

# FLK 50/4X14/EZ-DR/ 300/KONFEK - Cable



2296728

<https://www.phoenixcontact.com/it/products/2296728>

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Round cable set; connection 1: IDC/FLK socket strip (1x 50-position); connection 2: IDC/FLK socket strip (4x 14-position); cable length: 3 m

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 2296728             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Sales key                            | CK2                 |
| Product key                          | CK2131              |
| Catalog page                         | Page 537 (C-5-2019) |
| GTIN                                 | 4017918593742       |
| Weight per piece (including packing) | 704.9 g             |
| Weight per piece (excluding packing) | 676.7 g             |
| Customs tariff number                | 85444290            |
| Country of origin                    | DE                  |

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## Technical data

### Product properties

|              |              |
|--------------|--------------|
| Product type | System cable |
|--------------|--------------|

### Environmental and real-life conditions

#### Ambient conditions

|                                              |                                                                                   |
|----------------------------------------------|-----------------------------------------------------------------------------------|
| Degree of protection                         | IP00                                                                              |
| Degree of protection (Installation location) | ≥ IP54 (Installation location)                                                    |
| Ambient temperature (operation)              | -40 °C ... 70 °C (fixed installation)<br>-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) |

#### Supported controller SIEMENS S7-1500

|                   |                    |
|-------------------|--------------------|
| Suitable I/O card | 6ES7521-1BL10-0AA0 |
|                   | 6ES7522-1BL10-0AA0 |
|                   | 6ES7523-1BL00-0AA0 |

#### Supported controller SIEMENS S7-400

|                   |                    |
|-------------------|--------------------|
| Suitable I/O card | 6ES7421-1BL01-0AA0 |
|                   | 6ES7422-1BL00-0AA0 |
|                   | 6ES7422-7BL00-0AB0 |

#### Supported controller ALLEN-BRADLEY ControlLogix

|                   |           |
|-------------------|-----------|
| Suitable I/O card | 1756-IB32 |
|                   | 1756-OB32 |

#### Supported controller ALLEN-BRADLEY PLC 5

|                   |          |
|-------------------|----------|
| Suitable I/O card | 1771 IBN |
|                   | 1771 OBN |

#### Supported controller HONEYWELL Experion PKS C200

|                   |            |
|-------------------|------------|
| Suitable I/O card | TC-IDD 321 |
|                   | TC-ODD 321 |

#### Supported controller SCHNEIDER ELECTRIC Modicon TSX QUANTUM

|                   |         |
|-------------------|---------|
| Suitable I/O card | DDI 353 |
|                   | DDI 853 |

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|  |         |
|--|---------|
|  | DAI 353 |
|  | DAI 453 |
|  | DDO 353 |

Supported controller SIEMENS S7-300 / ET 200 M

|                   |                    |
|-------------------|--------------------|
| Suitable I/O card | CPU 313C-2DP       |
|                   | CPU 314C-2PtP      |
|                   | 6ES7321-1BL00-0AA0 |
|                   | 6ES7322-1BL00-0AA0 |
|                   | 6ES7323-1BL00-0AA0 |
|                   | 6ES7331-7NF00-0AB0 |
|                   | 6ES7331-7PF01-0AB0 |
|                   | 6ES7331-7PF11-0AB0 |
|                   | 6ES7350-2AH01-0AE0 |
|                   | 6ES7357-4AH01-0AE0 |
|                   | CPU 314C-2DP       |
|                   | CPU 313C           |
|                   | CPU 313C-2PtP      |

## Cable/line

|              |     |
|--------------|-----|
| Cable length | 3 m |
|--------------|-----|

### 14X0.14 [PVC]

|                                               |                                              |
|-----------------------------------------------|----------------------------------------------|
| UL AWM Style                                  | 2464/1061                                    |
| Number of positions                           | 14                                           |
| Shielded                                      | no                                           |
| Cable type                                    | 14X0.14 [PVC]                                |
| Conductor type                                | Round cable set                              |
| Conductor structure signal line               | 7x 0.16 mm                                   |
| AWG signal line                               | 26                                           |
| Conductor cross section                       | 14x 0.14 mm <sup>2</sup>                     |
| Wire diameter incl. insulation                | 1 mm ±0.03 mm                                |
| External cable diameter                       | 6.40 mm ±0.4 mm                              |
| Outer sheath, material                        | Semi-rigid PVC                               |
| 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   | 55 mm                                        |
| Smallest bending radius, movable installation | 104 mm                                       |
| Max. bending cycles                           | 5000 (at a radius of ≥ 15x outside diameter) |
| Halogen-free                                  | no                                           |
| Flame resistance                              | IEC 60332-1-2 (raw cable)                    |
|                                               | VDE 0842, Part 332-1-2 (raw cable)           |
|                                               | IEC 60332-3-22 (raw cable)                   |

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|                   |                                               |
|-------------------|-----------------------------------------------|
|                   | UL VW-1                                       |
|                   | CSA FT-1                                      |
| Resistance to oil | can withstand occasional splashes (raw cable) |

## color code

|                |                                |
|----------------|--------------------------------|
| IDC/FLK50 (1)  | IDC/FLK14-1 (9) = gray         |
| IDC/FLK50 (2)  | IDC/FLK14-1 (11) = white-black |
| IDC/FLK50 (3)  | IDC/FLK14-1 (1) = black        |
| IDC/FLK50 (4)  | IDC/FLK14-1 (2) = brown        |
| IDC/FLK50 (5)  | IDC/FLK14-1 (3) = red          |
| IDC/FLK50 (6)  | IDC/FLK14-1 (4) = orange       |
| IDC/FLK50 (7)  | IDC/FLK14-1 (5) = yellow       |
| IDC/FLK50 (8)  | IDC/FLK14-1 (6) = green        |
| IDC/FLK50 (9)  | IDC/FLK14-1 (7) = blue         |
| IDC/FLK50 (10) | IDC/FLK14-1 (8) = violet       |
| IDC/FLK50 (11) | IDC/FLK14-1 (10) = white       |
| IDC/FLK50 (12) | IDC/FLK14-1 (12) = white-brown |
| IDC/FLK50 (13) | IDC/FLK14-2 (9) = gray         |
| IDC/FLK50 (14) | IDC/FLK14-2 (11) = white-black |
| IDC/FLK50 (15) | IDC/FLK14-2 (1) = black        |
| IDC/FLK50 (16) | IDC/FLK14-2 (2) = brown        |
| IDC/FLK50 (17) | IDC/FLK14-2 (3) = red          |
| IDC/FLK50 (18) | IDC/FLK14-2 (4) = orange       |
| IDC/FLK50 (19) | IDC/FLK14-2 (5) = yellow       |
| IDC/FLK50 (20) | IDC/FLK14-2 (6) = green        |
| IDC/FLK50 (21) | IDC/FLK14-2 (7) = blue         |
| IDC/FLK50 (22) | IDC/FLK14-2 (8) = violet       |
| IDC/FLK50 (23) | IDC/FLK14-2 (10) = white       |
| IDC/FLK50 (24) | IDC/FLK14-2 (12) = white-brown |
| IDC/FLK50 (25) | IDC/FLK14-3 (9) = gray         |
| IDC/FLK50 (26) | IDC/FLK14-3 (11) = white-black |
| IDC/FLK50 (27) | IDC/FLK14-3 (1) = black        |
| IDC/FLK50 (28) | IDC/FLK14-3 (2) = brown        |
| IDC/FLK50 (29) | IDC/FLK14-3 (3) = red          |
| IDC/FLK50 (30) | IDC/FLK14-3 (4) = orange       |
| IDC/FLK50 (31) | IDC/FLK14-3 (5) = yellow       |
| IDC/FLK50 (32) | IDC/FLK14-3 (6) = green        |
| IDC/FLK50 (33) | IDC/FLK14-3 (7) = blue         |
| IDC/FLK50 (34) | IDC/FLK14-3 (8) = violet       |
| IDC/FLK50 (35) | IDC/FLK14-3 (10) = white       |
| IDC/FLK50 (36) | IDC/FLK14-3 (12) = white-brown |
| IDC/FLK50 (37) | IDC/FLK14-4 (9) = gray         |
| IDC/FLK50 (38) | IDC/FLK14-4 (11) = white-black |
| IDC/FLK50 (39) | IDC/FLK14-4 (1) = black        |

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|                |                                |
|----------------|--------------------------------|
| IDC/FLK50 (40) | IDC/FLK14-4 (2) = brown        |
| IDC/FLK50 (41) | IDC/FLK14-4 (3) = red          |
| IDC/FLK50 (42) | IDC/FLK14-4 (4) = orange       |
| IDC/FLK50 (43) | IDC/FLK14-4 (5) = yellow       |
| IDC/FLK50 (44) | IDC/FLK14-4 (6) = green        |
| IDC/FLK50 (45) | IDC/FLK14-4 (7) = blue         |
| IDC/FLK50 (46) | IDC/FLK14-4 (8) = violet       |
| IDC/FLK50 (47) | IDC/FLK14-4 (10) = white       |
| IDC/FLK50 (48) | IDC/FLK14-4 (12) = white-brown |

## Connection data

### Connection 1

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

### Connection 2

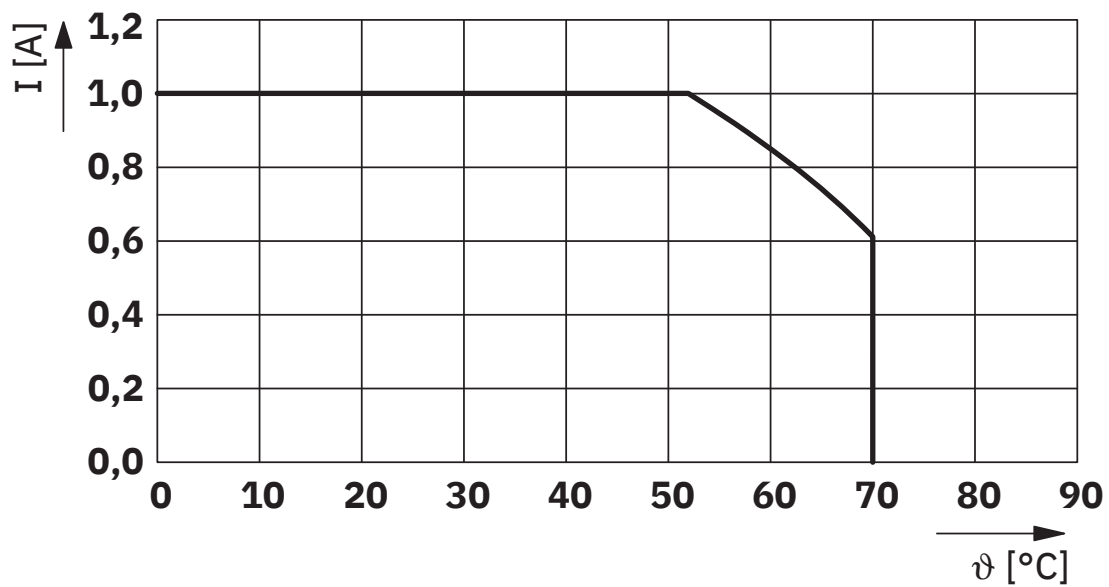
|                                  |                       |
|----------------------------------|-----------------------|
| Connection in acc. with standard | based on IEC 60603-13 |
| Connection method                | IDC/FLK socket strip  |
| Number of connections            | 4                     |
| Number of positions              | 14                    |
| Insertion/withdrawal cycles      | > 50                  |
| Pitch                            | 2.54 mm               |

## Notes

|         |                                                                                                                                                                                                                                                                                |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General | 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. |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Drawings

Diagram



Maximum permissible current per path in uncoiled state

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/it/products/2296728>



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

|                                                                                   |                                                |                       |                   |                             |
|-----------------------------------------------------------------------------------|------------------------------------------------|-----------------------|-------------------|-----------------------------|
|  | <b>UL Listed</b><br>Approval ID: FILE E 238705 |                       |                   |                             |
|                                                                                   | Nominal voltage $U_N$                          | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                   | 125 V                                          | 1 A                   | -                 | -                           |

|                                                                                   |                                                 |                       |                   |                             |
|-----------------------------------------------------------------------------------|-------------------------------------------------|-----------------------|-------------------|-----------------------------|
|  | <b>cUL Listed</b><br>Approval ID: FILE E 238705 |                       |                   |                             |
|                                                                                   | Nominal voltage $U_N$                           | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                   | 125 V                                           | 1 A                   | -                 | -                           |

**cULus Listed**

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27242220 |
| ECLASS-12.0 | 27242220 |
| ECLASS-13.0 | 27242220 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000237 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 26121600 |
|-------------|----------|



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## Environmental product compliance

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

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