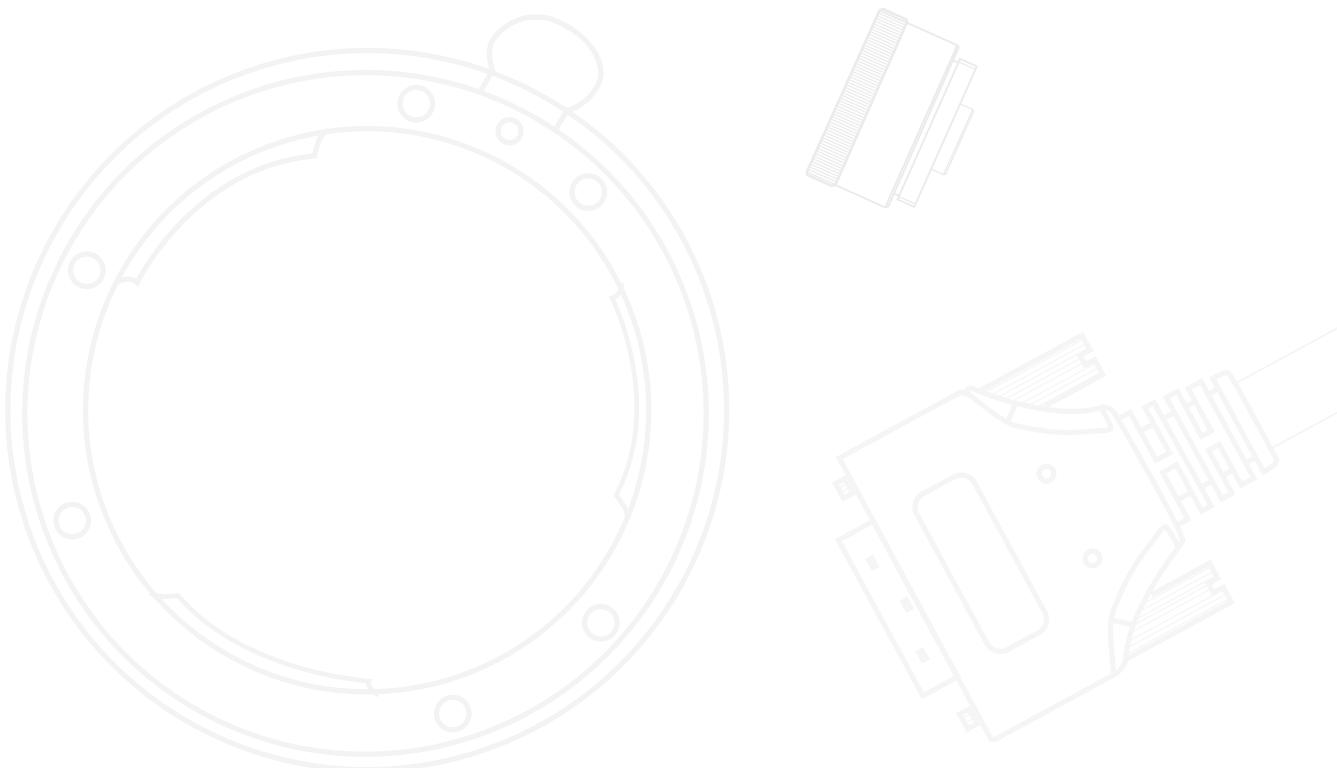


# VISUAL ACCESSORIES



*Subject to change without prior notice.*

*For more information, please contact our sales representatives or visit our website:[www.visiondatum.com](http://www.visiondatum.com)*

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# GigE Cables

Vision Datum's high-quality GigE-compliant cables offer a robust interface for reliable high-speed data transmission. Camera-end locking screws ensure a secure interface despite the shocks and vibrations common to industrial environments. Available in 3, 5 and 10 meter lengths, these cables are a cost-effective solution for your machine vision application.

- GigE standard compliant
- Simple integration into image processing applications
- Camera-end locking screws
- 3, 5 and 10 m lengths available
- Low-cost GigE cable

Product Model	Connects...	To...	Length
VT-NET-3LK(CAB)	RJ45(with locking screws)	RJ45	3M
VT-NET-5LK(CAB)	RJ45(with locking screws)	RJ45	5M
VT-NET-10LK(CAB)	RJ45(with locking screws)	RJ45	10M



# USB3.0 Cables

Ideal for standard imaging applications, Vision Datum offers a selection of USB 3.0 cables. These robust cables feature camera-end locking screws to ensure application stability in industrial environments where shock and vibration are an issue.

- USB3.0 standard compliant
- Simple integration into all image processing applications
- Camera-end locking screws
- Plug and play functionality
- 3m, 5m and AOC 10m/20m lengths available
- Low-cost USB cable

Product Model	Connects...	To...	Length	Product Display
VT-USB3.0-3M(90D-RAU)	USB 3.0 (Type-A)	USB 3.0 (Micro-B) With locking screws	3M	As shown on page 4 (90° USB Cables Schematic Diagram)
VT-USB3.0-3M	USB 3.0 (Type-A)	USB 3.0 (Micro-B) With locking screws	3M	
VT-USB3.0-5M-H	USB 3.0 (Type-A)	USB 3.0 (Micro-B) With locking screws	5M	
VT-USB3.0-10M/20M-AOC	USB 3.0 (Type-A)	USB 3.0 (Micro-B) With locking screws	10M/20M	

Note: -H means High Flexibility; -AOC means Active Optical Fiber.

### 90° USB Cables Schematic Diagram



MICRO-B  
R/A UP  
w/Recessed Screws



MICRO-B  
R/A DOWN  
w/Recessed Screws



MICRO-B  
EXIT RIGHT  
w/Recessed Screws



MICRO-B  
EXIT LEFT  
w/Recessed Screws

### AOC Schematic Diagram



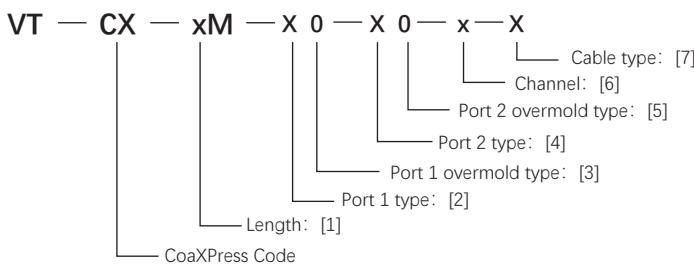
# CoaXPress Cables

Vision Datum's provides a low-cost solution. A large variety of possible cables allowed: thick ones for large distance, thin or flexible for shorter distance. The easy possibility to install and terminate connectors in the field.

- CoaXPress standard compliant
- Simple integration into all image processing applications
- High transmission rate
- Plug and play functionality
- 3, 5, 10 and 15 m lengths available



## Explanation of Model Code



[1]Length		[2][4]Port Type		[3][5]Overmold Type		[6]Channel		[7]Cable Type	
Type	Description	Type	Description	Type	Description	Type	Description	Type	Description
3		D	DIN	0	Straight	1	1 Channel CXP	S	Standard
5	Meter	MB/HB	HD-BNC/Micro-BNC	1	Right Angle	2	2 Channel CXP	H	High Flex
...						4	4 Channel CXP		

Model		Connects...	To...	Channel	Cable Type
Main Code	Sub Code				
VT-CX-3/5/xM	D0-D0	DIN Straight	DIN Straight	1/2/4	S:Standard / H:High Flex
	D0-D1	DIN Straight	DIN Right Angle		
	D0-HB/MB0	DIN Straight	HD-BNC Straight		
	D0-HB/MB1	DIN Straight	HD-BNC Right Angle		
	D1-D1	DIN Right Angle	DIN Right Angle		
	D1-HB/MB0	DIN Right Angle	HD-BNC Straight		
	D1-HB/MB1	DIN Right Angle	HD-BNC Right Angle		
	HB/MB0-HB/MB0	HD-BNC Straight	HD-BNC Straight		
	HB/MB0-HB/MB1	HD-BNC Straight	HD-BNC Right Angle		
	HB/MB1-HB/MB1	HD-BNC Right Angle	HD-BNC Right Angle		

# CameraLink Cables

**Purpose:** Cameralink cable can realize high-speed image data transmission between CameraLink interface camera and frame grabber, supporting the use of special industrial environment.

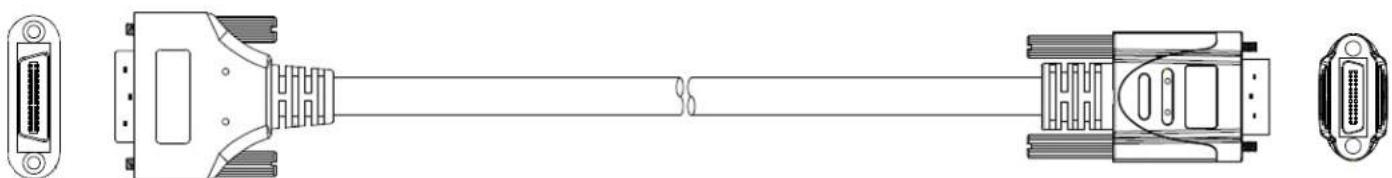
- High transmission rate, plug and play function
- Connector molds are linear and right-angled
- Standard lengths 3m and 5m for option, and size customization available
- Static standard type and high flexibility and bending resistance / high sliding type cables for option

Product Model		Connector 1	Connector 2	Length
Main Code	Sub Code			
VT-CL-3M/5M	M0M-S0M	MDR	SDR	3M / 5M
	M0M-S0M-H	MDR	SDR	3M / 5M
	S0M-S0M	SDR	SDR	3M / 5M
	M0M-M0M	MDR	MDR	3M / 5M
	M0M-M0M-H	MDR	MDR	3M / 5M

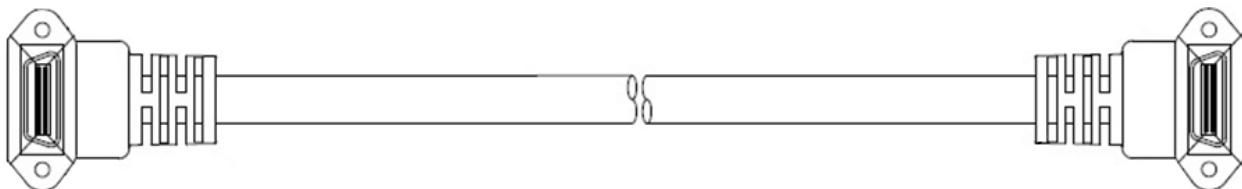


Note: -H means High Flexibility.

- MDR26 Male (Straight Type) - SDR26 Male (Straight Type)



- SDR26 Male (Right Angle Type) - SDR26 Male (Right Angle Type)



# Power and I/O Cables

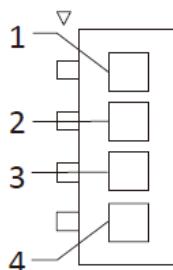
VT-Hirose cables can be used to power and control the I/O on LEO/Mars area scan cameras and line scan cameras. This cable uses a Hirose 6-pin/12-pin connector on the camera side. The other end is open and the length can be customized, allowing the wire to be shortened to match individual requirements.

Product Model	Connector 1	Connector 2	Length
VT-Hirose6-7-0.5M	HRS 6pin	Open	0.5M
VT-Hirose12-13-1.5M	HRS 12pin	Open	1.5M
VT-TR4/6P-xxM	4/6 pin	Open	-
VT-TR5P-0.5M-MARS	5 pin	Open	0.5M

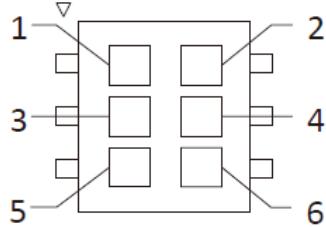


VT-TR cable is suitable for Board-level camera I/O control. The 4-pin/6-pin connector is used at the Board-level camera side, which can be selected according to the actual interface. The other end of the wire is open, allowing the wire to be shortened to meet individual needs.

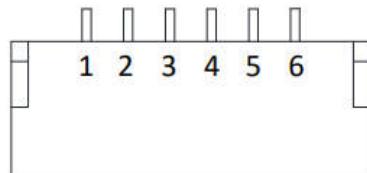
Product Model	Connector 1	Connector 2	Camera	Length
VT-TR4P-xxM	4 pin	Open	USB3.0 Board-level Camera	-
VT-TR2*3P-xxM	2*3 pin	Open	USB3.0 Board-level Camera	-
VT-TR6P-xxM	6 pin	Open	GigE Board-level Camera	-
VT-TR5P-0.5M-MARS	5 pin	Open	USB3.0 Board-level Camera	-



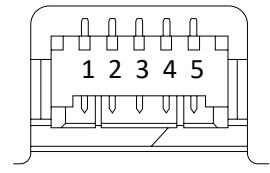
(USB3.0 Board-level Camera)



(USB3.0 Board-level Camera)



(Gige Board-level Camera)



(USB3.0 Board-level Camera)

## Extension Cord for Light

Various lengths and other specifications of wire can be customized according to customer requirements.

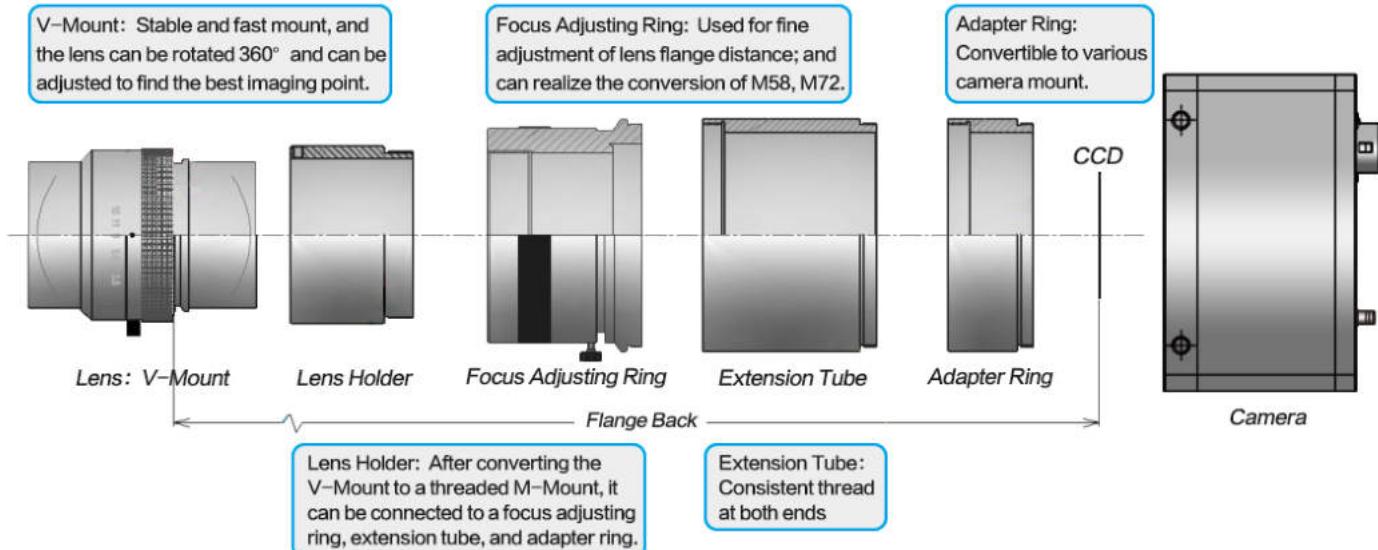
Product Model	Connector 1	Connector 2	Interface Type	Applicable Light	Length
VT-CB-2P-Lxx	2 pin	2 pin	Common	24V Lights	-
VT-CB-3P-Lxx	3 pin	3 pin	Common	24V Lights	-
VT-LICB-xx	4 pin	4 pin	Aviation	Line Scan Lights	-
VT-LICB46P-xxM	4 pin	6 pin	Aviation	Line Scan Lights	-

Note: For cables of different lengths, different types of controllers may need to be matched, please consult a sales engineer in advance.



## Note: Schematic Diagram of Line Scan Lens Transfer

When a line scan lens is used with a line scan camera, various combinations of adapters are required due to different magnifications, camera interface and target surface size, etc., to achieve specific imaging needs.



## Focus Adjusting Ring

The focusing ring is a device installed on the camera lens to adjust the focal length. By rotating the focusing ring, the focal length of the lens can be adjusted, so that the object you want to shoot can be clearly imaged.

- Adjust the lens focus
- Various lens specifications are available
- Fine workmanship, no tooth loss, no paint peeling.

Lens Mount	Camera Mount	Focus Range (mm)	Focus Length (mm)
V (Ø38)	V(Ø38)	17.4-29.4	12
M54×P0.75	M72×P0.75	44-69	25
V (Ø38)	M58×P0.75	24-45	21
M60×P0.75	M72×P0.75	44-69	25
F Mount	M58×P0.75	-	10.2
M72×P0.75	M72×P0.75	43.3-68.3	25
V (Ø38)	M72×P0.75	40.7-64.7	24



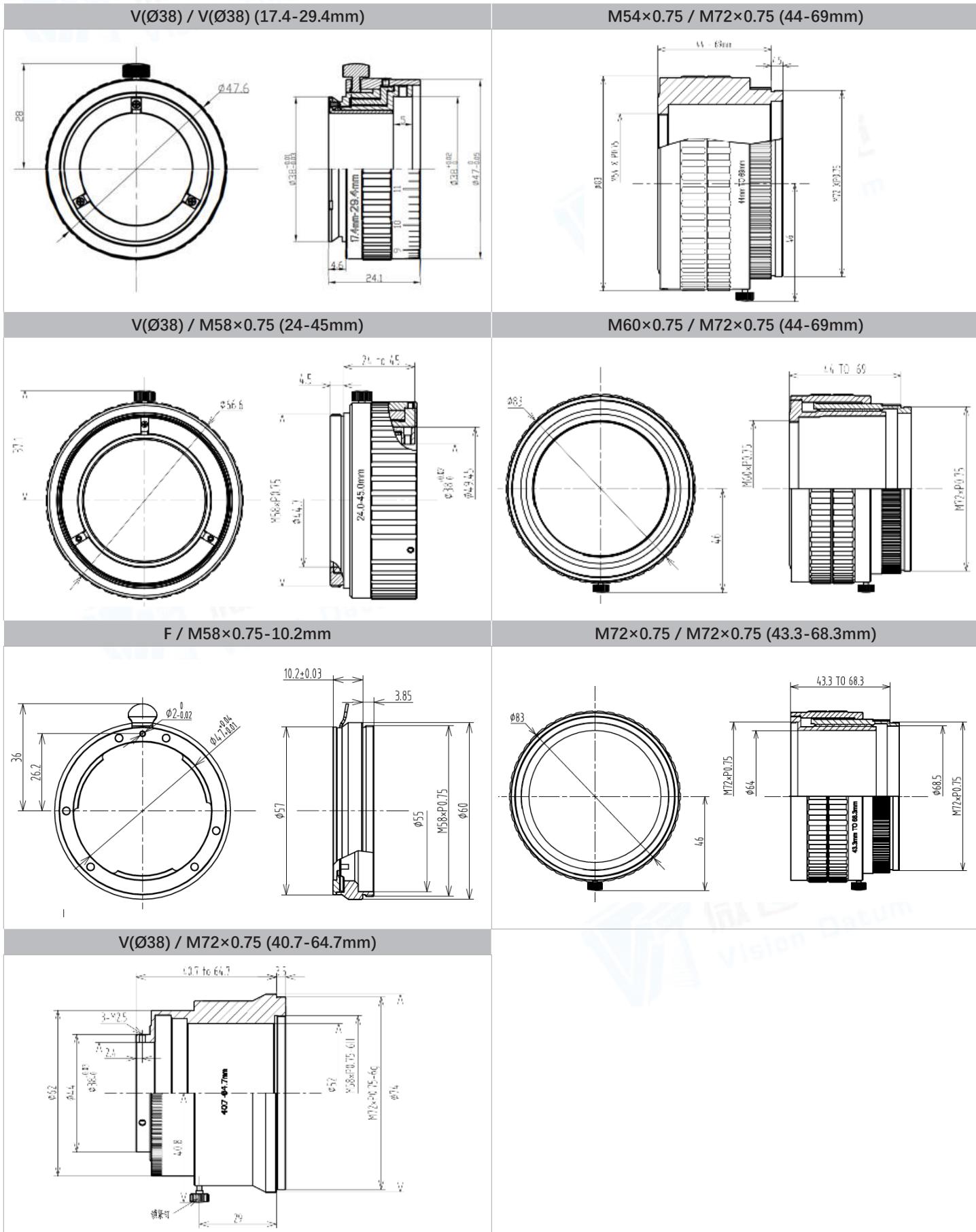
### Explanation of Model Code

VT — FAR — M54 — 2 — M72 — 25mm

The model code is broken down as follows:

- VT**: Lens Mount: M54
- FAR**: Focus Adjusting Ring Code
- M54**: Lens Mount: M54
- 2**: TO
- M72**: Camera Mount: M72
- 25mm**: Focus Length: 25 mm

## Lens Focusing Adjusting Ring Dimension (mm)



# Adapter Ring

The back focus adjustment adapter ring is suitable for adjusting the standard back focus position of industrial vision lenses, shortening the minimum imaging distance, and realizing macro image capture and optical magnification functions.

- Length can be customized
- Various lens specifications are available
- Change field of view and object distance

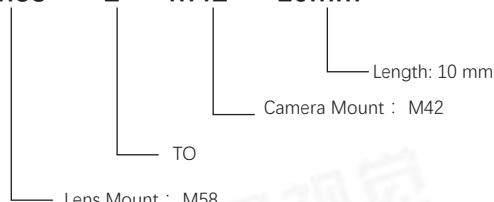


Lens Mount	Camera Mount	Length (mm)
M58×P0.75	C Mount	10
M58×P0.75	F Mount	9
M58×P0.75	M42×P0.75	10
M58×P0.75	M42×P1	10
M58×P0.75	M42×P1	24.3
M58×P0.75	M48×P0.75	10
M58×P0.75	M48×P0.75	29.74
M58×P0.75	M72×P0.75	2
M58×P0.75	M72×P0.75	16.75
M58×P0.75	M72×P0.75	24.3
M58×P0.75	M72×P0.75	25
M58×P0.75	M72×P0.75	50
M58×P0.75	M72×P0.75	100
M58×P0.75	M95×P1	25
M58×P0.75	M95×P1	50
M58×P0.75	M95×P1	100

Lens Mount	Camera Mount	Length (mm)
C Mount	M42×P1	5.526
C Mount	M42×P1	12.5
M42×P1	M58×P0.75	4
M42×P1	M72×P0.75	4
M72×P0.75	F Mount	34.5
M72×P0.75	M58×P0.75	6
M72×P0.75	M90×P1	3
M72×P0.75	M90×P1	50
M72×P0.75	M95×P1	3
M72×P0.75	M95×P1	50
V (Ø38)	M42×P0.75	4.5
V (Ø38)	M42×P1	4.5
V (Ø38)	M42×P1	6.5
V (Ø42.5)	C Mount	8.47
V (Ø42.5)	M42×P1	14
V (Ø42.5)	M58×P0.75	14.52

## Explanation of Model Code

VT — M58 — 2 — M42 — 10mm



## Adapter Ring Dimension (mm)

M58×0.75 / C-10mm	M58×0.75 / F-9mm	M58×0.75 / M42×0.75-10mm	M58×0.75 / M42×1-10mm
M58×0.75 / M42×1-24.3mm	M58×0.75 / M48×0.75-10mm	M58×0.75/M48×0.75-29.74mm	M58×0.75 / M72×0.75-2mm
M58×0.75/M72×0.75-16.75mm	M58×0.75 / M72×0.75-24.3mm	M58×0.75 / M72×0.75-25mm	M58×0.75 / M72×0.75-50mm
M58×0.75 / M72×0.75-100mm	M58×0.75 / M95×1-25mm	M58×0.75 / M95×1-50mm	M58×0.75 / M95×100mm

## Adapter Ring Dimension (mm)

C / M42×1-5.526mm	C / M42×1-12.5mm	M42×1 / M58×0.75-4mm	M42×1 / M72×0.75-4mm
M72×0.75 / F-34.5mm	M72×0.75 / M58×0.75-6mm	M72×0.75 / M90×1-3mm	M72×0.75 / M90×1-50mm
M72×0.75 / M95×1-3mm	M72×0.75 / M95×1-50mm	V(Ø38) / M42×0.75-4.5mm	V(Ø38) / M42×1-4.5mm
V(Ø38) / M42×1-6.5mm	V(Ø42.5) / C-8.47mm	V(Ø42.5) / M42×1-14mm	V(Ø42.5) / M58×0.75-14.52mm

# Extension Ring

The working distance of the lens has a certain range, and it cannot focus clearly at any object distance. When the working distance is less than the minimum working distance of the lens, the extension ring can be used to make the lens focus clearly.

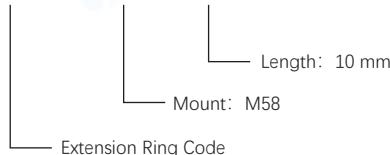
- Little change in lens perspective
- Various lens specifications are available
- A variety of focusing lengths are available, and the length can be customized

Male	Female	Length (mm)
M58×P0.75	M58×P0.75	10
M58×P0.75	M58×P0.75	24
M58×P0.75	M58×P0.75	24.82
M58×P0.75	M58×P0.75	25
M58×P0.75	M58×P0.75	50
M58×P0.75	M58×P0.75	100
M72×P0.75	M72×P0.75	10
M72×P0.75	M72×P0.75	20
M72×P0.75	M72×P0.75	35
M72×P0.75	M72×P0.75	50
M90×P1	M90×P1	20
M90×P1	M90×P1	50
M95×P1	M95×P1	20
M95×P1	M95×P1	50



## Explanation of Model Code

VT — EX — M58 — 10mm



## Extension Ring Dimension (mm)

M58×0.75 / M58×0.75-10mm	M58×0.75 / M58×0.75-24mm	M58×0.75/M58×0.75-24.82mm	M58×0.75 / M58×0.75-25mm
M58×0.75 / M58×0.75-50mm	M58×0.75 / M58×0.75-100mm	M72×0.75 / M72×0.75-10mm	M72×0.75 / M72×0.75-20mm
M72×0.75 / M72×0.75-35mm	M72×0.75 / M72×0.75-50mm	M90×1 / M90×1-20mm	M90×1 / M90×1-50mm
M95×1 / M95×1-20mm	M95×1 / M95×1-50mm		

# Lens Holder

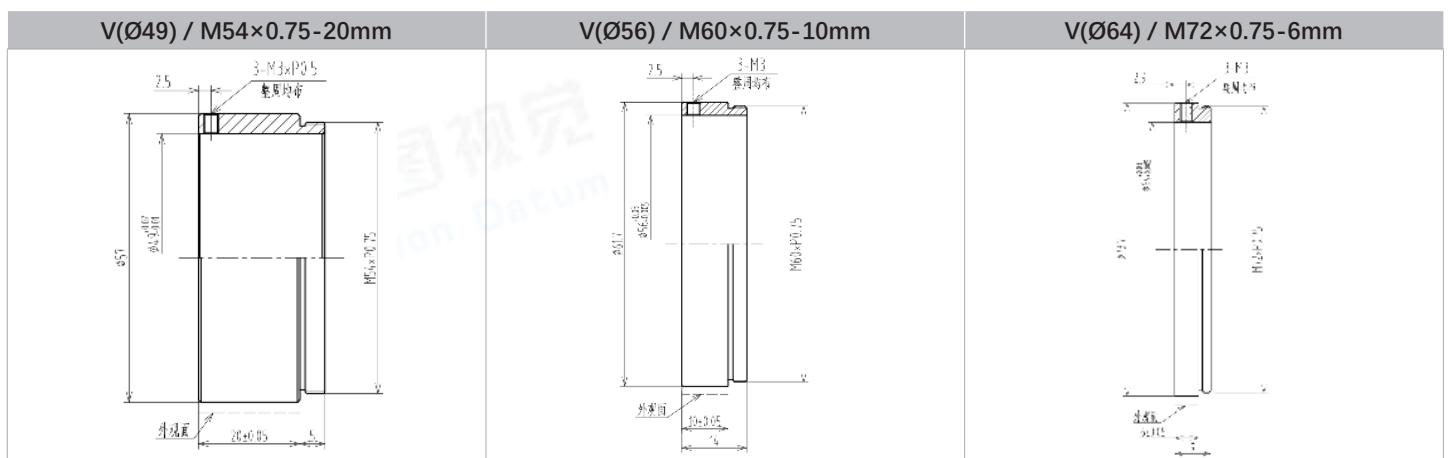
Lens holder to connect V-mount lens and threaded adapter.

- Length can be customized
- Various lens specifications are available

Mount 1	Mount 2	Length (mm)
V ( $\varnothing 38$ )	M42 × P0.75	4.5
V ( $\varnothing 38$ )	M42 × P0.75	6.5
V ( $\varnothing 42.5$ )	M42 × P0.75	14
V ( $\varnothing 42.5$ )	M58 × P0.75	14.52
V ( $\varnothing 49$ )	M49 × P0.75	30
V ( $\varnothing 49$ )	M54 × P0.75	20
V ( $\varnothing 56$ )	M60 × P0.75	10
V ( $\varnothing 64$ )	M72 × P0.75	6



## Lens Holder Dimension (mm)



## Explanation of Model Code

VT — VS — V49 — 2 — M54 — 20mm

VT — Lens Holder Code  
 VS — Lens Mount: V( $\varnothing 49$ )  
 V49 — TO  
 2 — Threaded Adapter Mount: M54  
 M54 — Length: 20 mm

# Magnifier

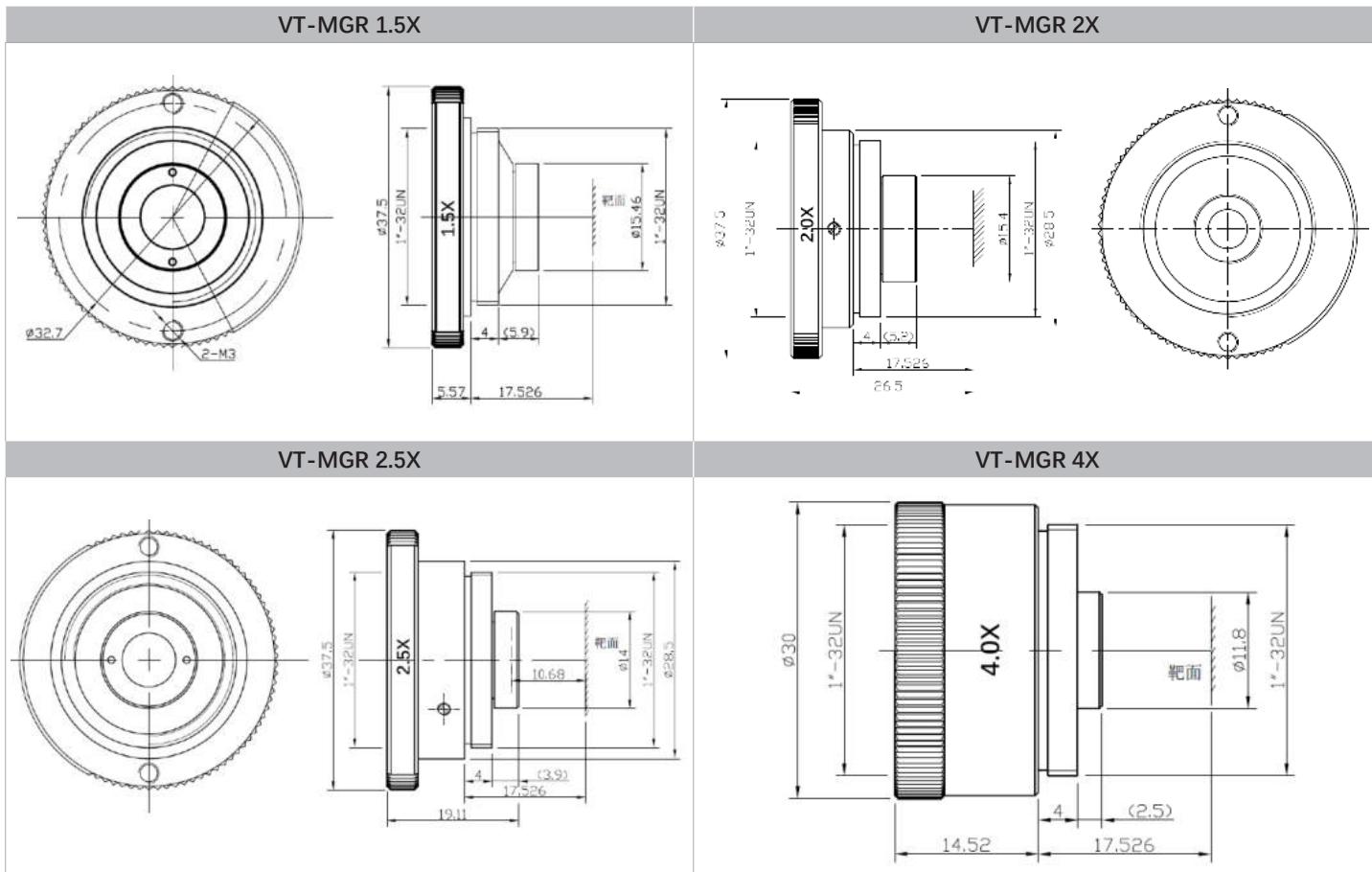
The extender is mounted between the lens and the camera body, and has the function of increasing the optical zoom factor of the camera.

- Small appearance and easy installation;
- The magnification can be increased by 1.5-4 times;
- Does not change the existing measurement environment (including working distance, depth of field, distortion, etc.)

Product Model	Focal Length	Mount
VT-MGR 1.5X	1.5x the original lens	C
VT-MGR 2X	2.0x the original lens	C
VT-MGR 2.5X	2.5x the original lens	C
VT-MGR 4X	4.0x the original lens	C



## Magnifier Dimension (mm)



# Filter

Filtering corrects the spectral properties of the light source, which can block or selectively allow some wavelengths of light to pass through, and can highlight or suppress the color characteristics of specific objects.

- A variety of categories and bands are available, suitable for a wide range of scenarios
- Spectrally flat, negligible color deviation
- Dust-proof design to better protect the lens



Filter	Common Wavelength Range
IR	715-1060 nm
Visible	400-695 nm
UV	220-390 nm

Type	Description
Long Pass Filter	Can be arbitrarily selected from ultraviolet to near-infrared band, high rejection stop band, high transmission pass band
Short Pass Filter	In a specific wavelength range, the short-wave direction is passed, and the long-wave direction is cut off
Band Pass Filter	The bandpass of the narrowband filter is relatively narrow, generally less than 5% of the central wavelength value
Full Width at Half Max.	Refers to the distance between two general locations in the passband where the transmittance is peak transmittance

## Explanation of Model Code

VT — TC3 — 850 — LP — 25505

Legend:

- VT: Filter Code
- TC3: Wavelength
- 850: Lens Mount Size: 25.5 x 0.5 mm
- LP: Filter Type
- 25505: FWHM



# Polarizing Lens

The polarizer can filter the interference caused by the reflection of the workpiece, so that the incident lens is light in a certain direction, so that the light can enter the visual image of the eye on the light transmission axis of the right track, so that the field of vision is clear and natural.

- Various lens mount can be customized;
- The surface is not easy to be scratched and wear-resistant;
- Suppresses reflections

## Explanation of Model Code

VT — PL — 25505

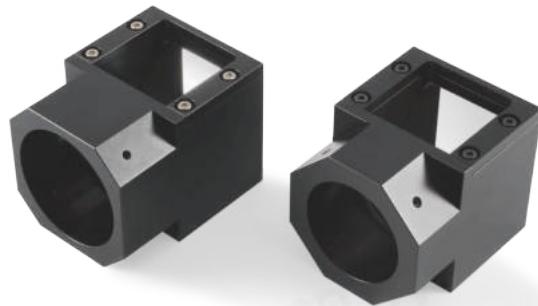
Legend:

- VT: Polarizing Lens Code
- PL: Lens Mount Size: 25.5 x 0.5 mm



# Optical Path Steering Prisms

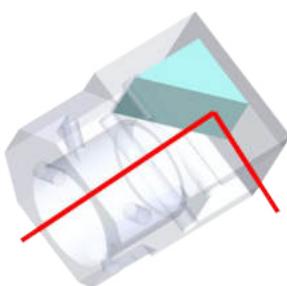
- Change path direction;
- Prisms can meet different mechanical structures;
- Achieve the minimum distance between the two lenses.



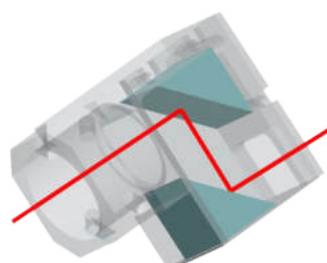
Product Model	Mount Size (mm)	IOPL (mm)	Beam Pitch (mm)
<b>L-Shaped Steering Prism</b>			
VT-PL90-16D-1.5	16	23.7	1.5
VT-PL90-16D-3S	16	23.5	3
VT-PL90-16D-5	16	20	5
VT-PL90-20D-3.2	20	42	3.2
VT-PL90-22D-3.2	22	21	3.2
VT-PL90-25D-13	25	30.9	13
VT-PL90-27D-14.3	27	31.1	14.3
VT-PL90-29D-12.6	29	32.7	12.6
VT-PL90-30D-5	30	26.5	5
VT-PL90-34D-12.2	34	31.9	12.2
VT-PL90-43D-23.5B	43	48.5	23.5
<b>Z-Shaped Steering Prism</b>			
VT-PZ-16D-5	16	39.5	1.5
VT-PZ-16D-3	16	36.4	3
VT-PZ-22D-3B	22	38	3
VT-PZ-29D-5	29	37	5
VT-PZ-30D-4	30	63.3	4
<b>ZL-Shaped Steering Prism</b>			
VT-PZL-16D-1L	16	31	1
VT-PZL-16D-1R	16	31	1
VT-PZL-16D-1.5L	16	31	1.5
VT-PZL-16D-1.5R	16	31	1.5
VT-PZL-16D-3B-L	16	29.5	3
VT-PZL-16D-3B-R	16	29.5	3

Remarks: If with more prisms request suiting different telecentric lens, please contact our Engineer for support.

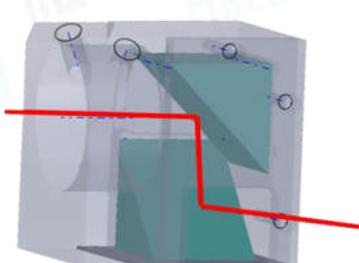
## Explanation of Model Code



VT-[P]-[L90]-[16D]-[1]  
 ① ② ③ ④



VT-[P]-[Z]-[16D]-[1]  
 ① ② ③ ④



VT-[P]-[ZL]-[16D]-[3L]  
 ① ② ③ ④

①: Prism Code  
 ②: Optical axis is L-turn  
 ③: Support Lens Diameter  
 ④: Beam Pitch

①: Prism Code  
 ②: Optical axis is Z-turn  
 ③: Support Lens Diameter  
 ④: Beam Pitch

①: Prism Code  
 ②: Optical axis space Z-turn  
 ③: Support Lens Diameter  
 ④: Beam Pitch

## Prism Dimension (mm)

VT-PL90-16D-1.5	VT-PL90-16D-3S	VT-PL90-20D-3.2
VT-PL90-22D-3.2	VT-PL90-25D-13	VT-PL90-27D-14.3
VT-PL90-29D-12.6	VT-PL90-30D-5	VT-PL90-34D-12.2
VT-PL90-43D-23.5B	VT-PZ-16D-1.5	VT-PZ-16D-3

## Prism Dimension (mm)

VT-PZ-22D-3B	VT-PZ-29D-5	VT-PZ-30D-4
VT-PZL-16D-1L	VT-PZL-16D-1R	VT-PZL-16D-1.5L
VT-PZL-16D-1.5R	VT-PZL-16D-3B-L	VT-PZL-16D-3B-R

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