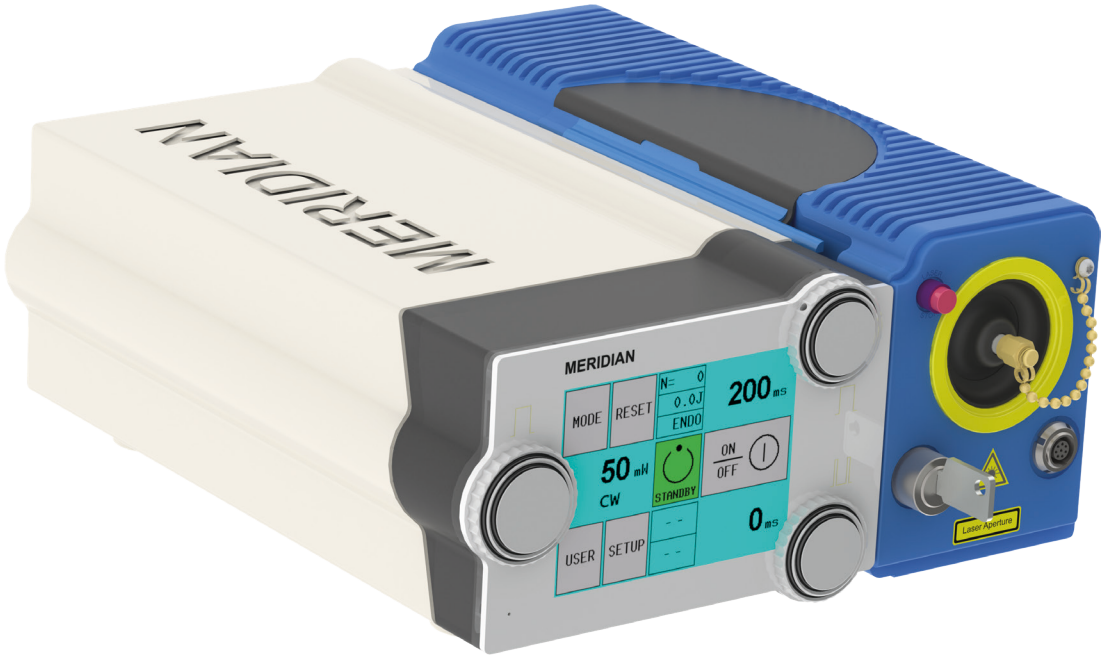

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shortpulse **577**

Yellow laser photocoagulator

for all retinal photocoagulation procedures

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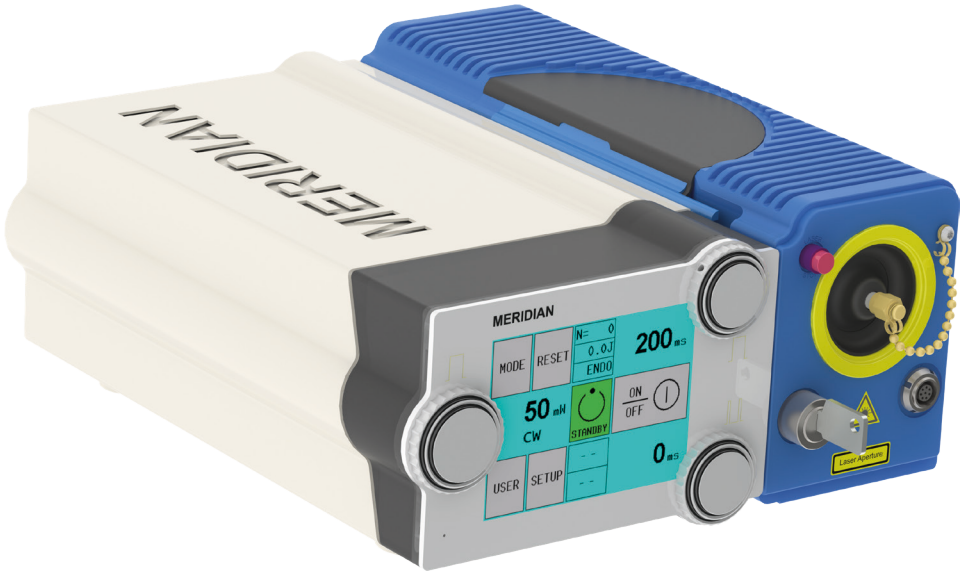
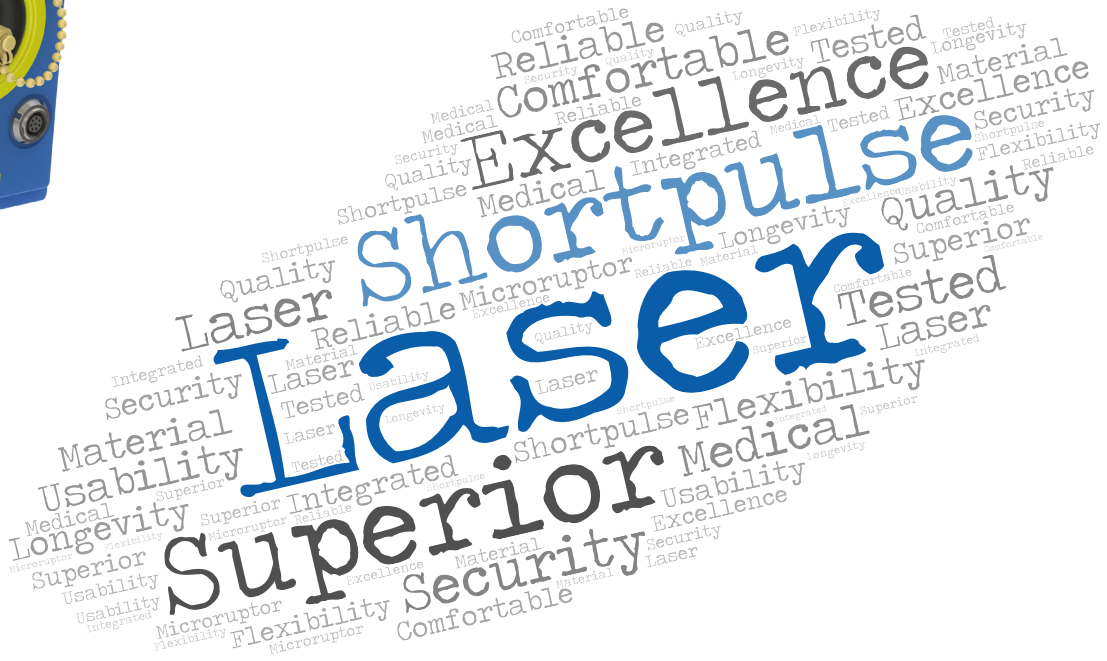


PROVEN RELIABILITY – COMPACT, PRACTICAL AND POWERFUL

The Merilas 577 shortpulse ophthalmic yellow laser photocoagulator features dual treatment modality: subthreshold with microsecond pulses or continuous wave delivery mode.



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SUPERIOR QUALITY & LONGEVITY

The Merilas housing is made of a high grade aluminium giving Meridian's unique solid feeling. The removable control panel features a crystal interface that is resistant, durable and easy to clean.

The thermoelectric cooling (TEC) system eliminates the need for ventilation slots, making a hermetically sealed unit, ensuring a dust-free system, increasing the longevity of the laser.

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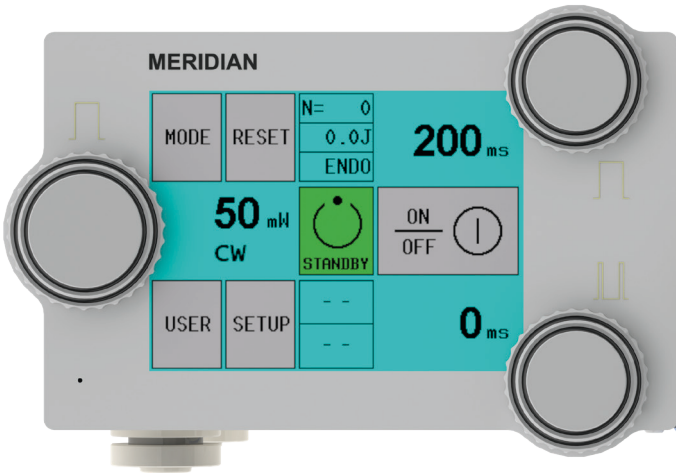

USABILITY

The Merilas lasers have intuitive commands, and are easy to use.

The detachable touch display with glass technology ensures flexibility and provides a greater ergonomic design. The user interface is straightforward to use, thanks to its intuitive design. Due to its thermoelectric cooling system, there are no disturbing noises or air turbulences.

The Merilas lasers impress users with their modern, compact presentation and ease to transport. Each laser comes with a robust and practical carry-on case.

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SAFETY

Auto key connector: Merilas lasers recognise the original probes and accessories connected to the console.

- Merilas laser delivers stable laser output
- Each laser accessory is calibrated and measured independently
- Safe in the cornea
- Remote support access

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FLEXIBILITY & COMFORT

Our slit lamp delivery systems are designed to work with a wide range of slit lamp brands, either Haag-Streit or Zeiss styles. The Merilas lasers can be used with laser indirect ophthalmoscopes and endoprobes.

Our technicians can support you via remote service in case you need assistance. This function allows fast and professional troubleshooting.

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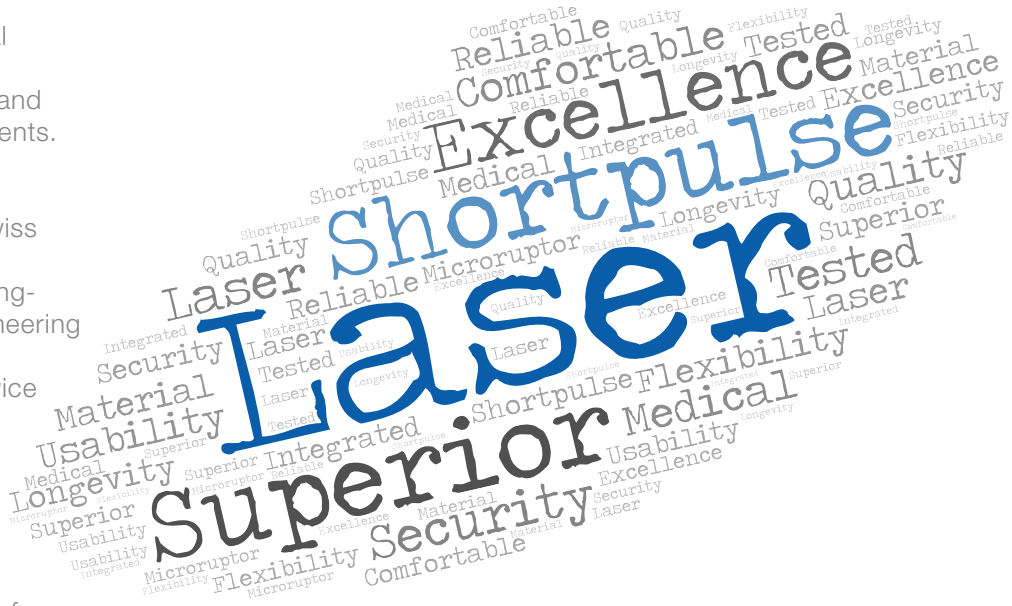
LASER EXCELLENCE

The history of Meridian AG, now showing up as Meridian Medical Group, and the history of the medical Nd:YAG laser are closely connected. The Microruptor II developed by Meridian engineers and Dr Frankhauser changed the way of many ophthalmology treatments.

New technology is continuously developed and patented by our development engineers. We select and integrate the best Swiss and
European laser components to ensure the highest quality and long-term reliability. We use tested and reliable best practices in engineering and integration, ensuring our systems' highest performance.
Our highly skilled and experienced staff works to deliver the service and results our customers deserve and have come to expect.



TIPS FOR YOUR LASER

- Yearly maintenance service assures the optimal performance of your laser
- Follow the safety advice of the manufacturer and your regulatory body
- Follow the intended use described in the IFU

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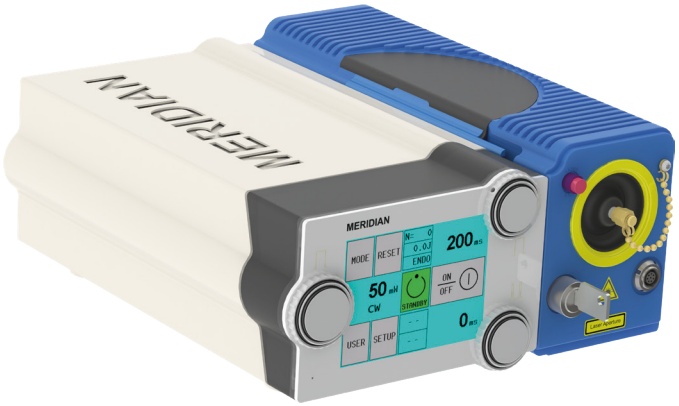

CLINICAL INDICATION

Photocoagulation:
Retinal photocoagulation, panretinal photocoagulation (PRP) and intravitreal endophotocoagulation of vascular and structural abnormalities of the retina and choroids, including:

- Proliferative and non-proliferative diabetic retinopathy
- Choroidal neovascularization
- Branch retinal vein occlusion
- Age-related macular degeneration
- Retinal tears and detachments
- Retinopathy of prematurity
- Macular edema
- Lattice degeneration
- Central retinal vein occlusion

Iridotomy:

- Iridotomy in angle closure glaucoma

Trabeculoplasty:

- Trabeculoplasty in open angle glaucoma

PHOTOCOAGULATION – TREATMENT GUIDELINES FOR SHORTPULSE LASERS

These guidelines have been prepared following industry standards for retinal treatments, the use of the laser and its parameters are responsibility of the treating ophthalmologist.

Procedure	Spot size(*)	Exposure	Periferal burn	Duty cycle
PRP (Periphery)	300 – 400 µm	200 ms	3 ×	5 %
DME	100 – 200 µm	200 ms	2 – 4 ×	5 %
DME+RVO	100 – 200 µm	200 ms	2 – 7 ×	5 %

(*) Spot size on macula including the lens magnification factor
Suggested parameters for the Posterior Segment taken from Bloom & Brucker (1997) "Laser Surgery of the Posterior Segment"

PERIPHERAL BURN FACTOR

When using Shortpulse it is necessary to perform a laser shot to test the melanin response. Apply a burn shot away from the fovea, titrate the power until achieve blanching. Starting with a spot size of 100 – 200 µm, power 50 – 100 mW and exposure of 200 ms then slowly increase energy until produce a **barely** visible burn.
The power is multiply to compensate the short pulse duration.

BINOCULARS IN FOCUS

Each user must have the oculars set for their personal refraction, this way the laser will be in parfocality with the aiming beam and retina. Defocused slit lamp may result in unpredictable laser burns.

TEST SHOTS

- Always assure perfect retinal focus before delivering the treatment
- Perform a series of SINGLE SPOT shots in the periphery to test the melanin response, for your test shot aim for a blanching or light burn
- Start with the lowest recommending power and the shortest exposure time

CW TREATMENT

For CW guidelines, please refer to Merilas 532α Guidelines.

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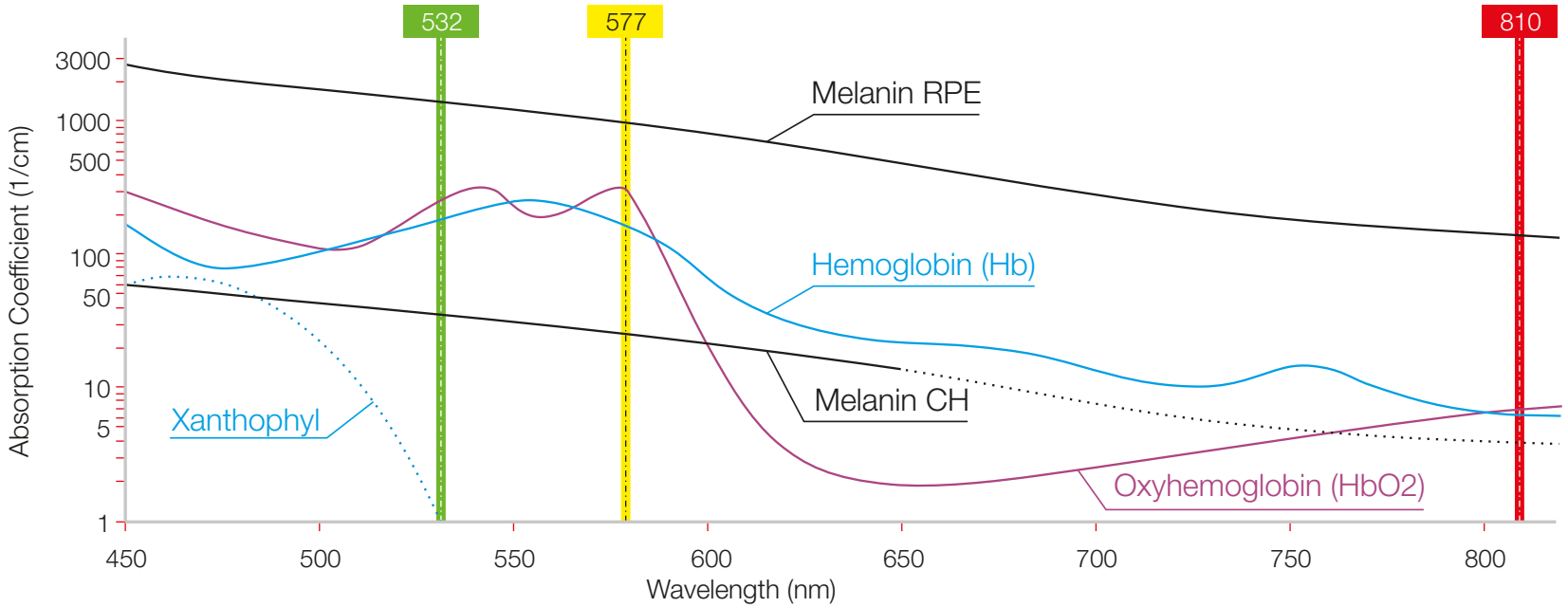
WAVELENGTH BENEFITS – WHY 577 nm?

- The yellow wavelength 577 nm causes less retinal burns and therefore less scotoma formation
- This gives the physician better control over the interaction between the laser beam and tissue
- The yellow light is not absorbed by xanthophyll, making it ideal for macular treatments
- Because it also produces less scattered light, it penetrates existing opacities better and reaches the tissue more precisely



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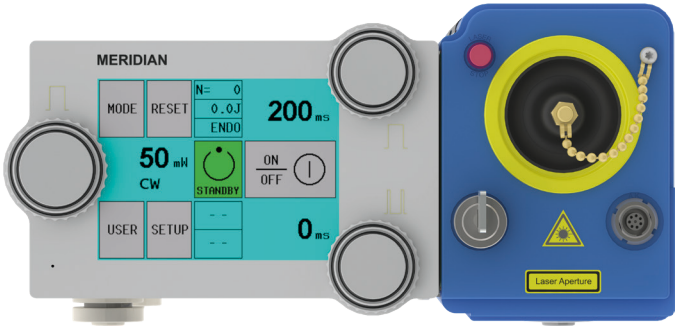
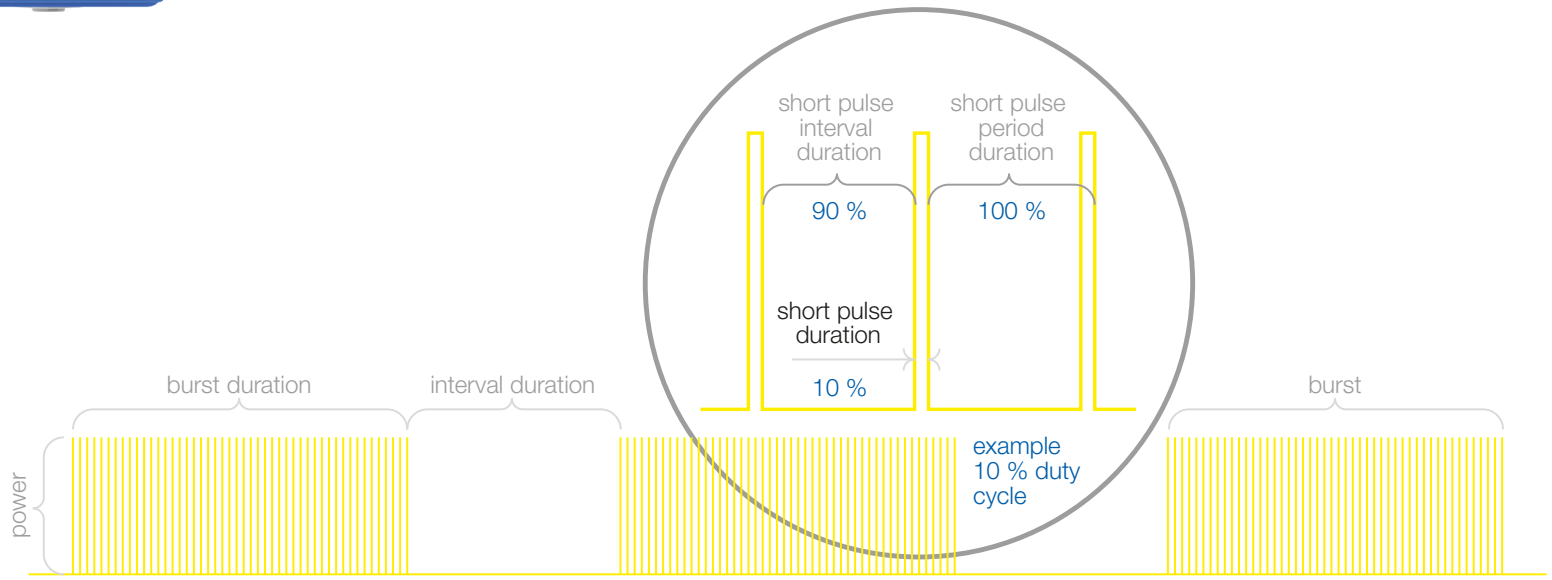


THE PRINCIPLE OF SHORTPULSE

- In shortpulse mode a pulse duration consists of many alternating short bursts and intervals
- In contrast to the continuous wave (CW) mode, the tissue is not heated very much in the shortpulse mode – tissue is treated more gently



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STANDARD ACCESSORIES

- Foot switch
- Transport case
- Safety goggles

OPTIONAL ACCESSORIES

- Slit lamp adapters
- Laser indirect ophthalmoscope
- Safety filters (passive & active)
- Endoprobes
- External fan

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SLIT LAMP ADAPTER – HAAG-STREIT BQ INTEGRATED DESIGN

Meridian proudly integrates its lasers to the Haag-Streit BQ, and it is the only laser company partnering with Haag-Streit.
The specially designed, high-quality filter for the Haag-Streit BQ, fits perfectly on this slit lamp, providing an uninterrupted view and access to the slit lamp on 577 or 532 nm wavelengths. Meridian filters provide unparallel light transmission with protecting the user's eyes.

UNIVERSAL DESIGN

Merilas universal slit lamp adapter allows coupling with almost any Haag-Streit slit lamp, original or copy.
The adaptor has multiple moving parts to assure excellent adaptability to the many Haag-Streit style slit lamps, the robust material enclosing the fibre ensures its durability.

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SLIT LAMP ADAPTER – ZEISS STYLE

Meridian offers a Zeiss-style slit lamp adapter designed for the lower illumination tower, allowing seamless interaction with the German slit lamp and lasers like the Nd:YAG MR Q.

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DELIVERY SYSTEMS – LIO – FEATURES

- Optimized for the Merilas platform
- Laser delivery coaxial to the users viewing axis
- Standard LED module
- Neutral LED cooler color providing brighter illumination and longer battery life
- High-contrast optics
- Built-in filters
- Intelligent optical system with automatic optics and mirrors adjustment
- High magnification lens with additional 1.6 x magnification

DELIVERY SYSTEMS – LIO – TECHNICAL SPECIFICATIONS

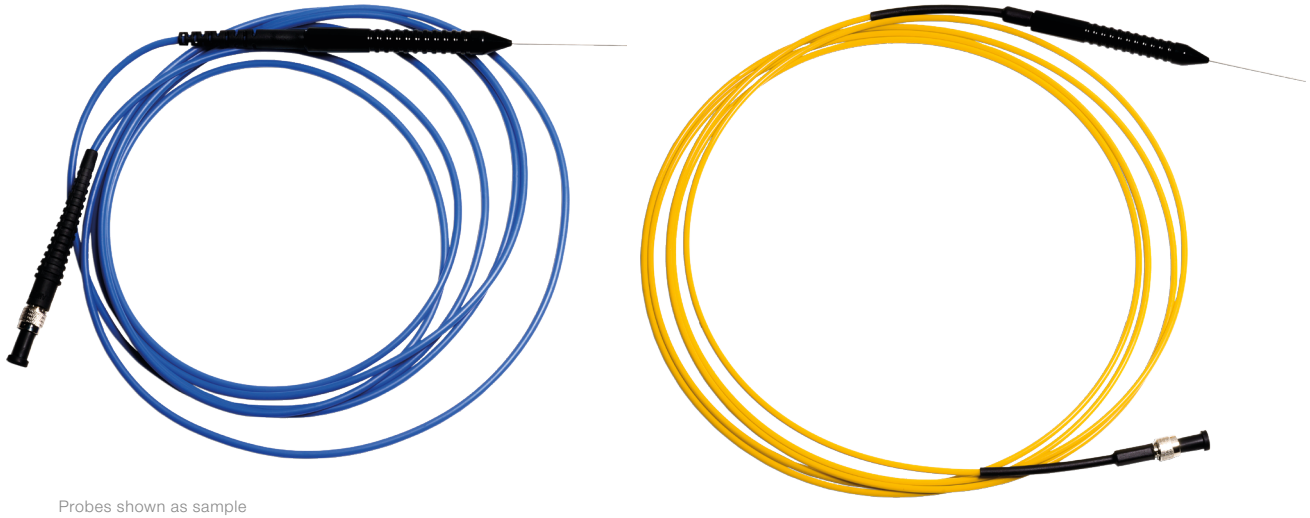
Description	Mode
Spot size	1100 µm ± 20%
Working distance (front of LIO to focused spot)	280 mm ± 20%
Operating wavelengths (Factory configured to one therapy wavelength	Therapy laser: 532 nm, 577 nm or 810 nm up to 2000 mW pulsed Aiming laser: 635 nm, 1 mW
Back-scatter protection	OD > 5.5 at therapy wavelength
Laser Fiber	100 µm core, multimode with A/R coating 3 mm stainless steel protected 5 m length SMA905 laser termination
Power Source	Wall mounted wireless charger including spare lithium battery

DELIVERY SYSTEMS – PROBES

Our probes are manufactured by EMTRON, following strict quality control. The high-quality polished fibre surfaces result in homogeneous laser spots with evenly distributed power across the entire area, eliminating the potential risk for the formation of “hot spots” in the treatment area.

SAFETY

The endoprobes enjoy unique features such as unique serial numbers assuring the highest possible traceability. All endoprobes are CE-marked and individually sterilized for single use.



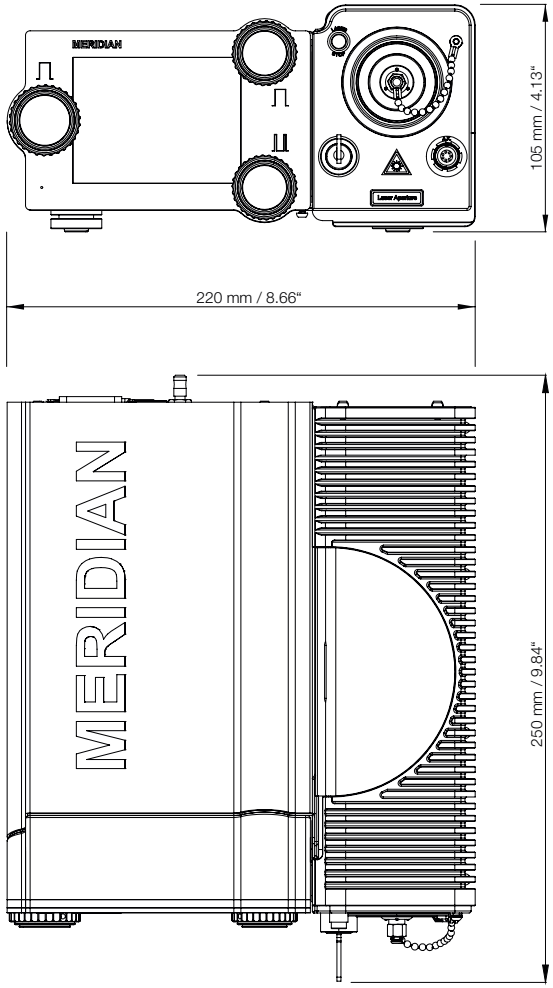
Probes shown as sample

DELIVERY SYSTEMS – AVAILABLE PROBES

The probe design incorporates a proprietary ergonomic design, resulting in a comfortable grip. The handpiece is well balanced for precise and safe fibre guidance resulting in unsurpassed treatment precision. The laser port is a standard SMA connector, providing users with a higher degree of versatility.

type	Features and Advantages
Straight (standard laser probe) 	■ Basic endophotocoagulator for nonperipheral retinal locations ■ Most efficient delivery of thennal energy ■ Ease of entry through small gauge cannulas ■ 20G, 23G, 25G and 27G series
Curved (versatile) 	■ Curved for ease of entry through small gauge cannulas ■ Unique curve for efficient spot placement at far peripheral locations ■ Versatile for central or peripheral use ■ 20G, 23G and 25G series

Probes shown as sample



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TECHNICAL SPECIFICATIONS*

Device description	Merilas 577 shortpulse | merilas shortpulse 577
Safety Classifications	Class 4
Wavelength	577 nm
Power Output	50 – 2500 mW
Pulse Duration	CW (continuous wave, pulsed) 1 – 5000 ms
Pulse Interval	1 – 5000 ms
SP-Mode Settings	shortpulse (continuous wave, chopped) shortpulse duration: 0.01 – 9.5 ms shortpulse interval: 0.1 – 9.5 ms
Cooling	TEC
Aiming Beam	Diode 635 nm, (0-1 mW in 9 steps)
Dimensions	25.0 × 22.0 × 10.5 cm
Total Weight	7.0 kg
Power Requirements	100 – 240 V, 50/60 Hz, 2 A max.

* All technical specifications are subject to change without notice. In accordance with the international general safety standards: IEC 60601-1:2005/AMD1:2012,, IEC 60601-1-2:2014, MDD 93/42/EEC. The laser safety is in accordance with the international standards: IEC 60825-1:2014 and IEC 60601-2-22:2007/AMD1:2012.

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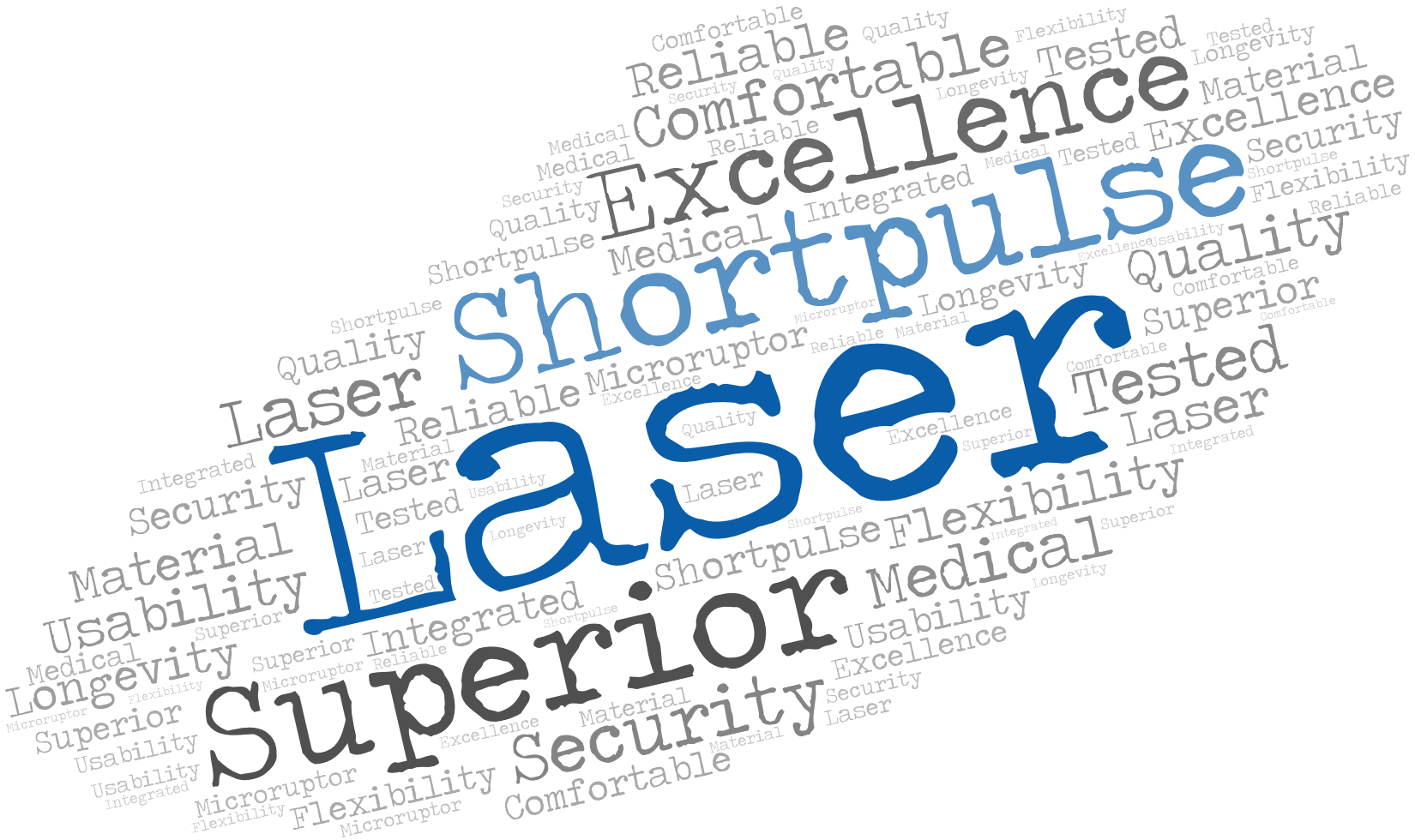
Laser
Shortpulse
Superior
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Comfortable
Medical
Reliable
Tested
Quality
Security
Flexibility
Material
Usability
Longevity
Integrated
Microruptor

Head office

Meridian Medical Group
Tel.: +41 33 334 11 11
Fax: +41 33 334 11 19
info@meridian.ch
www.meridian.ch

Switzerland

Meridian AG
Bierigutstrasse 7
CH-3608 Thun

Slovenia

Meridian Medical d.o.o.
Plemljeva ulica 8
SI-1210 Ljubljana-Šentvid

Finland

Meridian Medical Oy
Elannotie 5
FI-01510 Vantaa

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