function is perfect for capturing and saving the photo during inspection.









# 190° Bending Angle

Two-Way articulation probe bend angle up to 190(-10) degrees with 3d bend angle more than 360 degrees.

This flexible design, make it easy to inspect hard-to-reach areas.



## Waterproof IP 68

Protected from total dust ingress. Protected from long term immersion and 1 meter in depth.



## Ø 6 x 10.4 mm Short Camera Head!

Camera diameter is 6 mm. Length is 10.4 mm.

A short tube head can helps to inspect hard-to-reach places or angles.



## **High Brightness LED & Dimmer**

With high-brightness LED, the camera can capture clear images in a completely dark environment.

Camera is equipped with dimmer function to control LED brightness for micro focal distance or long focal distance, to prevent exposure in micro focal distance.

(IR 940nm & IR 850nm - specify when ordering)



# **Four-Way Articulation**











# Four-Way Articulation Borescope.

Use joystick to control camera head direction: up, down, left, right. 4-way articulation to bend angle up to 135 degrees with rotation angle up to 360 degrees. Makes it easy to inspect hard-to-reach areas.



## Bending Rotation Up To 360 Degrees.

When bending at 135 degree angle, camera head can turn 360 degree. Makes inspection more flexible and more accurate!



## Freeze Frame & Snapshot Function

Freeze frame function is perfect during inspection or surgery to pause image and do analysis.

Snapshot function is perfect for capturing and saving the photo during inspection.



## **High Brightness LED & Dimmer**

With high-brightness LED, the camera can capture clear images in a completely dark environment.

Camera is equipped with dimmer function to control LED brightness for micro focal distance or long focal distance, to prevent exposure in micro focal distance.

(IR 940nm & IR 850nm - specify when ordering)











Waterproof IP 68

Protected from total dust ingress. Protected from long term immersion and 1 meter in depth.



## Ø 6 x 10.4 mm Short Camera Head!

Camera diameter is 6 mm. Length is 10.4 mm. A short tube head can helps to inspect hard-to-reach places or angles.



## **Unlock & Lock to Control Camera Head!**

Turn the joystick to flexibly control camera articulation angle. Articulation angle can be locked / unlocked at any degree.



