

# FLKMIL-50/4FLK14/EZ-DR/1500/CS - Cable



2301503

<https://www.phoenixcontact.com/us/products/2301503>

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 documentation. Our general terms of use for downloads are valid.



Assembled shielded round cable; controller: Yokogawa CS3000 CentumVP (ADV561, ADV161); connection 1: IDC/FLK socket strip (1x 50-position); connection 2: IDC/FLK socket strip (4x 14-position); cable length: 15 m

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 2301503                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Product key                          | DK221N                         |
| GTIN                                 | 4017918960230                  |
| Weight per piece (including packing) | 2,255.8 g                      |
| Weight per piece (excluding packing) | 2.5 g                          |
| Country of origin                    | DE                             |

## 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) (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 (DC) | ≤ 30 V DC             |
| Nominal operating mode | 100% operating factor |
| Current (Per path)     | ≤ 500 mA (uncoiled)   |

#### Supported controller YOKOGAWA CS3000 CentumVP

|                   |        |
|-------------------|--------|
| Suitable I/O card | ADV161 |
|                   | ADV561 |

#### Supported controller YOKOGAWA STARDOM

|                   |         |
|-------------------|---------|
| Suitable I/O card | NFDV161 |
|                   | NFDV561 |

### Cable/line

|              |      |
|--------------|------|
| Cable length | 15 m |
|--------------|------|

#### 40X0.14 [PVC]

|                                 |                                |
|---------------------------------|--------------------------------|
| UL AWM Style                    | 2464/1061                      |
| Number of positions             | 40                             |
| Shielded                        | yes                            |
| Cable type                      | 40X0.14 [PVC]                  |
| Conductor type                  | Assembled shielded round cable |
| Conductor structure signal line | 7x 0.16 mm                     |
| AWG signal line                 | 26                             |
| Conductor cross section         | 40x 0.14 mm <sup>2</sup>       |
| Wire diameter incl. insulation  | 1 mm ±0.03 mm                  |
| External cable diameter         | 9.80 mm ±0.3 mm                |
| Outer sheath, material          | Semi-rigid PVC                 |
| External sheath, color          | gray                           |
| Conductor material              | Tin-plated Cu litz wires       |

# FLKMIL-50/4FLK14/EZ-DR/1500/CS - Cable



2301503

<https://www.phoenixcontact.com/us/products/2301503>

|                                               |                                                                   |
|-----------------------------------------------|-------------------------------------------------------------------|
| Cable resistance                              | ≤ 145 Ω/km (at 20 °C)                                             |
| Insulation resistance                         | ≥ 20 MΩ*km (20 °C)                                                |
| Smallest bending radius, fixed installation   | 101 mm                                                            |
| Smallest bending radius, movable installation | 182 mm                                                            |
| Dynamic load capacity (bending)               | Max. bending cycles: 5000 (at a radius of ≥ 18x 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)                     |
| Cable type                                    | Splitting cable for four modules                                  |

## 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              | 50                           |
| 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            | 4                            |
| 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. |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Drawings

Connection diagram

| 50-pos.<br>connector to<br>the I/O card | 4 x 14-pos.<br>connector to<br>the module |    | Wire color    |
|-----------------------------------------|-------------------------------------------|----|---------------|
| 1                                       | Byte 0                                    | 1  | black         |
| 3                                       |                                           | 2  | brown         |
| 5                                       |                                           | 3  | red           |
| 7                                       |                                           | 4  | orange        |
| 9                                       |                                           | 5  | yellow        |
| 11                                      |                                           | 6  | green         |
| 13                                      |                                           | 7  | blue          |
| 15                                      |                                           | 8  | Violet        |
| 41                                      |                                           | 9  | gray          |
| 39                                      |                                           | 10 | White         |
| 17                                      | Byte 1                                    | 1  | white-black   |
| 19                                      |                                           | 2  | white-brown   |
| 21                                      |                                           | 3  | white-red     |
| 23                                      |                                           | 4  | white-orange  |
| 25                                      |                                           | 5  | White-yellow  |
| 27                                      |                                           | 6  | white-green   |
| 29                                      |                                           | 7  | white-blue    |
| 31                                      |                                           | 8  | white-violet  |
| 43                                      |                                           | 9  | white-gray    |
| 37                                      |                                           | 10 | brown-black   |
| 2                                       | Byte 2                                    | 1  | brown-red     |
| 4                                       |                                           | 2  | brown-orange  |
| 6                                       |                                           | 3  | brown-yellow  |
| 8                                       |                                           | 4  | brown-green   |
| 10                                      |                                           | 5  | brown-blue    |
| 12                                      |                                           | 6  | brown-violet  |
| 14                                      |                                           | 7  | brown-gray    |
| 16                                      |                                           | 8  | brown-white   |
| 42                                      |                                           | 9  | green-black   |
| 36                                      |                                           | 10 | green-brown   |
| 18                                      | Byte 3                                    | 1  | green-red     |
| 20                                      |                                           | 2  | green-orange  |
| 22                                      |                                           | 3  | green-blue    |
| 24                                      |                                           | 4  | green-violet  |
| 26                                      |                                           | 5  | green-gray    |
| 28                                      |                                           | 6  | green-white   |
| 30                                      |                                           | 7  | yellow-black  |
| 32                                      |                                           | 8  | yellow-brown  |
| 44                                      |                                           | 9  | yellow-red    |
| 34                                      |                                           | 10 | yellow-orange |

# FLKMIL-50/4FLK14/EZ-DR/1500/CS - Cable



2301503

<https://www.phoenixcontact.com/us/products/2301503>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2301503>



**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 $\text{mm}^2$ |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine |                       |                       |                   |                             |
|       | 125 V                 | 0.5 A                 | -                 | -                           |



**cUL Listed**

Approval ID: E238705

|       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine |                       |                       |                   |                             |
|       | 125 V                 | 0.5 A                 | -                 | -                           |

# FLKMIL-50/4FLK14/EZ-DR/1500/CS - Cable



2301503

<https://www.phoenixcontact.com/us/products/2301503>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27242220 |
| ECLASS-15.0 | 27242220 |

### ETIM

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

### UNSPSC

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

# FLKMIL-50/4FLK14/EZ-DR/1500/CS - Cable



2301503

<https://www.phoenixcontact.com/us/products/2301503>

## Environmental product compliance

### EU RoHS

|                                         |                    |
|-----------------------------------------|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|-----------------------------------------|--------------------|

### 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% |
|-------------------------------------|----------------------------|

Phoenix Contact 2025 © - all rights reserved  
<https://www.phoenixcontact.com>

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