

Laser Safety - Classification

according to IEC/EN 60825-1

Overview of the Risk Potential for Laser Safety Classes

Class	Safe Situation	Unsafe Situation
Class 1	Safe, even when looking into the	XXX
	beam for a long time, also safe	
	when using optical instruments	
Class 1 M	Safe, for viewing the beam directly with the naked eye	Viewing using optical instruments
Class 2	Safe for accidental viewing of the	Deliberately staring into the beam
	direct beam, even using optical instruments	(longer than 0.25 seconds)
Class 2M	Safe for accidental viewing with the	Deliberately staring into the beam
	naked eye	(longer than 0.25 seconds) or
		accidental viewing whilst using
		optical instruments
Class 3R	As Class 2 and 2 dependent on	As Class 2 and 1 dependent on
	wave length for "brief" exposure.	wave length, slightly increased risk,
		particulary in the event of longer
		exposure (grey zone)
Class 3B	Viewing of diffuse reflection,	Accidental exposure of the direct
	exposure to the skin	beam to the eyes
Class 4	Safe outside of the hazard area	Accidental exposure of the eyes or
		the skin due to direct or diffuse
		reflected exposure
As the pote	ntial hazard increases as the Class inc	reases, higher classes do not
include the	"unsafe situations" of the lower classe	s, i.e. that which is "not safe" for

As the potential hazard increases as the Class increases, higher classes do not include the "unsafe situations" of the lower classes, i.e. that which is "not safe" for Class 2, is also "not safe" for Class 4 and is therefore listed separately. On the other hand the safe situations for the higher classes can also be applied to the lower safety classes (that which is safe for Class 4, is also safe for Class 2).

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