

# High voltage cables

## for UV Lamps (overview)

### Applications

The use of uv lamps usually demands the use of high voltage cables. This overview will help you select the correct cable type.



This **stranded cables** are used in ambient conditions where higher resistance to higher temperatures and uv radiation is necessary, e.g. in reflector units where reflected uv light and a higher temperature can be present. In particular nickel strands are used if the ambient ozone concentration is higher than normal. In comparison the nickel plated copper stranded-wires have a lower electrical resistivity.







The **single cables NYL, SiF and SiCSi** are typically used between the control cabinet and the reflector unit. Depending on the power supply unshielded or shielded types are available. In the case of electronic power supplies (EPS), shielded cables are required. The maximum permitted cable length between the uv lamp and the power supply depends on the EPS type and can be found in the product data sheet.







Some applications demand the use of **multi-core cables**, e.g. it should be possible to disconnect a reflector unit by using a high-voltage connector. For this reason we provide a multi-core cable which includes control cables. The high voltage cables for the lamp are, of course, shielded.







The strands and cables can be ordered in multiple metre lengths, as a 100 m ring or on a 1000 m cable drum. All strands and cables cannot be used for drag chain applications.

### Technical data:

Strands with PTFE isolation						
Photo	Art. No.	Name	Electric strength in V <sub>eff</sub>	Shield	Sheath	Notes
	A000557	PTFE Nickel stranded 1,5 mm <sup>2</sup>	1 kV	-	PTFE	outer diameter: 2,4 mm Thermal resistance: 260 °C (short-time 300 °C)
	5042	PTFE Cu- stranded 1,5 mm <sup>2</sup>	2 kV	-	PTFE	outer diameter: 3,2 mm Thermal resistance: 260 °C (short-time 300 °C)
	5041	PTFE Nickel stranded 2,5 mm <sup>2</sup>	2 kV	-	PTFE	outer diameter: 3,4 mm Thermal resistance: 260 °C (short-time 300 °C)
	5043	PTFE Cu- stranded 2,5 mm <sup>2</sup>	2 kV	-	PTFE	outer diameter: 3,5 mm Thermal resistance: 260 °C (short-time 300 °C)

**Technical data:**

Single cables NYL, SiF and SiCSi						
Photo	Art. No.	Name	Electric strength in V <sub>eff</sub>	Shield	Sheath	Notes
	5001	NYL Cu 1,5-5kV	5 kV	-	PVC	1x 1,5mm <sup>2</sup>
	5015	SiF 2,5-6kV	6 kV	-	Silicone	1x 2,5mm <sup>2</sup>
	5014-1	SiCSi 2,5-3kV	3 kV	✓	Silicone	1x 2,5mm <sup>2</sup> , shielding
	5013	SiCSi 2,5-6kV	6 kV	✓	Silicone	1x 2,5mm <sup>2</sup> , shielding

Multi-core cables						
Photo	Art. No.	Name	Electric strength in V <sub>eff</sub>	Shield	Sheath	Notes
	A005388	HK-SO- Li2GC2G 2x2,5 -3kV	3 kV	✓	Silicone	2x 2,5mm <sup>2</sup> , combined shielding
	A000188	PVC-2x4-3kV	3 kV	✓	PVC	2 x 4,0mm <sup>2</sup> , combined shielding
	A000832	PVC-2x4- YCY-3kV	3 kV	✓	PVC	2 x 4,0mm <sup>2</sup> , combined shielding, flame-retardant for ships
	A001294	PVC-2x4- YCYS-1kV	1 kV	✓	PVC	2 x 4,0mm <sup>2</sup> , combined shielded, flame-retardant for ships, reinforced
	5029	PMC- 1,5+0,34-3kV	3 kV	✓	PVC	2 x 1,5mm <sup>2</sup> + 1 x 1,5mm <sup>2</sup> + 6 x 2 x 0,34mm <sup>2</sup> single shielding
	5029-2,5	PMC- 2,5+0,34-3kV	3 kV	✓	PVC	2 x 2,5mm <sup>2</sup> + 1 x 2,5mm <sup>2</sup> + 10 x 2 x 0,34mm <sup>2</sup> single shielding

For detailed information please see the individual data sheets.