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Assembled Ethernet cable, $CAT6_A$, shielded, 4-pair, M12 flush-type socket, rear/screw mounting with M16 thread to RJ45/IP20 connector, length: 1 m



Ethernet

Key Commercial Data

Packing unit	1 STK
Minimum order quantity	10 STK
GTIN	4 046356 953566
GTIN	4046356953566

Technical data

Dimensions

Length of cable	1 m
Length of cable	1 m

Ambient conditions

Degree of protection	IP67 (M12 socket)
	IP20 (RJ45 connector)
Ambient temperature (operation)	-25 °C 60 °C (Plug / socket)

General data

Rated current at 40°C	0.5 A
Rated voltage	48 V
Number of positions	8
Alternative short product description	Ethernet cable
Rated voltage (III/3)	72 V (DC)
Contact material	CuZn
Contact carrier material	PPA
Contact surface material	gold-plated



Technical data

Characteristics head 1

Cable type Ethernet 10 Gbit Cable type (abbreviation) 94F Cable type (abbreviation) 94F U. AWM style 20963 (80°C/30 V) Signal type/category Ethernet CAT6, 10 Gbps Cable structure 4x2AVG2877; 5FTP Conductor cross section 4x2A 0.14 mm² AWM Signal line 26 Cord dimeter including insulation 1.04 mm Wire colors white/blue-blue, white/orange-orange, white/green-green, white/brown-brown Wire colors white/blue-blue, white/orange-orange, white/green-green, white/brown-brown Type of pair shielding Aluminum-lined foil Overall twist 4 pairs for core Shielding Timed copper braided shield Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer shealt thickness 0.05 mm External adabathy color 6.4 mm 9.2 mm Minimum bending radius, fixed installation 8 x D Horsila installation 8 x D Cable weight 42 kg/km Outer sheath, material PUR Material	Coding	X (Data)
Cable type Ethernet 10 Gbit Cable type (abbreviation) 94F UL AWM style 2066 (80°C30 V) Signal type/category Ethernet CAT6, 10 Gbps Cable structure 4x2xAWG26/7; S/FTP Conductor cross section 4x2 x 0.14 mm² AWG signal line 7x 0.16 mm Conductor structure signal line 7x 0.16 mm Core diameter including insulation 1.04 mm Wire colors white/blue-blue, white/orange-orange, white/green-green, white/brown-brown Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined foil Overall twist 4 pairs for core Shielding Tinned copper braided shield Optical shield covering 70 % External sheath, color 4x but shield thickness External cable diameter D 6.4 mm ±0.2 mm Minimum bending radius, fixed installation 8 x D Tensile strength GRP < 100 N		" (Jaile)
Cable type (abbreviation) 94F UL AWM style 20963 (80°C/30 V) Signal type/category Ethernet CAT6, 10 dbps Cable Structure 4x2x MC2607; S/FTP Conductor cross section 4x2x 0.14 mm² AWG signal line 26 Conductor structure signal line 1.04 mm Core diameter including insulation 1.04 mm Wire colors white/blue-blue, white/orange-orange, white/green-green, white/brown-brown Tivisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined foil Overall Wist 4 pairs for core Shielding Tinned copper braided shield Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer sheath thickness 0.65 mm External cable diameter D 4.7 mm ±0.2 mm Minimum bending radius, flexible installation 4 x D Minimum bending radius, flexible installation 8 x D Cable weight 4 2 kg/km Outer sheath, material PUR Material conductor insulation Foamed PE Cond		
UL AWM style 20963 (80°C/30 V) Signal type/category Ethernet CAT6, 10 Gbps Cable structure 4x2AWG2677; S/FTP Conductor cross section 4x2 x 0.14 mm² AWG signal line 26 Conductor structure signal line 7x 0.16 mm Core diameter including insulation 1.04 mm Wire colors white/blue-blue, white/orange-orange, white/green-green, white/brown Type of pair shielding Aluminum-lined foil Overall twist 4 pairs for core Shielding Tinned copper braided shield Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer sheath thickness 0.65 mm External cable diameter D 6.4 mm ±0.2 mm Minimum bending radius, fixexible installation 4 x D Minimum bending radius, fixexible installation 8 x D Tensile strength GRP ≤ 100 N Cable weight 42 kg/km Muterial conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≤ 290.00 0/km		
Signal type/category Ethernet CAT6,, 10 Gbps Cable structure 4x2xAVC2647; SFTP Conductor cross section 4x 2x 0.14 mm² AWC signal line 28 Conductor structure signal line 7x 0.16 mm Core diameter including insulation 1.04 mm Wire colors white/blue-blue, white/orange-orange, white/green-green, white/brown-brown Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined foll Overall twist 4 pairs for core Shielding Tinned copper braided shield Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer sheath thickness 0.65 mm External sheading radius, fixed installation 4 x D Minimum bending radius, fixed installation 8 x D Minimum bending radius, fixed installation 8 x D Cable weight 42 kg/km Outer sheath, material PUR Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance > 500 MC/km <tr< td=""><td>, , , , , , , , , , , , , , , , , , ,</td><td>1</td></tr<>	, , , , , , , , , , , , , , , , , , ,	1
Cable structure 4x2xAWG26/7; S/FTP Conductor cross section 4x 2x 0.14 mm² AWG signal line 26 Conductor structure signal line 7x 0.16 mm Core diameter including insulation 1.04 mm Wire colors white/blue-blue, white/orange-orange, white/green-green, white/brown-brown Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined foil Overall twist 4 pairs for core Shielding Tined copper braided shield Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer sheath thickness 0.65 mm External cable diameter D 6.4 mm ±0.2 mm Minimum bending radius, fixed installation 4 x D Minimum bending radius, fixed installation 8 x D Tensile strength GRP < 100 N	UL AWM style	20963 (80°C/30 V)
Conductor cross section 4x 2x 0.14 mm² AWG signal line 26 Conductor structure signal line 7x 0.16 mm Core diameter including insulation 1.04 mm Wire colors white/folue-blue, white/orange-orange, white/green-green, white/forown-brown Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined foil Overall twist 4 pairs for core Shielding Tinned copper braided shield Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer sheath thickness 0.65 mm External cable diameter D 6.4 mm ±0.2 mm Minimum bending radius, fixed installation 4 x D Minimum bending radius, fixed installation 8 x D Cable weight 42 kg/km Quter sheath, material PUR Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≥ 500 MC¹km Loop resistance ≥ 500 MC¹km Wave impedance 100 Ω ± 5 Ω (at 100 MHz) Near	Signal type/category	Ethernet CAT6 _A , 10 Gbps
AWG signal line 26 Conductor structure signal line 7x 0.16 mm Core diameter including insulation 1.04 mm Wire colors white/blue-blue, white/orange-orange, white/green-green, white/brown-brown Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined foil Overall twist 4 pairs for core Shielding Tinned copper braided shield Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer sheath thickness 0.65 mm External cable diameter D 6.4 mm ±0.2 mm Minimum bending radius, fixed installation 4 x D Minimum bending radius, fixed installation 8 x D Tensile strength GRP < 100 N	Cable structure	4x2xAWG26/7; S/FTP
Conductor structure signal line 7x 0.16 mm Core diameter including insulation 1.04 mm Wire colors white/blue-blue, white/orange-orange, white/green-green, white/brown-brown Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined foil Overall twist 4 pairs for core Shielding Tinned copper braided shield Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer sheath thickness 0.65 mm External cable diameter D 6.4 mm ±0.2 mm Minimum bending radius, fixed installation 4 x D Minimum bending radius, fixed installation 8 x D Tensile strength GRP ≤ 100 N Cable weight 42 kg/km Outer sheath, material PUR Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≥ 500 MΩ*km Loop resistance ≥ 290.00 Ω/km Wave impedance 100 Ω ±5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) </td <td>Conductor cross section</td> <td>4x 2x 0.14 mm²</td>	Conductor cross section	4x 2x 0.14 mm ²
Core diameter including insulation 1.04 mm Wire colors white/blue-blue, white/orange-orange, white/green-green, white/brown-brown Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined foil Overall twist 4 pairs for core Shielding Tinned copper braided shield Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer sheath thickness 0.65 mm External cable diameter D 6.4 mm ±0.2 mm Minimum bending radius, fixed installation 4 x D Minimum bending radius, fixed installation 8 x D Tensile strength GRP ≤ 100 N Cable weight 42 kg/km Outer sheath, material PUR Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≤ 500 MC/km Loop resistance ≤ 9000 Ω/km Vave impedance 100 Ω ±5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 66.3 dB (at 4 MHz) 60.3 dB (at 1 0 MHz)	AWG signal line	26
Write colors white/forange-orange, white/green-green, white/forwnbrown brown Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined foil Overall twist 4 pairs for core Shielding Tinned copper braided shield Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer sheath thickness 0.65 mm External cable diameter D 6.4 mm ±0.2 mm Minimum bending radius, fixed installation 4 x D Minimum bending radius, fixed installation 8 x D Tensile strength GRP ≤ 100 N Cable weight 42 kg/km Outer sheath, material PUR Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≤ 500 MΩ*km Loop resistance ≤ 290.00 Ω/km Wave impedance 100 Ω ± 5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz) 67.2 dB (at 10 MHz) 55.8 dB (at 20 MHz)	Conductor structure signal line	7x 0.16 mm
Wile Collos brown Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined foil Overall twist 4 pairs for core Shielding Tinned copper braided shield Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer sheath thickness 0.65 mm External cable diameter D 6.4 mm ± 0.2 mm Minimum bending radius, fixed installation 4 x D Minimum bending radius, flexible installation 8 x D Tensile strength GRP ≤ 100 N Cable weight 42 kg/km Outer sheath, material PUR Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≤ 500 MΩ¹km Loop resistance ≤ 290.00 Q/km Wave impedance 100 Ω ± 5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz) 67.2 dB (at 10 MHz) 57.2 dB (at 10 MHz) 58.4 dB (at 20 MHz) 54.3 dB (a	Core diameter including insulation	1.04 mm
Type of pair shielding Aluminum-lined foil Overall twist 4 pairs for core Shielding Tinned copper braided shield Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer sheath thickness 0.65 mm External cable diameter D 6.4 mm ±0.2 mm Minimum bending radius, fixed installation 4 x D Minimum bending radius, fixeithe installation 8 x D Tensile strength GRP ≤ 100 N Cable weight 42 kg/km Outer sheath, material PUR Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≤ 500 MΩ*km Loop resistance ≤ 290.00 Ω/km Wave impedance 100 Ω ± 5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 61.8 dB (at 8 MHz) 61.8 dB (at 8 MHz) 62.8 dB (at 10 MHz) 55.8 dB (at 20 MHz) 55.8 dB (at 20 MHz) 55.8 dB (at 20 MHz) 56.8 dB (at 25 MHz) 55.8 dB (at 31.25 MHz)	Wire colors	
Overall twist 4 pairs for core Shielding Tinned copper braided shield Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer sheath thickness 0.65 mm External cable diameter D 6.4 mm ±0.2 mm Minimum bending radius, fixed installation 4 x D Minimum bending radius, fixeible installation 8 x D Tensile strength GRP ≤ 100 N Cable weight 42 kg/km Outer sheath, material PUR Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≥ 500 MΩ*km Loop resistance ≥ 290.00 Ω/km Wave impedance 100 Ω ± 5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 6.1 8 dB (at 8 MHz) 61.8 dB (at 8 MHz) 6.1 8 dB (at 8 MHz) 57.2 dB (at 10 MHz) 55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz) 54.3 dB (at 25 MHz) 52.8 dB (at 31.25 MHz)	Twisted pairs	2 cores to the pair
Shielding Tinned copper braided shield Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer sheath thickness 0.65 mm External cable diameter D 6.4 mm ±0.2 mm Minimum bending radius, fixed installation 4 x D Minimum bending radius, fixeithe installation 8 x D Tensile strength GRP ≤ 100 N Cable weight 42 kg/km Outer sheath, material PUR Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≥ 500 MΩ*km Loop resistance ≤ 290.00 Ω/km Wave impedance 100 Ω ± 5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 6.1 d d B (at 8 MHz) 61.8 dB (at 8 MHz) 6.1 d B (d t 10 MHz) 57.2 dB (at 10 MHz) 55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz) 52.8 dB (at 31.25 MHz) 52.8 dB (at 31.25 MHz)	Type of pair shielding	Aluminum-lined foil
Optical shield covering 70 % External sheath, color water blue RAL 5021 Outer sheath thickness 0.65 mm External cable diameter D 6.4 mm ±0.2 mm Minimum bending radius, fixed installation 4 x D Minimum bending radius, flexible installation 8 x D Tensile strength GRP ≤ 100 N Cable weight 42 kg/km Outer sheath, material PUR Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≥ 500 MΩ*km Loop resistance ≤ 290.00 Ω/km Wave impedance 100 Ω ±5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz) 67.2 dB (at 16 MHz) 57.2 dB (at 16 MHz) 55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz) 54.3 dB (at 25 MHz) 54.3 dB (at 31.25 MHz)	Overall twist	4 pairs for core
External sheath, color $\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	Shielding	Tinned copper braided shield
Outer sheath thickness 0.65 mm External cable diameter D 6.4 mm ±0.2 mm Minimum bending radius, fixed installation 4 x D Minimum bending radius, flexible installation 8 x D Tensile strength GRP ≤ 100 N Cable weight 42 kg/km Outer sheath, material PUR Material conductor insulation Foarned PE Conductor material Bare Cu litz wires Insulation resistance ≥ 500 MΩ*km Loop resistance ≤ 290.00 Ω/km Wave impedance 100 Ω ±5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz) 67.2 dB (at 10 MHz) 57.2 dB (at 10 MHz) 55.8 dB (at 20 MHz) 55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz) 54.3 dB (at 25 MHz)	Optical shield covering	70 %
External cable diameter D 6.4 mm ±0.2 mm Minimum bending radius, fixed installation 4 x D Minimum bending radius, flexible installation 8 x D Tensile strength GRP ≤ 100 N Cable weight 42 kg/km Outer sheath, material PUR Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≥ 500 MΩ*km Wave impedance 100 Ω ± 5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz) 60.3 dB (at 10 MHz) 57.2 dB (at 16 MHz) 57.2 dB (at 16 MHz) 55.8 dB (at 20 MHz) 64.3 dB (at 25 MHz) 54.3 dB (at 25 MHz)	External sheath, color	water blue RAL 5021
Minimum bending radius, fixed installation $4 \times D$ Minimum bending radius, flexible installation $8 \times D$ Tensile strength GRP $\leq 100 \text{ N}$ Cable weight 42 kg/km Outer sheath, materialPURMaterial conductor insulationFoamed PEConductor materialBare Cu litz wiresInsulation resistance $\geq 500 \text{ M}\Omega^{\text{tkm}}$ Loop resistance $\leq 290.00 \Omega/\text{km}$ Wave impedance $100 \Omega \pm 5 \Omega$ (at 100 MHz)Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz)66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz)6.3 dB (at 10 MHz) 57.2 dB (at 16 MHz)55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz)64.3 dB (at 25 MHz) 52.8 dB (at 31.25 MHz)	Outer sheath thickness	0.65 mm
Minimum bending radius, flexible installation 8 x D Tensile strength GRP ≤ 100 N Cable weight 42 kg/km Outer sheath, material PUR Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≥ 500 MΩ*km Loop resistance ≤ 290.00 Ω/km Wave impedance 100 Ω ± 5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz) 60.3 dB (at 10 MHz) 57.2 dB (at 16 MHz) 57.2 dB (at 20 MHz) 55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz) 54.3 dB (at 25 MHz) 55.8 dB (at 31.25 MHz)	External cable diameter D	6.4 mm ±0.2 mm
Tensile strength GRP ≤ 100 N Cable weight 42 kg/km Outer sheath, material PUR Material conductor insulation Foarned PE Conductor material Bare Cu litz wires Insulation resistance ≥ 500 MΩ*km Loop resistance ≤ 290.00 Ω/km Wave impedance 100 Ω ± 5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz) 60.3 dB (at 10 MHz) 57.2 dB (at 16 MHz) 57.2 dB (at 16 MHz) 55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz) 54.3 dB (at 25 MHz)	Minimum bending radius, fixed installation	4 x D
Cable weight 42 kg/km Outer sheath, material PUR Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≥ 500 MΩ*km Loop resistance ≤ 290.00 Ω/km Wave impedance 100 Ω ± 5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz) 60.3 dB (at 10 MHz) 57.2 dB (at 16 MHz) 57.2 dB (at 20 MHz) 54.3 dB (at 20 MHz) 54.3 dB (at 25 MHz) 52.8 dB (at 31.25 MHz)	Minimum bending radius, flexible installation	8 x D
Outer sheath, material PUR Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≥ 500 MΩ*km Loop resistance ≤ 290.00 Ω/km Wave impedance 100 Ω ±5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz) 60.3 dB (at 10 MHz) 57.2 dB (at 16 MHz) 55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz) 54.3 dB (at 31.25 MHz) 52.8 dB (at 31.25 MHz)	Tensile strength GRP	≤ 100 N
Material conductor insulation Foamed PE Conductor material Bare Cu litz wires Insulation resistance ≥ 500 MΩ*km Loop resistance ≤ 290.00 Ω/km Wave impedance 100 Ω ±5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz) 60.3 dB (at 10 MHz) 57.2 dB (at 16 MHz) 57.2 dB (at 16 MHz) 54.3 dB (at 25 MHz) 54.3 dB (at 25 MHz) 52.8 dB (at 31.25 MHz)	Cable weight	42 kg/km
Conductor materialBare Cu litz wiresInsulation resistance≥ 500 MΩ*kmLoop resistance≤ 290.00 Ω /kmWave impedance $100 \Omega \pm 5 \Omega$ (at 100 MHz)Near end crosstalk attenuation (NEXT)75.3 dB (with 1 MHz)66.3 dB (at 4 MHz)61.8 dB (at 8 MHz)61.8 dB (at 8 MHz)60.3 dB (at 10 MHz)57.2 dB (at 16 MHz)57.2 dB (at 20 MHz)55.8 dB (at 20 MHz)54.3 dB (at 25 MHz)52.8 dB (at 31.25 MHz)	Outer sheath, material	PUR
Insulation resistance ≥ 500 MΩ*km Loop resistance ≤ 290.00 Ω/km Wave impedance $100 Ω ± 5 Ω (at 100 MHz)$ Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz) 60.3 dB (at 10 MHz) 57.2 dB (at 16 MHz) 55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz) 52.8 dB (at 31.25 MHz) 52.8 dB (at 31.25 MHz)	Material conductor insulation	Foamed PE
Loop resistance $≤ 290.00 Ω/km$ Wave impedance $100 Ω \pm 5 Ω$ (at $100 MHz$) Near end crosstalk attenuation (NEXT) $75.3 dB$ (with $1 MHz$) $66.3 dB$ (at $4 MHz$) $61.8 dB$ (at $8 MHz$) $60.3 dB$ (at $10 MHz$) $57.2 dB$ (at $16 MHz$) $57.2 dB$ (at $16 MHz$) $55.8 dB$ (at $20 MHz$) $54.3 dB$ (at $25 MHz$) $52.8 dB$ (at $31.25 MHz$)	Conductor material	Bare Cu litz wires
Wave impedance 100 Ω ±5 Ω (at 100 MHz) Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz) 60.3 dB (at 10 MHz) 60.3 dB (at 10 MHz) 57.2 dB (at 16 MHz) 55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz) 52.8 dB (at 31.25 MHz)	Insulation resistance	$\geq 500~\text{M}\Omega^*\text{km}$
Near end crosstalk attenuation (NEXT) 75.3 dB (with 1 MHz) 66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz) 60.3 dB (at 10 MHz) 57.2 dB (at 16 MHz) 57.2 dB (at 20 MHz) 54.3 dB (at 25 MHz) 52.8 dB (at 31.25 MHz) 52.8 dB (at 31.25 MHz)	Loop resistance	\leq 290.00 Ω /km
66.3 dB (at 4 MHz) 61.8 dB (at 8 MHz) 60.3 dB (at 10 MHz) 57.2 dB (at 16 MHz) 55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz) 52.8 dB (at 31.25 MHz)	Wave impedance	100 Ω ±5 Ω (at 100 MHz)
61.8 dB (at 8 MHz) 60.3 dB (at 10 MHz) 57.2 dB (at 16 MHz) 55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz) 52.8 dB (at 31.25 MHz)	Near end crosstalk attenuation (NEXT)	75.3 dB (with 1 MHz)
60.3 dB (at 10 MHz) 57.2 dB (at 16 MHz) 55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz) 52.8 dB (at 31.25 MHz)		66.3 dB (at 4 MHz)
57.2 dB (at 16 MHz) 55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz) 52.8 dB (at 31.25 MHz)		61.8 dB (at 8 MHz)
55.8 dB (at 20 MHz) 54.3 dB (at 25 MHz) 52.8 dB (at 31.25 MHz)		60.3 dB (at 10 MHz)
54.3 dB (at 25 MHz) 52.8 dB (at 31.25 MHz)		57.2 dB (at 16 MHz)
52.8 dB (at 31.25 MHz)		55.8 dB (at 20 MHz)
		54.3 dB (at 25 MHz)
48.4 dB (at 62.5 MHz)		52.8 dB (at 31.25 MHz)
		48.4 dB (at 62.5 MHz)



Technical data

Cable

Cabic	
	45.3 dB (at 100 MHz)
	40.8 dB (at 200 MHz)
	39.3 dB (at 250 MHz)
	38.1 dB (at 300 MHz)
	36.3 dB (at 400 MHz)
	34.8 dB (at 500 MHz)
Power-summated near end crosstalk attenuation (PSNEXT)	72.3 dB (with 1 MHz)
	63.3 dB (at 4 MHz)
	58.8 dB (at 8 MHz)
	57.3 dB (at 10 MHz)
	54.2 dB (at 16 MHz)
	52.8 dB (at 20 MHz)
	51.3 dB (at 25 MHz)
	49.9 dB (at 31.25 MHz)
	45.4 dB (at 62.5 MHz)
	42.3 dB (at 100 MHz)
	37.8 dB (at 200 MHz)
	36.3 dB (at 250 MHz)
	35.1 dB (at 300 MHz)
	33.3 dB (at 400 MHz)
	31.8 dB (at 500 MHz)
Attenuation	3.1 dB (with 1 MHz)
	5.7 dB (at 4 MHz)
	8 dB (at 8 MHz)
	8.9 dB (at 10 MHz)
	11.2 dB (at 16 MHz)
	12.6 dB (at 20 MHz)
	14.1 dB (at 25 MHz)
	15.8 dB (at 31.25 MHz)
	22.5 dB (at 62.5 MHz)
	28.7 dB (at 100 MHz)
	41.4 dB (at 200 MHz)
	46.6 dB (at 250 MHz)
	51.4 dB (at 300 MHz)
	60.1 dB (at 400 MHz)
	67.9 dB (at 500 MHz)
Return loss (RL)	20 dB (with 1 MHz)
	23 dB (at 4 MHz)
	24.5 dB (at 8 MHz)
	25 dB (at 10 MHz)



Technical data

Cable

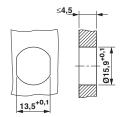
	25 dB (at 16 MHz)
	25 dB (at 20 MHz)
	24.2 dB (at 25 MHz)
	23.3 dB (at 31.25 MHz)
	20.7 dB (at 62.5 MHz)
	19 dB (at 100 MHz)
	16.4 dB (at 200 MHz)
	15.6 dB (at 250 MHz)
	15.6 dB (at 300 MHz)
	15.6 dB (at 400 MHz)
	15.6 dB (at 500 MHz)
Signal runtime	5.13 ns/m
Shield attenuation	≥ 80 dB (at 30 100 MHz)
Nominal voltage, cable	≤ 100 V
Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700 V (50 Hz, 1 min.)
Flame resistance	according to IEC 60332-1-2
Halogen-free	according to IEC 60754-1
Resistance to oil	in accordance with DIN EN 60811-2-1
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)
	-20 °C 80 °C (cable, flexible installation)
Ambient temperature (installation)	-20 °C 80 °C
Ambient temperature (storage/transport)	-20 °C 80 °C

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Dimensional drawing



Schematic diagram



M12 socket pin assignment, 8-pos, view of socket side



Schematic diagram

Cable cross section

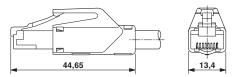




Connector pin assignment plug RJ45

Ethernet 10 Gbit [94F]

Dimensional drawing



RJ45 connector, IP20

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC [A

B.00767

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