

## **Musikhaus Thomann**

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Dear Customer,

This device contains a class 3R laser or higher (classification: DIN EN 60825-1:2015).

Lasers and devices containing lasers are classified according to the possible risks that they pose. In this context, please take note of the data sheet with the various definitions.

The intensive collection of laser radiation causes the entire energy of the light to be focussed on a small area. Looking directly into the beam can cause eye damage.

As an operator, you are responsible for the safety of all people present. Make sure that you are familiar with the applicable regulations. The device may only be operated by people with the necessary knowledge and experience, as well as sufficient physical, sensory and mental ability.

Before commencing operation, the company/operator shall, in writing, nominate a qualified individual as the laser safety officer and inform the statutory occupational accident insurance and prevention body and the occupational health and safety authority of the use of the laser device. In case of use in public, it may be required that the entire laser system must be approved before use by an independent authority.

Your Thomann Team Appendix: Laser Classes



Class	Performance	Description	Example	Prevention
2	≤ 1 mW	The accessible laser radiation is exclusively in the visible spectrum (400 nm to 700 nm). Short exposure (up to 0.25 s) is not dangerous, including to the eyes.	<ul> <li>Lasers for land surveying</li> <li>Laser spirit levels</li> <li>Light barriers</li> <li>Laser pointers</li> </ul>	Laser radiation from class 2 lasers does not pose a risk to the eye in cases of accidental, short exposure, i.e. exposure of up to 0.25 s. As such, class 2 lasers may be used without any further safety precautions being taken, as long as it is ensured that operation of the device will not involve eye exposure to the laser for longer than 0.25 s, including repeated exposure to the laser radiation or radiation reflecting of another surface.
2M	≤ 1 mW	Same as class 2, as long as no optical instruments such as magnifying glasses or binoculars are in use.	• Effect lasers	If no optical instruments which reduce the beam cross- section are in use, class 2M laser devices are no more dangerous than class 2 laser devices.
3R	1 to 5 mW	The accessible laser radiation is dangerous for the eye.	Military target lasers     Levelling lasers	Laser safety officer required! Class 3R laser devices present the same risk of danger to the eye as class 3B laser devices. The risk of eye damage is reduced by the fact that the accessible radiation in the visible spectrum is limited to 5 mW.
3B	5 to 500 mW	The accessible laser radiation is dangerous for the eye and, in some cases, for the skin. Diffused light is generally not dangerous. (Lasers in CD/DVD burners; however laser radiation is not directly accessible)	Show & disco lasers     Lasers for cosmetic applications	Laser safety officer required! It is dangerous to look into class 3B lasers. A beam can be viewed safely through a diffuse reflector if the following cumulative conditions are all fulfilled: • The minimum observation distance between the screen and the cornea is 13 cm • The maximum observation time is 10s • The eye is not exposed to any directed radiation
4	> 500 mW	The accessible laser radiation is very dangerous for the eyes and skin. Even diffusion radiation can be dangerous. There is a risk of fire or explosion when using this kind of laser radiation.	Laser welding and laser cutting systems     Research lasers     Lasers for medical applications     Show & disco lasers	Laser safety officer required! Class 4 laser devices are high-performance lasers whose output performance or energy exceed the laser safety threshold for class 3B. Laser radiation from class 4 laser devices is so intense that any exposure of eyes or skin may lead to injury. When using class 4 laser devices, it should always be determined whether sufficient fire and explosion prevention measures have been taken; see also §§ 10 and 16 of the Laser Radiation Occupational Accident Prevention Regulation.