

Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

[Phoenix Contact](#)
[1407546](#)

For any questions, you can email us directly:

sales@integrated-circuit.com

<https://www.phoenixcontact.com/us/products/1407546>



Network cable - NBC-FSD/ 5,0-93B/R4RC SCO - 1407546

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



Network cable, PROFINET CAT5 (100 Mbps), PROFINET CAT5e (100 Mbps), 4-position, PVC/PVC, Green RAL 6018, shielded, Plug Straight RJ45 Push Pull / IP67, on Socket Straight M12 SPEEDCON / IP67, Coding: D, Cable length: 5 m



Key commercial data

Packing unit	1 pc
Custom tariff number	85444210
Country of origin	Poland

Technical data

Dimensions

Length of cable	5 m
-----------------	-----

Ambient conditions

Degree of protection	IP65 (M12 connector)
	IP67 (M12 connector)
	IP67 (RJ45 connector)

General data

Note	This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 8.2 Connectors for Outside Environment (Balanced cabling)
Rated current at 40°C	1 A
Rated voltage	50 V
Number of positions	4
Signal type/category	PROFINET CAT5 (IEC 11801:2002), 100 Mbps
	PROFINET CAT5e (TIA 568B:2001), 100 Mbps
Standards/regulations	M12 connector IEC 61076-2-101

<https://www.phoenixcontact.com/us/products/1407546>



Network cable - NBC-FSD/ 5,0-93B/R4RC SCO - 1407546

Technical data

Characteristics head 1

Head type	Plug Straight RJ45 Push Pull / IP67
No. of positions (pin connector pattern)	4 (8)
Color	silver
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	PC (Contact carriers)
	Zinc die-cast, nickel-plated (Housing)
Insertion/withdrawal cycles	≥ 750
Ambient temperature (operation)	-40 °C ... 70 °C

Characteristics head 2

Head type	Socket Straight M12 SPEEDCON / IP67
No. of positions (pin connector pattern)	4
Coding	D (Data)
Color	black
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	TPU GF (Contact carriers)
	TPU, hardly inflammable, self-extinguishing (Grip)
	Zinc die-cast, nickel-plated (Screw connection)
Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm
Ambient temperature (operation)	-25 °C ... 90 °C

Cable

Cable type	PROFINET PVC stranded CAT5e
Cable type (abbreviation)	93B
UL AWM style	21694
Signal type/category	PROFINET CAT5 (IEC 11801:2002), 100 Mbps
	PROFINET CAT5e (TIA 568B:2001), 100 bps
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	approx. 1.5 mm
Wire colors	White, yellow, blue, orange

Network cable - NBC-FSD/ 5,0-93B/R4RC SCO - 1407546

Technical data

Cable

Overall twist	Star quad
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	85 %
External sheath, color	Green RAL 6018
Outer sheath thickness	approx. 0.9 mm
External cable diameter D	6.5 mm $\pm$ 0.2 mm
Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	7 x D
Torsion force	$\pm$ 180 °/m (30,000 torsion cycles)
Cable weight	67 kg/km
Outer sheath, material	PVC
Material, inner sheath	PVC
Material conductor insulation	PE
Conductor material	Tin-plated Cu litz wires
Insulation resistance	$\geq$ 500 M Ω *km
Loop resistance	$\leq$ 120 Ω (per kilometer)
Working capacitance	52 pF
Wave impedance	100 Ω $\pm$ 15 Ω (at 100 MHz)
Signal runtime	5.3 ns/m
Coupling resistance	$\leq$ 20.00 m Ω /m
Nominal voltage, cable	600 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000 V (50 Hz, 1 min.)
Flame resistance	According to UL 1685 (CSA FT 4)
Resistance to oil	Resistant to oil to a limited extent
Other resistance	UV resistant According to UL 1581, Section 1200
Ambient temperature (operation)	-40 °C ... 70 °C (cable, fixed installation)
	-40 °C ... 70 °C (cable, flexible installation)
Ambient temperature (installation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-50 °C ... 70 °C

Classifications

eCl@ss

eCl@ss 4.0	27060307
eCl@ss 4.1	27060307
eCl@ss 5.0	27060307

<https://www.phoenixcontact.com/us/products/1407546>



Network cable - NBC-FSD/ 5,0-93B/R4RC SCO - 1407546

Classifications

eCl@ss

eCl@ss 5.1	27060307
eCl@ss 6.0	27060307
eCl@ss 7.0	27060307
eCl@ss 8.0	27060307

ETIM

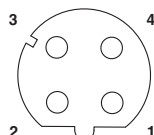
ETIM 3.0	EC000830
ETIM 4.0	EC001855
ETIM 5.0	EC001855

UNSPSC

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

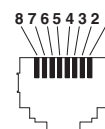
Drawings

Schematic diagram



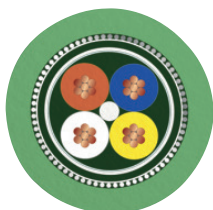
Pin assignment M12 socket, 4-pos., D-coded, female side

Schematic diagram



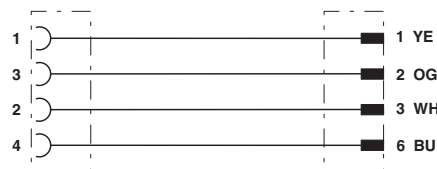
Connector pin assignment plug RJ45

Cable cross section



PROFINET PVC stranded CAT5e [93B]

Circuit diagram



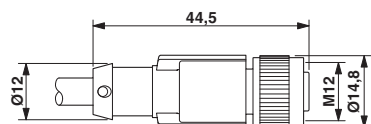
Contact assignment of the M12 socket and the RJ45 plug

<https://www.phoenixcontact.com/us/products/1407546>



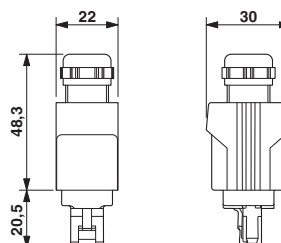
Network cable - NBC-FSD/ 5,0-93B/R4RC SCO - 1407546

Dimensioned drawing



M12 x 1 socket, straight, shielded

Dimensioned drawing



RJ45 Push-Pull connector, IP67