# FLK 50/EZ-DR/D37SUB/200/X81-I - Cable

2302667

https://www.phoenixcontact.com/us/products/2302667

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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: 2 m

## Commercial data

| | |
|---|---|
| Item number | 2302667 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | C421 |
| Product key | DK226M |
| GTIN | 4017918910303 |
| Weight per piece (including packing) | 423 g |
| Weight per piece (excluding packing) | 418 g |
| Customs tariff number | 85444290 |
| 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

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|---|---|
| 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

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

## Cable/line

| | |
|---|---|
| Cable length | 2 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 mm² |
| 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 |

| | |
|---|---|
| Smallest bending radius, movable installation | 161 mm |
| Dynamic load capacity (bending) | 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) |
| | 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) |

| | |
|---|---|
| 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

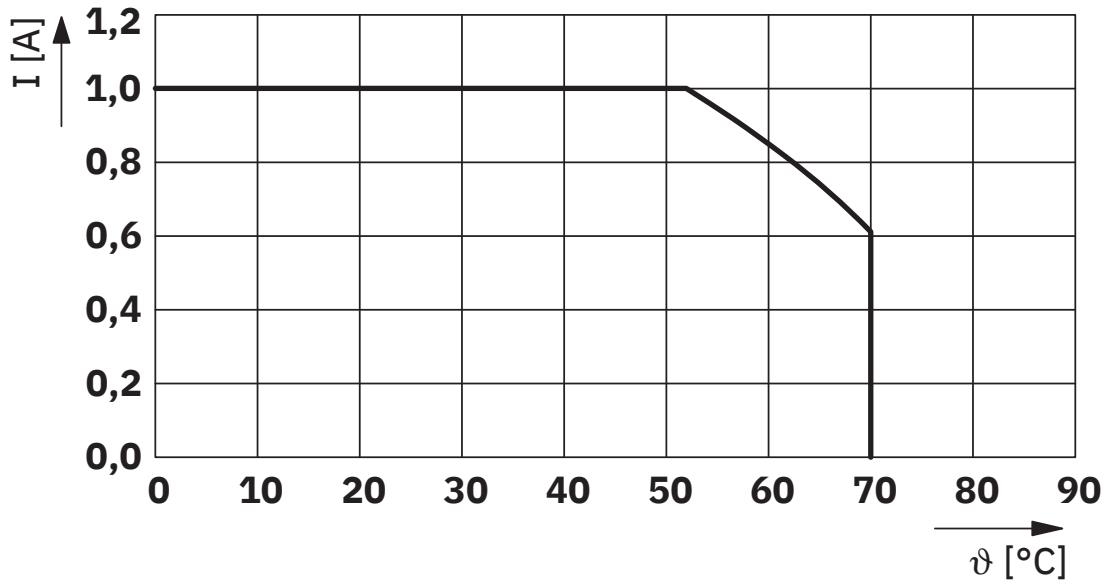
| | |
|---|---|
| Connection in acc. with standard | IEC 60603-13 (in compliance) |
| Connection method | IDC/FLK socket strip |
| Number of connections | 1 |
| Number of positions | 50 |
| Insertion/withdrawal cycles | > 50 |
| Pitch | 2.54 mm |

## Notes

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|---|---|
| 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

## Classifications

### ECLASS

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

### ETIM

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| ETIM 9.0 | EC000237 |

### UNSPSC

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

## Environmental product compliance

EU RoHS

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

China RoHS

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|---|---|
| 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 | 71338f9f-1958-4bea-9143-5bae63f35a25 |

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