

# FLK 50/EZ-DR/D37SUB/ 50/Y81P-O - Cable



2302599

<https://www.phoenixcontact.com/gb/products/2302599>

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Round cable set; controller: Mitsubishi Electric MELSEC Q (Y81P); connection 1: D-SUB socket strip (1x 37-position); connection 2: IDC/FLK socket strip (1x 50-position); cable length: 0.5 m

## Commercial data

Item number	2302599
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	DK226M
Product key	DK226M
Catalog page	Page 482 (C-5-2019)
GTIN	4017918910273
Weight per piece (including packing)	233.9 g
Weight per piece (excluding packing)	225.6 g
Customs tariff number	85444290
Country of origin	DE

## Technical data

### Product properties

Product type	System cable
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### 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)
	-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	QY81P
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### Cable/line

Cable length	0.5 m
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#### 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

black	D-SUB37 (17) = IDC/FLK50 (1)
brown	D-SUB37 (18) = IDC/FLK50 (2)
red	D-SUB37 (1) = IDC/FLK50 (3)
orange	D-SUB37 (20) = IDC/FLK50 (4)
yellow	D-SUB37 (2) = IDC/FLK50 (5)
green	D-SUB37 (21) = IDC/FLK50 (6)
blue	D-SUB37 (3) = IDC/FLK50 (7)
violet	D-SUB37 (22) = IDC/FLK50 (8)
gray	D-SUB37 (4) = IDC/FLK50 (9)
white	D-SUB37 (23) = IDC/FLK50 (10)
white-black	D-SUB37 (19) = IDC/FLK50 (11)
white-brown	D-SUB37 (37) = IDC/FLK50 (12)
white-red	D-SUB37 (17) = IDC/FLK50 (13)
white-orange	D-SUB37 (18) = IDC/FLK50 (14)
white-yellow	D-SUB37 (5) = IDC/FLK50 (15)
white-green	D-SUB37 (24) = IDC/FLK50 (16)
white-blue	D-SUB37 (6) = IDC/FLK50 (17)
white-violet	D-SUB37 (25) = IDC/FLK50 (18)
white-gray	D-SUB37 (7) = IDC/FLK50 (19)
brown-black	D-SUB37 (26) = IDC/FLK50 (20)
brown-red	D-SUB37 (8) = IDC/FLK50 (21)
brown-orange	D-SUB37 (27) = IDC/FLK50 (22)
brown-yellow	D-SUB37 (19) = IDC/FLK50 (23)
brown-green	D-SUB37 (37) = IDC/FLK50 (24)
brown-blue	D-SUB37 (17) = IDC/FLK50 (25)
brown-violet	D-SUB37 (36) = IDC/FLK50 (26)
brown-gray	D-SUB37 (9) = IDC/FLK50 (27)
brown-white	D-SUB37 (28) = IDC/FLK50 (28)
green-black	D-SUB37 (10) = IDC/FLK50 (29)
green-brown	D-SUB37 (29) = IDC/FLK50 (30)
green-red	D-SUB37 (11) = IDC/FLK50 (31)

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green-orange	D-SUB37 (30) = IDC/FLK50 (32)
green-blue	D-SUB37 (12) = IDC/FLK50 (33)
green-violet	D-SUB37 (31) = IDC/FLK50 (34)
green-gray	D-SUB37 (19) = IDC/FLK50 (35)
green-white	D-SUB37 (37) = IDC/FLK50 (36)
yellow-black	D-SUB37 (36) = IDC/FLK50 (37)
yellow-brown	D-SUB37 (18) = IDC/FLK50 (38)
yellow-red	D-SUB37 (13) = IDC/FLK50 (39)
yellow-orange	D-SUB37 (32) = IDC/FLK50 (40)
yellow-blue	D-SUB37 (14) = IDC/FLK50 (41)
yellow-violet	D-SUB37 (33) = IDC/FLK50 (42)
yellow-gray	D-SUB37 (15) = IDC/FLK50 (43)
yellow-white	D-SUB37 (34) = IDC/FLK50 (44)
gray-black	D-SUB37 (16) = IDC/FLK50 (45)
gray-brown	D-SUB37 (35) = IDC/FLK50 (46)
gray-red	D-SUB37 (19) = IDC/FLK50 (47)
gray-orange	D-SUB37 (37) = 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

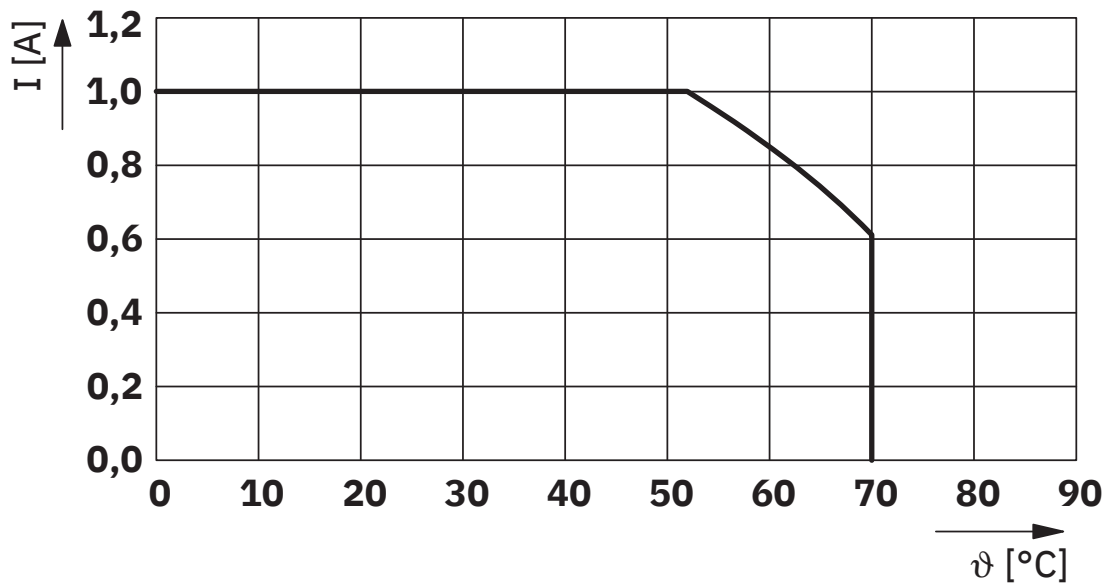
Connection in acc. with standard	IEC 60603-13 (in compliance)
Connection method	IDC/FLK socket strip
Number of connections	1
Number of positions	50
Insertion/withdrawal cycles	> 50
Pitch	2.54 mm

## 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.
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Drawings

Diagram



Maximum permissible current per path in uncoiled state

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2302599>



### 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 $mm^2$
	125 V	1 A	-	-



### cUL Listed

Approval ID: E238705

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
	125 V	1 A	-	-

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## Classifications

### ECLASS

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	0910cb4d-f2ba-4649-a0f5-4eefef78e1ff

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