

# Fiber Optics and Light Sources

## Fiber Bundles

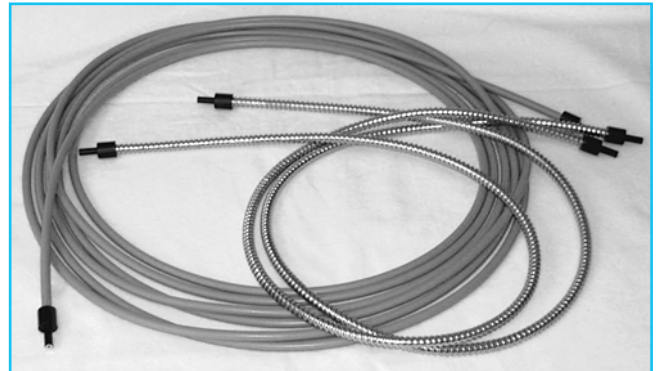
- large diameters
- customized bundles for individual applications
- UV – NIR

Optical fibers are typically used to carry light to or from areas which are difficult to reach.

We offer fiber bundles made of glass or quartz fibers with approx. 100  $\mu\text{m}$  cores. A bundle may have 50 – 500 fibers depending on diameter. Because of the large optical bundle diameter these are particularly used for light capture of large sources such as halogen lamps or reflector lamps. The glass bundles transmit in the 380 – 1600 nm range, the acceptance cone is 68°. The quartz bundles transmit from 200 – 1200 nm and 1500 – 1800 nm, the acceptance cone is 25°.

Our glass fiber bundles come in a protective metal hose (chrome plated) with anodized aluminium end sleeves. The thermal capacity is approx. 120°C. Our quartz bundles come in a metal spiral hose with glass fiber sheathing and a silica jacket. This highly flexible hose offers great protection against bending, traction and torsion. The bundles withstand up to 180°C.

Our standard fiber bundles are of non random type (but they are not to use for imaging purposes). For better uniform output we can supply randomised bundles at an extra charge.

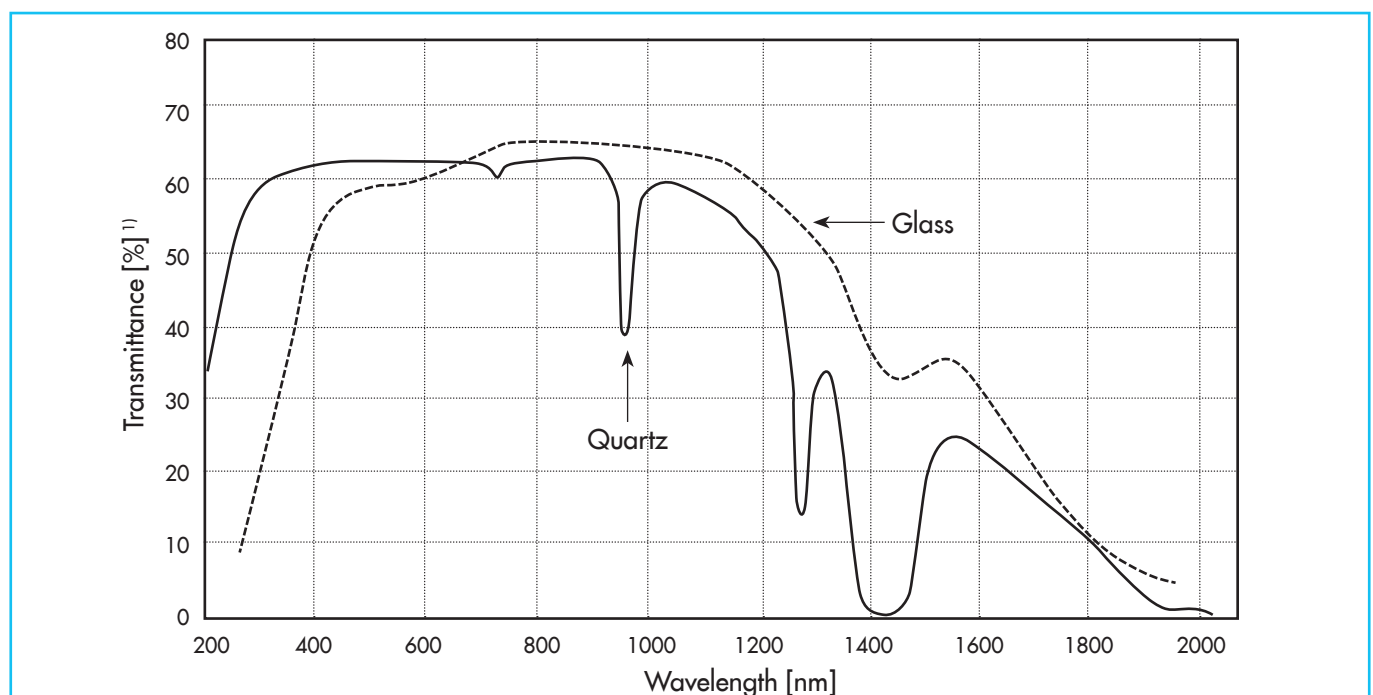


### Accessories

You can put a 11 mm adapter on the end terminals. Then they fit most accessories like fiber collimating optics and couplers for light sources, monochromators and detectors.

### By the way

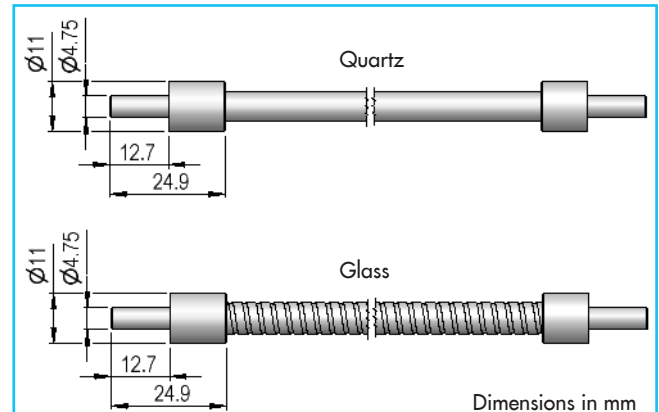
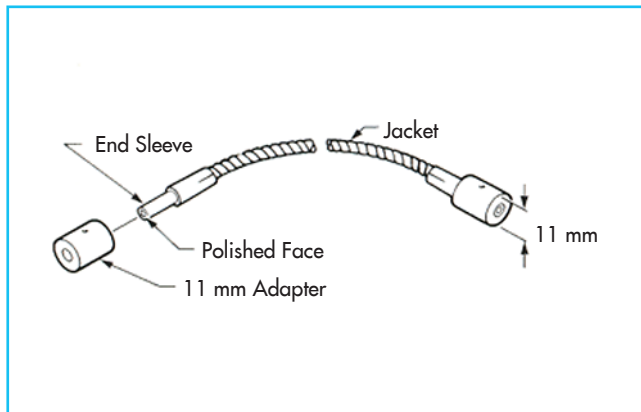
The price of quartz fiber bundles is determined by the material, which is why they can be pretty costly. To reduce the price, we offer customized solutions for your individual applications (i.e. optimal diameter, length or thermal capacity of up to 400 °C).



<sup>1)</sup> Length: 2 m

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### Ordering Information

Glass Fiber Bundles, 380 – 1600 nm						
	Bundle Diameter [mm]	Length [mm]	NA	Acceptance Cone [°]	Bend Radius [mm]	11 mm Adapter
LLB110	1,5	500	0,56	68	50	LLZ005
LLB111	1,5	1000	0,56	68	50	
LLB112	1,5	2000	0,56	68	50	
LLB113	2,0	500	0,56	68	50	
LLB114	2,0	1000	0,56	68	50	
LLB115	2,0	2000	0,56	68	50	
LLB116	2,5	500	0,56	68	50	
LLB117	2,5	1000	0,56	68	50	
LLB118	2,5	2000	0,56	68	50	
LLB119	3,0	500	0,56	68	50	
LLB120	3,0	1000	0,56	68	50	
LLB121	3,0	2000	0,56	68	50	

UV Quartz Fiber Bundles, 200 – 1200 nm; 1500 – 1800 nm						
	Bundle Diameter [mm]	Length [mm]	NA	Acceptance Cone [°]	Bend Radius [mm]	11 mm Adapter
LLB210	1,5	500	0,22	25	25	LLZ005
LLB211	1,5	1000	0,22	25	25	
LLB212	1,5	2000	0,22	25	25	
LLB213	2,0	500	0,22	25	25	
LLB214	2,0	1000	0,22	25	25	
LLB215	2,0	2000	0,22	25	25	
LLB216	2,5	500	0,22	25	25	
LLB217	2,5	1000	0,22	25	25	
LLB218	2,5	2000	0,22	25	25	
LLB219	3,0	500	0,22	25	25	
LLB220	3,0	1000	0,22	25	25	
LLB221	3,0	2000	0,22	25	25	