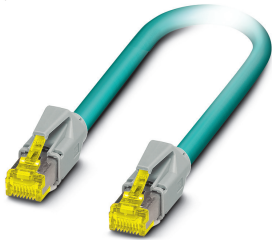
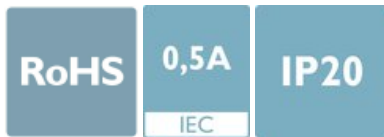


Patch cable - VS-IP20/10G-IP20/10G-94F/1 - 1418866

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Patch cable, CAT6_A, 4-pair, shielded, connection not crossed (Line), assembled at both ends with RJ45/IP20 connectors; outer sheath material: PUR; length: 1.0 m



Ethernet *CC-Link IE*



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 537971
GTIN	4046356537971
Weight per Piece (excluding packing)	60.000 g
Custom tariff number	85444210
Country of origin	Germany

Technical data

Dimensions

Length of cable	1.00 m
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Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 70 °C (RJ45 connector)
	-20 °C ... 80 °C (cable, fixed installation)

General data

Rated current at 40°C	0.5 A
Rated voltage	48 V
Number of positions	8
Alternative short product description	Patch cable

Patch cable - VS-IP20/10G-IP20/10G-94F/1 - 1418866

Technical data

General data

Insertion/withdrawal cycles	200
Transmission characteristics (category)	CAT6 _A
Transmission speed	10 Gbps

Cable

Cable structure	4x2xAWG26/7; S/FTP
Conductor cross section	0.14 mm ²
AWG signal line	26
Conductor structure signal line	7x 0.16 mm
Core diameter including insulation	1 mm
Wire colors	White-blue, white-orange, white-green, white-brown
External sheath, color	water blue RAL 5021
Smallest bending radius, fixed installation	min. 33.5 mm
Smallest bending radius, movable installation	min. 33.5 mm
Cable weight	44.00 kg/km
Outer sheath, material	PUR
Conductor material	Bare Cu litz wires
Wave impedance	100 Ω ±5 % (at 100 MHz)
Shielded	yes
Cable type	Ethernet 10 Gbit
Cable type (abbreviation)	94F
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet CAT6 _A , 10 Gbps
Cable structure	4x2xAWG26/7; S/FTP
Conductor cross section	4x 2x 0.14 mm ²
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

Patch cable - VS-IP20/10G-IP20/10G-94F/1 - 1418866

Technical data

Cable

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
Cable capacity	47 nF/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)
	48.4 dB (at 62.5 MHz)
	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)

Patch cable - VS-IP20/10G-IP20/10G-94F/1 - 1418866

Technical data

Cable

	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)
	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

Patch cable - VS-IP20/10G-IP20/10G-94F/1 - 1418866

Technical data

Cable

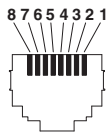
Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700 V (50 Hz, 1 min.)
Flame resistance	according to IEC 60332-1-2
Halogen-free	according to IEC 60754-1
Resistance to oil	in accordance with DIN EN 60811-2-1
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 80 °C (cable, flexible installation)
Ambient temperature (installation)	-20 °C ... 80 °C
Ambient temperature (storage/transport)	-20 °C ... 80 °C
Shielded	yes

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

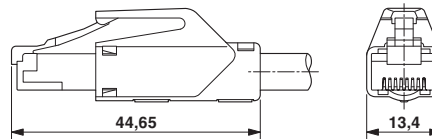
Drawings

Schematic diagram



Connector pin assignment plug RJ45

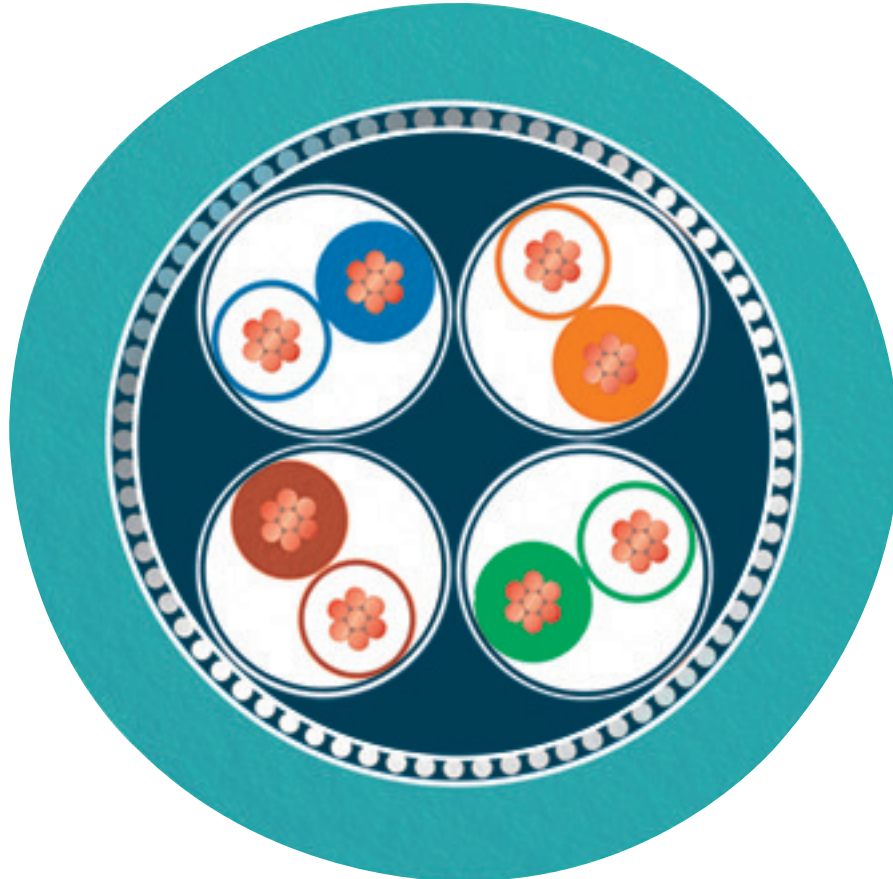
Dimensional drawing



RJ45 connector, IP20

Patch cable - VS-IP20/10G-IP20/10G-94F/1 - 1418866

Cable cross section



Ethernet 10 Gbit [94F]

Classifications

eCl@ss

eCl@ss 10.0.1	27060308
eCl@ss 11.0	27060308
eCl@ss 4.0	24010400
eCl@ss 4.1	24010400
eCl@ss 5.0	19030300
eCl@ss 5.1	19030300
eCl@ss 6.0	27061800
eCl@ss 7.0	27060308
eCl@ss 9.0	27060308

Patch cable - VS-IP20/10G-IP20/10G-94F/1 - 1418866

Classifications

ETIM

ETIM 2.0	EC000830
ETIM 3.0	EC000830
ETIM 4.0	EC002599
ETIM 6.0	EC001262
ETIM 7.0	EC001262

UNSPSC

UNSPSC 6.01	26121616
UNSPSC 7.0901	26121616
UNSPSC 11	26121604
UNSPSC 12.01	26121616
UNSPSC 13.2	26121604
UNSPSC 18.0	26121604
UNSPSC 19.0	26121604
UNSPSC 20.0	26121604
UNSPSC 21.0	26121604

Approvals


Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC		19060508
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