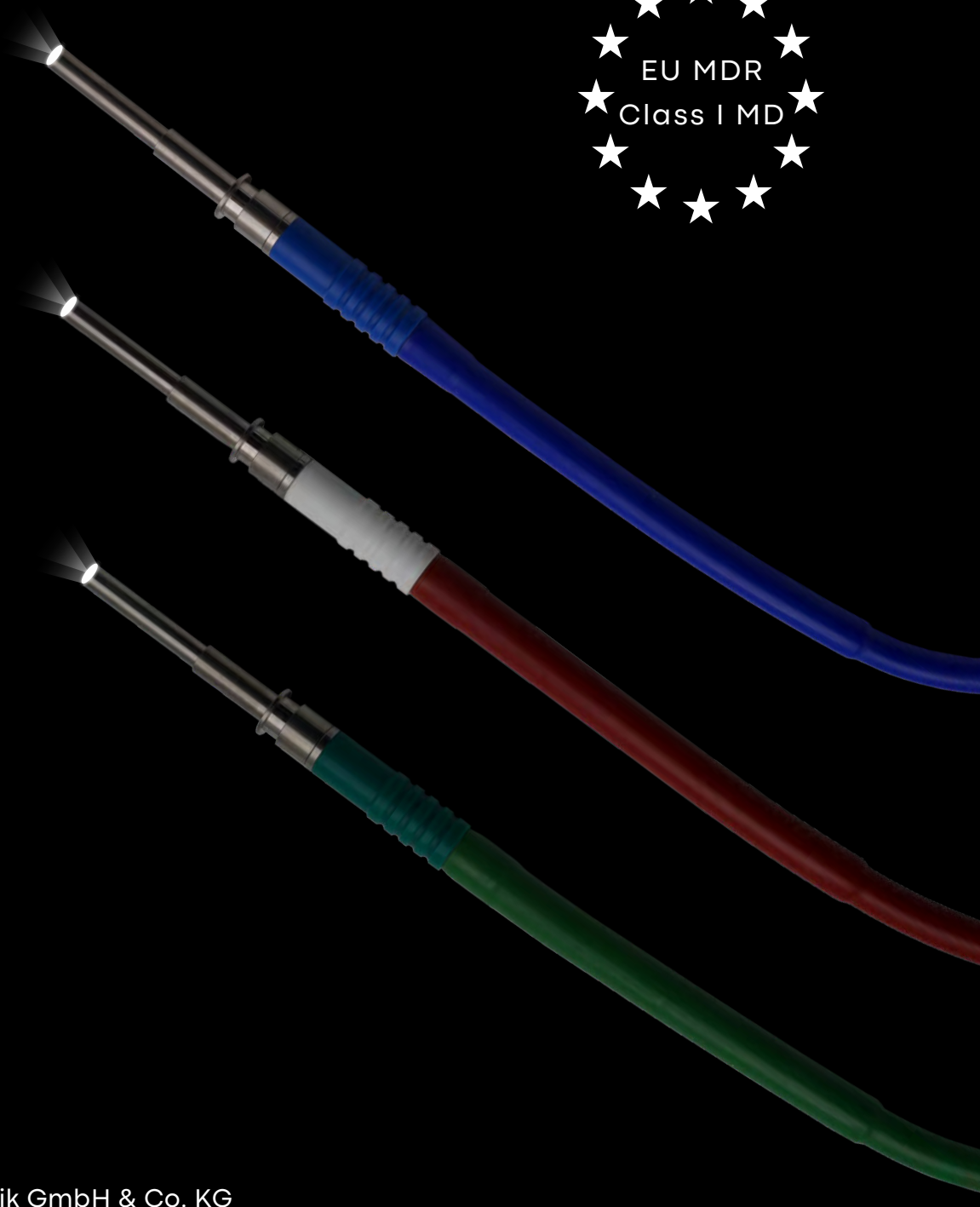
PRODUCT CATALOGUE

Medical Fiber Light Guides

EU MDR
Class I MD



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RENZ FOR QUALITY

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Better Light - Better Vision

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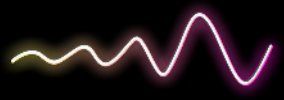
Fiber Light Guide Selection

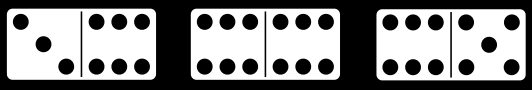
SELECTION

1 Light Source



Halogen	StandardLine
Xenon & LED	htt® BlueLine
High Performance LED	LED WhiteLine
Fluorescence Imaging	htt® GreenLine

2 Fittings / Adaptors



RfQ fiber light guides share the same threads. Choose the correct adaptors to fit your light source (light entry) and your scope (light output). Make sure to use original RfQ fiber light guides with original RfQ adaptors.

3 Diameter & length

Endoscope Diameter	Fiber Light Guide Diameter
10 mm	4,8 mm
5 mm	4,8 mm
4 mm	3,5 mm
2,9 mm	3,5 / 2,5 mm
0,8 - 2,9 mm	1,6 mm

4 Choose the tube colour

Colours can be a simple way to indicate the diameter of a light guide and to prevent mistakes. Our prices are independent of the colour.

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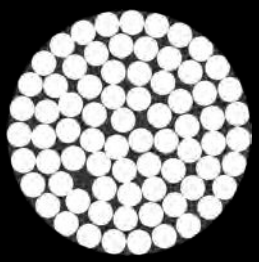
StandardLine

Made for Halogen (Glued Fibers)



RfQ Standard fiber light guides are cost effective and developed for use with Halogen lamps. They are only restrictedly suitable for high energy Xenon / LED light sources as the fibers are glued together and not fused. Being on an entry level RfQ Standard fiber light guides differentiate from the market by being protected against overbending and tensile load. High quality raw materials and our quality oriented production process result in solid fiber light guides for Halogen lightsources.

Diameter x Length	3,5 mm	4,9 mm
1800 mm	00-21110-60	00-21210-66
2300 mm	00-21110-61	00-21110-67
2500 mm	00-21110-64	00-21110-69
3000 mm	00-21110-63	00-21210-63
3500 mm	00-21110-65	00-21210-65
4000 mm	00-21110-62	00-21210-62
5000 mm	00-21110-98	00-21210-64

Further combinations on request

Tube colour

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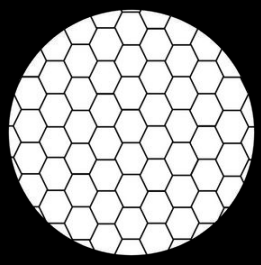
htt® BLUELINE

htt® BlueLine

Made for Xenon & LED (Fused Fibers)



The htt® BlueLine high-performance fiber light guides by RfQ are specially developed to increase the light transmission of any endoscopic system. Especially when using Xenon or LED light sources. The htt® technology covers an unique production process and implies the fusion of the fibers at the light entry. This eliminates the need of a thermolabile glue and the light entry has a closed, hexagon shaped glass surface. The result in an approx. 20% higher transmission and a way increased temperature resistance compared to standard light guides.

Diameter x Length	1,4 / 1,6 mm	2,2 / 2,5 mm	3,2 / 3,5 mm	4,5 / 4,8 mm
1800 mm	00-22130-30	00-22430-30	00-22330-30	00-22230-30
2300 mm	00-22130-40	00-22430-40	00-22330-40	00-22230-40
2500 mm	00-22130-45	00-22430-45	00-22330-45	00-22230-45
3000 mm	00-22130-50	00-22430-50	00-22330-50	00-22230-50
3500 mm	00-22130-55	00-22430-55	00-22330-55	00-22230-55
4000 mm	00-22130-60	00-22430-60	00-22330-60	00-22230-60
5000 mm	00-22130-70	00-22430-70	00-22330-70	00-22230-70

Further & almost any combination on request

Tube colours

RFQ®
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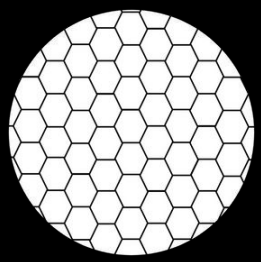
LED WhiteLine

Made for high performance LED (Fused Fibers)



LED WhiteLine high-performance fiber light guides by RfQ are based on the htt® technology and are specially designed for strong LED light sources of the newest generation. While htt® BlueLine fiber light guides do already increase the light transmission of such modern endoscopic systems, LED WhiteLine fiber light guides are optimized for the wavelengths of LED light. This allows you to get the absolute maximum out of your endoscopic system.

Diameter x Length	1,4 / 1,6 mm	2,2 / 2,5 mm	3,2 / 3,5 mm	4,5 / 4,8 mm
1800 mm	00-23130-30	00-23430-30	00-23330-30	00-23230-30
2300 mm	00-23130-40	00-23430-40	00-23330-40	00-23230-40
2500 mm	00-23130-45	00-23430-45	00-23330-45	00-23230-45
3000 mm	00-23130-50	00-23430-50	00-23330-50	00-23230-50
3500 mm	00-23130-55	00-23430-55	00-23330-55	00-23230-55
4000 mm	00-23130-60	00-23430-60	00-23330-60	00-23230-60
5000 mm	00-23130-70	00-23430-70	00-23330-70	00-23230-70

Further & almost any combination on request

Tube colours

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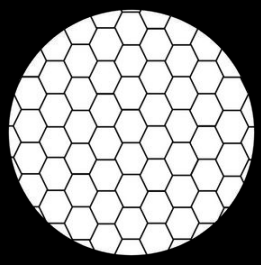
htt® GreenLine

Made for Fluorescence Imaging (Fused Fibers)



The htt® GreenLine high-performance fiber light guides by RfQ serve a specific purpose - The maximization of light transmission of Fluorescence / ICG applications. While the built in fibers in our other light guide lines are more balanced across the entire colour spectrum htt® GreenLine specifically increases the light transmission of certain wavelengths used in Fluorescence / ICG use cases.

Diameter x Length	3,2 / 3,5 mm	4,5 / 4,8 mm
2300 mm	00-24330-40	00-24230-40
3000 mm	00-24330-50	00-24230-50
3500 mm	00-24330-55	00-24230-55

Further combinations on request

Tube colour

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Adaptor System

The possible combinations are unlimited. The most common adapter variants are listed below. RfQ adaptors fit RfQ fiber light guides no matter which diameter or which product line. Do you have a defect fiber light guide from any manufacturer and you are not sure which adaptors to choose? Our experts are happy to support you finding the correct equivalent.

Light Entry	Compatible to	**Light Output**
00-21110-70	**RfQ / Storz / Aesculap**	00-21010-71
00-21110-74	**Wolf**	00-21010-76
00-21116-62	**Olympus (old)**	**00-21010-71**
00-21116-63	**Olympus (new)**	00-21010-95
00-21110-66	**ACMI / Stryker**	**00-21010-67**
00-21119-62	**Fuji**	
	Stryker Headlamp	00-21013-74
00-21113-03	**Heine Optotechnik**	
00-21119-65	**Pentax**	
00-21116-94	**Luxtec**	

Further adaptors on request

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Important to know!

Fiber light guides are Class I Medical Devices within the European Union (EU). Beware of Fiber light guides which are not declared as Medical Devices.

" 'Medical device' means any instrument, apparatus, appliance, software, implant, reagent, material or other article intended by the manufacturer to be used, alone or in combination, for human beings for one or more of the following specific medical purposes: ... diagnosis, prevention, monitoring, prediction, prognosis, treatment or alleviation of disease, ... diagnosis, monitoring, treatment, alleviation of, or compensation for, an injury or disability, ..." (Regulation (EU) 2017/745 (MDR)).

Important: It is essential to handle endoscopic systems with care & expertise. It is absolutely necessary to have the work performed by professional personnel.

Light energy & heat energy are inextricably linked. From increasingly powerful light sources comes an increasing light and heat production. It is especially important to **combine the correct fiber light guides with the according scopes** under these circumstances. Thin endoscopes are to be linked to thin fiber light guides. Thick endoscopes are to be combined with thick endoscopes. Disregard or incomprehension can result in reduced light transmission or worse: Risk to the user and/or patients. **Using a colour code on the fiber light guides within an organization is a quality management measure to avoid errors or mistakes.** Please always review the current valid IFU and contact our sales department (info@rfq.de) if you have any doubt.

The fibers of longliving fiber light guides are protected by well thought out layering.

Overbending & tensile load commonly happen to light guides in practice. Fiber light guides without or with vulnerable protection are to be avoided. RfQ fiber light guides have a **highly elastic spring and hose system** to provide durability even under extreme conditions.

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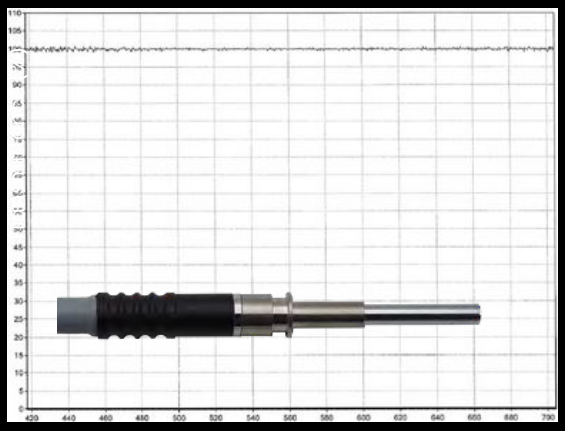
Transmission Curves

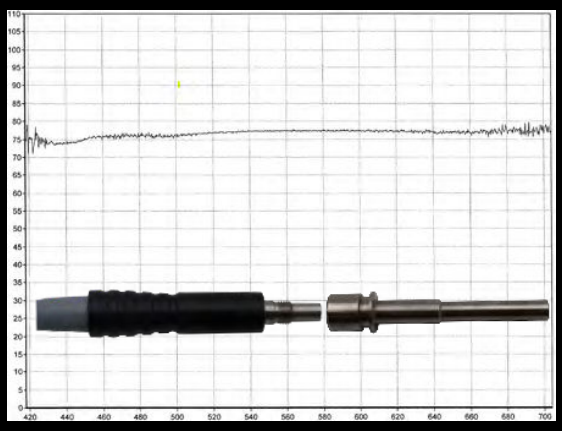
Different demands require different solutions. The below transmission curves originate from a scientific testing lab. As an object of investigation, the light transmission across the wavelengths was measured using a modern XENON light source and an integrating sphere. While glas rod adaptors decrease the light transmission htt® BlueLine and LED WhiteLine high-performance fiber light guides significantly increase the light transmission compared to standard light guides.



Wavelength (nm)

RfQ StandardLine

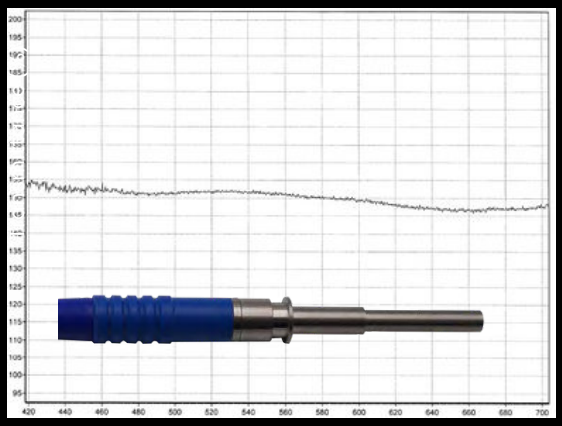
Amplitude = 100% (Base (G))



Wavelength (nm)

Glas Rod (Competition)

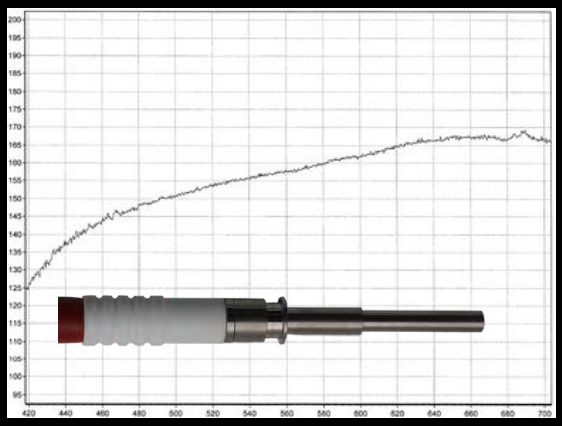
Amplitude = 79%



Wavelength (nm)

htt® BlueLine

Amplitude = 146%



Wavelength (nm)

LED WhiteLine

Amplitude = 166%

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Individual Solutions

There are no limits. Angled, headlamp or Y fiber light guides are just examples of our individual solutions. We manufacture them for you starting at just one piece. Contact our Sales Team via info@rfq.de.

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CONTACT US NOW!

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