

# Gas Mixtures

Model	AL50GS (Diffraction Grating, Stabilized)				Further Possible Configurations		
	CO	<sup>12</sup> C <sup>18</sup> O <sub>2</sub>	CO <sub>2</sub>	<sup>13</sup> C <sup>16</sup> O <sub>2</sub>	<sup>13</sup> C <sup>18</sup> O <sub>2</sub>	<sup>14</sup> C <sup>16</sup> O <sub>2</sub>	<sup>14</sup> C <sup>18</sup> O <sub>2</sub>
<b>Laser Power</b>							
Wavelength	5.3 - 6.0 μm	8.9 - 10.7 μm	9.2 - 10.8 μm	9.6 - 11.3 μm	9.2 - 11.2 μm	10.0 - 11.8 μm	10.1 - 11.7 μm
5 μm							
6 μm							
9 μm							
10 μm							
11 μm							
12 μm							
CW Power (Varies by Line)	0.3 - 1.5 W	2 - 20 W	4 - 30 W	2 - 15 W	For more information, please contact our sales team.		
Power Stability	± 3 %	± 2 %	± 2 %	± 2 %			
Duty Cycle / Pulse Width	0 - 100 %						
Modulation / Rep. Frequency	0 - 100 kHz						
Rise and Fall Time	200 μs						
Peak Power	1.5 W	20 W	30 W	15 W			
<b>Beam Characteristics</b>							
Beam Waist Diameter	2.4 mm						
Waist Location	Output Coupler						
Mode Quality	M <sup>2</sup> ≤ 1.2						
Full Divergence Angle	5.5 mrad						
Polarization	> 50:1 Linear Vertical						
<b>Heat &amp; Cooling</b>							
Cooling Requirement	Water Cooled Closed Loop (-WCCL)						
Heat Dissipation	≤ 750 W						
Working Temperature	5 - 40 °C (non-condensing)						
<b>DC Power Requirements</b>							
Laser RF Driver	RFAL50 (28 V   28 A)						
<b>Dimensions &amp; Weight</b>							
Laser Weight	34 lb						
Laser Dimensions L x W x H	29 x 4 x 5 in						

Specifications are given for the -GS technology options, custom solutions and further configurations are available. Average or pulsed power may exceed listed value. All specifications are measured at the strongest line and are subject to change without notice. Stability measured after 45 minute warm-up to allow laser head to reach thermal equilibrium.

