User's Manual

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# **FBGLD-**xxxx

# **FBGLD Light Source**

Specifications



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#### • Preparations before use

This machine is warranted from any failure in normal operation as the machine is fully inspected mechanically and electrically before shipment from the factory. As soon as you receive the cargo, unpack and make certain that the machine is not damaged in transit.

#### 1. Included Items

The standard included items are as follows. If any missing items are found upon inspection, contact us immediately.

| • LD light source:                    | 1 unit   |
|---------------------------------------|--|
| • Power ON/OFF key:                   | 2 pieces (only key switch type product)          |
| • Power cord:                         | 1 piece  |
| • Spare fuse:                         | 1 piece (stored in the fuse box of the AC inlet) |
| • Specifications (by these presents): | 1 copy   |
| • Operation Manual:                   | 1 copy   |
| • Final Test Inspection Record:       | 1 copy   |

We recommend that the carton box and the inner corrugated boards should be kept with care to avoid damage in case of reuse for transfer to another location.

#### 2. Acceptance Inspection

#### (1) Mechanical movement check

As to external appearance, movement of the switch, the pump on button, the adjust dial, and connectors, carry out inspection under the condition of being the power supply off to look for possible damage or trouble caused in transit.

#### (2) Operation check

When no trouble is found upon mechanical movement check, carry out operation test to check functions, followed by the instructions of Operation Manual.

#### (3) Upon finding damage or anomalies

If, during acceptance inspection, damage to the machine or anomalies in connection with the specifications is found, contact us immediately with details of the trouble.

| Product No.    | Center<br>wavelengt<br>h<br>(nm) | Output<br>power<br>(mW) | Spectral band<br>width<br>(nm / MHz) | Temperature<br>dependency<br>of C.W.<br>(nm/dig.C) | Laser class<br>(Max. output power) |
|----------------|----------------------------------|-------------------------|--------------------------------------|--|------------------------------------|
| FBGLD-980-4    | 980                              | 4                       | 1 MHz                                | 0.01   | Class3R (6mW)                      |
| FBGLD-980-120  | 980                              | 120                     | 0.3 nm                               | 0.02   | Class3B (200mW)                    |
| FBGLD-1060-4   | 1060                             | 4                       | 1 MHz                                | 0.01   | Class3R (10mW)                     |
| FBGLD-1060-8   | 1060                             | 8                       | 1 MHz                                | 0.01   | Class3R (10mW)                     |
| FBGLD-1064-80  | 1064                             | 80                      | 1 nm                                 | 0.01   | Class3B (50mW)                     |
| FBGLD-1064-120 | 1064                             | 120                     | 1 nm                                 | 0.01   | Class3B (200mW)                    |
| FBGLD-1080-1   | 1080                             | 1                       | 1 MHz                                | 0.01   | Class1 (1.9mW)                     |
| FBGLD-1300-3   | 1300                             | 3                       | 1 MHz                                | 0.01   | Class1 (15mW)                      |
| FBGLD-1420-120 | 1420                             | 120                     | 3 nm                                 | 0.01   | Class3B (200mW)                    |
| FBGLD-1425-240 | 1425                             | 240                     | 2 nm                                 | 0.01   | Class3B (500mW)                    |
| FBGLD-1440-120 | 1440                             | 120                     | 3 nm                                 | 0.01   | Class3B (200mW)                    |
| FBGLD-1450-120 | 1450                             | 120                     | 3 nm                                 | 0.01   | Class3B (200mW)                    |
| FBGLD-1460-120 | 1460                             | 120                     | 3 nm                                 | 0.01   | Class3B (200mW)                    |
| FBGLD-1470-120 | 1470                             | 120                     | 3 nm                                 | 0.01   | Class3B (200mW)                    |
| FBGLD-1490-120 | 1490                             | 120                     | 3 nm                                 | 0.01   | Class3B (200mW)                    |
| FBGLD-1550-1   | 1550                             | 0.5                     | 1 MHz                                | 0.01   | Class1 (10mW)                      |

### • Standard specifications

\* Some options may be changed the size of product \* For 980nm/1000nm-band-products with option 011/013, the specification of output power is reduced

because it requires internal isolator.

| · Common specifications |                         |  |
|-------------------------|-------------------------|--|
| Laser structure         | FBG-stabilized LD       |  |
|                         | SMF                     |  |
| Optical fiber /         | FC/PC or FC / Angled PC |  |
| connector               | (Refer to "Final Test   |  |
|                         | Inspection Records")    |  |
| Size (mm) *1            | 66(H)×160(W)×230(D)     |  |
| Operation temp.         | $0{\sim}40$ deg.C       |  |
| Storage temp.           | -10~60 deg.C            |  |
| Weight                  | 2 kg                    |  |
| Power supply            | AC 100-240V (50/60Hz)   |  |
| Safety function         | Remote interlock        |  |

# Common specifications

# • Option

| Option |   |
|--------|---|
| No 011 | FC / PC optical connector   |
| No 012 | FC / Angled PC optical connector  |
| No 013 | SC / PC optical connector   |
| No 014 | SC / Angled PC optical connector  |
| No 141 | Optical power control<br>(Display: Optical power or<br>Forward current) |

\*1 : Not including protrusions



980/1000nm-band-products do not have an optical isolator in its output line. It cannot eliminate the problem stems from unexpected external reflection. Do not place any high-reflective substances like metal at an output end, and any high-reflective optical devices on the optical path. This might cause not only the output power instability but also the serious damage to the unit.