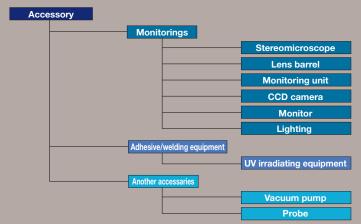
Alignment Accessory

The following pages will help you use the accessory for WG, LD, PG alignment.



HOURS

www.hours-shop.com

Guidance

WG alignment

LD/PD alignment

Alignment components

Manual alignment unit

Motorized alignment uni

Device unit

Fiber holders

Device noiders

Adaptors

Contact sensing meter

Accessories for alignment

Stereomicroscope

Lens tube

Monitoring

unit

camera

WOITHOR

Lighting

UV equipment

Pump

Probe

Alignment system

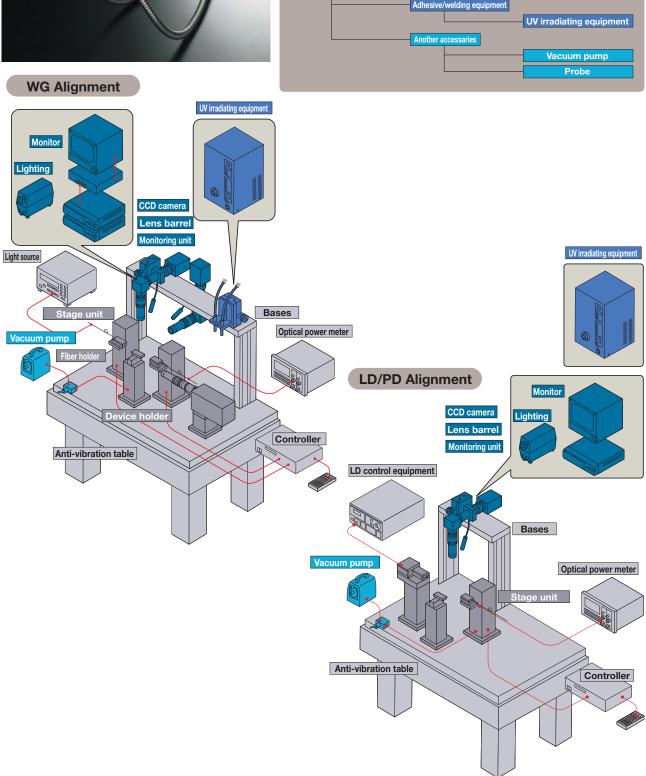
Alignment

001141 01101

alignment

LD/PD





Alignment Accessory Lineup

Stereor	microscope	Lens barrel				
Type of product	stereomicroscope	Zoom head	Coaxialepi—illumination/Straight lens barrel	Video Microscope	NFP Observation unitObservation unit	Zoom lens
Model	V20	V20	V21	VMS	V25	VZL
Appearance				u	100	
Page	P.4-045	P.4-048	See WEB	P.4-049	P.4-050	P.4-051

Monitor	ring unit		CCD camera		Monitor	
Type of product	Monitoring unit (For zoom head)	The end face monitoring unit (For zoom head)	Color CCD camera	Black/White CCD camera	Color Monitor	Black/White monitor
Model	E701/E711/E721	E790	VSTC	VCS	VCM/VQT	V9LM
Appearance			2			20 20
Page	P.4-052	P.4-053	P.4-054	P.4-054	P.4-054	P.4-054

Monito	r	Lighting		UV irradiating	equipment
Type of product	Camera selector	Cold light	LED light	UV-LED light source	UV light source
Model	VCC	VMEGA	VSLD/VSLDH	VEXECURE-H1VC2	VEXECURE4000
Appearance	•••••	On about	199		
Page	P.4-054	P.4-055	P.4-056	P.4-057	P.4-058

Pump				Probe
Type of product	Vacuum pump set	Vacuum pump	Vacuum pin set	Probe unit
Model	EV10A	V10A	V12A	MPU
Appearance				g k
Page	P.4-059	P.4-059	P.4-059	P.4-060

Plate/p	arts etc.					
Type of product	Base plate	Spacer	Plat form	Bread board	Anti-vibration table	Optical fiber
Model	A24	A49/A50/E0-h	A60/61/E11	A64/JF	J04/J05	V50/V51
Appearance						
Page	P.3-139	P.3-137	P.3-138	P.3-119	P.3-163	P.3-150

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Lighting

Pump

Probe

Alignment system

Alignment controller

WG alignment

LD/PD alignment



LD/PD

alignment

Optical Fiber Alignment

Accessory Guidance

■Monitoring equipment OP.4-045~

Monitor the contact part between devices and the appearance streamer from the edge during the alignment. As the size of device is so small, so it is improved with the microscope and the zoom lens barrel.

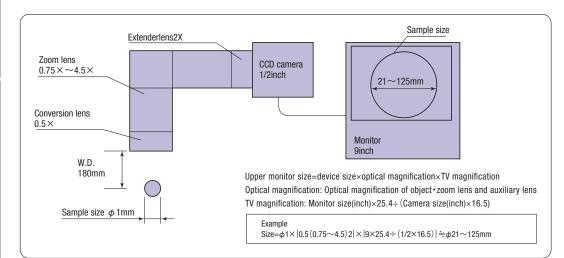
Selection

Please make sure the equipment depends on the distance of shape, size and wavelength.

Monitoring proximity of the devices.

Use stereomicroscope and zoom-head+CCD camera.

Device size as shown below during CCD camera operation on the monitor.





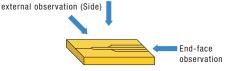




Monitoring unit

Monitoring devices or positioning proximity must be confirmed before the device alignment. We are preparing a sample of monitoring as belows.





		Monitoring unit					
	Мо	onitoring unit (For zoom he	ad)	The end face monitoring unit (For zoom head)	The end face monitoring unit (For zoom head)		
Appearance	ET LEEN						
Monitoring direction	external monitoring (Upper)	external monitoring (Upper)	external monitoring (Upper/Side)	End-face monitoring	End-face monitoring		
Model	E701	E711	E721	E790	E791		
Page	P.4-052	P.4-052	P.4-052	P.4-053	P.4-053		

Manual alignment unit

Motorized alignment unit

Device unit

Fiber holders

Device holders

Δdantors

Contact

Accessories for alignment

Stereomicroscope

Lens tube

Monitoring

CCD

camera

Monitor

Lighting

O F Oquipinon

Pump

Alignmon

Alignment system

Controller

WG

.

LD/PD

Alignment controller

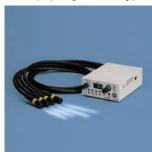
alignment LD/PD

alignment

Adhesive a device.

We are preparing a UV curing products for adhesive a device.

▶ P.4-057~





UV curing equipment **VEXECURE**

Uv curing equipments are available in either lamp type or LED type. Wide selection of lightguide and lens.

More accessories ○P.4-059~

A wide variety of parts, units, combination holders and much more for the alignment operation.

Pump

A pump for vacuum absorption. Vacuum pin-set also available for pick-up the fine parts.





Vaccum pump set EV10A

Vaccum pin set V12A

Probe

Use for LD chip or waveguide with electronics, and device probing.

Combined with XYZ stage unit and probe holder on the magnet base plate. It is a small and easy-to-use.





Probe unit MPU-25

Probe unit MPU-40

Others

See more details for optoronics accessory following pages.

Base plate	○ P.3-139~
• Spacer ·····	○ P.3-137~
• Plat form·····	○ P.3-138~
Bread board	○ P.3-119~
Anti-vibration table	○ P.3-163~
Optical fiber	○ P.3-150~



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LD/PD alignment

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Lens tude

Monitoring

CCD camera

Monitor

Lighting

UV equipment

Pump

Probe

Alignment system

Alignment controller

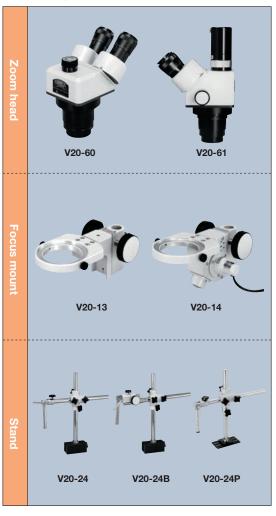
alignment

_D/PD alignment

Stereomicroscope: V20 Series

- ●Monitoring a perspectively and satirically erected image in wide range.-Greenough-type binocular stereomicroscope.
- It is good for rough positioning of butting between optical fiber and waveguide or butting between an optical fibers.
- The microscope is a selectable unit that combines with an eyepiece lens, attachment objective, focus mounts and stands for your purpose.
- Also available triple-lens microscope. Please refer following combination samples.

Microscope combination chart





■Zoom-type optical combination performance chart (Magnification • F.N. • Operating distance)

Objective	Objective		Eyepiece							
auxiliary	zoom	Traveling	V20	1-5X	V20-	-10X	V20-	-15X	V20-	-20X
lens	lens		Magnification	F.N.	Magnification	F.N.	Magnification	F.N.	Magnification	F.N.
0.25×	0.18~1.125×	300mm	0.93~5.62×	120~18.5mm	1.7~11.25×	130~20mm	2.81~16.87×	74~12mm	3.75~22.5×	70~11.5mm
0.4×	0.3~1.8×	200mm	1.5~9×	77~11.9mm	3∼18×	83~14mm	4.5~27×	48~7.6mm	6~36×	45~7.3mm
Standard	0.75~4.5×	90mm	3.75~22.5×	27~4.5mm	7.5~45×	29.3~4.8mm	11.25~67.5×	17.1~2.8mm	15~90×	16~2.7mm
1.5×	1.12~6.75×	45mm	5.65~33.75×	17.3~2.9mm	11.25~67.5×	19.2~3.2mm	16.87~101.25×	11.3~2.0mm	22.5~135×	10.5~1.8mm
2.0×	1.5~9.0×	31mm	7.5~45×	13.1~2.2mm	15~90×	14.6~2.4mm	22.5~135×	8.6~1.42mm	30~180×	8.1~1.31mm

Eyepiece lens

There are 5X, 10X, 15X and 20X types for an eyepiece lens of binocular microscope. Also available 10X eyepiece lens with visibility controller.



SPEC					
Model	V20-5×	V20-10×	V20-15×	V20-20×	
Magnification	5×	10×	15×	20×	
Applicable head	V20-60、V20-61				



Guidance

WG alignment LD/PD alignment

Zoom head

- Binocular zoom head:V20-60 Tilt 45 degree.
- Triple-lens zoom head:V20-61
 Tilt 45 degree. Attachable camera and TV camera on cylinder.
- Dedicated adaptor is required when CCD is mounted.



	SPEC					
Model	V20-60	V20-61				
Туре	Binocular zoom head	Triple-lens zoom head				
Objective lens	0.75~4.5× zoom					
Mount	_	Attachable a camera or CCD by using an adaptor.				
Applicable focus mount	V20-13、	V20-14				
Eyepiece	Please select from V20-5×、10×、15×、20×					
Travel distance	90mm					

Attachment objective lens

It is combined with zoom head. Can be changed magnification, fields and distance for your purpose.



		SPEC		
Model	V20-67	V20-68	V20-69	V20-70
Magnification	1.5×	2×	0.25×	0.4×
Travel distance	45mm	31mm	300mm	200mm
Applicable head	V20-60、V20-61			

Focus mount

For zoom head.

V20-14 has an oblique lighting. Please refer the specification of zoom head and stand.



	SPEC					
Model	V20-13	V20-14				
Lighting		With oblique illuminator				
Vertical motion	Rack & Pinion type, stroke 50mm					
Slide	dovetail					
Pole hole diameter	φ19	9mm				
Applicable head	V20-60、V20-61					
Applicable stand	V20-24、V20-24B、V20-24P、V20-24BP					

Stand

Included base plate.

Can be travel 300mm and 250mm to vertical and holizontal direction, and travel 50mm to parallel by dovetale type. Available magnet base plate and base plate.



SPEC				
Model	V20-24	V20-24P	V20-24B	V20-24BP
Back & force motion	_		Rack & Pinion typ	pe, stroke 50mm
Base	Magnet	Base plate	Magnet	Base plate
Applicable focus mount	V20-13、V20-14			

Illuminator

Illumination for microscope.

 $\label{eq:V20-28C} V20\text{-}28C \ is \ an \ epi-illumination \ with collective lens, and V20\text{-}40C \ is \ ring form fluorescent illumination.}$

Review the frequency when place an order.

Also available cold-light.



	SPEC			
Model V20-28C		V20-40C		
Туре	Flexible incident-light source	Ring fluorescent lighting		
Lighting	6V 10W with light intensity controller	100V 8W		



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ignment mponents anual gnment unit

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Stereomicroscope Set

Combination with a binocular stereo microscope mounted by magnet.



■Component

Product name	Model
Eyepiece 10×	V20-10X
Binocular zoom head	V20-60
Focus mount	V20-13
Magnet stand	V20-24B

Model	
V20-6013	

Combination with a binocular stereo microscope mounted on a plate.



Component

Product name	Model
Eyepiece 10×	V20-10X
Binocular zoom head	V20-60
Focus mount	V20-13
Base stand	V20-24P

Model	
V20-6013A	

%The original stand does not have dovetail type(V20-24P)

■Combination with a trinocular stereo microscope mounted by magnet.



■Component

Product name	Model	
Eyepiece 10×	V20-10X	
Triple-lens zoom head	V20-61	
Focus mount	V20-13	
Magnet stand	V20-24B	
	•	

Model	
V20-6113	

Combination with a trinocular stereo microscope mounted on a plate.



■Component

Product name	Model
Eyepiece 10×	V20-10X
Triple-lens zoom head	V20-61
Focus mount	V20-13
Base stand	V20-24P

Model	
V20-6113A	



4 047

Zoom Head

GORRECT ** ** 清和光学製作所

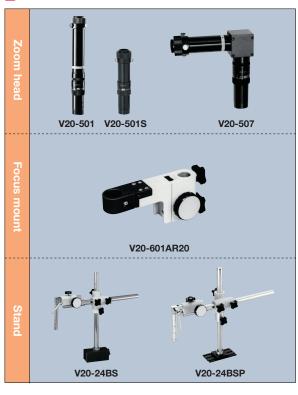
Zoom head

Tilt head with 0.75-4.5X zoom.

Good for butting between optical fiber and waveguide because of wide length.

In additional to the standard type, we have the fixed magnification and cylinder type.

List for zoom head comibination



<V20-501>

Great resolving power and wide length and the compact style. Combine with a ring illumination, oblique lighting and transmissive.

<V20-501S>

The compact type of V20-501.

No variable throttles.

<V20-507>

Good for combining with unit.

The work motion should be unaffected with erected image prism.

See WEB for external dimension

	SPEC		
Model	V20-501	V20-501S	V20-507
Туре	Zoom head	Zoom head (Short)	Right angle zoom head
Objective lens		0.75~4.5× zoom	
Mount		With C-mount	
Applicable focus mount		V20-601AR20	
Travel distance		90mm	

Focus mounted

For zoom head.

V20-601AR20 is cross-roller type for travering horizontal and finished the top of lens tube with R20.

Can be closed to use when you operate two tubes.

SPEC	
Model	V20-601AR20
Vertical motion	Rack & Pinion type, stroke 50mm
Slide	Cross roller
Pole hole diameter	φ25mm
Applicable head	V20-501、V20-507
Applicable stand	V20-24BS、V20-24BSP

Stand

Stand with base plate.

Can be travel 300mm and 250mm to vertical and holizontal direction, and travel 50mm to parallel by dovetale type.

Available magnet base plate and base plate.

	SPEC		
Model	V20-24BS	V20-24BSP	
Back & force motion	Rack & Pinion type, stroke 50mm		
Base	Magnet	Base plate	
Applicable focus mount	V20-601AR20		

Conversion lens and extenderlens

 $\label{eq:V20-CV} \mbox{ Easy to change magnification to mount V20-500 series.}$

《V20-EX2》 This is an attachment lens for improving magnification to mount between C mount and camera C mount.





	SPEC
Model	V20-EX2
Magnification	2×
Mount	C-mount/C-mount
Travel distance	No change
Magnification calibration	N/A

			SPE	EC			
Model	V20-CV025	V20-CV04	V20-CV05	V20-CV075	V20-CV15	V20-CV20	V20-CV30
Magnification	0.25×	0.4×	0.5×	0.75×	1.5×	2.0×	3.0×
Travel distance	300mm	195mm	180mm	120mm	54mm	36mm	25mm

Guidance

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LD/PD alignment

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Stereomicroscop

Lens tube

Monitoring unit

CCD camera

Monitor

Lighting

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Pump

Probe

Alignment

Alignment

Alignment controller

> alignment LD/PD

alignmen

Optical Fiber Alignment

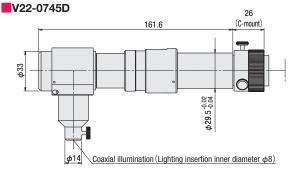
Compact Zoom Lens Tube: V22-0745D Series (***** 清和光学製作所



- This is the 0.7~4.5X compact zoom lens tube for 1/2 inch camera. Can be monitored even range at the zoom.
- Magnification set up by click.
- Available inner focus type.



Dimensional outline drawings



SPEC				
Model	V22-0745D	V22-0745DINF		
Optical magnification	0.7~4.5×			
Zoom ratio	6.4×			
Inner Focus	N/A ±1.5mm			
Depth of field	MIN1.8mm: MAX0.13mm			
Travel distance (From the lens tube edge)	92mm			
Weight	440g			

V22-0745DINF

Coaxial Lens Tube: VMS200TWL Series

CORRECT **** 清和光学製作所

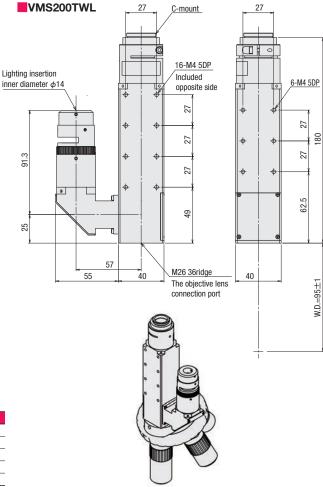
- VMS200TWL is compact and low weight.
- Corrects the harmonics to 1064/532/355mm.
- High performance monitoring provides bright field. To be near-infrared microscope by combining with S72PEIRP.
- Available till 1.1 inch camera.



	SPEC
Model	VMS200TWL
Lens mount	C-mount
Applicable objective lens	S72MPA、S72PEIRP
Applicable guide diameter	φ14
Weight	0.65kg
	Objective lens P 3-051 052

Objective lens P. 3-051, 052

Dimensional outline drawings



Manual revolver with lens tube Model

VMS200TWL-RV Objective lens P. 3-051, 052



WG alignment

LD/PD alignment

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Accessories for alignment

Lens tube

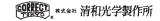
Lighting

UV equipmen

Pump

Alignment

N.F.P. Monitoring Optical Unit: V25 Series





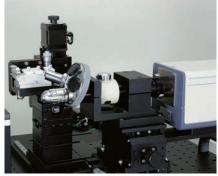
A variable type by revolver.

The objective lens are set to a 4 holes revolver, and combine with coaxial illumination, lens tube and C mount adaptor.

This is a cost-effective unit.

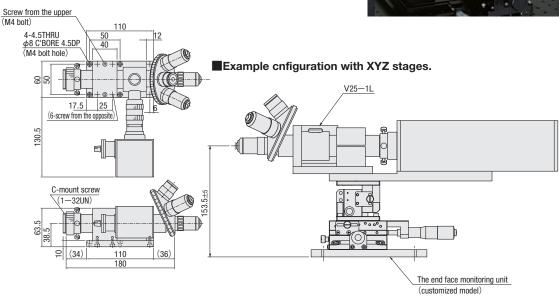
- ●The magnification will be changed 4 stages, so can be monitored the observation and all field.
- ■No illumination
- Not all types has objective lens.

■Example for using



Dimensional outline drawings

■V25-1L



Available customized configuration that combined with stages for using camera. For details, feel free to contact us

	SPEC	
Model	V25-1L	V25-1LN
Objective lens	5×,10×,20×,40×	_
Light sources	Coaxial vertical illuminat	ing (6V20WHalogen lamp)
Mount	C-r	nount

《V25-1L light specifications》

6V20W Halogen lamp

AC100V 50/60Hz With stabilized power source Diaphragm and light quantity control system Coaxial vertical illuminating

《Objective lens specification》 S72S series

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nm
nm
nm
1

Detailed P. 3-051

■About total magnification

Approximately total magnification that combined with objective lens, camera and monitor is as belows. (Total magnification) = (Optical magnification) × (Television magnification)

Optical magnification:Depending on objective lens and relay lens
 Television magnification:Depending on camera, pick-up tube and monitor size.
 Television magnification=monitor size ×25.4÷ (camera size ×16.5)

(V25 approximately total magnification)

		2/3 inch pick-up tube · CCD camera			1 inch pick-up tube · CCD camera		
		9 inches monitor	hes monitor 12 inches monitor 14 inches monitor			12 inches monitor	14 inches monitor
objective lens	5×	104	138	161	69	92	107
// 1	×0	208	277	323	138	184	215
// 2	0×	415	554	646	277	369	431
// 4	0×	831	1108	1293	554	739	862



WG alignment

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alignment

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Accessories for alignment

Lens tube

Lighting

UV equipmen

Pump

Alignment

Optical Fiber Alignment

High Magnification Micro Zoom Lens: VZL-8N Series





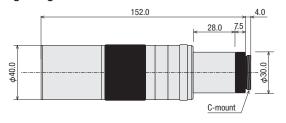
Distance will be X38~X300 when using 1/2inch camera and 15inch monitor.

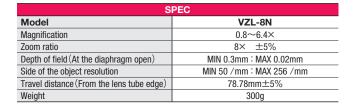
Magnification will be wide without changing travel length when combine the extender (1.5~5.0X)

Can be get wider magnification when combine the front convertor.

Dimensional outline drawings

High magnification micro zoom lens





Front convertor lens (for VZL-8N)







VF-2 VF-0.5 C-mount_ C-mount mount C-mount

01 E0					
Model	VF-0.5	VF-2	VF-3		
Magnification	0.38~3.0×	1.6~12.8×	2.4~19.0×		
Travel distance * 1	167.9mm	48.9mm	31mm		
Weight	40g		60g		

**1 The travel distans that combined with VZL-8N.

Zoom Lens: VZL-8 Series





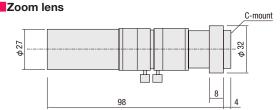
Multiple of 8 of the zoom lens

For 1/2 inch CCD camera.

Good for the unit with 200mm travel distance.

- Can be increased magnification by combined with extendor (1.5~5.0X). It allows high magnification by combining with a front convertor.
- Easy to fix with C-mounted for combination with zoom lens, extender, front convertor and CCD camera.

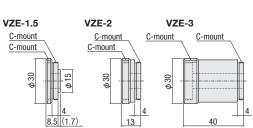
Dimensional outline drawings



SPEC			
Model	VZL-8		
Magnification	0.1~0.8×		
Zoom ratio	8×±5%		
Depth of field (At the diaphragm open)	MIN 30.89mm : MAX 0.48mm		
Side of the object resolution	MIN 8/mm: MAX 64/mm		
Travel distance (From the lens tube edge)	188.3mm±5%		
Weight	110g		
	-		

TV extender





SPEC				
Model	VZE-1.5	VZE-2	VZE-3	
Magnification	1.5×	2×	3×	

Close-up lens



	<u>ount</u>
C-mount 27 8 9 9	

		SPEC		
Model	VZC-2	VZC-3	VZC-4	VZC-6
Magnification	2×	3×	4×	6×
Travel distance * 1	82mm	35mm	35mm	17mm

¾1 The travel distans that combined with VZL-8N.



llignment

gnment unit

Fiber holders

Probe

Monitoring Unit (for Zoom Head): E701



Example for using



SPEC				
	Х	Y (Focus direction)	Z	
Travel distance	±30mm ±50mm	+30mm -20mm	±30mm	
Resolution	0.1mm vernier			
Axis model	B05-13NH B06-1NM	B05-21KRM	B05-11NHM	
Weight		2.5kg		

Accessory: Installation screws (Hexagon socket head M4-10) Applicable Zoom head: V20-507 P.4-048

- •For mount the right angle zoom head.
- Available light guide holder.
- Mount and use to height control plat form E11 series.

Built-in E701 to the long stroke stage (B15-150) Mount and use to height control plat form E11 series.

Dimensional outline drawings

► E11 series : P.3-138

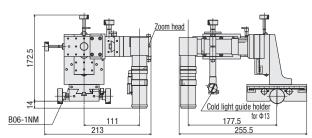
E711

E11 series : P.3-138

Dimensional outline drawings

E701

See web for external dimention.





See web for external dimention.



for alignment

CCD

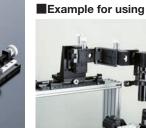
RoHS

_ighting

Pump

Alignment

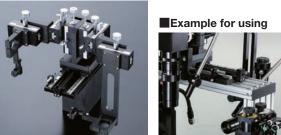
Monitoring Unit (for Zoom Head): E711



SPEC			
	Х	Y (Focus direction)	Z
Travel distance	±30mm	+30mm -20mm	±30mm 128mm
Resolution	0.1mm vernier		
Axis model	B05-13NH	B05-21KRM	B05-11NHM B15-150
Weight		2.5kg	

Accessory: Installation screws (Hexagon socket head M4-10) Applicable Zoom head: V20-507 P.4-048

Monitoring Unit (for Zoom Head): E721

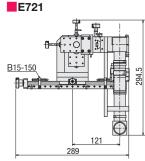


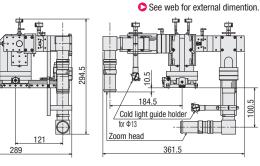
The state of the s				
	SPEC			
	X (Focus direction)	Y (Focus direction)	Z	
Travel distance	±30mm	+30mm -15mm	±30mm 128mm	
Resolution	0.1mm vernier			
Axis model	B05-13NHR	B05-21KRM	B05-11NHM B15-150	
Weight		4.0kg		

Accessory: Installation screws (Hexagon socket head M4-10) Applicable Zoom head: V20-507 P.4-048

- Built-in the stage unit for right angle zoom head of 2 types.
- Can be monitored both side of upper and side of device.
- Mount and use to height control plat form E11 series.
- ► E11 series : P.3-138

Dimensional outline drawings





LD/PD alignment

alignment unit

Device unit

Fiber holders

Optical Fiber Alignment

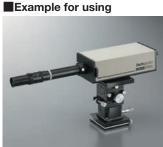
End-Face Monitoring Unit (for Zoom Head): E790

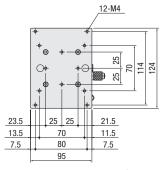
RoHS

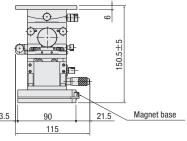
Contact us if you would like to know more about the vidicon camera. Custom designed adjustment plate is available when equipe the other camera or evening the optical axis height.

Dimensional outline drawings

E790







		SPEC		
	X	Υ	Z(Focus direction)	θх
Travel distance	±6.5mm	±5mm	±20mm	±15°
Resolution	0.5mm/Rotation	10um/scale	0.1mm / Vernier scale	0.1° / Vernier scale
Axis model	BSB16-60C1	B33-60KGA	B06-11M	B54-60LNR
Weight	3.3kg			

The lower plate is a magnet base plate.

End-Face Monitoring Unit (for Zoom Head): E791

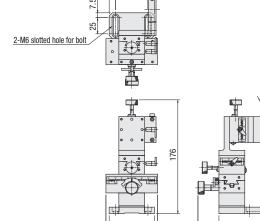
130

- The stage with zoom head is for monitored by CCD camera.
- Available E790 if CCD camera is heavy weight.

Dimensional outline drawings

E791





SPEC			
	X	Y	Z (Focus direction)
Travel distance	±10mm	±10mm	±30mm
Resolution	0.1mm / Vernier scale		
Axis model	B05-41NM	B05-43N	B05-11NHM
Weight		3.3kg	

Accessory: Installation screws (Hexagon socket head 2 of M6-12) Applicable zoom head: V20-501、V20-501S、V20-507 P.4-048





140.5

Accessories for alignment

Monitoring unit

Lighting

UV equipmen

Pump

Alignment system

Guidance

WG alignment LD/PD alignment

ignment unit

Device unit

Fiber holders

Device holders

Accessories for alignment

CCD camera

Monitor

Lighting

UV equipmen

Pump

Optical fiber alignment

CCD Color Analog

- ■Integrated high performance 380 thousand pixel color camera.
- Available near-infrared models



Configuration Camera head Dedicated AC adaptor (Available AC100~240V) BNC Cable (2m)

SPEC			
VSTC-620PWCSET			
Conform the NTSC method			
1/2 type interline CCD			
768 (H) ×494 (V) pixel			
Horizon: 15.734kHz Vertical: 59.94Hz			
VBS: 1.0V (p-p)/75Ω、 Y/C			
48dB			
DC10~12V			
170mA±20mA			
C-mount			
51 (W) ×51 (H) ×60.5 (D) mm (not include protrusions)			
Approx. 190g			

CCD Black and White Analog

- Integrated compact and light weight 410 thousand pixel camera.
- Available near-infrared models



Configuration Camera head Cable (2m)

Dedicated AC adaptor (Available AC100)

BNC Cable (2m)

SPEC			
Model	VCS8620ISET		
TV style	Conform the EIA method		
Image sensor	1/2 type interline CCD		
Effective pixel count	768 (H) ×494 (V) pixel		
Scanning frequency	Horizon: 15.734kHz Vertical: 59.94Hz		
Image output	VS: 1.0V(p-p)/75Ω		
S/N ratio	60dB (Standard)		
Power supply	DC12V±10%		
Consumption current	Approx.108mA		
Lens mounting	C-mount		
Size	29 (W) ×29 (H) ×31 (D) mm (not include protrusions)		
Weight	Approx. 50g		

Color Monitor

Available 4 types of monitors. Wide variety of lineup for various application



Color LCD monitor

		SPEC		
Model	VCM-562	VQT-802P-AVG	VQT-1007P-AVG	VQT-1504P
Monitor size	5.6inch 1113 (W) ×84 (H) mm	8inch 164 (W) ×123 (H) mm	10inch 212 (W) ×160 (H) mm	15inch Approx.307 (W) ×230 (H) mm
Input systems	Video input RCA×1	Video input D-Sub15 pin (small 3 string type) Video input RCA×2	Video input D-Sub15 pin (small 3 string type) Video input RCA×2	Video input D-Sub15 pin (small 3 string type) Video input RCA×2
Output channels		Speaker output with built-in 0.25W×1	Speaker output with built-in 2W×1	Speaker output with built-in 2W×1
Touch panel function				Interface USB The correspondence OS Windows7/Vista/XP
AC adaptor **	VCM-562-AC (sold separately)	included	included	included
Electricity consumption	Approx.9W	Approx.6.6W	Approx.10W	Approx.25W
Size	163 (W) ×112 (H) ×30 (D) mm	220 (W) ×210 (H) ×150 (D) mm	252 (W) ×267 (H) ×185 (D) mm	347 (W) ×327 (H) ×160 (D) mm
Weight (only main body)	0.5kg	1.1kg	1.6kg	3kg

■AC adaptor (sold separately) VCM-562-AC (Exclusively for the monitor VCM-562) ※ Use power-supply converter in outside Japan.

Black and White Monitor

●8.4 inch LCD panel monitor for imaging display. Display EIA based signal clearly in about 8 bit (256 gradation)



■V9LM20

SPEC			
Model		V9LM20	
	Display device	8.4 type Monochrome LCD monitor	
Display	Display resolution	800 (H) ×600 (V)	
	Simultaneously	Corresponding 256 gradations (LCD panel spec.8 Bit)	
Input method	Input method Conformig to EIA signal (Interlace)		
Video input part	Input signal	1.0V(p-p) (VIDEO 0.7V(p-p) SYNC 0.3V(p-p))	
video iliput part	Connector	BNC Connector	
White luminance		450cd/m ² (Typ) 、350cd/m ² (Min)	
Contrast		600:1(Typ)	
Power supply part	Electricity consumption	AC100~240V±10% less than 0.7A 50/60Hz	
Others	Size	220±3(W)×250±3(H)×130±1(D)mm	
Ullicia	Weight	Less than 1.6kg (not include stand options)	

Camera Selector

Display to the monitor max. 6 cameras by manual.



■VCC-3011B

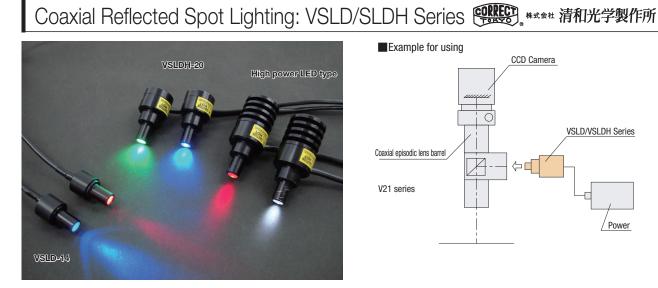
SPEC			
Model	VCC-3011B		
Video input part	VBS 1.0V(p-p) 75Ω BNC channels		
Image output	VBS 1.0V(p-p) 75Ω BNC channels		
switch	Mechanical key mechanism switch		
Range of using temparature	-10°C∼+50°C		
Size	210 (W) ×47 (H) ×248 (D) mm		
Weight	1.4kg		



Probe Alignment system

alignment

www.hours-shop.com



■Example for using CCD Camera VSLD/VSLDH Series Coaxial episodic lens barrel V21 series Power

■VSLDH series

As it is used power LED, we recommend over 3 magnifications of a coaxial lens tube lighting.

SPEC				
Model	LED	Electricity consumption (W)	Luminescent color	
VSLDH-A20R	1	4.5	RED	
VSLDH-A20W	1	4.5	WHIITE	

- *Available BLUE(B), GREEN(G) LED and extension cables.
- *Also available a high power LED.
- *Please contact us for a high power LED.

■VSLD series

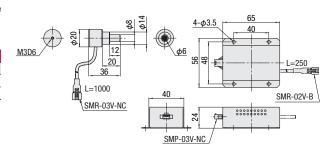
Can be used for coaxial vertical lighting system. It is suitable for lighting of the coaxial tube that not need much light quantity.

		SPEC	
Model	LED	Electricity consumption (W)	Luminescent color
VSLD-14R	1	0.3	RED
VSLD-14W	1	0.3	WHIITE

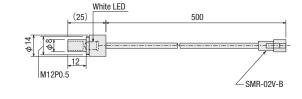
^{*}Available BLUE(B), GREEN(G) LED and extension cables.

Dimensional outline drawings

■VSLDH-A20R、VSLDH-A20W



■VSLD-14R、VSLD-14W



LD/PD alignment

Manual alignment unit

Device unit

Fiber holders

Accessories for alignment

Lighting

UV equipment

Pump

Alignment system

UV_LED Light Source: VEXECURE-H1VC2 Series

High output, long-life UV-LED light source. Available 4 ch each control.



The photo shows combination of one controller and 4 heads unit.

AC adaptor (Purchase separately)

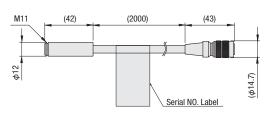
, to daupter (: di citaco coparatoly)				
Model	VUIA336	VUEA370		
Input power	AC100~240	V 50/60Hz		
Heads	4	8		
Electricity consumption	36W	70W		

VEXECURE-H1VC2 Model DC24V(AC adaptor(sold separately)) Power supply 21W (VH-1VH 4 heads using at the same time.) 60W (maximum) Electricity consumption Cooling methods Naturally cooling 4 (Bifurcation cable VBB-2 when use, Max 8 head VH-1VH connected) Connecting head Program setting Not available · Ready output Emergency stop Remote control Irradiation for each 4ch · UV-output during irradiation • Error output · Finish for each 4ch Operating time: +5~+35°C (Avoid dew condensation/freezing) On save: -10~+60°C (Avoid dew condensation/freezing) Operation/saving time: 30~85% (Avoid dew condensation/freezing) Environment humidity UV, LED, ON/OFF: Indicator LED Pannel display LEVEL/TIMERTIMER DISPLAY: 7 segments LED Outline size 90 (W) ×40 (H) ×120 (D) mm Approx.0.5kg Weight

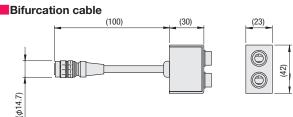
IO connector for remote controller (Purchase separately)

Model	VFK-MC-10	VFK-MC-8
Control contents	Input: Emergency stop, Start/finish irradiation Output: Ready output/output in irradiation/error output Not available irradiation for each	For extension : Start to irradiate for each, Finish to irradiate for each

Head unit



SPEC		
Model	VH-1VH	
Length	2000mm	



SPEC		
Model	VBB-2	
Branches	2	

Lens unit

Lens unit is attached on the top of a head unit. Easy to slect the best lens unit for your requirement. Available oval type irradiation.









SPEC					
Model		VHO-03L	VHO-04L	VHO-05L	VHO-06L
light sourse	Wave length	365nm*1			
	Class	Class 3B (JIS C 6802 2005)			
Recomendation irradiation distance		15mm	15mm	30mm	11mm
Peak intensity (*2)		3200mW/cm²	1600mW/cm²	350mW/cm²	7500mW/cm²
Spot diameter of irradiation spot		φ6mm	φ8mm	φ10mm	φ3mm

- *1 Available wavelength 385mm
- *2 Irradiation level 100/temperature 25°C/with screws. Not guaranteed.

UV-cut grasses

Protect eves with UV-cut.



SP	EC
Model	VUV-G

UV Light Source: VEXECURE4000 Series



Replacement lamp

Model	
V200MX	

High performance, compact and reasonable UV spot light source.

Available labo to production line process.

Save electricity and equipment on the production line process.

Support the grobalization of production base by integrated world voltage system.

	SPEC
Model	VEXECURE4000-D
Power supply	AC100~240V 50/60Hz
Electricity consumption	250W (260VA)
Lamp	200W mercury xenon
Lamp type	200MX(200W)
Lamp life (*1)	3000 hours
Initial strength	4000mW/cm (*2)
Environment temperature	0~40°C
Size	145(W)×300(H)×245(D)mm
Weight	Approx.8.5kg

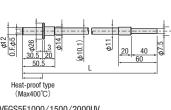
- *1 We guarantee the light will be turned on till its end-of-life in correct way.
- *2 The value is calculated from the end of light guide to 10mm in use VFGS5F-1000UV-HT4.

- Can be controlled irradiation set-up, operation by using utility software.
- · Exhaust pressure monitoring is available with exhaust frange.
- · Available special optics and lenses.
- · Available various of filters, lenses and special optics.

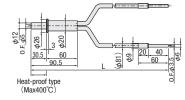
UV light guide

UV light guide VFG-UV series uses high qquality quartz fiber. There are single, 2 branch, 3 branch and 4 branch. Available special order for the top shape.

Dimensional outline drawings



VFGS5F1000/1500/2000UV



VFGB5F1000/1500/2000UVR

We can accept special order for mounting UV light guide.

Please ask as for details





Allowable bending radius R	R 100mm Allowable be	ending radius R 100mm		
		SPEC		
	VFGS5F1000UV	VFGB5F1000UVR	VFG3B5F1000UVR	VFG4B5F1000UVR
Model	VFGS5F1500UV	VFGB5F1500UVR	VFG3B5F1500UVR	VFG4B5F1500UVR
	VFGS5F2000UV	VFGB5F2000UVR	VFG3B5F2000UVR	VFG4B5F2000UVR
Туре	Single	Bifurcation	3 branches	4 branches
Fiber materials		Quartz fiber (LB20UV)	NA=0.20(23°)200μm	
Bundle diameter	Incident side ϕ 5 Output side ϕ 5	Incident side ϕ 5 Output side ϕ 3.5×2	Incident side ϕ 5 Output side ϕ 2.9×3	Incident sideφ5 Output sideφ2.5×4

*Available our catalog for more information.

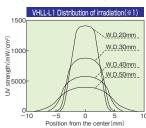
Lens

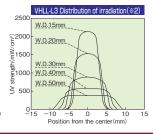
Allowable bending radius R

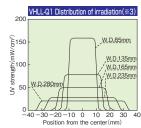
Integrated top the top of light guide. Selectable the most effective focus distance lens. Available special order for the light type.

■VHLL series Good for adhesive of optical device parts

Spot radiation type VHLL-L1/L3







Flat radiation type VHLL-Q

100mm

- - ¾1 This is a standard characteristic when using combined Vexcure4000 and VFGB5F-1000UVR-HT4. $\frak{\%}\ 2$ This is a standard characteristic when using combined

Vexcure4000 and VFGS5F-1000UVR-HT4.

3 This is a standard characteristic when using combined Vexcure4000 and VFGS5F-1000UVR-HT.

SPEC					
Model	VHLL-L1	VHLL-L1 VHLL-L3 VHLL-Q1			
Туре	Spot radiation type		Flat radiation type		
Mounting	φ6mm φ7.5mm		φ12mm		

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Refer to the instructions for safety use.

LD/PD alignment

Guidance

WG llignment

gnment unit

Device unit

Fiber holders

Accessories for alignment

Monitor

Lighting

UV equipment

Pump

Probe

Alignment

alignment

WG alignment LD/PD alignment

alignment unit

Device unit

Fiber holders

Accessories for alignment

Lighting

UV equipmer

Pump

Alignment

Vacuum pump: V10A

Optical Fiber Alignment

For the rotation fiber holder (F263, F264, F265 and FS266) and waveguide holder (F270, F271, F272, F273, F274, E400 and E410). As this is linear motor drive free piston type, it is compact, light weight, low noise, low vibration and oil-less.



Silicon hose (bore diameter ϕ 3 external diameter ϕ 5) V11-2

One-touch opening and closing of vacuum with vacuum holder.

This tube is for vacuuming. It is made by silicon tube that is a reducing vibration and high

It is available to use waveguide holder and rotation fiber holder at the same time.

Available manifold hoses

Release valve V11-5A

Used in divided 2 or 3 vacuum pump. Necessary vacuum pump V10A for connecting.

durability

Manifold V11-3

About the vacuum pump

- Ultimate vacuum Indicates the degree of vacuum when run with the suction side is closed.
- Indicates the flow rate under zero degree of vacuum.(Reference value)
- Electricity consumption Indicates maximumin put power until ultimate vacuum.
- Indicates limits time of operation wit coil temperature within 115 degree.
- · Service time Indicates the accumulated operating timeuntil discharge volume 10-20% of rated volume when used under rated conditions. Care should be taken to service time as the method of operation and replacement of consumable parts will differ according to operating location and ambient Itemperature.

SPEC			
Model	V10A		
Ultimate vacuum	−33.3kPa		
Open flow rate	6ℓ/min		
Electricity consumption	15/14W		
Rated time	Continuous		
Service time	5,000 hours		
Discharge and inhalation size	Coupler for $\phi 4$ hose		
Power supply	AC100V 50/60Hz		
Power code	2.5m (Inlet with ground wire)		
Power switch	Locker switch		
Size	135(L)×91(W)×146(H)mm		
Weight	1.5kg		

*2m tube is attached to a vacuum pump.

*2m tube is attached to a manihold and release valve.

Vacuum pump set: EV10A



The vacuum pump set for fiber holder and device holder. Put a release valve on the bread board when use

Configurations

Product name	Model
Vacuum pump	V10A
Release valve	V11-5A
Plate	E10

Accessory: Two tubes, screws / hexagon-headed bolt 4 of M4-22 hexagon-headed bolt 2 of M6-14

Vacuum tweezers: V12A



Vacuum tweezers V12A with vacuum pump V10A is easy to use for absorption of tiny parts and lenses. Ask us when you need only tweezers.

■Configurations

SPEC		
Model	V12A	
Vacuum pump	V10A	
Tweezers	Tweezers with valve φ12×144.5mm 18g	
Accessory	Tube 2m Needle ¢1.0mm Pad ¢4 ¢6mm Tweezers Stand	



LD/PD alignment

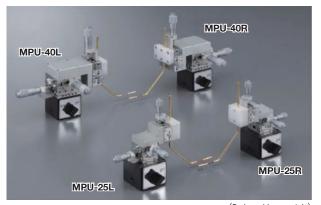
ignment unit

alignment

060

Probe Unit: MPU

For contact probe to the device. Available left and right hand type.



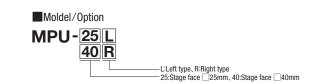
(Probe sold separately)

See web for external dimention

Modlel MPU-25L MPU-25R MPU-40L MPU-40R Direction for operation Left-hand Right-hand Left-hand Right-hand Stroke XYZ: ±3.2mm XYZ: ±6.5mm $10\mu \text{m/div}$ 0.5mm/1 rotation Resolution Probe holder Brass-gold plated finishing(with spring) Magnet stand Yes Weight 0.7kg 1.3kg

Probe M904





Example for using

SPEC			
Modlel	Product name	Remarks	
M904-0001	Metallic needle tip diameter R2 μ m outer diameter 0.7mm	Metal alloy(gold plated) 10pcs.	
M904-0002	Metallic needle tip diameter R5 μ m outer diameter 0.7mm	Metal alloy(gold plated) 10pcs.	
M904-0006	Metallic needle tin diameter R1 um outer diameter 0 6mm	Tungsten 25ncs	

Probe Unit: MHP

For probe. Availave custome-designed for your purpose. Please contact for details.

Dimensional outline drawings

Example implementing probe

