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Assembled Ethernet cable, CAT5e, shielded, 2-pair, AWG 26 stranded (7-wire), RAL 5021 (water blue), M12 4-pos. D-coded on RJ45 connector, length: 1.5 m, customer version



Ethernet

Key commercial data

Packing unit	11
Minimum order quantity	50 1
Weight per Piece (excluding packing)	106.3 GRM
Custom tariff number	85444210
Country of origin	Germany

Technical data

Mechanical characteristics

Number of positions	4
Shielded	Yes
Cable diameter	6.70 mm
Cable structure	2x2xAWG26/7; S-FTP
Length of cable	1.5 m

Ambient conditions

Ambient temperature (operation)	-20 °C 60 °C (cable, fixed installation)
	0 °C 50 °C (cable, flexible installation)
	(Plug / socket)
Degree of protection	IP67/IP20

Material data

Housing material	TPU/PA
Outer sheath, material	PUR
External sheath, color	water blue RAL 5021



Technical data

Electrical characteristics

Line characteristics Cable type Cable structure Cable structure Cable structure Cable structure Cache structure Cache structure Conductor cross section AWG signal line Core diameter including insulation External cable diameter Wrire colors White/orange-orange, white/greer External sheath, color Transmission medium Copper Insulation resistance Conductor resistance Conductor resistance Conductor resistance Conductor resistance Conductor resistance Conductor resistance Carfs (IEC 11801:2002), CATSe Working capacitance Va pF Wave impedance Va pF Wave impedance Va pG Shield attenuation Coupling resistance Signal speed Coupling resistance Signal speed Coupling resistance Sourman (At 10 MHz) Trest voltage, cable Test voltage, cable Test voltage, cable Test voltage, cable Tinned copper braided shield Coveral twist Two pairs with two fillers to the core conductor material Cable weight Material conductor insulation Cell PE Conductor material Cable weight Free of substances which would Islance complying with IEC 60754-1/2 Resistance to oil In accordance with DIN EN 6081*	CAT5 (IEC 11801:2002), CAT5e (TIA 568B:2001)
Cable type Ethernet Cable structure 2x2xAWG26/7 PIMF Conductor cross section 2x 2x 0.14 mm² AWG signal line 26 Conductor structure signal line 7x 0.15 mm Core diameter including insulation ≤ 1.05 mm External cable diameter 6.7 mm Wire colors white/orange-orange, white/greer External sheath, color water blue RAL 5021 Transmission medium Copper Insulation resistance ≥ 5 GΩ*km Conductor resistance ≤ 150 Ω/km Transmission characteristics (category) CAT5 (IEC 11801:2002), CAT5e Working capacitance 42 pF Wave impedance 100 Ω ±5 % (At 100 MHz) Signal speed 0.72 c Shield attenuation 60 dB (Up to 1000 MHz) Coupling resistance 5.00 mΩ/m (At 10 MHz) Nominal voltage, cable 1000 V Test voltage, cable 1000 V Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined polyester foil Overall twist Two pairs with two fillers to the co Shielding Tinned copper braid	
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Conductor cross section 2x 2x 0.14 mm² AWG signal line 26 Conductor structure signal line 7x 0.15 mm Core diameter including insulation ≤ 1.05 mm External cable diameter 6.7 mm Wire colors white/orange-orange, white/green External sheath, color water blue RAL 5021 Transmission medium Copper Insulation resistance ≥ 5 GΩ*km Conductor resistance ≤ 150 Ω/km Transmission characteristics (category) CAT5 (IEC 11801:2002), CAT5e Working capacitance 42 pF Wave impedance 100 Ω ±5 % (At 100 MHz) Signal speed 0.72 c Shield attenuation 60 dB (Up to 1000 MHz) Coupling resistance 5.00 mΩ/m (At 10 MHz) Nominal voltage, cable max. 125 V Test voltage, cable 1000 V Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined polyester foil Overall twist Two pairs with two fillers to the core Shielding Tinned copper braided shield Outer sheath, material PUR Material conductor insula	
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Conductor structure signal line Core diameter including insulation External cable diameter (a.7 mm) Wire colors white/orange-orange, white/greer External sheath, color Transmission medium Copper Insulation resistance Conductor resistance Conductor resistance Transmission characteristics (category) Working capacitance Wave impedance Signal speed Shield attenuation Coupling resistance 5.00 mΩ/m (At 10 MHz) Test voltage, cable Test voltage, cable Type of pair shielding Overall twist Type of pair shielding Outer sheath, material Material conductor insulation Conductor material External sheath, solon Transmission white/orange-orange, white/greer Wave impedance 5.00 μ/m 5.00 μ/m 6.0 μ/m	
Core diameter including insulation ≤ 1.05 mm External cable diameter 6.7 mm Wire colors white/orange-orange, white/greer External sheath, color water blue RAL 5021 Transmission medium Copper Insulation resistance ≥ 5 GΩ*km Conductor resistance ≤ 150 Ω/km Transmission characteristics (category) CAT5 (IEC 11801:2002), CAT5e Working capacitance 42 pF Wave impedance 100 Ω ±5 % (At 100 MHz) Signal speed 0.72 c Shield attenuation 60 dB (Up to 1000 MHz) Coupling resistance 5.00 mΩ/m (At 10 MHz) Nominal voltage, cable max. 125 V Test voltage, cable 1000 V Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined polyester foil Overall twist Two pairs with two fillers to the constitution Cell PE Conductor material PUR Material conductor insulation Cell PE Conductor material Bare Cu litz wires Cable weight 42 kg/km Smallest bending radius, movable installation 34 mm <td></td>	
External cable diameter	7x 0.15 mm
Wire colors white/orange-orange, white/green External sheath, color water blue RAL 5021 Transmission medium Copper Insulation resistance ≥ 5 GΩ*km Conductor resistance ≤ 150 Ω/km Transmission characteristics (category) CAT5 (IEC 11801:2002), CAT5e Working capacitance 42 pF Wave impedance 100 Ω ± 5 % (At 100 MHz) Signal speed 0.72 c Shield attenuation 60 dB (Up to 1000 MHz) Coupling resistance 5.00 mΩ/m (At 10 MHz) Nominal voltage, cable 1000 V Test voltage, cable 1000 V Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined polyester foil Overall twist Two pairs with two fillers to the construction Shielding Tinned copper braided shield Outer sheath, material PUR Material conductor insulation Cell PE Conductor material Bare Cu litz wires Cable weight 42 kg/km Smallest bending radius, movable installation 34 mm Tensile strength short-term/long-term 30N bei Installation / 10N nach Inspecial pr	≤ 1.05 mm
External sheath, color water blue RAL 5021 Transmission medium Copper Insulation resistance $\geq 5 G\Omega^* km$ Conductor resistance $\leq 150 \Omega / km$ Transmission characteristics (category) CAT5 (IEC 11801:2002), CAT5e Working capacitance 42 pF Wave impedance 100 $\Omega \pm 5$ % (At 100 MHz) Signal speed 0.72 c Shield attenuation 60 dB (Up to 1000 MHz) Coupling resistance 5.00 $m\Omega / m$ (At 10 MHz) Nominal voltage, cable max. 125 V Test voltage, cable 1000 V Twisted pairs 2 cores to the pair Type of pair shielding Overall twist Two pairs with two fillers to the cots Shielding Outer sheath, material PUR Material conductor insulation Cell PE Conductor material PUR Material conductor insulation Cell PE Conductor material Bare Cu litz wires Cable weight 42 kg/km Smallest bending radius, movable installation Tensile strength short-term/long-term 30N bei Installation / 10N nach Inspecial properties Free of substances which would Inspect only in accordance with DIN EN 6081: Resistance to oil in accordance with DIN EN 6081:	6.7 mm
Transmission medium Copper Insulation resistance ≥ 5 GΩ*km Conductor resistance ≤ 150 Ω/km Transmission characteristics (category) CAT5 (IEC 11801:2002), CAT5e Working capacitance 42 pF Wave impedance $100 \Omega \pm 5 \%$ (At 100 MHz) Signal speed $0.72 c$ Shield attenuation 60 dB (Up to 1000 MHz) Coupling resistance 5.00 mΩ/m (At 10 MHz) Nominal voltage, cable $max. 125 \text{ V}$ Test voltage, cable 1000 V Twisted pairs $2 \text{ cores to the pair}$ Type of pair shielding Aluminum-lined polyester foil Overall twist Two pairs with two fillers to the constraint two fillers and fillers to the constraint fillers and fillers and fillers to the constraint fillers and f	white/orange-orange, white/green-green
Insulation resistance ≥ 5 GΩ*km Conductor resistance ≤ 150 $Ω/km$ Transmission characteristics (category) CAT5 (IEC 11801:2002), CAT5e Working capacitance 42 pF Wave impedance 100 $Ω ± 5$ % (At 100 MHz) Signal speed 0.72 c Shield attenuation 60 dB (Up to 1000 MHz) Coupling resistance 5.00 mΩ/m (At 10 MHz) Nominal voltage, cable max. 125 V Test voltage, cable 1000 V Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined polyester foil Overall twist Two pairs with two fillers to the constrained shield Outer sheath, material PUR Material conductor insulation Cell PE Conductor material Bare Cu litz wires Cable weight 42 kg/km Smallest bending radius, movable installation 34 mm Tensile strength short-term/long-term 30N bei Installation / 10N nach Inspecial properties Free of substances which would its Flame resistance Halogen-free complying with IEC 60754-1/2 Resistance to oil in accordance with DIN EN 6081:	water blue RAL 5021
Conductor resistance ≤ 150 Ω/km Transmission characteristics (category) CAT5 (IEC 11801:2002), CAT5e Working capacitance 42 pF Wave impedance $100 \Omega \pm 5\%$ (At 100 MHz) Signal speed $0.72 c$ Shield attenuation $60 dB$ (Up to 1000 MHz) Coupling resistance 5.00 mΩ/m (At 10 MHz) Nominal voltage, cable 1000 V Test voltage, cable 1000 V Twisted pairs $2 \text{ cores to the pair}$ Type of pair shielding Aluminum-lined polyester foil Overall twist Two pairs with two fillers to the constitution Shielding Tinned copper braided shield Outer sheath, material PUR Material conductor insulation Cell PE Conductor material Bare Cu litz wires Cable weight 42 kg/km Smallest bending radius, movable installation 34 mm Tensile strength short-term/long-term $30 \text{ N bei Installation } / 10 \text{ N nach In}$ Special properties Free of substances which would Install the complying with IEC 60332-2-2 Halogen-free complying with DIN EN 6081:	Copper
$ \begin{array}{c} \text{Transmission characteristics (category)} & \text{CAT5 (IEC 11801:2002), CAT5e} \\ \text{Working capacitance} & 42 \text{pF} \\ \text{Wave impedance} & 100 \Omega \pm 5 \text{% (At 100 MHz)} \\ \text{Signal speed} & 0.72 \text{c} \\ \text{Shield attenuation} & 60 \text{dB (Up to 1000 MHz)} \\ \text{Coupling resistance} & 5.00 \text{m}\Omega/\text{m (At 10 MHz)} \\ \text{Nominal voltage, cable} & \text{max. } 125 \text{V} \\ \text{Test voltage, cable} & 1000 \text{V} \\ \text{Twisted pairs} & 2 \text{cores to the pair} \\ \text{Type of pair shielding} & \text{Aluminum-lined polyester foil} \\ \text{Overall twist} & \text{Two pairs with two fillers to the constitution} \\ \text{Shielding} & \text{Tinned copper braided shield} \\ \text{Outer sheath, material} & \text{PUR} \\ \text{Material conductor insulation} & \text{Cell PE} \\ \text{Conductor material} & \text{Bare Cu litz wires} \\ \text{Cable weight} & 42 \text{kg/km} \\ \text{Smallest bending radius, movable installation} & 34 \text{mm} \\ \text{Tensile strength short-term/long-term} & 30N \text{bei Installation / 10N nach In Special properties} & \text{Free of substances which would In Free ends of the pair} \\ \text{Flame resistance} & \text{complying with IEC } 60332-2-2 \\ \text{Halogen-free} & \text{complying with DIN EN } 6081 \\ \text{In accordance with DIN EN } 6081 \\ In accordanc$	$\geq 5~G\Omega^*km$
Working capacitance 42 pF Wave impedance 100 Ω ±5 % (At 100 MHz) Signal speed 0.72 c Shield attenuation 60 dB (Up to 1000 MHz) Coupling resistance 5.00 mΩ/m (At 10 MHz) Nominal voltage, cable max. 125 V Test voltage, cable 1000 V Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined polyester foil Overall twist Two pairs with two fillers to the constraint of the const	≤ 150 Ω/km
Wave impedance 100 Ω ±5 % (At 100 MHz) Signal speed 0.72 c Shield attenuation 60 dB (Up to 1000 MHz) Coupling resistance 5.00 mΩ/m (At 10 MHz) Nominal voltage, cable max. 125 V Test voltage, cable 1000 V Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined polyester foil Overall twist Two pairs with two fillers to the constraint of the constrai	CAT5 (IEC 11801:2002), CAT5e (TIA 568B:2001)
Signal speed 0.72 c Shield attenuation 60 dB (Up to 1000 MHz) Coupling resistance 5.00 mΩ/m (At 10 MHz) Nominal voltage, cable max. 125 V Test voltage, cable 1000 V Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined polyester foil Overall twist Two pairs with two fillers to the construction Shielding Tinned copper braided shield Outer sheath, material PUR Material conductor insulation Cell PE Conductor material Bare Cu litz wires Cable weight 42 kg/km Smallest bending radius, movable installation 34 mm Tensile strength short-term/long-term 30N bei Installation / 10N nach Inspecial properties Flame resistance complying with IEC 60332-2-2 Halogen-free complying with IEC 60754-1/2 Resistance to oil in accordance with DIN EN 6081	42 pF
Shield attenuation 60 dB (Up to 1000 MHz) Coupling resistance 5.00 mΩ/m (At 10 MHz) Nominal voltage, cable max. 125 V Test voltage, cable 1000 V Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined polyester foil Overall twist Two pairs with two fillers to the construction Shielding Tinned copper braided shield Outer sheath, material PUR Material conductor insulation Cell PE Conductor material Bare Cu litz wires Cable weight 42 kg/km Smallest bending radius, movable installation 34 mm Tensile strength short-term/long-term 30N bei Installation / 10N nach Inspecial properties Flame resistance complying with IEC 60332-2-2 Halogen-free complying with IEC 60754-1/2 Resistance to oil in accordance with DIN EN 6081	100 Ω ±5 % (At 100 MHz)
Coupling resistance 5.00 mΩ/m (At 10 MHz) Nominal voltage, cable max. 125 V Test voltage, cable 1000 V Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined polyester foil Overall twist Two pairs with two fillers to the constraint of the pair of th	0.72 c
Nominal voltage, cable Test voltage, cable 1000 V Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined polyester foil Overall twist Two pairs with two fillers to the corespondent of the pair Shielding Tinned copper braided shield Outer sheath, material PUR Material conductor insulation Cell PE Conductor material Bare Cu litz wires Cable weight 42 kg/km Smallest bending radius, movable installation Tensile strength short-term/long-term 30N bei Installation / 10N nach In Special properties Free of substances which would It Flame resistance complying with IEC 60332-2-2 Halogen-free complying with IEC 60754-1/2 Resistance to oil in accordance with DIN EN 60813	60 dB (Up to 1000 MHz)
Test voltage, cable Twisted pairs 2 cores to the pair Type of pair shielding Aluminum-lined polyester foil Overall twist Two pairs with two fillers to the cores to shielding Outer sheath, material PUR Material conductor insulation Cell PE Conductor material Bare Cu litz wires Cable weight 42 kg/km Smallest bending radius, movable installation Tensile strength short-term/long-term Special properties Free of substances which would be flame resistance Ladiogen-free Complying with IEC 60754-1/2 Resistance to oil Resistance to oil	5.00 mΩ/m (At 10 MHz)
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Type of pair shielding Overall twist Two pairs with two fillers to the constitutions of the constitution	1000 V
Overall twist Two pairs with two fillers to the constraint of the	2 cores to the pair
Shielding Tinned copper braided shield Outer sheath, material PUR Material conductor insulation Cell PE Conductor material Bare Cu litz wires Cable weight 42 kg/km Smallest bending radius, movable installation 34 mm Tensile strength short-term/long-term 30N bei Installation / 10N nach In Special properties Free of substances which would I Flame resistance complying with IEC 60332-2-2 Halogen-free complying with IEC 60754-1/2 Resistance to oil in accordance with DIN EN 6081	Aluminum-lined polyester foil
Outer sheath, material Material conductor insulation Cell PE Conductor material Bare Cu litz wires Cable weight 42 kg/km Smallest bending radius, movable installation Tensile strength short-term/long-term 30N bei Installation / 10N nach In Special properties Free of substances which would in Flame resistance complying with IEC 60332-2-2 Halogen-free complying with IEC 60754-1/2 Resistance to oil in accordance with DIN EN 60812	Two pairs with two fillers to the core
Material conductor insulation Cell PE Conductor material Bare Cu litz wires 42 kg/km Smallest bending radius, movable installation Tensile strength short-term/long-term 30N bei Installation / 10N nach In Special properties Free of substances which would I Flame resistance complying with IEC 60332-2-2 Halogen-free complying with IEC 60754-1/2 Resistance to oil in accordance with DIN EN 60813	Tinned copper braided shield
Conductor material Cable weight 42 kg/km Smallest bending radius, movable installation 34 mm Tensile strength short-term/long-term 30N bei Installation / 10N nach In Special properties Free of substances which would I Flame resistance complying with IEC 60332-2-2 Halogen-free complying with IEC 60754-1/2 Resistance to oil in accordance with DIN EN 6081	PUR
Cable weight Smallest bending radius, movable installation Tensile strength short-term/long-term 30N bei Installation / 10N nach In Special properties Free of substances which would I Flame resistance complying with IEC 60332-2-2 Halogen-free complying with IEC 60754-1/2 Resistance to oil in accordance with DIN EN 60813	Cell PE
Smallest bending radius, movable installation Tensile strength short-term/long-term 30N bei Installation / 10N nach In Special properties Free of substances which would I Flame resistance complying with IEC 60332-2-2 Halogen-free complying with IEC 60754-1/2 Resistance to oil in accordance with DIN EN 6081	Bare Cu litz wires
Tensile strength short-term/long-term 30N bei Installation / 10N nach In Special properties Free of substances which would I Flame resistance complying with IEC 60332-2-2 Halogen-free complying with IEC 60754-1/2 Resistance to oil in accordance with DIN EN 6081	42 kg/km
Special properties Free of substances which would I Flame resistance complying with IEC 60332-2-2 Halogen-free complying with IEC 60754-1/2 Resistance to oil in accordance with DIN EN 6081	34 mm
Flame resistance complying with IEC 60332-2-2 Halogen-free complying with IEC 60754-1/2 Resistance to oil in accordance with DIN EN 6081	30N bei Installation / 10N nach Installation
Halogen-free complying with IEC 60754-1/2 Resistance to oil in accordance with DIN EN 6081	Free of substances which would hinder coating with paint or varnish
Resistance to oil in accordance with DIN EN 6081	complying with IEC 60332-2-2
	complying with IEC 60754-1/2
Other resistance	in accordance with DIN EN 60811-2-1
Other resistance as per VDE 0	Microbe resistance as per VDE 0282 section 10



Technical data

Line characteristics

	Hydrolysis resistance as per DIN 53504
Ambient temperature (operation)	-40 °C 70 °C (cable, fixed installation)
	-10 °C 50 °C (cable, flexible installation)

Classifications

eCl@ss

eCl@ss 4.0	272607xx
eCl@ss 4.1	27260701
eCl@ss 5.0	27260701
eCl@ss 5.1	27060307
eCl@ss 6.0	27061801

ETIM

ETIM 3.0	EC000830
ETIM 4.0	EC000830
ETIM 5.0	EC000830

UNSPSC

UNSPSC 6.01	31261501
UNSPSC 7.0901	31261501
UNSPSC 11	31261501
UNSPSC 12.01	31261501
UNSPSC 13.2	31261501

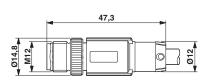
Drawings

Schematic diagram



Pin assignment M12 male connector, 4-pos., D-coded, male side

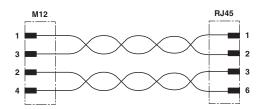
Dimensioned drawing



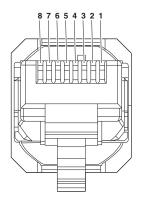
Plug, M12 x 1, straight, shielded



Circuit diagram

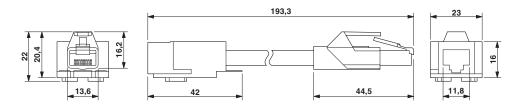


Schematic diagram



Connector pin assignment plug RJ45

Dimensioned drawing



RJ45 connector, IP20

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