

# Industrial Ethernet

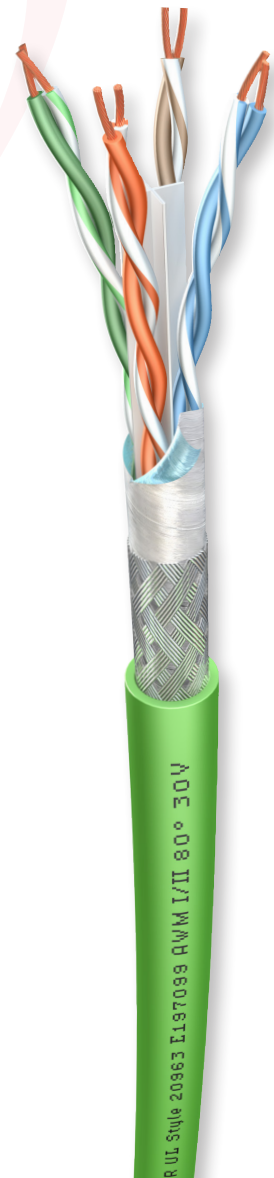
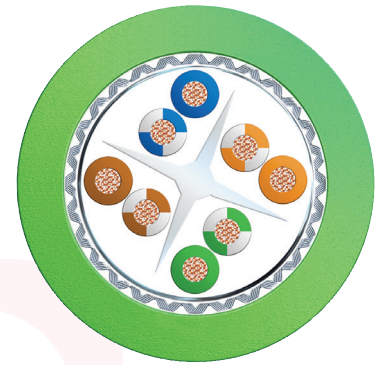
Cat.6A SF/UTP High Flex / Chain PUR



## Cable Design

Conductor	Stranded bare copper wire (26awg 19 strands)
Insulation	Polyethylene (PE). Ø 1,01 ± 0,02 mm
Pair	Each 2 cores stranded to pairs
Stranding	4 pairs cabled together with X-Separator
Foil Shield	Plastic laminated aluminium-foil
Braid Shield	Tinned copper wire braid
Outer Jacket	Polyurethane (PUR), halogen free, flame retardant. Ø 7,3 ± 0,2 mm
Outer Jacket Colour	Green RAL6018

Pair Identification	circuit 1: blue-white/blue. circuit 2: orange-white/orange circuit 3: green-white/green. circuit 4: brown-white/brown
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## Standards

Application	IEEE 802.3 : Ethernet 10Base-T ; Fast Ethernet 100Base-T; Gigabit Ethernet 1000Base-T ; 10GBase-T, IEEE 802.5 : ISDN ; FDDI ; ATM
Industrial Standards	EN 50288-5-2 ; EN 50288-10-2 ; EN 50173 ; ISO/IEC 11801 2 ; IEC 61156-6
Flame Resistance	EN 60332-1-2 ; IEC 60754-2 ; UL AWM 20963 (80°C/30V) ; UL AWM 20549 (80°C/300V)
Chemical Properties	IEC 60811-2-1 ( IRM 902, 4h at 70°C; IRM 902, 7dh at 90°C; IRM 902, 21d at 90°C Total EDC 95-11, 1680h at 70 °C ) ; UV-Resistant ISO 4892

## Mechanical & Thermal Characteristics

Temperature Range - fixed laying	-40°C to +80°C
Temperature Range - during installation	-10°C to +50°C
Bending Radius - fixed	5 x Ø
Bending Radius - during installation	10 x Ø
Radius SK	15 x Ø
Bending cycles	> 3 Mio.
Max. Tractive Force	105 N

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## Electrical Data @ 20°C

Loop resistance	max. 280 Ohm / km
Insulation resistance	min. 5 GOhm x km at +20°C
Operating capacity	nom. 50 nF / km
Characteristic Impedance at 100MHz	100 Ohm ± 5 Ohm
Test voltage	700V / AC
Velocity of propagation	app. 0,67 c
Signal Term	max. 485 ns/100m
Running time difference	< 25 ns/100m
Screening attenuation to 250 MHz	> 60 dB
Transfer impedance at 1 MHz	< 50 mOhm/m
Transfer impedance at 10 MHz	< 30 mOhm/m
Transfer impedance at 30 MHz	< 30 mOhm/m

Frequency (MHz)	Attenuation (dB/10m)	NEXT (dB)	ACR (dB/10m)	ELFEXT (dB/10m)	RL (dB)
	nom.	nom.	nom.	nom.	nom.
1	0,31	73	73	73	23
4	0,58	68	67	62	26
10	0,90	64	63	56	30
16	1,14	62	61	50	30
20	1,27	60	59	47	30
31,25	1,60	57	55	42	30
62,5	2,30	52	50	39	30
100	2,95	50	47	35	28
155	3,55	48	44	33	26
200	4,10	46	42	28	24
250	4,65	44	39	25	22
350	5,85	36	30	22	20
500	6,85	38	31	18	18

The values given are typical measured values.

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## Specification

Part Number	Type
IE6A-SFUS26-UAR	FieldNET® Industrial Ethernet Highflex 4x2x26/19awg PUR. UL Style 20963 E197099 AWM I/II 80° 30V



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