

FLK 14/16/EZ-DR/HF/ 250/S7 - Cable



2296951

<https://www.phoenixcontact.com/us/products/2296951>

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Assembled, halogen-free round cable; controller: SIMATIC® TOP connect; connection 1: IDC/FLK socket strip (1x 16-position); connection 2: IDC/FLK socket strip (1x 14-position); cable length: 2.5 m

Commercial data

Item number	2296951
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	C421
Product key	DK221S
GTIN	4017918733643
Weight per piece (including packing)	137.7 g
Weight per piece (excluding packing)	130.4 g
Customs tariff number	85444290
Country of origin	DE

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Technical data

Product properties

Product type	System cable
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP00
Degree of protection (Installation location)	≥ IP54 (Installation location)
Ambient temperature (operation) (fixed installation)	-40 °C ... 70 °C (fixed installation)
Ambient temperature (operation) (flexible installation)	-10 °C ... 70 °C (flexible installation)
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m

Electrical properties

Operating voltage (AC)	≤ 30 V AC
Operating voltage (DC)	≤ 60 V DC
Nominal operating mode	100% operating factor
Current (Per path, 50°C)	≤ 1 A (Uncoiled, see derating)
Current (Per path, 70°C)	≤ 0.6 A (Uncoiled, see derating)

Cable/line

Cable length	2.5 m
UL AWM Style	21946
Number of positions	14
Shielded	no
Conductor type	Assembled, halogen-free round cable
Conductor structure signal line	7x 0.16 mm
AWG signal line	26
Conductor cross section	14x 0.14 mm ²
Wire diameter incl. insulation	1 mm ±0.03 mm
External cable diameter	5.80 mm ±0.4 mm
Outer sheath, material	halogen-free (type 2)
External sheath, color	gray
Conductor material	Tin-plated Cu litz wires
Cable resistance	≤ 145 Ω/km (20 °C)
Insulation resistance	≥ 20 MΩ*km (20 °C)
Smallest bending radius, fixed installation	50 mm
Smallest bending radius, movable installation	93 mm
Dynamic load capacity (bending)	Max. bending cycles: 5000 (at a radius of ≥ 15x outside diameter)
Halogen-free	yes
	IEC 60332-1-2 (raw cable)

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Flame resistance	VDE 0842, Part 332-1-2 (raw cable) IEC 60332-3-22 (raw cable)
Resistance to oil	can withstand occasional splashes (raw cable)
Cable type	Cable for one module

Color code: Individual wire

white	IDC/FLK16 (1) = IDC/FLK14 (10)
violet	IDC/FLK16 (2) = IDC/FLK14 (8)
white-brown	IDC/FLK16 (3) = IDC/FLK14 (12)
blue	IDC/FLK16 (4) = IDC/FLK14 (7)
white-orange	IDC/FLK16 (5) = IDC/FLK14 (14)
green	IDC/FLK16 (6) = IDC/FLK14 (6)
yellow	IDC/FLK16 (8) = IDC/FLK14 (5)
gray	IDC/FLK16 (9) = IDC/FLK14 (9)
orange	IDC/FLK16 (10) = IDC/FLK14 (4)
white-black	IDC/FLK16 (11) = IDC/FLK14 (11)
red	IDC/FLK16 (12) = IDC/FLK14 (3)
white-red	IDC/FLK16 (13) = IDC/FLK14 (13)
brown	IDC/FLK16 (14) = IDC/FLK14 (2)
black	IDC/FLK16 (16) = IDC/FLK14 (1)

Connection data

Connection 1

Connection in acc. with standard	IEC 60603-13 (in compliance)
Connection method	IDC/FLK socket strip
Number of connections	1
Number of positions	16
Insertion/withdrawal cycles	> 50
Pitch	2.54 mm

Connection 2

Connection in acc. with standard	IEC 60603-13 (in compliance)
Connection method	IDC/FLK socket strip
Number of connections	1
Number of positions	14
Insertion/withdrawal cycles	> 50
Pitch	2.54 mm

Notes

Notes on operation	For proper use, the specifications of the installation directive (see Downloads) must be observed. For applications or use with third-party products, the specifications, and the safety and warning instructions of the respective third-party manufacturer must also be met.
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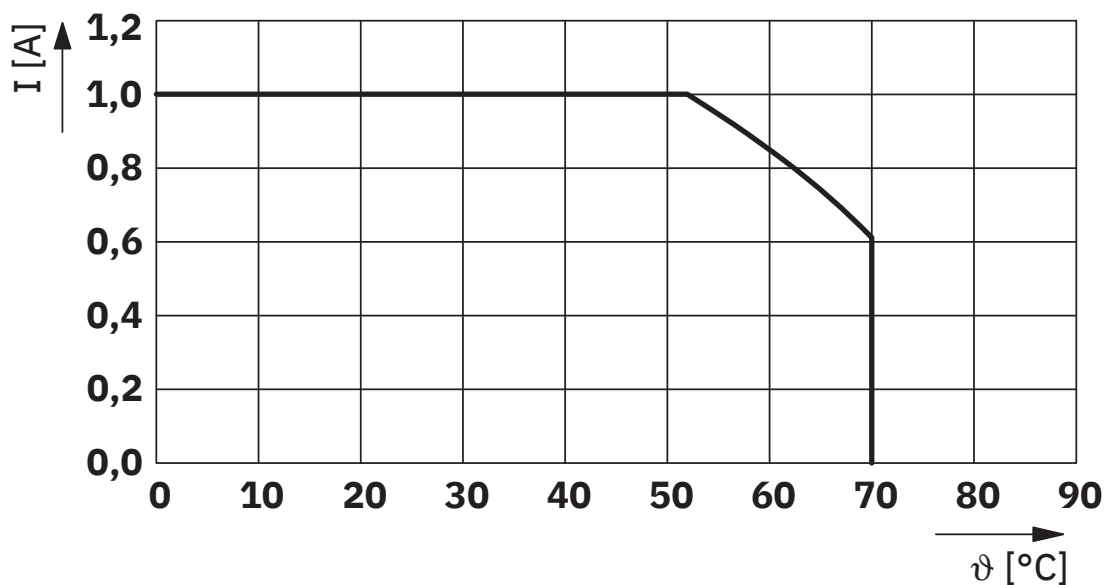
Drawings

Connection diagram

14-pos. Socket strip PIN	16-pos. Socket strip PIN	Wire color
1	16	Black
2	14	Brown
3	12	Red
4	10	Orange
5	8	Yellow
6	6	Green
7	4	Blue
8	2	Violet
9	9	Gray
10	1	White
11	11	White-black
12	3	White-brown
13	13	White-red
14	5	White-orange
	7	-
	15	-

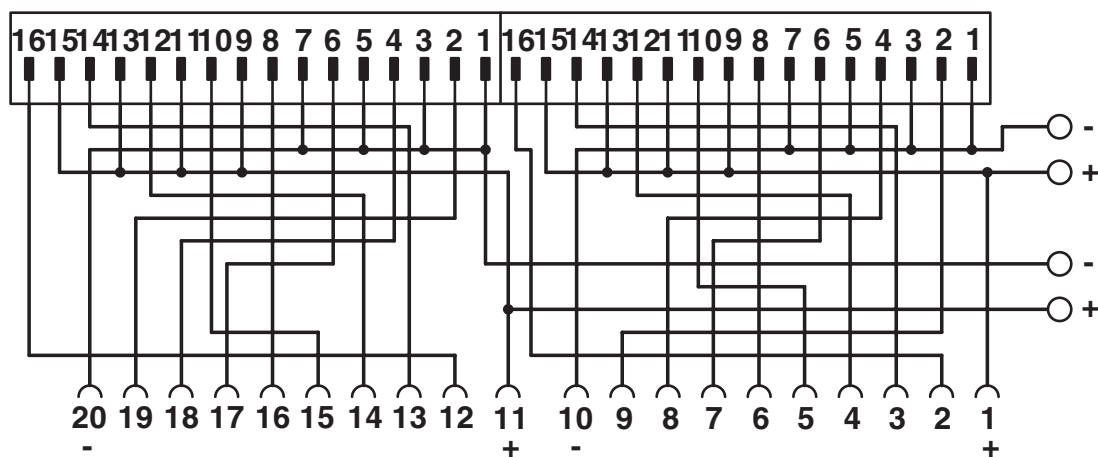
Pin assignment and color code

Diagram



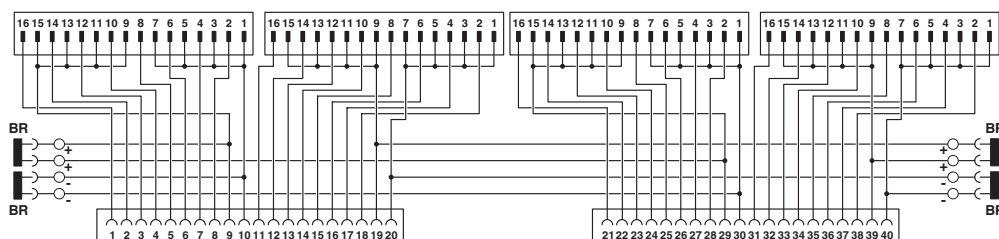
Maximum permissible current per path in uncoiled state

Circuit diagram



Pin assignment Siemens S7 front connector modules 6ES7 921-3...

Circuit diagram



Pin assignment of digital Siemens S7 front plug-in modules 6ES7 921-5AB20-0AA0 or 6ES7 921-5AH20-0AA0

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2296951>



EAC

Approval ID: RU*-DE.HB*35.B00385



UL Listed

Approval ID: E238705

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	125 V	1 A	-	-



cUL Listed

Approval ID: E238705

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	125 V	1 A	-	-

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Classifications

ECLASS

ECLASS-13.0	27242220
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ETIM

ETIM 9.0	EC000237
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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.)	No substance above 0.1 wt%
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