

# Fiber-Coupled Laser Sources

## VL Quick-Connect Type Fiber-Coupled Laser

### Precise Coverage + Flexible Integration

- Multi-spectral Coverage and Scenario Adaptability of Precise Power Gradient
- Stability Breakthroughs Enabled by CTP Packaging Technology
- High Compatibility and Customization Capability
- Industrial-Grade Reliability Design



## One Platform Many Possibilities

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## Overview

### Introduction:

Venuslab Quick-Connect Type Fiber-Coupled Laser is a modular laser solution positioned for "low-to-medium power and multi-spectral adaptability". Through systematic wavelength coverage and power gradient design, it has built a complete laser output system from ultraviolet to near-infrared. This series includes over 30 core models, with a wavelength range covering 405nm (near-ultraviolet) to 1064nm (near-infrared) and power levels distributed in a stepped manner from 5mW to 1000mW. All models adopt multi-mode fiber (MF) output and FP cavity structure design, making them suitable for the differentiated needs of monochromatic lasers in multiple scenarios such as scientific research experiments, industrial testing, and biomedical applications.

### Features:

- Multimode Fiber (MF) output + FP cavity structure + CTP packaging
- Wavelength range coverage 405nm (near-ultraviolet) to 1064nm (near-infrared)
- High stability and long service life
- Multi-dimensional adaptation reduces integration barriers
- Unified pin definition simplifies circuit integration

## Specifications

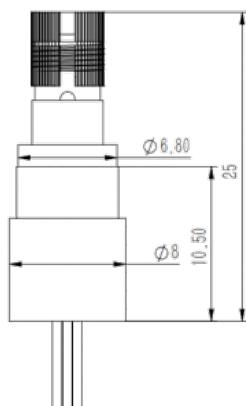
### Common Parameter Specification Table

Parameter Category	Parameter Name	Symbol	Unit	Parameter Value/Requirement
Optical Common Params	Spectral Width		nm	2.0
Optical Common Params	Wavelength Temperature Coefficient	-	nm/	0.3
Fiber Common Params	Adapted Fiber Core Diameter	-	μm	25, 40, 50, 60 (small core diameter)
Fiber Common Params	Fiber Length	-	m	1
Fiber Common Params	Connector Type	-	-	FC/SMA905/ST/2.5 Ferrule (optional)
Structure & Lifetime Params	Package Type	-	-	Coaxial Package
Structure & Lifetime Params	Laser Lifetime (Long-term Reliability)	-	Hour	10000
Safety & Interface Params	Laser Safety Class	-	-	Class 4 Laser Product (protection required)
Safety & Interface Params	Pin Definition	-	-	Pin 1=LD+, Pin 2=Empty, Pin 3=LD-
Application & Function Params	Core Technical Architecture	-	-	Multi-Mode Fiber (MF) Output + FP Cavity Structure

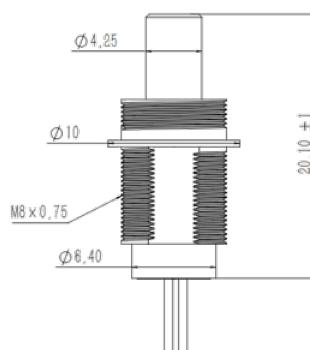
## Dimensions

### Package Dimension Drawing

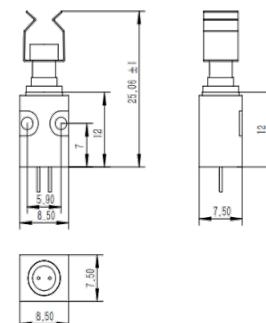
A-1 : 8\*10.5 ( mm )



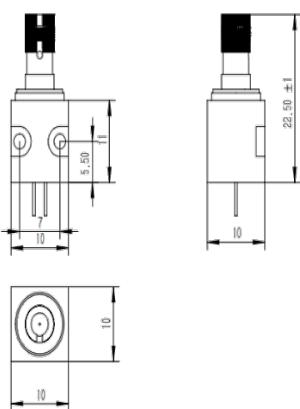
A-2 : 6.4/FC ( mm )



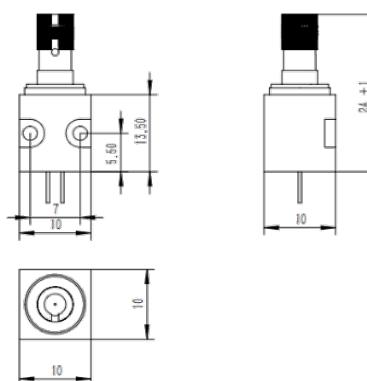
A-3 : 8.5-7.5-12 ( mm )



A-4 : 10\*10\*11 ( mm )



A-5 : 10-10-13.5 ( mm )



## Selection Table

Pluggable Laser Selection Table

Wavelength	Power ( mW )	Package Type	Remarks ( mm )
405	100	A-1、 A-3、 A-4、 A-5	A-1 : 8*10.5、 A-2 : 6.4/FC、 A-3 : 8.5-7.5-12、 A-4 : 10*10*11、 A-5 : 10-10-13.5
	300		
	500		
450	60	A-1	
	1000		
488	60	A-1	
505	80	A-1	
520	60	A-1	
	100	A-1	
	200	A-1	
638	130	A-1	
	150	A-1	
660	100	A-1、 A-2	
670	5	A-1	
685	50	A-1	
785	60	A-1	
808	100	A-1	
830	100	A-1	
850	100	A-1	
905	100	A-1	
940	100	A-1	
980	100	A-1	
1064	50	A-1	

## Explore Series

VLFL-405-100-A-1	40-70	5.0-6.0	100	150-180	400-405-410	A-1: 8x10.5
VLFL-405-100-A-3	40-70	5.0-6.0	100	150-180	400-405-410	A-3: 8.5-7.5-12
VLFL-405-100-A-4	40-70	5.0-6.0	100	150-180	400-405-410	A-4: 10x10x11
VLFL-405-100-A-5	40-70	5.0-6.0	100	150-180	400-405-410	A-5: 10-10-13.5
VLFL-405-300-A-1	140-200	4.5-5.5	300	250-400	400-405-410	A-1: 8x10.5
VLFL-405-300-A-3	140-200	4.5-5.5	300	250-400	400-405-410	A-3: 8.5-7.5-12
VLFL-405-300-A-4	140-200	4.5-5.5	300	250-400	400-405-410	A-4: 10x10x11

VLFL-405-300-A-5	140-200	4.5-5.5	300	250-400	400-405-410	A-5: 10-10-13.5
VLFL-405-500-A-1	125-225	5.0-6.0	500	650-750	400-405-410	A-1: 8×10.5
VLFL-405-500-A-3	125-225	5.0-6.0	500	650-750	400-405-410	A-3: 8.5-7.5-12
VLFL-405-500-A-4	125-225	5.0-6.0	500	650-750	400-405-410	A-4: 10×10×11
VLFL-405-500-A-5	125-225	5.0-6.0	500	650-750	400-405-410	A-5: 10-10-13.5
VLFL-450-60-A-1	22	5.3	60	110	445-450-455	A-1: 8×10.5
VLFL-450-1000-A-1	22	5.3	1000	110	445-450-455	A-1: 8×10.5
VLFL-488-60-A-1	22	5.3	60	110	483-488-493	A-1: 8×10.5
VLFL-505-80-A-1	60	6.5	80	140	500-505-510	A-1: 8×10.5
VLFL-520-60-A-1	60-90	6.6-7.7	60	160-180	515-520-525	A-1: 8×10.5
VLFL-520-100-A-1	70-95	6.7-8.0	100	160-260	515-520-525	A-1: 8×10.5
VLFL-520-200-A-1	80	6.5	200	240	515-520-525	A-1: 8×10.5
VLFL-638-130-A-1	35-55	2.2-3.0	130	200-220	633-638-643	A-1: 8×10.5
VLFL-638-150-A-1	35-55	2.2-3.0	150	200-220	633-638-643	A-1: 8×10.5
VLFL-660-100-A-1	50-65	2.5-3.0	100	155-165	655-660-665	A-1: 8×10.5
VLFL-660-100-A-2	50-65	2.5-3.0	100	155-165	655-660-665	A-2: 6.4/FC
VLFL-670-5-A-1	140-200	4.5-5.5	5	250-400	665-670-675	A-1: 8×10.5
VLFL-685-50-A-1	35-60	2.7-3.0	50	100-140	680-685-690	A-1: 8×10.5
VLFL-785-60-A-1	30-50	2.0-2.5	60	120-160	780-785-790	A-1: 8×10.5
VLFL-808-100-A-1	35-45	3	100	160-170	803-808-813	A-1: 8×10.5
VLFL-830-100-A-1	55-80	1.8-2.6	100	170-240	825-830-835	A-1: 8×10.5
VLFL-850-100-A-1	55-80	1.8-2.7	100	180-240	845-850-855	A-1: 8×10.5
VLFL-905-100-A-1	25-50	1.9-2.4	100	130-170	900-905-910	A-1: 8×10.5
VLFL-940-100-A-1	20-40	1.8-2.4	100	270-320	935-940-945	A-1: 8×10.5
VLFL-980-100-A-1	40-50	1.0-2.1	100	165-195	975-980-985	A-1: 8×10.5
VLFL-1064-50-A-1	15-18	1.8-2.0	50	120-135	1060-1064-1070	A-1: 8×10.5

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