



LIGHT GUIDE CABLES & CONNECTORS

Fibre cold light cable lines: **HTT** - **HP** - **STANDARD**

INCREASE THE LIGHT-OUTPUT WITH CORRECT LIGHT GUIDE CABLES

- Choose the right cable line for your light source (Halogen, LED, Xenon)
- Choose the right diameter of cables, depending on your telescope

WHICH LIGHT GUIDE CABLE FOR WHICH TELESCOPE?

Xenon and LED light sources get extremely hot, therefore the right diameters of cables should be used.



Smaller (Ø 3.5 mm) light guides should be used in combination with telescopes with small light entrance (Ø 3.5 mm) to get an optimal result.



Small (3.5 mm) light guides can also be used in combination with telescopes with bigger light entrances (Ø 10.0 mm). The illumination will not be optimal, the light output lower.



Bigger (Ø 4.9 mm) light guides should not be used in combination with telescopes with smaller light entrances (Ø 3.5 mm).

The light guide inside the telescope is smaller than the light guide in the cable. This means a part of the light escapes at the sides and shines on the metal of the telescope. The connection piece may get very hot as the light directly hits it. The whole telescope could even overheat and hurt the patient.

LIGHT GUIDE CABLES FOR ALL COLD LIGHT SOURCES INCLUDING HIGH FREQUENCY LIGHT SOURCES (XENON, LED)

- ▶ HTT High Temperature Technology Line
- ▶ HP High Performance Line

These cables shield against very high temperatures emanating from Xenon and LED light sources, thanks to fused fibre light guides inside the cables, which results in a more efficient light transmission.

Tube Colour Coding made easy:

If you want to order one of the shown colours Lilac, Yellow or Green, please indicate the corresponding extensions shown in the column to the right (e.g. for a green cable add „GN“, the article number then reads 540-XXX-XXGN)



- LL (Lilac)
- YW (Yellow)
- GN (Green)

Standard colour: grey.

TIP: Colour coding helps to quickly identify the cables with the correct diameter for your telescopes.

HTT HIGH TEMPERATURE TECHNOLOGY LINE



Diameter Length Additional Specification	Art. No.
Ø 2.5 x 1800 mm Length	540-812-18
Ø 2.5 x 2300 mm Length	540-812-23
Ø 2.5 x 3000 mm Length	540-812-30
Ø 2.5 x 5000 mm Length	540-812-50
Ø 3.5 x 1800 mm Length	540-813-18
Ø 3.5 x 2300 mm Length	540-813-23
Ø 3.5 x 3000 mm Length	540-813-30
Ø 3.5 x 5000 mm Length	540-813-50
Ø 4.9 x 1800 mm Length	540-815-18
Ø 4.9 x 2300 mm Length	540-815-23
Ø 4.9 x 3000 mm Length	540-815-30
Ø 4.9 x 5000 mm Length	540-815-50
Y-Typ 1800 mm; 3.5 / 4.8; 1 x Proj. / 2 x Endo	540-816-18
Y-Typ 2300 mm; 3.5 / 4.8; 1 x Proj. / 2 x Endo	540-816-23
Y-Typ 1800 mm; 3.5 / 4.8; 2 x Proj. / 1 x Endo	540-817-18
Y-Typ 2300 mm; 3.5 / 4.8; 2 x Proj. / 1 x Endo	540-817-23

- ▶ Light guide cable for all cold light sources
- ▶ including **Xenon** light sources

Excellent light transmission with approximately 20 % more light in the operating field

- ▶ no glue or cement to compact the fibre elements (instead, the light gets through)
- ▶ withstand very high temperatures (particularly when using Xenon light sources)
- ▶ consist of about 4.000 single fibres
- ▶ long life time thanks to its interior silicone cladding

HP HIGH PERFORMANCE LINE



Diameter Length Additional Specification	Art. No.
Ø 2.5 x 1800 mm	540-822-18
Ø 2.5 x 2300 mm	540-822-23
Ø 2.5 x 3000 mm	540-822-30
Ø 2.5 x 5000 mm	540-822-50
Ø 3.5 x 1800 mm	540-823-18
Ø 3.5 x 2300 mm	540-823-23
Ø 3.5 x 3000 mm	540-823-30
Ø 3.5 x 5000 mm	540-823-50
Ø 4.9 x 1800 mm	540-824-18
Ø 4.9 x 2300 mm	540-824-23
Ø 4.9 x 3000 mm	540-824-30
Ø 4.9 x 5000 mm	540-824-50

- ▶ Light guide cable for all cold light sources
- ▶ Additionally optimized for **LED** light sources

Light output and illumination are maximized when used in combination with latest generation telescopes (e.g. TONTARRA's HD2+ or HD+4 telescopes) and state-of-the-art LED light sources.

LIGHT GUIDE CABLES

► Standard Cold Light Line

For Halogen light sources.

The flexible fiber light guide cables are manufactured in excellent quality and are very well bendable. The fibers inside the cables are conventionally glued to avoid the complex fusion process necessary in light cables for other than Halogen light sources; therefore the **Standard Cold Light Line** is very economic.

Tube colour

The Standard colour is grey.



STANDARD COLD LIGHT LINE



Diameter Length Additional Specification	Art. No.
Ø 3.5 x 1800 mm Length	540-803-18
Ø 3.5 x 2300 mm Length	540-803-23
Ø 3.5 x 3000 mm Length	540-803-30
Ø 3.5 x 5000 mm Length	540-803-50
Ø 4.9 x 1300 mm Length	540-805-13
Ø 4.9 x 1800 mm Length	540-805-18
Ø 4.9 x 2300 mm Length	540-805-23
Ø 4.9 x 3000 mm Length	540-805-30
Ø 4.9 x 5000 mm Length	540-805-50
Y-Typ 1800 mm 2 x Proj. / 1 x Endo	540-806-18
Y-Typ 2300 mm 1 x Proj. / 2 x Endo	540-806-23
Y-Typ 2300 mm 2 x Proj. / 1 x Endo	540-807-23

► Light guide cable for **Halogen** light sources

► careful with **Xenon** Light (recommended for Halogen light sources only)

Tip:

To maximize the light output make sure to use the correct diameter of cables, depending on the telescope to connect with. Never use a light cable with a larger diameter than the diameter of the telescope.

ALL OUR LIGHT GUIDE CABLES:

- comply with all international standards of medical hygiene and product maintenance
- are fully autoclavable
- are compatible with the most common telescope brands; the connectors need to be ordered separately – see below.

LIGHT CABLE CONNECTORS

Projector-side (light input)			Telescope-side (light output)		
Storz/Aesculap	540-890-02		TONTARRA/Storz/Aesculap/Olympus (old)	540-880-02	
Olympus/ACMI	540-890-10				
Olympus new (switch)	540-890-14		Olympus new	540-880-04	
Wolf	540-890-04		Wolf/HSW/Dyonics snap	540-880-13	
			Wolf/HSW/Dyonics clip	540-880-05	
ACMI/British/Codman	540-890-01		ACMI/British/Codman	540-880-01	

The range of connectors (adapters) allow to combine almost every light source with almost every telescope.

A cold light cable has two adapters, one on the sight of the light source (Projector-side/light input), the other one on the side of the telescope (light output). Tools are not needed to mount the connectors; they simply get screwed on to the corresponding equipment.



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999-302-01E · 07.2017