

Product information



Features

Electrically and mechanically high-quality Cat 5e cable satisfying the highest demands!  
Excellent screen effect thanks to foil and braid.  
Compatible with all current connecting hardware to Cat 5: EN 50173-1, ISO/IEC 11801 Ed.2 and Cat 5e: EN 50288-2-1

Applications

Data cable for structured premises cabling. For the transmission of digital and analogue signals, voice, video and data applications.  
Especially suitable for all class D applications.  
ISDN, Ethernet 10 Base-T, Fast Ethernet 100 Base-T, Gigabit Ethernet 1000 Base-T, token ring 4/16 Mbit/s, TP-PMD/TP-DDI 125 Mbit/s.

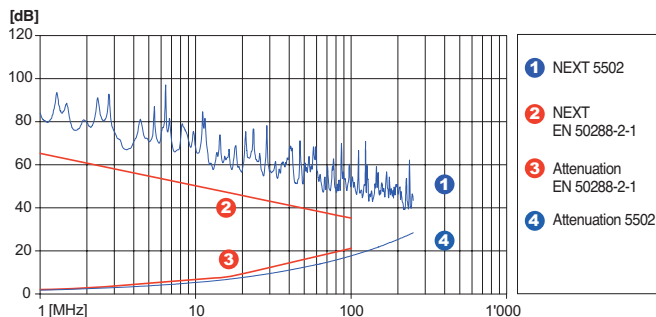
Versions

Article No.	Dimension	Type	Sheath	Sheath Ø	Weight	Cu weight	Fire load		PU
	n x n x mm (AWG)			mm	kg/km	kg/km	kWh/m	MJ/m	
181 112	4 x 2 x 0,54 (AWG24)	HF-4249-U	FR/PVC <sup>1)</sup>	6,1	45,1	26,0	0,15	0,55	1000m Drum
181 111	4 x 2 x 0,54 (AWG24)	HF-4248-U	FRNC/LSOH <sup>2)</sup>	6,1	45,9	26,0	0,13	0,44	1000m Drum
181 160	2x (4 x 2 x 0,54) (AWG24)	HF-4251-U	FR/PVC <sup>1)</sup>	9,7 x 6,9	77,7	46,8	0,26	0,94	on request
181 162	2x (4 x 2 x 0,54) (AWG24)	HF-4250-U	FRNC/LSOH <sup>2)</sup>	9,7 x 6,9	78,8	46,8	0,21	0,76	on request

<sup>1)</sup> FR/PVC = Flame Retardant/Polyvinylchloride;  
<sup>2)</sup> FRNC/LSOH = Flame Retardant Non Corrosive/Low Smoke Zero Halogen

## Electrical Characteristics

Loop resistance at 20°C:	155	Ω/km
Mutual capacitance:	43	pF/m
Impedance at 100MHz:	100	Ω ± 5 Ω
Transfer impedance at 1/10/30 MHz	< 30/60/170 mΩ/m	
Unbalance to ground		
Attenuation LCL :	> 40	dB
Delay Skew:	8	ns/100m
NVP:	76	%



Category	5e				
Frequency [MHz]	1	4	10	100	250
Attenuation [dB/100m]	1,9	3,6	5,6	18,2	29
NEXT [dB]	75	70	65	44	40
PS NEXT [dB]	72	67	62	41	37
ACR [dB]	73	66	59	26	11
PS ACR [dB]	70	63	56	23	8
ELFEXT [dB]	84	69	63	41	31
PS ELFEXT [dB]	81	66	60	38	28
Return loss [dB]	27	31	31	28	24

These performance data are typical measured values.

## Mechanical Characteristics

Bending radius (flat side)	- during draw-in	4P	2x4P
	- permanently installed	≥ 48 mm	≥ 54 mm
Tensile strength		≥ 24 mm	≥ 27 mm
Crush resistance		≤ 91 N	≤ 182 N
Impact		≥ 1000 N/10 cm	
Temperature range	- during installation	≥ 10 Impacts	
	- in operation	0°C to + 50°C	
		-20°C to + 60°C	

## Environmental conditions

Zero halogen	FRNC/LSOH-Variant is Zero halogen according to IEC 60754-2
Smoke density	FRNC/LSOH-Variant according to IEC 61034
Burning characteristics	FR/PVC according to IEC 60332-1
	FRNC/LSOH according to IEC 60332-1 and IEC 60332-3-24

## General Characteristics

Wire colour code	white - blue/blue white - orange/orange white - green/green white - brown/brown (ring marked) according to IEC 189 and IEC 708
Printing	DAETWYLER UNINET 5502 4P FR/PVC resp. DAETWYLER UNINET 5502 4P FRNC/LSOH (+Batch number+meter marks)
Zero halogen	IEC 60754-1/-2, EN 50267-2-1/-2-2,
non corrosive gases	VDE 0482-267-2-1/-2-2 (acc. to FRNC/LSOH)
Flame retardant	IEC 60332-1-2, EN 60332-1-2, VDE 0482-332-1-2
Fire resistant	IEC 60332-3-24, EN 50266-2-4 Cat. C,
(no flame propagation)	VDE 0482-266-2-4 Cat. C (acc.to FRNC/LSOH)
Minimum smoke emission	IEC 61034-1/-2, EN 61034-1/-2 (EN 50268-1/-2), VDE 0482-1034-1/-2 (VDE 0482-268)-1/-2) (acc. to FRNC/LSOH)
EMC	screened
Cat./Class	better than Cat.5e, Class D