



Fiber-Coupled Laser

Monocrom @FLEX Direct Diode

Features:

- Clamping™ Patented Technology (Solder free mounting of laser bars)
- Long lifetime
- High reliability
- Low thermal resistances
- Wide storage temperature - 40° C to + 85° C
- No SMILE effect

Suitable for:

- Marking
- Plastic welding
- Brazing
- Cladding
- Additive manufacturing

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Product specification are subject to change without notice.
For complete details, please contact your local MONOCROM Representative.

UNE EN ISO 9001:2015

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Monocrom @FLEX Direct Diode I TECH Specifications

	HIP-2	HIP-4	HIP-6	HIP-10
Laser Parameters^(1,2,3,4)				
Wavelength ⁽⁵⁾ [nm]	808 - 1060			
Linewidth ⁽⁶⁾ [nm]	< 5		5-7	
Optical Power (unpolarized) [W]	400		600	1000
Optical Power (linearly polarized) [W]	200	300	500	800
Optical Power after 600 / 400 µm fiber [W]	180 / 160	350 / 300	520 / 500	900 / 800
Repetition rate [Hz]	CW – 100 kHz			
Pulse width	1 µs - CW			
Power stability	< 1% @ 8 h			
Pulse to pulse stability	< 1% rms			
Optics				
Divergence ⁽⁷⁾ [mrad]	10 - 15			
Beam size [mm x mm]	12 x 6			
Beam quality BPP ⁽⁸⁾ @ 600 µm	68			
Beam quality BPP ⁽⁸⁾ @ 400 µm	44			
Pointing stability	± 50 µrad			
Operating Parameters⁽⁹⁾				
Coolant flow [l/min]	< 1.2	< 2.5	< 5	< 10
Coolant pressure [bar]	< 3.5 bar			
Coolant	90% distilled water + 10% ethylene glycol			
Warm up time	< 2 min			
Operating temperature	Non-condensing – 55			
Body				
External trigger	BNC / SMA			
Driver electronics	included			
Weight [Kg]	< 15		< 25	
Laser head dimensions (L x W x H) [mm ³]	356 x 432 x 45		636 x 432 x 89	
Laser class product (EN-60825)	4			
Expected lifetime [pulses]	> 2 10 ⁹ pulses			

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1. This is a preliminary specification sheet, validation of specification is in process.
2. If any other requirements are needed, please contact us.
3. Specifications at 20 °C, at the beginning of the lifetime.
4. Specification are subjected to chips availability.
5. Other wavelengths on request.
6. Measured at FWHM.
7. Measured at FW95% energy.
8. Determined by taking 1σ values.
9. Values for related to coolant properties are recommendations. External chiller is needed.

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