

# VS-IP20-IP20-93R-LI/2,0 - Network cable



1416239

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Assembled PROFINET cable, CAT5e, shielded, star-quad, 22 AWG stranded (19-wire), RAL 6018 (yellow green), RJ45 male connector/IP20 to RJ45 male connector/IP20, line, length: 2 m

## Commercial data

Item number	1416239
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	ABNABA
GTIN	4046356473378
Weight per piece (including packing)	145.7 g
Weight per piece (excluding packing)	138.96 g
Country of origin	PL

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## Technical data

### Product properties

Product type	Data cable preassembled
Product family	RJ45 INDUSTRIAL PN4 CAT5
Application	Standard
Number of positions	4
No. of cable outlets	1
Shielded	yes
Cable outlet	straight

### Insulation characteristics

Overvoltage category	I
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### Interfaces

Signal type/category	Ethernet, 100 Mbps
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### Signaling

Status display	no
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### Electrical properties

Transmission medium	Copper
Transmission speed	100 Mbps
Transmission characteristics (category)	CAT5 (IEC 11801:2002)
Transmission speed	100 Mbps
Wave impedance	100 $\Omega$

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	$\geq 1000$
Insertion force per signal contact	50.00 N
Extraction force per signal contact	30 N

### Material specifications

Outer sheath, material	PUR
Conductor material	Tin-plated Cu litz wires

### Connector

#### Connection 1

Type	Plug straight RJ45
Shielded	yes
Degree of protection	IP20

#### Connection 2

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Type	Plug straight RJ45
Shielded	yes
Insertion/withdrawal cycles	≥ 750
Degree of protection	IP20

## Cable/line

Cable length	2.00 m
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### PROFINET robot CAT5 [93R]

Dimensional drawing	
Cable weight	55 kg/km
UL AWM Style	20233 (80°C/300 V)
Number of positions	4
Shielded	yes
Cable type	PROFINET robot CAT5 [93R]
Conductor structure	1x4xAWG22/19, S/TQ
Signal runtime	4.8 ns/m
Conductor structure signal line	19x 0.15 mm
AWG signal line	22
Conductor cross-section	4x 0.34 mm <sup>2</sup>
Wire diameter incl. insulation	1.5 mm
External cable diameter	6.50 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	green RAL 6018
Conductor material	Tin-plated Cu litz wires
Material wire insulation	Foamed PE
Single wire, color	white, yellow, blue, orange
Thickness, outer sheath	approx. 1.00 mm
Overall twist	Star quad
Optical shield covering	85 %
Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Nominal voltage, cable	300 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000.00 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	5 x D

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Smallest bending radius, fixed installation	33 mm
Dynamic load capacity (torsion)	Torsion: $\pm 180$ °/m, Torsion cycles: 1000000
Shield attenuation	2.9 dB (with 1 MHz)
	5 dB (at 4 MHz)
	8.1 dB (at 10 MHz)
	10.4 dB (at 16 MHz)
	11.9 dB (at 20 MHz)
	15.5 dB (at 31.25 MHz)
	26.5 dB (at 62.5 MHz)
	41 dB (at 100 MHz)
Halogen-free	according to IEC 60754-1
Flame resistance	according to IEC 60332-1-2
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	UV resistant (according to UL 1581, Section 1200)
Ambient temperature (operation)	-40 °C ... 80 °C
	-40 °C ... 80 °C
Ambient temperature (installation)	-20 °C ... 60 °C

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
	IP20

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## Drawings

Circuit diagram



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## Classifications

### ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

### ETIM

ETIM 9.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329)(CAS: 3147-75-9)
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