

DIN/VDE designation of OFC data com cables

General

The German Standardisation Institutes DIN and VDE use a set of code letters for the designation of cables. For Optical cables, the relevant standard is DIN 0888. Variants of the designations are used by institutions like Deutsche Telecom and the German Railways. Likewise some special (newer) designations are a de facto industry standard.

In the following section the meaning of these codes is explained.

Cable designation, reference DIN/VDE

Abbreviation / Kurzzeichen	English	German	Explanation
	<i>Product designation</i>	<i>Produktbezeichnung</i>	
A-	Outdoor cable	Aussenkabel	
J-	Indoor cable	Innenkabel	
U-	Universal cable I/O cable	Universalkabel	Not part of the VDE 0888
	<i>Secondary buffering</i>	<i>Faserart</i>	
V	Tight buffer or semitight buffer	Vollader	VDE make no distinction between the different variants of buffer
W	Filled loose tube w. 1 fibre	Hohlader, gefüllt	
D	Filled loose tube w. several fibres	Bündelader, gefüllt	
F	Jelly filling between the tubes	Füllmasse zur Füllung der Verseilhohlräume in der Kabelseele	
Q	Swellable tape	Quellvlies	
S	Metal element in the cable core	Metallenes Element in der Kabelseele	
	<i>Sheathing</i>	<i>Äußere Umhüllung</i>	
(ZN)	Yarn reinforcement	Nichtmetallische Zugentlastungselemente	Always in combination with the sheath e.g. (ZN)(L)2Y
(L)	Aluminium tape	Alu Schichtenmantel	Always in combination with the sheath e.g. (L)2Y
B	Armouring	Bewehrung	
SR	Armouring with corrugated steel	Bewehrung aus Stahlwellenmantel	According to German railways, not in VDE
Y	PVC sheath	PVC Mantel	
2Y	PE sheath	PE Mantel	
4Y	PA sheath	PA Mantel	
9Y	PP sheath	PP Mantel	
11Y	PUR sheath	PUR Mantel	
H	Halogenfree, fireretardant sheath	Halogenfreier, flammwidriger Mantel	
	<i>Number of fibers</i>	<i>Anzahl der Fasern</i>	
n	Number of fibers	Anzahl der Fasern	
n x m	Number of tubes x number of fibers in each tube	Anzahl der Bündeladern x Anzahl der Fasern je Bündeladern	

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	Type of fibers and transmission properties	Bauart	Examples
E	Single mode fibers	Einmodenfaser	E9/125
G	Multimode fibers	Gradientenfaser / Mehrmodenfaser	E10/125
nn	Modefield diameter in μm for single mode fibers or core diameter in μm for multi mode fiber	Felddurchmesser in μm bei Einmodenfasern oder Kerndurchmesse in μm bei Mehrmoden faser	G50/125 or G62,5/125
/ mmm	Cladding diameter in μm	Manteldurchmesser in μm	
ooo	Attenuation coefficient in dB/km	Dämpfungskoeffizient in dB/km	2,8B600
B	Wavelength 850 nm for multi mode fibers	Wellenlänge 850 nm bei Mehrmodenfasern	0,55F1200
F	1300 nm for multi mode fibers	1300 nm bei Mehrmodenfasern	0,38F3
F	1310 nm for single mode fibers	1310 nm bei Einmodenfasern	or
H	1550 nm for single mode fibers	1550 nm bei Einmodenfasern	0,25H18
pp	Bandwidth in MHz x 1 km for multi mode fibers Dispersion in ps/(nm · km) for single mode fibers	Bandbreite in MHz x 1 km bei Mehrmodenfasern Dispersion in ps/(nm · km) bei Einmodenfasern	
	<i>Various</i>	<i>Diverses</i>	
LG	Stranding in layers	Lagenverseilung	
rr	Sheath color	Farbkurzzeichen	

Examples

Designation	Explanation
J-V(ZN)H 1 E9/125 0,38F3 0,25H18	Indoor cable with tightly buffered fiber and with halogenfree sheathing and yarn reinforcing under the sheath. The cable has 1 fiber, which is a single mode fiber. The cable has an attenuation value of ≤ 0.38 dB/km at 1310 nm. At this wavelength the dispersion is (less than) 3 ps/km · nm. The values at 1550 nm is 0.25 dB/km and 18 ps/km · nm respectively.
A-DQ(ZN)B2Y 12 G50/125 3.0B3500 1.0F500	Outdoor cable with loose tube and swellable dry water blocking, polyethylene sheathing. Yarn reinforcement under the sheath, of type and amount as to constitute an armouring layer. The cable has 12 fibers which is multimode. The cable has an attenuation of ≤ 3.0 dB/km at 850 nm; and a bandwidth of ≥ 3500 MHz · km at 850 nm. At 1300 nm the values are 1.0 dB/km and 500 MHz · km respectively.

[PRODUCT CODE TABLE]