

BWR Series

Diode Pumped Solid State NIR Laser



The BWR series are self-contained, thermoelectric (TE)-cooled, diode-pumped, Near Infrared Nd:YVO₄ lasers. They can be operated over a wide temperature range of 10 to 35°C with a stable laser output power. These are CDRH compliant laser systems. The combination of excellent beam characteristics, such as mode quality and low divergence, makes the lasers suitable for beam focusing, as well as long distance beam positioning. The power supply has all CDRH applicable safety features, such as key-lock switch, emission indicator, remote interlock connector and optional TTL (or Analog) modulation input for up to 20 kHz.

Applications

- *Optical Trapping*
- *Wafer Inspection*
- *Material Processing*
- *Particle Counting*
- *Metrology*
- *Printing*
- *Medicine*
- *Illumination*
- *Pointing*
- *Photoluminescence*



BWR Series

Diode Pumped Solid State NIR Laser

Typical Specifications for output power ≤ 50 mW

End User Version	BWR-20E	BWR-50E
OEM Version	BWR-20-OEM	BWR-50-OEM
Power Output	20 mW	50 mW
Wavelength	1064 nm	
Mode	TEM ₀₀	
Beam Size (FWHM)	< 2 mm	
Beam Divergence	< 2 mrad	
Power Stability (over 2 hrs)	< 5%	
Operating Temp.	10 - 35 °C	
Spectral Linewidth	< 1 nm	
Warm-up Time	15 min	
Laser Head Dimension	30 (W) x 30 (H) x 72 (L) mm	
Input Power	110/220 V AC 50/60 Hz	
Power Supply Dimension	55 (H) x 105 (W) x 125 (L) mm	
Control (Optional)	TTL or Analog Input	
Fiber Pigtail (Optional)	Single mode or Multi-mode with SMA 905 termination	
OEM Driver	4.5-5.5 V DC, 105 x 80 x 25 mm	

**OEM Version: OEM modules contain laser heads and OEM drivers, and are non-CDRH compliant devices. These modules are sold as component into other equipments. The purchasers assume responsibility to comply with US 21 CFR 1040 with regard to the use of this laser and its introduction into commerce. B&W TEK may provide additional assistances to help customers achieve the required CDRH compliance

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Typical Specifications for output power > 50 mW

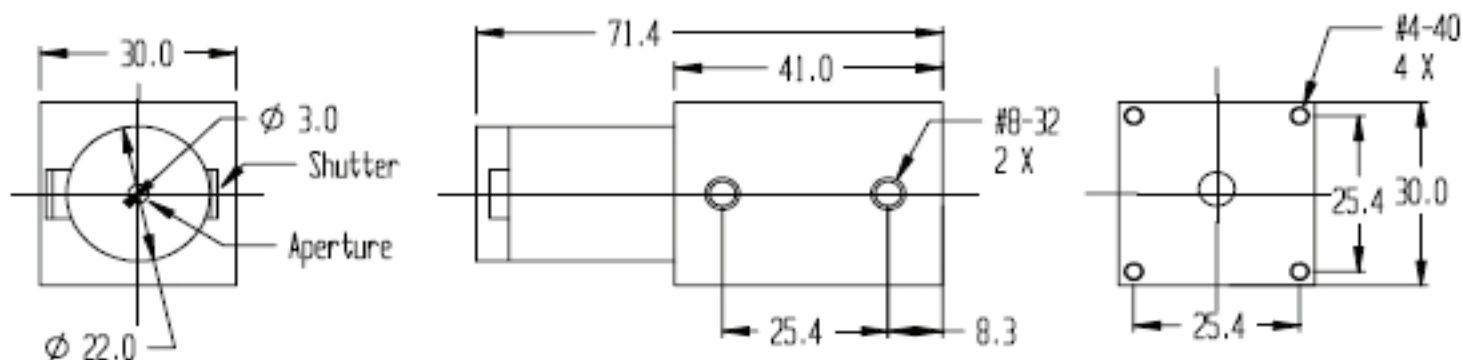
	BWR-600E	BWR-1200E	BWR-2500E
Power Output	600 mW	1200 mW	2500 mW
Wavelength	1064 nm		
Mode	TEM₀₀		
Beam Size (FWHM)	~ 3mm		
Beam Divergence	< 2 mrad		
Power Stability (over 2 hrs)	< 5%		
Operating Temp.	10 - 35 °C		
Spectral Linewidth	< 1 nm		
Warm-up Time	15 min		
Laser Head Dimension	77 (W) x 60 (H) x 151 (L) mm		
Fiber Pigtail (optional)	Multi-mode fiber with SMA905 Termination		
Modulation (optional)	TTL or Analog		
Driver Specifications			
Operating Voltage	110/220 V AC 50/60Hz		
Power Consumption	< 60 Watts		
Power Supply Dimension	155 (W) x 89 (H) x 255 (D) mm		
Control	Fixed power output Power adjustment 0-max. (optional)		
Additional Control (optional)	TTL or Analog Control Input with modulation speed up to 20 KHz		

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Dimensional Drawing

Laser Head (For output power ≤ 50 mW)



Laser Head (For output power > 50 mW)

