

# Cable - FLK 50/4X14/EZ-DR/ 400/KONFEK



2296731

<https://www.phoenixcontact.com/us/products/2296731>

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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: 4 m

## Commercial Data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 2296731                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to Order (non-returnable) |
| Sales Key                            | C02                            |
| Product Key                          | CK2131                         |
| Catalog Page                         | Page 537 (C-5-2019)            |
| GTIN                                 | 4017918593759                  |
| Weight per Piece (including packing) | 944.6 g                        |
| Weight per Piece (excluding packing) | 944.6 g                        |
| Customs tariff number                | 85444290                       |
| Country of origin                    | DE                             |

## Technical Data

### Product properties

|                            |                       |
|----------------------------|-----------------------|
| Product type               | System cable          |
| Insulation characteristics |                       |
| Overvoltage category       | II                    |
| Pollution degree           | 2                     |
| Insulation                 | Functional insulation |

### Ambient conditions

|                                         |                                                                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------|
| Degree of protection                    | IP00<br>≥ 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

|                                         |                              |
|-----------------------------------------|------------------------------|
| Max. permissible operating voltage      | 25 V AC<br>60 V DC           |
| Nominal operating mode                  | 100% operating factor        |
| Max. current carrying capacity per path | 1 A (50 °C)<br>0.6 A (70 °C) |
| Rated insulation voltage                | 63 V                         |
| Rated surge voltage                     | 0.6 kV                       |

#### Supported controller SIEMENS S7-1500

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

#### Supported controller SIEMENS S7-400

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

#### Supported controller ALLEN-BRADLEY ControlLogix

|                   |                        |
|-------------------|------------------------|
| Suitable I/O card | 1756-IB32<br>1756-OB32 |
|-------------------|------------------------|

#### Supported controller ALLEN-BRADLEY PLC 5

|                   |                      |
|-------------------|----------------------|
| Suitable I/O card | 1771 IBN<br>1771 OBN |
|-------------------|----------------------|

#### Supported controller HONEYWELL Experion PKS C200

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|                   |            |
|-------------------|------------|
| 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 |
|                   | 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 | 4 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                     | 6.4 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                    |

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|                                               |                                                         |
|-----------------------------------------------|---------------------------------------------------------|
| Smallest bending radius, movable installation | 104 mm                                                  |
| Max. bending cycles                           | 5000 (at a radius of $\geq 15 \times$ 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)                              |
|                                               | UL VW-1                                                 |
|                                               | CSA FT-1                                                |
| Resistance to oil                             | can withstand occasional splashes (raw cable)           |
| Type                                          | Splitting cable for four modules                        |
| Cable, preassembly                            | Insulation displacement, IEC 60352-4/DIN EN 60352-4     |

## 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        |
| 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

### Field level

|                                  |                      |
|----------------------------------|----------------------|
| Connection in acc. with standard | 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              |

### Controller level

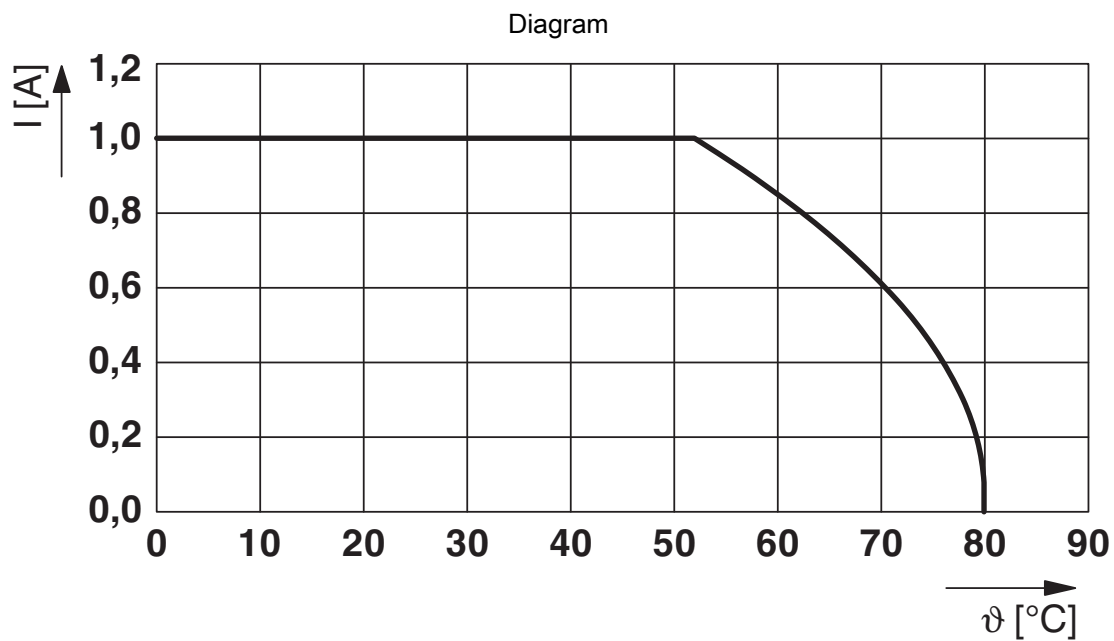
|                                  |                      |
|----------------------------------|----------------------|
| Connection in acc. with standard | IEC 60603-13         |
| Connection method                | IDC/FLK socket strip |
| Number of connections            | 1                    |
|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

## Standards and regulations

### Air clearances and creepage distances

|                       |              |
|-----------------------|--------------|
| Standards/regulations | DIN EN 50178 |
|-----------------------|--------------|

## Drawings



Maximum permissible current per path in uncoiled state

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## Approvals



### EAC

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



### UL Listed

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                   | -                 | -                           |



### cUL Listed

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-9.0    | 27242220 |
| ECLASS-10.0.1 | 27242220 |
| ECLASS-11.0   | 27242220 |

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | 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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## Accessories

### Cable marker carrier

Cable marker carrier - KME - 0807083

<https://www.phoenixcontact.com/us/products/0807083>



Cable marker carrier, white, unlabeled, mounting type: Assembly with cable ties, cable diameter: > 5 mm, lettering field size: 20 mm x 8 mm

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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)