

Network cable - SACCBPFSD4PPG9/0,5-937/QCFS SI - 1411613


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Network cable, Ethernet CAT5 (100 Mbps), 4-position, PE-X halogen-free, black, shielded, Flush-type socket straight M12 / IP65, coding: D, on EMC socket insert straight / IP20, cable length: 0.5 m



Ethernet

Key Commercial Data

Packing unit	1 pc
Minimum order quantity	50 pc
GTIN	 4 046356 945196
GTIN	4046356945196
Weight per Piece (excluding packing)	63.740 g
Custom tariff number	85444290
Country of origin	Germany
Note	Made to Order (non-returnable)

Technical data

Dimensions

Length of cable	0.5 m
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Ambient conditions

Degree of protection	IP67 (When plugged in)
	IP65 (When plugged in)

General data

Note	EMC connector consisting of socket insert 1636091 HC-M-EMV-BU/3-9,5 and socket contacts 1674969 CK1,6-ED-0,37BU AU
	The cable is 100% electrically tested for continuity.
Rated current at 40°C	4 A
Rated voltage	50 V
Number of positions	4
Signal type/category	Ethernet CAT5, 100 Mbps
Overvoltage category	II
Degree of pollution	3

Characteristics head 1

Head type	Flush-type socket straight M12 / IP65
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Technical data

Characteristics head 1

No. of positions (pin connector pattern)	4
Coding	D (Data)
Color	silver
Shielded	yes
Insulation resistance	$\geq 100 \text{ M}\Omega$
Insertion/withdrawal cycles	≥ 100 (Quantity: 500 with Phoenix Contact mating connector)
Ambient temperature (operation)	-40 °C ... 90 °C

Characteristics head 2

Head type	EMC socket insert straight / IP20
No. of positions (pin connector pattern)	4
Color	silver
Material (component)	Copper alloy (Contact)
	Au (Contact surface)
	PC (Insulation)
	Zinc alloy (Phase conductors)
Shielded	yes
Insertion/withdrawal cycles	≥ 500
Ambient temperature (operation)	-40 °C ... 85 °C

Standards and Regulations

Flammability rating according to UL 94	V0
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Cable

Cable type	PROFINET railway applications
Cable type (abbreviation)	939
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps
Cable structure	1x4xAWG22/7; SF/TQ
Conductor cross section	4x 0.34 mm ²
AWG signal line	22
Conductor structure signal line	7x 0.25 mm
Core diameter including insulation	1.4 mm \pm 0.1 mm
Wire colors	white-blue, orange-yellow
Overall twist	Star quad
Shielding	Aluminum-lined polyester foil, tinned copper braided shield
External sheath, color	black
Outer sheath thickness	1 mm
External cable diameter D	6.6 mm \pm 0.2 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	6 x D
Tensile strength GRP	$\leq 60 \text{ N}$ (temporary)
	$\leq 15 \text{ N}$ (Permanent)

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Cable weight	71 kg/km
Outer sheath, material	PE-X
Material conductor insulation	Cell PE
Conductor material	Tin-plated Cu litz wires
Insulation resistance	$\geq 5 \text{ G}\Omega \cdot \text{km}$
Conductor resistance	$\leq 54.4 \text{ }\Omega/\text{km}$
Cable capacity	44 nF/km (core-core)
Wave impedance	$100 \text{ }\Omega \pm 5 \text{ }\Omega$ (f = 100 MHz)
Near end crosstalk attenuation (NEXT)	76 dB (with 1 MHz)
	71 dB (at 4 MHz)
	64 dB (at 10 MHz)
	60 dB (at 16 MHz)
	56 dB (at 31.25 MHz)
	52 dB (at 62.5 MHz)
	48 dB (at 100 MHz)
	45 dB (at 155 MHz)
	42 dB (at 200 MHz)
Power-summed near end crosstalk attenuation (PSNEXT)	73 dB (with 1 MHz)
	68 dB (at 4 MHz)
	61 dB (at 10 MHz)
	57 dB (at 16 MHz)
	53 dB (at 31.25 MHz)
	49 dB (at 62.5 MHz)
	45 dB (at 100 MHz)
	42 dB (at 155 MHz)
	39 dB (at 200 MHz)
Attenuation	1.5 dB (with 1 MHz)
	3.3 dB (at 4 MHz)
	5.3 dB (at 10 MHz)
	6.9 dB (at 16 MHz)
	9.9 dB (at 31.25 MHz)
	14.5 dB (at 62.5 MHz)
	18.8 dB (at 100 MHz)
	23.6 dB (at 155 MHz)
	27.3 dB (at 200 MHz)
Return loss (RL)	25 dB (with 1 MHz)
	25 dB (at 4 MHz)
	28 dB (at 10 MHz)
	28 dB (at 16 MHz)
	27 dB (at 31.25 MHz)

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	26 dB (at 62.5 MHz)
	25 dB (at 100 MHz)
	25 dB (at 155 MHz)
	23 dB (at 200 MHz)
Signal speed	0.75 c
Signal runtime	4.4 ns/m
Shield attenuation	60 dB (up to 1000 MHz)
Coupling resistance	< 13.00 mΩ/m (f = 1 MHz)
	< 8.00 mΩ/m (f = 10 MHz ... 100 MHz)
Cable impedance	100 Ω ±15 Ω (f = 0.5 MHz ... 3 MHz)
Nominal voltage, cable	125 V
Test voltage Core/Core	1000 V AC (50 Hz, 1 min.)
Test voltage Core/Shield	1000 V AC (50 Hz, 1 min.)
Fire protection in rail vehicles	BS 6853 (Internal cable Ia, Ib, II/external cable Ia, Ib, II)
	DIN 5510-2 (Fire protection level 1, 2, 3, 4)
	EN 45545-2 (Risk level HL1 - HL3)
	EN 50306-4
	NF F16-101 (Classification C/F1)
	NF F16-101 (Internal cable A1, A2, B/external cable A1, A2, B)
	NFPA 130
	PN-K-02511
	UIC 564-2 (Class A)
Flame resistance	according to EN 60332-1-2
	according to EN 50266-2-5
	according to ISO 14572 5.21 (UN ECE-R 118.01)
Halogen-free	According to EN 50267-2-1
	according to EN 60684-2
Resistance to oil	according to EN 60684-2, 72 h at 100 °C, IRM 902
Other resistance	Resistant to fuel according to EN 60684-2, 72 h at 100 °C, IRM 903
	Resistant to ozone according to EN 50306-4, 72 h at 40 °C, procedure B, volume concentration 200 x 10 ⁻⁶
Concentration of fumes	EN 61034-2
Ambient temperature (operation)	-40 °C ... 85 °C (cable, fixed installation)
	-25 °C ... 70 °C (cable, flexible installation)

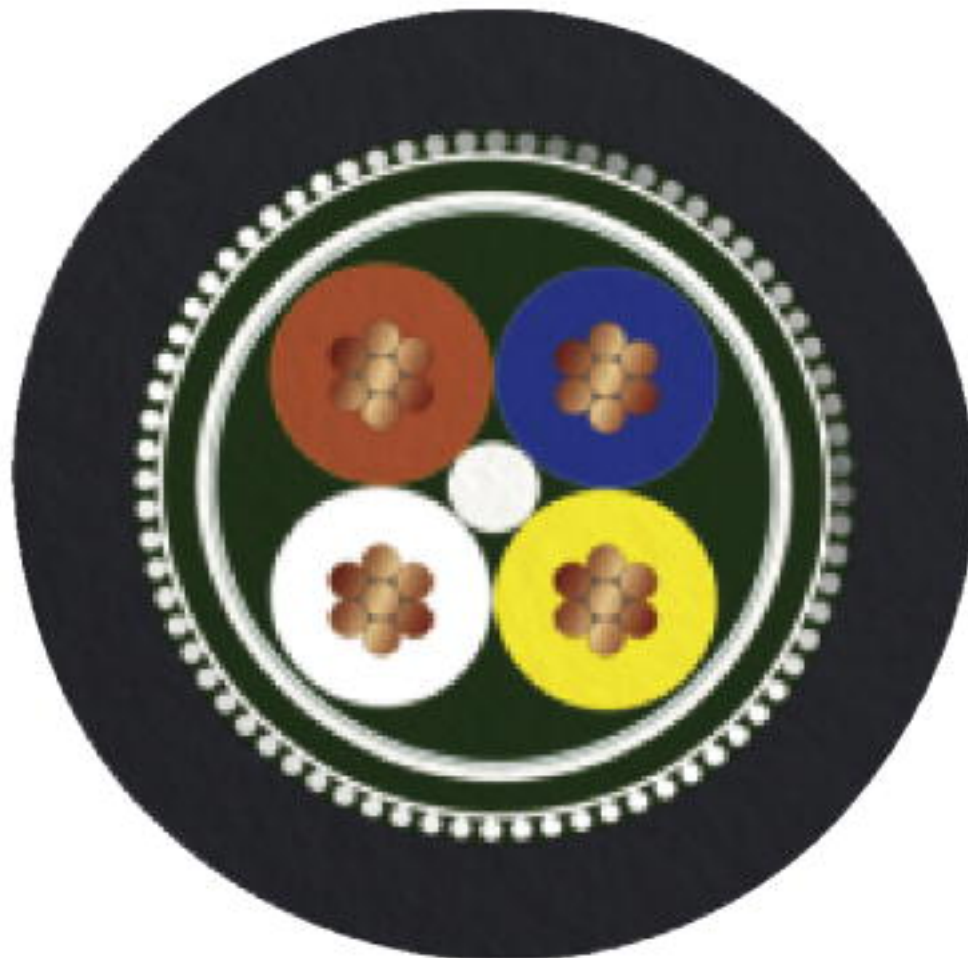
Environmental Product Compliance

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

Network cable - SACCBPFSD4PPG9/0,5-937/QCFS SI - 1411613

Cable cross section



PROFINET railway applications [939]

Classifications

eCl@ss

eCl@ss 10.0.1	27371392
eCl@ss 4.0	27378000
eCl@ss 4.1	27378000
eCl@ss 5.0	27379100
eCl@ss 5.1	27379100
eCl@ss 6.0	27379200
eCl@ss 7.0	27379201
eCl@ss 8.0	27379201
eCl@ss 9.0	27379201

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Classifications

ETIM

ETIM 4.0	EC002498
ETIM 5.0	EC002498
ETIM 6.0	EC002498
ETIM 7.0	EC002498

UNSPSC

UNSPSC 13.2	39121421
UNSPSC 18.0	39121421
UNSPSC 19.0	39121421
UNSPSC 20.0	39121421
UNSPSC 21.0	39121421

Approvals


Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC		B.00767
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