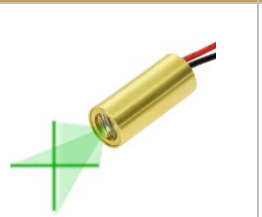
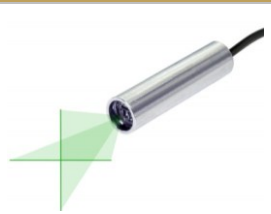
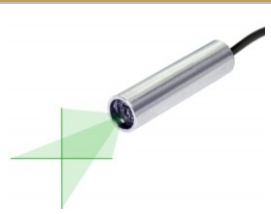
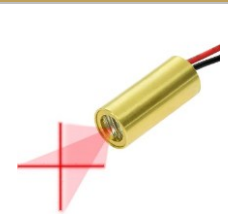
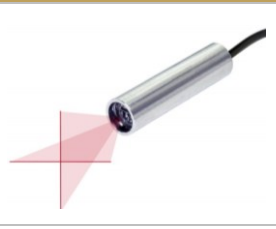
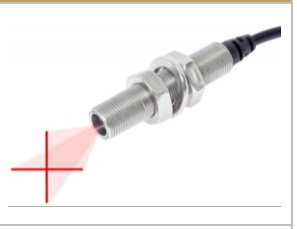
Crosshairs Laser Module

Specifications / Model Number	VLM-520-29 series	VLM-520-58 series	VLM-520-59 series (TTL)	VLM-520-68 series	VLM-520-69 series (TTL)	VLM-650-29 LPT
						
Dimensions	Ø9 x 26 mm	Ø10 x 40 mm	Ø10 x 40 mm	M12 x 68 mm	M12 x 68 mm	Ø9 x 26 mm
Operating voltage	7~10 VDC	3~6 VDC	3~6 VDC	10~36 VDC	10~36 VDC	2.6~6 VDC
Operating current	Less than 80mA / 100mA	Less than 80mA	Less than 80mA	Less than 20mA at 24V	Less than 20mA at 24V	Less than 35mA
Optical power	4~5mW / 9~10mW	Less than 10mW	Less than 10mW	Less than 0.39mW / 7~9mW	Less than 0.39mW / 7~9mW	Less than 2mW
Laser class	Class 1	Class 1	Class 1	Class 1 / Class 2	Class 1 / Class 2	Class 1
Wavelength	505~530nm	510~530nm	510~530nm	515~530nm	515~530nm	645~665nm
Collimating lens	Plastic lens	Glass lens	Glass lens	Glass lens	Glass lens	Plastic lens
Crosshairs lens	Plastic lens	Glass lens	Glass lens	Glass lens	Glass lens	Plastic lens
Beam shape	Crosshairs	Crosshairs	Crosshairs	Crosshairs	Crosshairs	Crosshairs
Laser Line width	1mm at 40cm	Less than 1mm	Less than 1mm	Less than 1mm	Less than 1mm	1mm at 40cm
Laser line straightness	80” (+/- 2mm @5M)	±4mm@1M	±4mm@1M			80” (+/- 2mm @5M)
Emitting angle	More than 60°	10°, 15°, 20°, 30°, 60°, 110°	10°, 15°, 20°, 30°, 60°, 110°	2°, 5°, 15°, 30°, 45°, 60°, 75°	2°, 5°, 15°, 30°, 45°, 60°, 75°	More than 60°
Operating temp. range	+15°C ~+30°C	-20°C ~+60°C	-20°C ~+60°C	-20°C ~+60°C	-20°C ~+60°C	+15°C ~+30°C
Storage temp. range	-20°C ~+65°C	-20°C ~+85°C	-20°C ~+85°C	-20°C ~+85°C	-20°C ~+85°C	-20°C ~+65°C
Housing material	Brass	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Brass
Potential of housing	VDD(+)	Insulated	Insulated	Insulated	Insulated	VDD(+)
Electrostatic discharge (ESD)	30KV	30KV	30KV	30KV	30KV	30KV
Moisture sensitivity level (MSL)	Level 1 - acc to JEDEC J-STD-020E.	Level 1 - acc to JEDEC J-STD-020E.	Level 1 - acc to JEDEC J-STD-020E.	Level 1 - acc to JEDEC J-STD-020E.	Level 1 - acc to JEDEC J-STD-020E.	Level 1 - acc to JEDEC J-STD-020E.
Wire type	1007-26AWG	2464 2-WIRE CABLE 26 AWG	2464 2-WIRE CABLE 26 AWG	UL-2464/22 AWG	UL-2464/22 AWG	1007-26AWG
Cable length	115±15mm	330±30mm	330±30mm	UL2464 D4.2,L=2000±30mm	UL2464 D4.2,L=2000±30mm	115±15mm
Mean time to failure (MTTF) 25°C	5000hrs	10000hrs	10000hrs	10000hrs	10000hrs	5000hrs
Application	Economic application	Precision fine crosshairs for Machine vision, CNC and Medical	Precision fine crosshairs for Machine vision, CNC and Medical with modulation function	Precision fine crosshairs for Machine vision, CNC and Medical	Precision fine crosshairs for Machine vision, CNC and Medical with modulation function	Economic application
Suggestion work distance	0~1 meter / 0~3 feet	0~1.2 meters / 0~4 feet	0~1.2 meters / 0~4 feet	0~5 meters / 0~16 feet	0~5 meters / 0~16 feet	0~1 meter / 0~3 feet

VLM-635-58 series	VLM-635-59 series (TTL)	VLM-650-68 series	VLM-650-69 series (TTL)
			
Ø10 x 40 mm	Ø10 x 40 mm	M12 x 68 mm	M12 x 68 mm
3~6 VDC	3~6 VDC	10~36 VDC	10~36 VDC
Less than 50mA	Less than 50mA	Less than 20mA at 24V	Less than 20mA at 24V
Less than 5mW	Less than 5mW	Less than 0.39mW / 5~7mW	Less than 0.39mW / 5~7mW
Class 1	Class 1	Class 1 / Class 2	Class 1 / Class 2
630~645nm	630~645nm	645~665nm	645~665nm
Glass lens	Glass lens	Glass lens	Glass lens
Glass lens	Glass lens	Glass lens	Glass lens
Crosshairs	Crosshairs	Crosshairs	Crosshairs
Less than 1mm	Less than 1mm	Less than 1mm	Less than 1mm
±4mm@1M	±4mm@1M		
10°, 15°, 20°, 30°, 60°, 110°	10°, 15°, 20°, 30°, 60°, 110°	2°, 5°, 15°, 30°, 45°, 60°, 75°	2°, 5°, 15°, 30°, 45°, 60°, 75°
-20°C ~+60°C	-20°C ~+60°C	-20°C ~+60°C	-20°C ~+60°C
-20°C ~+85°C	-20°C ~+85°C	-20°C ~+85°C	-20°C ~+85°C
Stainless steel	Stainless steel	Stainless steel	Stainless steel
Insulated	Insulated	Insulated	Insulated
30KV	30KV	30KV	30KV
Level 1 - acc to JEDEC J-STD-020E.	Level 1 - acc to JEDEC J-STD-020E.	Level 1 - acc to JEDEC J-STD-020E.	Level 1 - acc to JEDEC J-STD-020E.
2464 2-WIRE CABLE 26 AWG	2464 2-WIRE CABLE 26 AWG	UL-2464/22 AWG	UL-2464/22 AWG
330±30mm	330±30mm	2000±30mm	2000±30mm
10000hrs	10000hrs	10000hrs	10000hrs
Precision fine crosshairs for Machine vision, CNC and Medical	Precision fine crosshairs for Machine vision, CNC and Medical with modulation function	Precision fine crosshairs for Machine vision, CNC and Medical	Precision fine crosshairs for Machine vision, CNC and Medical with modulation function
0~1.2 meters / 0~4 feet	0~1.2 meters / 0~4 feet	0~5 meters / 0~16 feet	0~5 meters / 0~16 feet