

# CABLE-FCN40/1X50/ 8,0M/S7-IN - Cable



2321156  
<https://www.phoenixcontact.com/us/products/2321156>

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Round cable set; controller: Siemens S7-300 (6ES7 321-1BP00-0AA0, plus-reading operation); connection 1: Fujitsu connector (1x 40-position); connection 2: IDC/FLK socket strip (1x 50-position); cable length: 8 m

## Your advantages

- Signal transfer of 1 x 32 channels
- System cable: 40-pos. connector to 50-pos. flat-ribbon cable strip

## Commercial data

Item number	2321156
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	C421
Product key	DK226S
GTIN	4046356331883
Weight per piece (including packing)	1,140 g
Weight per piece (excluding packing)	1,000 g
Customs tariff number	85444290
Country of origin	DE

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## Technical data

### Product properties

Product type	System cable
Insulation characteristics: Air clearances and creepage distances	
Insulation	Functional insulation
Overvoltage category	II
Pollution degree	2

### 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)	≤ 25 V AC
Operating voltage (DC)	≤ 60 V DC
Nominal operating mode	100% operating factor
Current (Per path, 50°C)	≤ 1 A
Current (Per path, 70°C)	≤ 0.6 A

#### Air clearances and creepage distances

Rated insulation voltage	63 V
Rated surge voltage	0.6 kV

#### Supported controller SIEMENS S7-300

Suitable I/O card	6ES7321-1BP00-0AA0
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### Cable/line

Cable length	8 m
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#### 40X0.14 [PVC]

UL AWM Style	2464/1061
Number of positions	40
Shielded	no
Cable type	40X0.14 [PVC]
Conductor type	Round cable set
Conductor structure signal line	7x 0.16 mm
AWG signal line	26
Conductor cross section	40x 0.14 mm²

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Wire diameter incl. insulation	1 mm ±0.03 mm
External cable diameter	9.90 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	82 mm
Smallest bending radius, movable installation	155 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	Fujitsu40 (A1) = IDC/FLK50 (3)
red	Fujitsu40 (A2) = IDC/FLK50 (4)
yellow	Fujitsu40 (A3) = IDC/FLK50 (5)
blue	Fujitsu40 (A4) = IDC/FLK50 (6)
gray	Fujitsu40 (A5) = IDC/FLK50 (7)
white-black	Fujitsu40 (A6) = IDC/FLK50 (8)
white-red	Fujitsu40 (A7) = IDC/FLK50 (9)
white-yellow	Fujitsu40 (A8) = IDC/FLK50 (10)
white-blue	Fujitsu40 (A9) = IDC/FLK50 (11)
white-gray	Fujitsu40 (A10) = IDC/FLK50 (15)
brown-red	Fujitsu40 (A11) = IDC/FLK50 (16)
brown-yellow	Fujitsu40 (A12) = IDC/FLK50 (17)
brown-blue	Fujitsu40 (A13) = IDC/FLK50 (18)
brown-gray	Fujitsu40 (A14) = IDC/FLK50 (19)
green-black	Fujitsu40 (A15) = IDC/FLK50 (20)
green-red	Fujitsu40 (A16) = IDC/FLK50 (21)
green-blue	Fujitsu40 (A17) = IDC/FLK50 (22)
green-gray	Fujitsu40 (A18) = IDC/FLK50 (23)
yellow-black	Fujitsu40 (A19) = IDC/FLK50 ( )
yellow-red	Fujitsu40 (A20) = IDC/FLK50 ( )
brown	Fujitsu40 (B1) = IDC/FLK50 (27)
orange	Fujitsu40 (B2) = IDC/FLK50 (28)
green	Fujitsu40 (B3) = IDC/FLK50 (29)

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violet	Fujitsu40 (B4) = IDC/FLK50 (30)
white	Fujitsu40 (B5) = IDC/FLK50 (31)
white-brown	Fujitsu40 (B6) = IDC/FLK50 (32)
white-orange	Fujitsu40 (B7) = IDC/FLK50 (33)
white-green	Fujitsu40 (B8) = IDC/FLK50 (34)
white-violet	Fujitsu40 (B9) = IDC/FLK50 (35)
brown-black	Fujitsu40 (B10) = IDC/FLK50 (39)
brown-orange	Fujitsu40 (B11) = IDC/FLK50 (40)
brown-green	Fujitsu40 (B12) = IDC/FLK50 (41)
brown-violet	Fujitsu40 (B13) = IDC/FLK50 (42)
brown-white	Fujitsu40 (B14) = IDC/FLK50 (43)
green-brown	Fujitsu40 (B15) = IDC/FLK50 (44)
green-orange	Fujitsu40 (B16) = IDC/FLK50 (45)
green-violet	Fujitsu40 (B17) = IDC/FLK50 (46)
green-white	Fujitsu40 (B18) = IDC/FLK50 (47)
yellow-brown	Fujitsu40 (B19) = IDC/FLK50 ()
yellow-orange	Fujitsu40 (B20) = IDC/FLK50 ()

## Connection data

### Field level

Connection in acc. with standard	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

### Controller level

Connection method	Fujitsu connector
Number of connections	1
Number of positions	40
Insertion/withdrawal cycles	> 50

## Standards and regulations

### Air clearances and creepage distances

Standards/regulations	DIN EN 50178
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## 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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## Classifications

### UNSPSC

UNSPSC 21.0	26121620
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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)
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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)