Unit: ± 0.5 mm

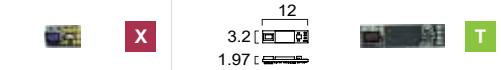
Feature

- Miniature size.
- Outstanding quality.
- 720p image pixel.

B20903 No Lens



BL20903 No Lens



Specification

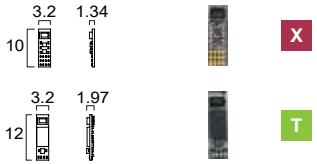
Model No.		B20903	BL20903	BL20903S	B20903U	B20904	B20904R	B20906U	B20908R	DB20909R	FPCL20909
Dimensions (mm)	K	Ø 3.2 x 1.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	X	Ø 3.2 x 6.4	3.2 x 6	3.2 x 10	3.2 x 10	N/A	Ø 4.2 x 1.9	N/A	N/A	Ø 9 x 1.9	N/A
	T	Ø 3.5 x 13	3.2 x 12	N/A	3.2 x 12	N/A	N/A	N/A	Ø 8.6 x 2.2	N/A	3.2 x 9
	M	N/A	N/A	N/A	N/A	Ø 3.6 x 16.4	N/A	6 x 21	N/A	N/A	N/A
Orientation		Front View	Side View	Side View	Up View	Front View	Front View	Up View	Front View	Front View	Side View
Camera Type		Board Type									
Video Format		MJPEG / YUV									
Image Sensor		1/9" Color CMOS Camera Module									
Resolution		1280 x 720p @ 15~30 fps									
Pixel Size (um)		1.4 x 1.4									
Image Area (mm)		1.82 x 1.03									
Sensitivity (Lux.Sec)		585 mV									
Dynamic Range		68.4 dB @ 16x gain									
S/N Ratio		36.4 dB									
Scan Mode		Progressive									
Shutter		Rolling									
Lens		Please Check Model Information Table.								Dual Lenses	
View Angle		Please Check Model Information Table.									
Focus Distance (mm)		Infinity									
LED		N/A (Optional)									
Storage Temp.		-30 to 60 Degree C									
Working Temp.		-10 to 60 Degree C									
Interface		USB 2.0									
Power Supply		DC 5 V									
Power Current (Max.)		120 mA								180 mA	130 mA
Microphone		N/A									
Operation System		Win XP, Win Vista, Win 7, Win 8, Win 10 Linux, MAC OSX									

*Working temperature means the camera device, not environment temperature.

BL20903S No Lens



B20903U No Lens



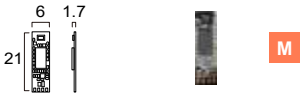
B20904 No Lens



B20904R No Lens



B20906U No Lens



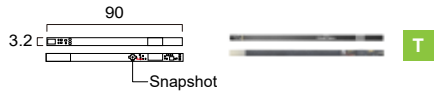
B20908R No Lens



DB20909R No Lens



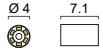
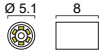
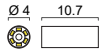
FPCL20903 No Lens



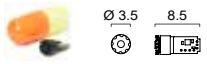
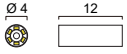
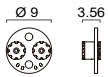
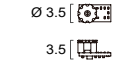
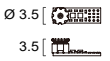
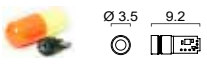
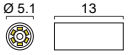
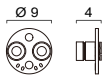
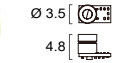
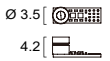
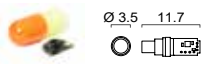
Unit: ± 0.5 mm

SERIES K

Low Working Temperature
Typically 41°~45°C Range

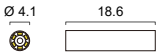
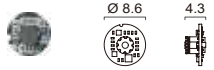
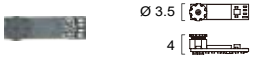
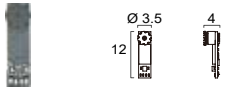
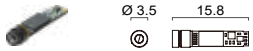
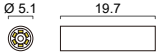
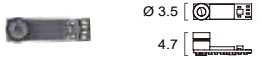
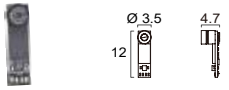
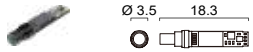
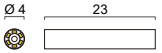
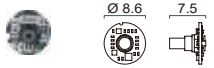
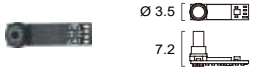
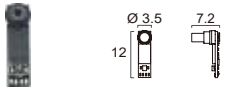
Lens	Front View	
	B20903 Board Type	T20904LH Tube Type (High-Intensity LED)
76°		 
128°		 
140°		Coming Soon 

SERIES X

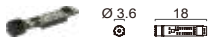
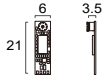
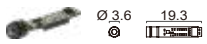
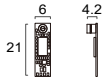
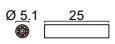
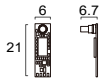
Lens	Front View				Side View		Up View
	B20903 Board Type	T20904LH Tube Type (High-Intensity LED)	B20904R Board Type	DB20909R Board Type (Dual Lenses)	BL20903 Board Type	BL20903S Board Type (Components on Single Side)	B20903U Board Type
76°		 	 	 	 	 	 
128°		Coming Soon 	 	Coming Soon 	 	 	 
140°				Coming Soon			

Unit: ± 0.5 mm

SERIES T

Lens	Front View			Side View	Up View
	B20903 Board Type	T20904LH Tube Type (High-Intensity LED)	B20904R Board Type	BL20903 Board Type	B209S3U Board Type
76°		Coming Soon 			
128°		Coming Soon 			
140°		 			

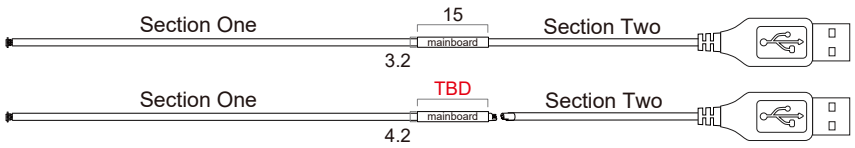
SERIES M

Lens	Front View		Up View
	B20903 Board Type	T20904LH Tube Type (High-Intensity LED)	B20906U Board Type
76°			Coming Soon 
128°			Coming Soon 
140°		Coming Soon 	Coming Soon 

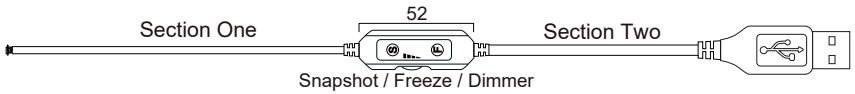
Unit: ± 0.5 mm

CABLE Please check cable information for Section One and Section Two.

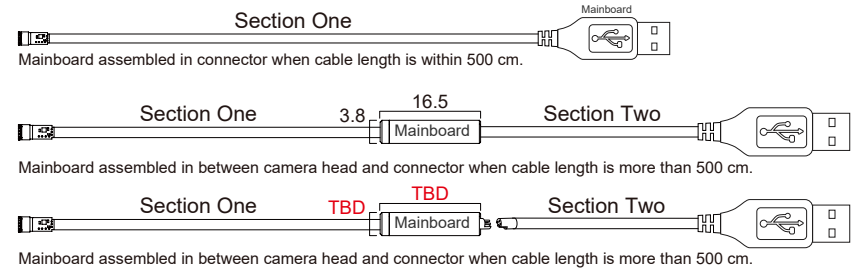
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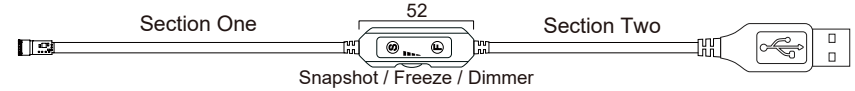
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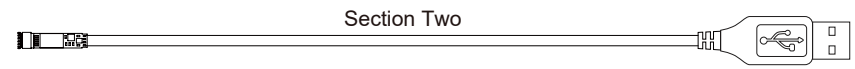
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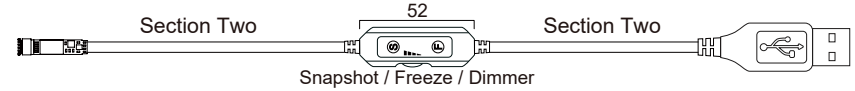
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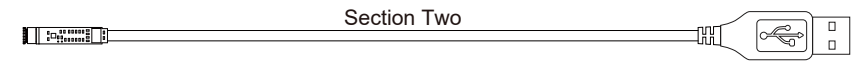
T



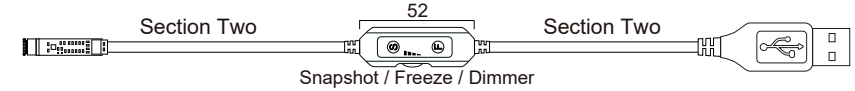
FT



M



FM



Section Two (Max. 7 Pin)

OD (mm)	Length (cm)	Series
1.4 #28 x 4C	10~1000	K X T M
1.4 #30 x 4C	10~600	
1.6 #28 x 4C	10~1000	
1.7 #36 x 9C	10~200	
2.8 #30 x 7C	10~400	
3.6 #28 x 7C	10~1000	
5.0 #24 x 9C	10~1500	

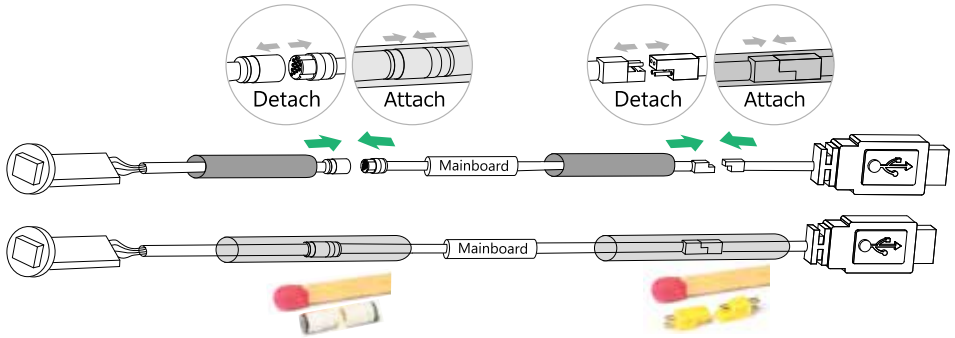
Section One (Max. 15 Pin)

OD (mm)	Length (cm)	Series
1.5 #38 x 13C	10~250	K X
1.7 #36 x 13C	10~250	
1.9 #36 x 15C	10~400	K
	10~500	X
2.8 #32 x 15C	10~500	K X
2.8 #34 x 13C	10~600	X

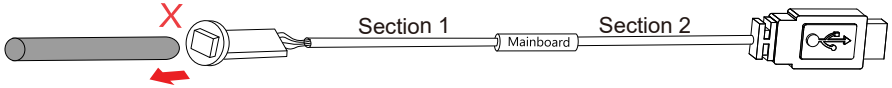
Detachable Nano Connectors *(Customize Option)*

Specifically designed to overcome the big size of connector and camera head.

With detachable Nano connectors,
a tube can go through the thin cable from halfway.



Without detachable Nano connectors,
camera head cannot go through the tube.



★Each segment can be modified by customer request.

Unit: ± 0.5 mm

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.
MJPEG cameras can only live stream at resolutions of 720p and below.
MJPEG cameras delivers the best live streaming performance at 640 x 480.

Omni-Viewer Android iOS AMCAP



▲MP-WF580KP

Camera Parameter Adjustable (MISUMI APP)

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

Brightness
Gain
Contrast
Gamma
White Balance
Exposure time ABS
Sharpness
Backlight Compensation
HUE
Saturation
Mirror
Flip
Frame rate 30fps
Resolution 1920x1080

AimScope (MISUMI APP)

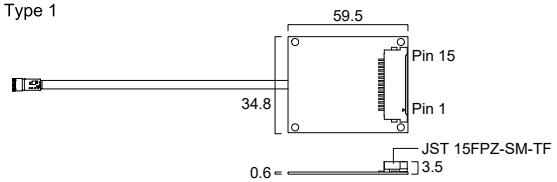
ANDROID APP ON Google Play



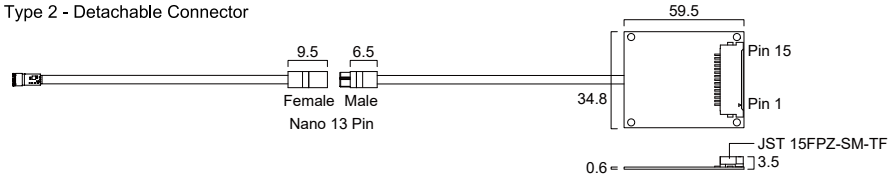
NOTE: MISUMI APP does not support Android 10.

Raspberry Pi (RPi) / MIPI CSI-2 (Available for X Series Only)

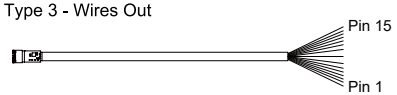
Type 1

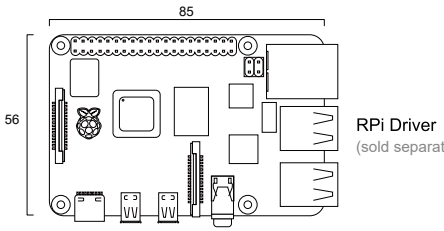


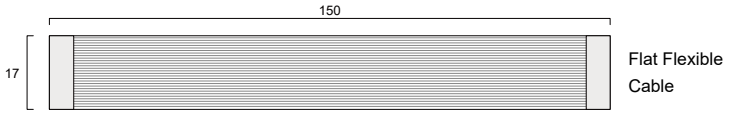
Type 2 - Detachable Connector



Type 3 - Wires Out







PIN	NAME	DESCRIPTION	PIN	NAME	DESCRIPTION
1	GND	Ground	9	MCP	MIPI clock positive output
2	MDN0	MIPI data negative output	10	GND	Ground
3	MDP0	MIPI data positive output	11	RST	Reset and power down (active low)
4	GND	Ground	12	MCLK	System clock input
5	MDN1	MIPI data negative output	13	SCL	Serial interface clock
6	MDP1	MIPI data positive output	14	SDA	Serial interface data
7	GND	Ground	15	+3.3V	Power supply +3.3V
8	MCN	MIPI clock negative output			

Unit: ± 0.5 mm

KD-B20903LH-140-R

SERIES

USB 2.0

- (F)K Short Head
- (F)X Low Temp.
- (F)T Advance
- (F)M Basic

*F Snapshot and Freeze Frame

CONNECTOR

UVC (USB)

- D Type A
- T Type C
- E TE Industrial Mini I/O Type II (2040008-2) (USB 2.0 Only)
- R Raspberry Pi (X)

CAMERA BODY

Front / Up View

- (V)B Board Type
- (V)DB Board Type
- T Tube Type
- V Tube Type

Side View

- (V)BL Board Type
- FPCL Flexible Board Type
- TL Tube Type
- VL Tube Type

*V Dimmer Controller
*D Dual Lenses (20909R Only)

DISPLAY

Front View

Color	B/W	Dimensions	
20903	209M3	Ø 3.2 x 1.4	(K)
		Ø 3.2 x 6.4	(X)
		Ø 3.5 x 13	(T)
		Ø 3.2 x 9	(FPCL)
20904	209M4	Ø 3.6 x 16.4	
20904Z	209M4Z	Ø 4.2 x 35	
20904R	209M4R	Ø 4.2 x 1.9	
20908R	209M8R	Ø 8.6 x 2.2	
20909R	209M9R	Ø 9.0 x 1.9	

Side View

Color	B/W	Dimensions	
20903	209M3	3.2 x 6	(X)
		3.2 x 12	(T)
20903S	209M3S	3.2 x 10	
20905Z	209M5Z	Ø 5.9 x 35	

*R Round Shape
*S Signal Board
*U Up View
*Z Rigid Steel (Handle Bar)

Up View

Color	B/W	Dimensions	
20903U	209M3U	3.2 x 10	(X)
		3.2 x 12	(T)
20906U	209M6U	6.0 x 21	

MICROPHONE

- N/A None

LED

- N/A None

White

- L Normal
- LH High-Intensity

Infrared

- L9 IR 940 nm
- L8 IR 850 nm

LENS

Code	Specification	View Angle
140	0.92 mm / F 4.5	140°
128	1.00 mm / F 4.8	128°
76	1.32 mm / F 2.0	76°
	1.32 mm / F 3.5	
39	2.88 mm / F 2.0	39°
	2.88 mm / F 4.8	

SYSTEM PARAMETERS

USB 2.0

- N/A Auto @ 30 fps
- R RAW Data @ 30 fps

* IR 940nm or IR 850nm LED is suggested to choose B/W camera type.
* Camera with LED light source is suggested to use lens with larger F-Stop number.
* Camera appearance or other requirements are applicable for customization.
* TE Industrial Mini I/O Type II connector does not support USB 3.0 output.

Connector Information


USB Type A


USB Type C


TE Industrial Mini I/O Type II (2040008-2) (USB 2.0 Only)