

# FLK 50/EZ-DR/D37SUB/100/X81-I - Cable



2302654

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Round cable set; controller: Mitsubishi Electric MELSEC Q (X81); connection 1: D-SUB socket strip (1x 37-position); connection 2: IDC/FLK socket strip (1x 50-position); cable length: 1 m

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 2302654                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | C421                           |
| Product key                          | DK226M                         |
| GTIN                                 | 4017918910297                  |
| Weight per piece (including packing) | 290 g                          |
| Weight per piece (excluding packing) | 284.8 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) (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) |

Supported controller: MITSUBISHI MELSEC Q

|                   |      |
|-------------------|------|
| Suitable I/O card | QX81 |
|-------------------|------|

### Cable/line

|              |     |
|--------------|-----|
| Cable length | 1 m |
|--------------|-----|

#### 50X0.14 [PVC]

|   |                          |
|---|--------------------------|
| UL AWM Style                                | 2464/1061                |
| Number of positions                         | 50                       |
| Shielded                                    | no                       |
| Cable type                                  | 50X0.14 [PVC]            |
| Conductor type                              | Round cable set          |
| Conductor structure signal line             | 7x 0.16 mm               |
| AWG signal line                             | 26                       |
| Conductor cross-section                     | 50x 0.14 mm <sup>2</sup> |
| Wire diameter incl. insulation              | 1 mm ±0.03 mm            |
| External cable diameter                     | 10.30 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 | 86 mm                    |

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|   |  |
|---|--|
| Smallest bending radius, movable installation | 161 mm   |
| Dynamic load capacity (bending)               | Max. bending cycles: 5000 (at a radius of $\geq 15x$ 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)   |
|   | UL VW-1  |
|   | CSA FT-1   |
| Resistance to oil                             | can withstand occasional splashes (raw cable)                          |
| Cable type                                    | Cable for one module   |

Color code: Single-core wire

|              |                               |
|--------------|-------------------------------|
| black        | D-SUB37 (1) = IDC/FLK50 (3)   |
| brown        | D-SUB37 (20) = IDC/FLK50 (4)  |
| red          | D-SUB37 (2) = IDC/FLK50 (5)   |
| orange       | D-SUB37 (21) = IDC/FLK50 (6)  |
| yellow       | D-SUB37 (3) = IDC/FLK50 (7)   |
| green        | D-SUB37 (22) = IDC/FLK50 (8)  |
| blue         | D-SUB37 (4) = IDC/FLK50 (9)   |
| violet       | D-SUB37 (23) = IDC/FLK50 (10) |
| gray         | D-SUB37 (17) = IDC/FLK50 (11) |
| white        | D-SUB37 (18) = IDC/FLK50 (12) |
| white-black  | D-SUB37 (5) = IDC/FLK50 (15)  |
| white-brown  | D-SUB37 (24) = IDC/FLK50 (16) |
| white-red    | D-SUB37 (6) = IDC/FLK50 (17)  |
| white-orange | D-SUB37 (25) = IDC/FLK50 (18) |
| white-yellow | D-SUB37 (7) = IDC/FLK50 (19)  |
| white-green  | D-SUB37 (26) = IDC/FLK50 (20) |
| white-blue   | D-SUB37 (8) = IDC/FLK50 (21)  |
| white-violet | D-SUB37 (27) = IDC/FLK50 (22) |
| white-gray   | D-SUB37 (17) = IDC/FLK50 (23) |
| brown-black  | D-SUB37 (18) = IDC/FLK50 (24) |
| brown-red    | D-SUB37 (9) = IDC/FLK50 (27)  |
| brown-orange | D-SUB37 (28) = IDC/FLK50 (28) |
| brown-yellow | D-SUB37 (10) = IDC/FLK50 (29) |
| brown-green  | D-SUB37 (29) = IDC/FLK50 (30) |
| brown-blue   | D-SUB37 (11) = IDC/FLK50 (31) |
| brown-violet | D-SUB37 (30) = IDC/FLK50 (32) |
| brown-gray   | D-SUB37 (12) = IDC/FLK50 (33) |
| brown-white  | D-SUB37 (31) = IDC/FLK50 (34) |
| green-black  | D-SUB37 (17) = IDC/FLK50 (35) |
| green-brown  | D-SUB37 (18) = IDC/FLK50 (36) |
| green-red    | D-SUB37 (13) = IDC/FLK50 (39) |

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|               |                               |
|---------------|-------------------------------|
| green-orange  | D-SUB37 (32) = IDC/FLK50 (40) |
| green-blue    | D-SUB37 (14) = IDC/FLK50 (41) |
| green-violet  | D-SUB37 (33) = IDC/FLK50 (42) |
| green-gray    | D-SUB37 (15) = IDC/FLK50 (43) |
| green-white   | D-SUB37 (34) = IDC/FLK50 (44) |
| yellow-black  | D-SUB37 (16) = IDC/FLK50 (45) |
| yellow-brown  | D-SUB37 (35) = IDC/FLK50 (46) |
| yellow-red    | D-SUB37 (36) = IDC/FLK50 (47) |
| yellow-orange | D-SUB37 (36) = IDC/FLK50 (48) |

## Connection data

### Connection 1

|                                  |                    |
|----------------------------------|--------------------|
| Connection in acc. with standard | IEC 60807-2        |
|                                  | DIN 41652          |
| Connection method                | D-SUB socket strip |
| Screw thread                     | UNC 4-40           |
|                                  | M2,5               |
| Number of connections            | 1                  |
| Number of positions              | 37                 |
| Tightening torque                | 0.2 Nm             |
| Insertion/withdrawal cycles      | > 200              |
| Pitch                            | 2.77 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              | 50                           |
| 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

Diagram



Maximum permissible current per path in uncoiled state

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## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

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## Environmental product compliance

### EU RoHS

|   |      |
|---|------|
| Fulfills EU RoHS substance requirements | Yes  |
| Exemption                               | 6(c) |

### China RoHS

|  |   |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50   |
|  | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

### EU REACH SVHC

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1)                 |
| SCIP                                | e6b18e30-b9ba-4449-a92d-7b4c5b6757dd |

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