

# CABLE-FCN40/1X50/ 2,0M/IP/MEL - Cable



2903478

<https://www.phoenixcontact.com/pc/products/2903478>

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Round cable set; controller: Mitsubishi Electric MELSEC L, MELSEC Q, Honeywell MasterLogic ML200; connection 1: Fujitsu connector (1x 40-position); connection 2: IDC/FLK socket strip (1x 50-position); cable length: 2 m

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 2903478                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Product key                          | CK226M                         |
| Catalog page                         | Page 483 (C-5-2019)            |
| GTIN                                 | 4046356743297                  |
| Weight per piece (including packing) | 251.7 g                        |
| Weight per piece (excluding packing) | 101 g                          |
| Customs tariff number                | 85444290                       |
| Country of origin                    | DE                             |

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## Technical data

### Product properties

|                        |              |
|------------------------|--------------|
| Product type           | System cable |
| Data management status |              |
| Article revision       | 03           |

### 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 MITSUBISHI MELSEC Q

|                   |         |
|-------------------|---------|
| Suitable I/O card | QX71    |
|                   | QX72    |
|                   | QX82    |
|                   | QX82-S1 |

#### Supported controller MITSUBISHI MELSEC L

|                   |        |
|-------------------|--------|
| Suitable I/O card | LX41C4 |
|                   | LX42C4 |

#### Supported controller HONEYWELL MasterLogic 200

|                   |           |
|-------------------|-----------|
| Suitable I/O card | 2MLI-D24A |
|                   | 2MLI-D28B |
|                   | 2MLF-SOEA |

### Cable/line

|                     |           |
|---------------------|-----------|
| Cable length        | 2 m       |
| 34X0.14 [PVC]       |           |
| UL AWM Style        | 2464/1061 |
| Number of positions | 34        |

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|                                               |                                               |
|-----------------------------------------------|-----------------------------------------------|
| Shielded                                      | no                                            |
| Cable type                                    | 34X0.14 [PVC]                                 |
| Conductor type                                | Round cable set                               |
| Conductor structure signal line               | 7x 0.16 mm                                    |
| AWG signal line                               | 26                                            |
| Conductor cross section                       | 34x 0.14 mm <sup>2</sup>                      |
| Wire diameter incl. insulation                | 1 mm ±0.03 mm                                 |
| External cable diameter                       | 8.70 mm ±0.3 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   | 72 mm                                         |
| Smallest bending radius, movable installation | 135 mm                                        |
| 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

|              |                                  |
|--------------|----------------------------------|
| black        | Fujitsu40 (B1) = IDC/FLK50 (11)  |
| brown        | Fujitsu40 (B2) = IDC/FLK50 (48)  |
| red          | Fujitsu40 (A5) = IDC/FLK50 (46)  |
| orange       | Fujitsu40 (B5) = IDC/FLK50 (22)  |
| yellow       | Fujitsu40 (A6) = IDC/FLK50 (45)  |
| green        | Fujitsu40 (B6) = IDC/FLK50 (21)  |
| blue         | Fujitsu40 (A7) = IDC/FLK50 (44)  |
| violet       | Fujitsu40 (B7) = IDC/FLK50 (20)  |
| gray         | Fujitsu40 (A8) = IDC/FLK50 (43)  |
| white        | Fujitsu40 (B8) = IDC/FLK50 (19)  |
| white-black  | Fujitsu40 (A9) = IDC/FLK50 (42)  |
| white-brown  | Fujitsu40 (B9) = IDC/FLK50 (18)  |
| white-red    | Fujitsu40 (A10) = IDC/FLK50 (41) |
| white-orange | Fujitsu40 (B10) = IDC/FLK50 (17) |
| white-yellow | Fujitsu40 (A11) = IDC/FLK50 (40) |
| white-green  | Fujitsu40 (B11) = IDC/FLK50 (16) |
| white-blue   | Fujitsu40 (A12) = IDC/FLK50 (39) |
| white-violet | Fujitsu40 (B12) = IDC/FLK50 (15) |
| white-gray   | Fujitsu40 (A13) = IDC/FLK50 (34) |

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|              |                                  |
|--------------|----------------------------------|
| brown-black  | Fujitsu40 (B13) = IDC/FLK50 (10) |
| brown-red    | Fujitsu40 (A14) = IDC/FLK50 (33) |
| brown-orange | Fujitsu40 (B14) = IDC/FLK50 (9)  |
| brown-yellow | Fujitsu40 (A15) = IDC/FLK50 (32) |
| brown-green  | Fujitsu40 (B15) = IDC/FLK50 (8)  |
| brown-blue   | Fujitsu40 (A16) = IDC/FLK50 (31) |
| brown-violet | Fujitsu40 (B16) = IDC/FLK50 (7)  |
| brown-gray   | Fujitsu40 (A17) = IDC/FLK50 (30) |
| brown-white  | Fujitsu40 (B17) = IDC/FLK50 (6)  |
| green-black  | Fujitsu40 (A18) = IDC/FLK50 (29) |
| green-brown  | Fujitsu40 (B18) = IDC/FLK50 (5)  |
| green-red    | Fujitsu40 (A19) = IDC/FLK50 (28) |
| green-orange | Fujitsu40 (B19) = IDC/FLK50 (4)  |
| green-blue   | Fujitsu40 (A20) = IDC/FLK50 (27) |
| green-violet | Fujitsu40 (B20) = IDC/FLK50 (3)  |

## Connection data

### Connection 1

|                             |                   |
|-----------------------------|-------------------|
| Connection method           | Fujitsu connector |
| Type                        | FCN 367           |
| Number of connections       | 1                 |
| Number of positions         | 40                |
| Insertion/withdrawal cycles | > 50              |
| Pitch                       | 2.54 mm           |

### Connection 2

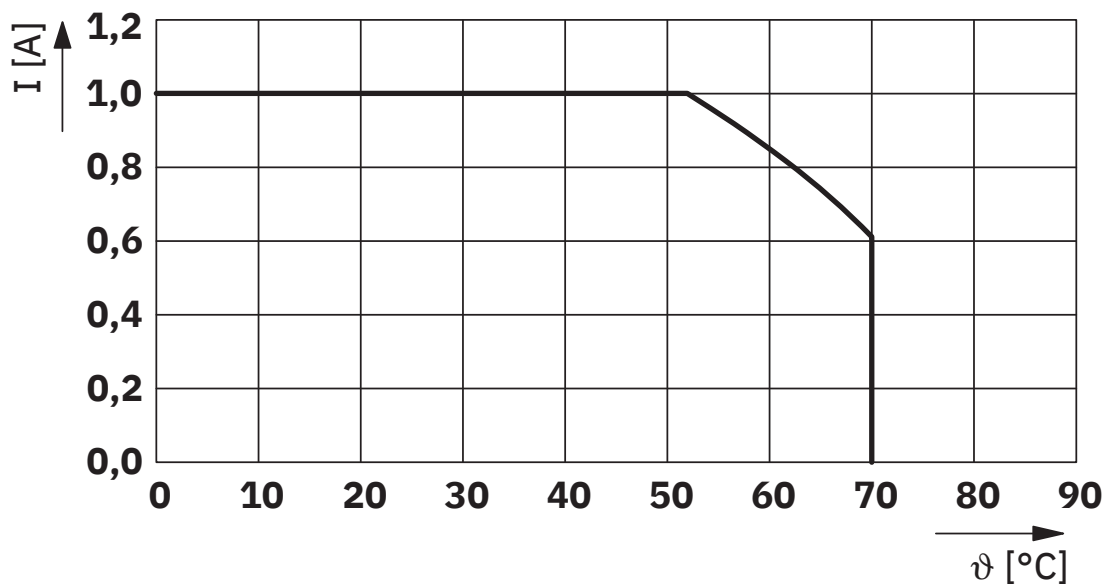
|                                  |                       |
|----------------------------------|-----------------------|
| Connection in acc. with standard | based on IEC 60603-13 |
| Connection method                | IDC/FLK socket strip  |
| Number of connections            | 1                     |
| 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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Connection diagram

| Fujitsu<br>FCN 40 | FLK 50 | Fujitsu<br>FCN 40 | FLK 50                          |
|-------------------|--------|-------------------|---------------------------------|
| PIN A1            |        | PIN B16           | PIN 7                           |
| PIN B1            | PIN 11 | PIN A17           | PIN 30                          |
| PIN A2            |        | PIN B17           | PIN 6                           |
| PIN B2            | PIN 48 | PIN A18           | PIN 29                          |
| PIN A3            |        | PIN B18           | PIN 5                           |
| PIN B3            |        | PIN A19           | PIN 28                          |
| PIN A4            |        | PIN B19           | PIN 4                           |
| PIN B4            |        | PIN A20           | PIN 27                          |
| PIN A5            | PIN 46 | PIN B20           | PIN 3                           |
| PIN B5            | PIN 22 |                   | PIN 12 <input type="checkbox"/> |
| PIN A6            | PIN 45 |                   | PIN 23 <input type="checkbox"/> |
| PIN B6            | PIN 21 |                   | PIN 24 <input type="checkbox"/> |
| PIN A7            | PIN 44 |                   | PIN 35 <input type="checkbox"/> |
| PIN B7            | PIN 20 |                   | PIN 36 <input type="checkbox"/> |
| PIN A8            | PIN 43 |                   | PIN 47 <input type="checkbox"/> |
| PIN B8            | PIN 19 |                   |                                 |
| PIN A9            | PIN 42 |                   |                                 |
| PIN B9            | PIN 18 |                   |                                 |
| PIN A10           | PIN 41 |                   |                                 |
| PIN B10           | PIN 17 |                   |                                 |
| PIN A11           | PIN 40 |                   |                                 |
| PIN B11           | PIN 16 |                   |                                 |
| PIN A12           | PIN 39 |                   |                                 |
| PIN B12           | PIN 15 |                   |                                 |
| PIN A13           | PIN 34 |                   |                                 |
| PIN B13           | PIN 10 |                   |                                 |
| PIN A14           | PIN 33 |                   |                                 |
| PIN B14           | PIN 9  |                   |                                 |
| PIN A15           | PIN 32 |                   |                                 |
| PIN B15           | PIN 8  |                   |                                 |
| PIN A16           | PIN 31 |                   |                                 |

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/2903478>



**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 $\text{mm}^2$ |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | 125 V                 | 1 A                   | -                 | -                           |



**cUL Listed**

Approval ID: E238705

|  | 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

|                                         |                                                                                                                                                                                                                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                    | be012907-a0b7-4ed1-bde5-0e156157240a                                                                                                                                                                                              |

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