



Info

Hybrid cables, consisting of different optical fibers and electrical conductors, are produced on a customer-specific basis.



Cables with UL (Underwriter Laboratories) approval

Cables with UL approval guarantee safety and reliability in the intended application areas. They are specifically tailored to the requirements of the North American market, however demand for them is increasing in Asia and Europe, where they are being used more and more. Insurance companies, public authorities, planners and other regulatory authorities above all place their confidence in UL-approved optical cables with singlemode / multimode or plastic fibers.

Optical cables are described in the standard UL 1651-Fiber Optic Cable and categorized according to OFNP (plenum), OFNR (riser) and OFN (general purpose). Optical cables can also be classified according to the UL 758-Appliance Wiring Material (AWM) standard. UL cables have to meet very high requirements for fire performance in particular, including generation of smoke gas.

Overview of all standard test procedures:
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POF cable specifications		I-V4Y(ZN)11Y 1P980/1000 6.0 mm UL AWM Style 5422	I-V2Y(ZN)11Y 1P980/1000 5.5 mm UL AWM Style 5422	I-V4Y(ZN)11Y 2P980/1000 FLEX UL AWM Style 5422	
Order no.		84C01200S333	84C01300S333	84D03500S383	
Composition	Buffer tube material	PA	PE	PA	
	Outer jacket material	PUR	PUR	PUR	
	No. of POF elements (980/1000 μm)	1	1	2	
	No. of copper elements	–	–	–	
Outer Ø [mm]		6.0	5.5	8.0	
Mechanical properties	Min. bending radius [mm]	during installation	50	70	60
		long-term	30	50	40
	Max. pull force [N]	short-term	500	400	400
		long-term	200	100	100
Approx. cable weight [kg/km]		32	23	23	
Thermal properties	Operating temperature [°C]	–20 to +70	–20 to +70	–20 to +70	
Attenuation	[dB/km] at 650 nm (Laser)	< 160	< 190	< 180	
	[dB/km] at 660 nm (LED)	< 230	< 290	< 275	
Flammtest	tested acc. to UL VW-1	for harsh industrial environments	suitable for flexible applications in areas with low dynamic stress	for harsh industrial environments	