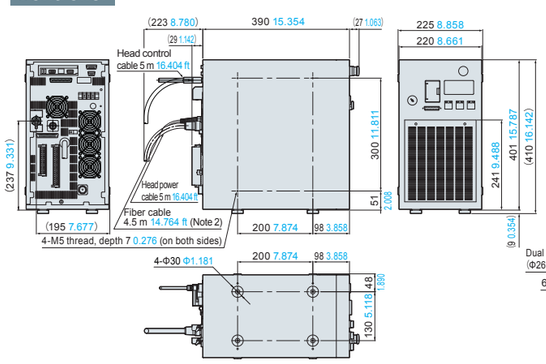
Specifications

Model No.		LP-Z130	LP-Z250	LP-Z256
Applicable standards*1		FDA regulations, CE Marking (Conforming to Low Voltage Directive, EMC Directive and RoHS Directive), KC Mark, GB standard		
Work distance (variable length)		190 mm (±25 mm) 7.480 in (±0.984 in)		330 mm (±25 mm) 12.992 in (±0.984 in)
Marking laser		Yb : Fiber laser λ=1,060 nm 0.042 mil Class 4 laser product		
	Pulse width	30 ns, 100 ns, 200 ns	50 ns, 100 ns, 200 ns	
	Average output*2	13 W (pulse oscillation)	25 W (pulse oscillation)	
Guide laser / pointer		Semiconductor laser λ=655 nm 0.026 mil Class 2 laser product		
Marking field		120 mm × 120 mm 4.724 in × 4.724 in		330 mm × 330 mm 12.992 in × 12.992 in
Scanning method		Galvano scanning method		
Scan speed		Max 12,000 mm/s 472 in/s		Max 8,000 mm/s 315 in/s
Character height / width		0.1 to 120 mm 0.004 to 4.724 in*3		0.1 to 330 mm 0.004 to 12.992 in*3
Logo data		VEC*4, BMP, DXF, HPGL, JPEG, AI, EPS		
Character types		English uppercase letters, English lowercase letters, numerals, katakana, hiragana, kanji (JIS No.1 and No.2 standards), symbols, user-registered characters (up to 50)		
Barcodes		Code 39, Code 128, ITF, NW-7, JAN (EAN) / UPC, RSS-14 (GS1 DataBar), RSS (GS1 DataBar) Limited, RSS (GS1 DataBar) Expanded		
2D codes		QR Code, Micro QR Code, Data Matrix, GS1 Data Matrix		
Composite codes		RSS-14 (GS1 DataBar) CC-A, RSS-14 (GS1 DataBar) Stacked CC-A, RSS (GS1 DataBar) Limited CC-A, etc.		
Input / Output		Input Terminal, Output Terminal, I/O Connector		
Interface*5		RS-232C, Ethernet		
Cooling method		Forced air cooling (Controller / Head)		
Power supply		90-132 V AC, or 180-264 V AC (automatic switching), 50/60 Hz		
Power consumption		390 VA or less (100 V AC), 420 VA or less (200 V AC)		
Ambient temperature*6		0 to +40 °C +32 to +104 °F (Controller / Head)	0 to +35 °C +32 to +95 °F (Controller / Head)	
Ambient temperature for storage*6		-10 to +60 °C +14 to +140 °F		
Ambient humidity*6		35 to 85 %RH (Controller / Head)		
Supported OS	Laser Marker Utility*7	Microsoft Windows® 10 Pro (32-bit / 64-bit) / 8 Pro (32-bit / 64-bit) / 7 Professional (32-bit / 64-bit) SP1 / Vista Business (32-bit) SP2 / XP Professional (32-bit)		
	NAVI LINK-3D*7 (Optional)			
Net weight		Head: 9.5 kg / Controller: 24 kg		

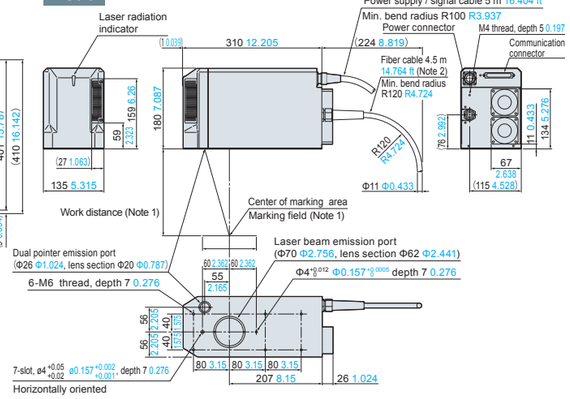
∗1: Conformed from the production in May 2017. ∗2: Independent output of oscillator. ∗3: Variable in 0.001 mm (0.00004 in) steps. ∗4: VEC is a usable format of logo file for laser marker.
∗5: Supported Ethernet from the production in November, 2012. ∗6: No dew condensation or icing allowed.
∗7: Windows 10 Pro, 8 Pro, 7 Professional, Vista Business, and XP Professional are trademarks or registered trademarks of Microsoft Corporation in the United States and other countries.
*China models are available, too. Please contact our sales office.

Dimensions (Unit: mm in)

Controller



Head



Notes: 1)

Item \ Model No.	LP-Z130	LP-Z250	LP-Z256
Work distance	190 7.480	190 7.480	330 12.992
Marking field	120 × 120 4.724 × 4.724	120 × 120 4.724 × 4.724	330 × 330 12.992 × 12.992

2) The fiber cable is not removable.

Use this product in accordance with all instructions and safety information.

Laser safety

- This product is classified as a Class 4 Laser Product in IEC/JIS/FDA regulations 21 CFR 1040.10 and 1040.11. Never look at or touch the direct laser beam and its reflection.
- This labels are attached to the **LP-Z** series. The label design or its information may vary between models. (Warning labels are not shown in the product photographs in this catalog.)
- The laser used by this product generates infrared light that is invisible to the human eye. Use particular caution when the laser is operating.

Recommended use of a dust collector

- Depending on the object being marked, harmful gasses or smoke that have a detrimental effect on the human body or the laser marker may be generating during marking. If your application falls under this description, use a dust collector.

■ Disclaimer
- All information is subject to change without prior notice.
- Pictures on this brochure are for reference and might differ from the actual products.
- The applications described in the brochure are all intended for examples only. The purchase of our products described in the brochure shall not be regarded as granting of a license to use our products in the described applications. We do NOT warrant that we have obtained some intellectual properties, such as patent rights, with respect to such applications, or that the described application may not infringe any intellectual property rights, such as patent rights, of a third party.

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No. CE-LPZ-4-4 December, 2017

Panasonic

3D-Control
FAYb Laser Marker
LP-Z SERIES

FDA Conforming to FDA regulations | CE | GB Conforming to 7247.1 | KC

LP-Z series

3D-Control
50 mm variable focal length
Wide Marking Field
(X)330 mm × (Y)330 mm × (Z)50 mm
FAYb LASER MARKER
High-Performance Fiber Laser
25 W / Selectable pulse widths / Small head

2017.12 | panasonic.net/id/pidsx/global

3D-Control

Z-axis structure in the head utilizes 3D control within a **50 mm 1.969 in** ; ±25 mm ±0.984 in range. It enables stable and high quality marking on stepped, curved, sloped, and even spherical surfaces etc. This can lead to a dramatic reduction in setup, installation and designing costs.

Wide Marking Field

Marking field (X)330 mm × (Y)330 mm × (Z)50 mm* (X)12.992 in × (Y)12.992 in × (Z)1.969 in

The wide marking field satisfies large target marking, and contributes to improved productivity.
Moreover, the Z-axis structure provides a **uniform spot size** and stable marking quality across the entire field of view, regardless of the wide marking field.

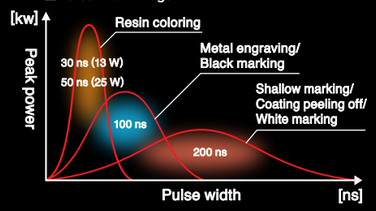
*Applies when model LP-Z256

High-Performance Fiber Laser

■ 25 W Fiber Laser / Air cooling

Lineups:**25 W** (LP-Z250/Z256) / 13 W (LP-Z130)
Applications requiring high energy such as deep engraving and black marking on metal are easily achieved. Its high output also contributes to shortening the marking time, thus improving production efficiency.
FAYb technology takes advantage of heat dissipation and requires no water-cooling system regardless of its high power performance.

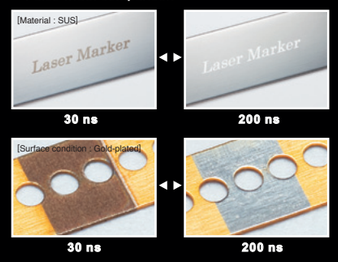
■ Pulse width image



■ Selectable pulse width

Pulse width selections are added to existing pulse cycle setting.
Three patterns of selectable pulse width expand the possibilities of finding the suitable marking conditions for the application.

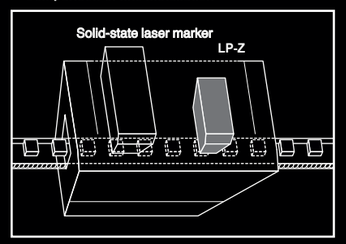
■ Pulse width comparison



■ Small head

Small head for 3D laser markers (W:135 mm 5.315 in H:180 mm 7.087 in D:310 mm 12.205 in).
The compact size of the laser head simplifies installation into existing production lines, and also minimizes redesigning cost.

■ Comparison of line installation



Easy configuration and operation

■ Configuration via PC

*Simulated screen image.

Flexible operation

Useful application software for PC setting is a standard feature.* Create the marking image with off-line PC, enabling smooth data creation and setting flexibility. Your PC can be an operating screen or even an I/O monitor.
*3D setting on PC requires optional software.

■ USB flash memory available (standard)
Removable USB storage allows you to quickly backup and transfer data to other LP-Z laser markers.

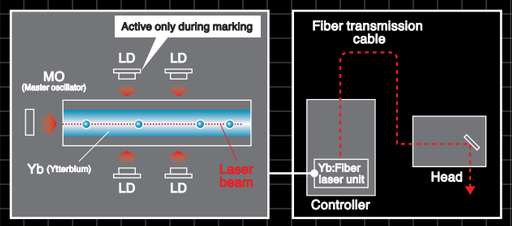
■ Configuration via touch panel (optional)

*Simulated screen image.

Easy operation / Space-saving installation

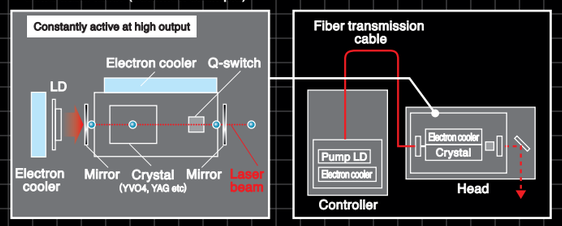
The color touch panel provides intuitive and easy-to-use operation even for inexperienced users. The easily programmable and flexible software provides you with stress-free and user-friendly operation.

■ FAYb laser



Laser beam is gradually amplified in the process of passing through fiber.

■ Solid-state laser (common example)



Irradiate LD (high power) light into crystal, and amplifies laser beam through round-trip reflections inside.

Fiber Amplified Ytterbium

■ Features of FAYb method

Fundamental characteristics of FAYb laser are distinguished from the viewpoint of its **long-lasting and energy-saving** structures.
In comparison to solid-state lasers, LDs of FAYb laser are active only when laser is irradiated. This contributes to lower heat load to LDs, and dramatically lengthens the lifetime. Furthermore, due to the high heat release characteristic and superior conversion efficiency, FAYb laser is completely air-cooled and consumes less than 390 VA (100 V AC)* of power.

*420 VA (200 V AC)