

# **Compass 215M**

## **CW** Green Lasers



**Mechanical Specifications** 

### **Features**

- Superior performance medium output power
- Outstanding laser beam parameters
- Proven reliability
- Highest unit-to-unit consistency
- Unsurpassed lifetime

#### Laser Head - Front View Analog Controller - Top View 16.5 mm (0.65 in.) 15.5 mm - 26.5 mm (1.04 in.) (3.54 in.) (3.94 in.) 90 mm 85.5 mm (3.36 in.) mm (0.61 in.) mm (6 in.) 19 mm (0.75 in.) Beam Axis 10 mm 10 mm (0.39 in.) 30 mm (0.39 in.) Laser Head - Side View 4 mm (1.18 in.) (0.16 in.) 85.1 mm (3.35 in.) 5 mm for M3, UNC/UNF 14 mm (0.55 in. 75 mm (0.2 in.) No. 5/6 or 1/8 in. (2.95 in.) BSW/BSF 104 mm (4.09 in.) Beam Waist 2 mm (0.08 in.) 6.7 mm 100 mm (3.94 in.) Analog (0.26 in.) 33.6 mm (1.32 in.) Controller -2 Dowel Holes **Rear View** <u>3 m</u>m 4 Holes Ø4.2 mm (0.165 in.) Connection to DC-Supply Ø3.020 to 3.032 mm (0.12 in.) for Screws M3, UNC/UNF (0.1189 to 0.1194 in.)-90 mm (3.54 in.) No. 5 & 6, 1/8 in.-40 BSW/BSF or BA No. 4 & 5 42 mm (1.65 in.) 15 pin SUB-D-male Connector for Analog Input and Monitoring Device Analog 35 mm (1.38 in.) 2 mm Controller -(0.08 in.) 20 mm (0.79 in.) Front View Jumper (enables the Autostart-Function) 5 mm (0.2 in.) 0 mm (0 in.) Connection to Laser Head [25 pin SUB-D with Flat Cable; 7.55 mm (0.3 in.) Ø0.75 mm 2.54 mm 13.2 mm Bending Radius >8 mm (0.31 in.); Length: 1.0m (3.28 ft.)] (0.03 in.) (0.1 in.) (0.52 in.) Laser Head -**Top View** (29 x 2.54 =) 73.66 mm

[(29 x 0.1 in. =) 2.9 in.]

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S	pecifications	Wavelength (nm)	532
		Output Power (mW)	
		Compass 215M-10	10
		Compass 215M-15	15
		Compass 215M-20	20
		Compass 215M-50	50
		Compass 215M-75	75
		Spatial Mode	TEM <sub>oo</sub>
		M <sup>2</sup>	<1.1
		Circularity of Beam	>95%, <1.05:1
		Beam Diameter @1/e² (mm)	0.32
		50 mW version (optional)⁴	0.6
		Beam Divergence (mrad)	<2.5
		Pointing Stability (µrad/°C)	<6
		Noise (10 Hz to 1 GHz)(rms)	<0.5%
		Long-Term Power Stability (over 8 hours)	<±2%
		Warm-Up Time (min.)	<10
		Polarization Ratio	100:1, vertical
		Static Alignment Tolerances <sup>1</sup>	
		Beam Position (mm)	±0.25
		Beam Angle (mrad)	±1
		*	
	nvironmental	Operating Voltage <sup>2</sup> (VDC)	5 ±5%
S	pecifications	Power Consumption (W)	<50
		Maximum Power Consumption (W)	
		Laser Head	25
		Controller	15
		Maximum Laser Head Baseplate Temperature	45°C (113°F)
		for Conductive Cooling <sup>3</sup>	001 001 001
		Storage Temperature	-20°C to 70°C (-4°F to 158°F)
		Dimensions (L x W x H)	
		Laser Head	100 x 42 x 32 mm (4.0 x 1.7 x 1.3 in.)
		Analog Controller	100 x 104 x 33.6 mm (4.0 x 4.1 x 1.3 in.)
		Heatsink (optional)	155 x 85 x 40 mm (6.1 x 3.3 x 1.6 in.) 235 x 63.5 x 35 mm (9.3 x 2.5 x 1.4 in.)
		Power Supply (optional) Cable—Laser Head to Controller	235 x 03.5 x 35 mm (9.3 x 2.5 x 1.4 m.) 1 m (3.3 ft.)
		Weights	1 111 (3.3 11.)
		Laser Head	o.25 kg (o.55 lbs.)
		Analog Controller	0.25 kg (0.55 lbs.) 0.24 kg (0.53 lbs.)
		Heatsink (optional)	0.35 kg (0.77 lbs.)
		Power Supply (optional)	0.70 kg (1.54 lbs.)
		Cable—Laser Head to Controller	o.35 kg (o.77 lbs.)
٨	Aeasurement Tools	Detector	FieldMax-TO
		Sensor	OP-2VIS
		Specifications are valid for nominal power.	3 With factory-provided or other adequate heatsink.
		<ol> <li>Static alignment tolerances are relative to adjustment holes.</li> <li>The power supply must meet the following requirements.</li> </ol>	4 50 mW option with beam diameter 0.60 mm:
		DC Voltage 5 V ±5%	beam asymmetry >90%, beam divergence <1.5 mrad, beam waist location ±250 mm
		Power 50W	
		Ripple <5% peak-to-peak	

Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.

Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all Compass lasers. For full details of this warranty coverage, please refer to the Service section at www.Coherent.com or contact your local Sales or Service Representative.



www.Coherent.com

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