



LASERMET LTD

laser safety solutions



Type L05



Type L07



Type L08



Type LGF

M Rated Eyewear for Femto-second and Pico-second Lasers

Lasers which emit pulses of less than 1 ns duration are becoming increasingly common. These lasers are often referred to as femto-second or pico-second lasers, as the very short pulse times mean extremely high power densities are achieved. Protective eyewear for these lasers needs to be tested to withstand these conditions. The European Laser Protective Eyewear Standard, EN207, defines protection levels - L numbers - for all laser protective eyewear. For femto-second and pico-second lasers the L numbers are preceded by the letter M (instead of D, I or R, which refer to CW, long pulse and Q-switch respectively). Hence protective eyewear for these lasers is often referred to as 'M-rated' eyewear.

Until recently M-rated eyewear was not commercially available, which placed users of femto-second lasers in a dilemma. However, we are now able to offer this range of M rated eyewear. At the time of writing, we believe this is the entire range of such eyewear available.

Quick Find Guide

M Rated wavelength range (nm)	Frame types	Filter code	Filter type
315 – 532	L05, L07, L08	LV-27	Glass
315 – 532	L05, L07, L08	LV-37	Glass
700 - 900	L07, L08	LV-58	Glass
720 - 900	L07, L08	LV-48	Glass
780 – 830	LGF	GL-320	Polycarbonate
795 - 805	L07, L08	LV-23	Glass
1045 - 1100	L05, L07, L08	LV-27	Glass
1045 - 1100	L05, L07, L08	LV-37	Glass

Laser Type	Frame type & order code	Wavelength range(s) (nm)	Optical Density	EN 207 L No.s				Visible light trans. (%)
				D	I	R	M	
YAG & Harmonics (KTP, UV)	LV-L05K-27	180 - 315	> 9	9	4	4	-	30
		315 - 532	> 8	6	8	5	5	orange
		1045 - 1064	> 6	6	6	6	5	
YAG & Harmonics (KTP, UV)	LV-L07K-27	180 - 315	> 9	9	5	5	-	30
		315 - 532	> 7	6	7	5	5	orange
		1045 - 1100	> 7	7	7	7	5	
YAG & Harmonics (KTP, UV)	LV-L08K-27	180 - 315	> 10	9	5	5	-	30
		315 - 532	> 7	6	7	5	5	orange
		1045 - 1100	> 7	7	7	7	5	
YAG & Harmonics (KTP, UV)	LV-L05K-37	180 - 315	> 8	8	4	4	-	15
		315 - 532	> 8	7	8	6	6	orange
		1045 - 1064	> 7	6	7	6	6	
YAG & Harmonics (KTP, UV)	LV-L07K-37	180 - 315	> 9	9	5	5	-	15
		315 - 532	> 8	8	8	6	6	orange
		1045 - 1100	> 7	7	7	7	6	
YAG & Harmonics (KTP, UV)	LV-L08K-37	180 - 315	> 10	10	5	5	-	15
		315 - 532	> 8	8	8	6	6	orange
		1045 - 1100	> 7	7	7	7	6	
HeNe, Ruby, Red & IR Diode, YAG, Telecom	LV-L07K-58 LV-L08K-58	620 - 690	> 2	2	-	-	-	32
		690 - 700	> 8	6	8	8	-	blue-green
		700 - 755	> 8	6	8	8	8	
		755 - 795	> 8	5	7	7	8	
		795 - 805	> 10	5	7	7	10	
		805 - 900	> 8	5	7	7	8	
		900 - 1050	> 7	5	7	7	-	
		1050 - 1320 633 R3	> 5	5	5	5	-	
Ruby, Diode, YAG, Telecom, CO2	LV-L07K-48 LV-L08K-48	690 - 720	> 7	6	7	7	-	35
		720 - 795	> 8	6	7	7	8	green
		795 - 805	> 10	6	7	7	10	
		805 - 900	> 8	6	7	7	8	
		900 - 1320	> 7	6	7	7	-	
		1320 - 1550	> 3	3	3	3	-	
		10600 633 R2	> 4	3	4	-	-	
Diode	GL-LGF-320	780 - 830	> 7	5	-	-	5 pink	45
Alexandrite, Diode	LV-L07K-23 LV-L08K-23	750 - 795	> 7	6	7	-	-	62
		795 - 805	> 9	6	7	-	9	light grey
		805 - 840	> 7	6	7	-	-	
		840 - 850	> 4	4	4	-	-	

Lasermet offer a full range of laser safety products and services.

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