

Manufacturer Declaration laser safety window P1L03

The laser safety window P1L03 is certified according to DIN EN 60825-4 with the following protection:

880-1064nm | 91,7 kW/m² | T2 | t_{max} = 105s

It has passed the following laser tests that have been conducted by an independent institute according to DIN EN 207:

Wave-length [nm]	Test / Safety level	Required power / energy density	Beam diameter d ₆₃	Puls duration t _p	Puls frequency	Average power (measured)	Corresponding measured safety level
248	D LB6	1,0x10 ³ W/m ²	1,0 mm	40 ns	25 Hz	3,3 W	1,2 x D LB9
248	R LB3	3,0x10 ⁴ J/m ²	1,0 mm	40 ns	10 Hz	1,8 W	5,9 x R LB3
266	M LB6Y	3,0x10 ¹⁶ W/m ²	0,5 mm	120 fs	1kHz	80 mW	0,93 x M LB6Y
532	M LB5Y	1,0x10 ⁴ J/m ²	0,5 mm	10 ps	50 kHz	115 mW	1,7 x M LB6
1064	D LB5	1,0x10 ⁶ W/m ²	1,0 mm	0,5 ms	25 Hz	1,2 W	1,5 x D LB5
1064	I LB5	5x10 ² J/m ²	1,0 mm	0,5 ms	10 Hz	0,6 W	4,0 x I LB7
1064	R LB5	5x10 ² J/m ²	1,0 mm	30 ns	5000 Hz	0,5 W	3,2 x R B5

If the optical density (OD) is at least as high as the safety level, the tested and passed safety level can be used also for the surrounding wavelengths. Please take into account the OD specification of your laser safety window.

Furthermore, the safety levels can also be used for other wavelengths, as long as they are sufficiently backed by similar tests and the material does not show significantly deviating behavior during laser testing.

We therefore confirm the deduced protection levels for the laser safety window P1L03:

180-315 D LB6 + IR LB3 + M LB6Y	770-<800 DIRM LB2
>315-535 DIR LB5 + M LB5Y	800-<830 DIRM LB3
> 535-540 DIRM LB4	830-<870 DIRM LB4
	870-1068 DI LB5 + RM LB5Y
	>1068-1078 DIRM LB4
	>1078-1090 DIRM LB3

Caution: While the underlying test report remains valid without expiration, the DIN EN 207 certificate for P1L03 has formally expired and not been renewed. Laservision confirms that the material has not been changed since testing and certification, nevertheless the here stated safety levels are not formally certified.

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