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Assembled, halogen-free round cable; connection 1: IDC/FLK socket strip (1x 50-position); connection 2: IDC/FLK socket strip (1x 50-position); cable length: 8 m

Commercial data

Item number	2314231
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C421
Product key	CK2133
Catalog page	Page 565 (C-5-2019)
GTIN	4046356099806
Weight per piece (including packing)	1,261 g
Weight per piece (excluding packing)	1,261 g
Customs tariff number	85444290
Country of origin	DE

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Technical data

Product properties

Product type	System cable
Insulation characteristics	
Insulation	Functional insulation
Insulation	
Insulation characteristics: Air clearances and creepage distances	
	Functional insulation
Insulation characteristics: Air clearances and creepage distances	Functional insulation

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

Suitable I/O card

Operating voltage (DC) ≤ 60 V DC Nominal operating mode 100% operating fa	
	tor
Current (Per path, 50°C) ≤ 1 A	
Current (Per path, 70°C) $\leq 0.6 \text{ A}$	

Air clearances and creepage distances

Rated insulation voltage	63 V
Rated surge voltage	0.6 kV

Supported controller SIEMENS S7-300 / ET 200 M

CPU 313C-2DP
CPU 314C-2PtP
6ES7321-1BL00-0AA0
6ES7322-1BL00-0AA0
6ES7323-1BL00-0AA0
6ES7331-7NF00-0AB0
6ES7331-7PF01-0AB0
6ES7331-7PF11-0AB0
6ES7350-2AH01-0AE0
6ES7357-4AH01-0AE0
CPU 314C-2DP



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	6ES7332-5HF00-0AB0
	6ES7331-7NF10-0AB0
	6ES7331-1KF01-0AB0
	CPU 313C
	CPU 313C-2PtP
Supported controller SIEMENS S7-400	
Suitable I/O card	6ES7421-1BL01-0AA0
	6ES7421-7BH01-0AB0
	6ES7421-7DH00-0AA0
	6ES7422-1BL00-0AA0
	6ES7422-7BL00-0AB0
	6ES7431-0HH0-0AB0
	6ES7431-1KF00-0AB0
	6ES7431-1KF10-0AB0
	6ES7431-1KF20-0AB0
	6ES7431-7KF00-0AB0
	6ES7431-7KF10-0AB0
	6ES7431-7QH00-0AB0
	6ES7432-1HF00-0AB0

Supported controller SCHNEIDER ELECTRIC Modicon TSX QUANTUM

Supported controller SCHNEIDER ELECTRIC Modicon TSX QUANTI	JM
Suitable I/O card	DDI 353
	DDI 841
	DDI 853
	DAI 340
	DAI 353
	DAI 440
	DAI 453
	DDO 353
	DDM 390
	ACI 030
	ACI 040
	ATI 030
	ARI 030
	AVI 030
	ACO 020
	ACO 130
	AVO 020
	EHC 105
	EHC 202
Supported controller ALLEN-BRADLEY ControlLogix	
Suitable I/O card	1756-IA16I
	1756-IB16D

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	1756-IB16I
	1756-IB32
	1756-IH16I
	1756-OB32
	1756-IF8
	1756-IF16
	1756-HSC
	1756-M02AE
Supported controller ALLEN-BRADLEY PLC 5	
Suitable I/O card	1771 IBN
	1771 OBN
Supported controller HONEYWELL Experion PKS C200	
Suitable I/O card	TC-IDK 161
	TC-IDX 161
	TC-IDJ 161
	TC-IDD 321
	TC-ODD 321
	TC-IAH 161
Supported controller ALLEN-BRADLEY SLC 500	
Supported controller ALLEN-BRADLEY SLC 500	1746 OA16
	1746 OA16
Suitable I/O card	1746 OA16
Suitable I/O card ble/line	1746 OA16 1746 OW16
Suitable I/O card ble/line Cable length	1746 OA16 1746 OW16 8 m
Suitable I/O card ble/line Cable length Number of positions	1746 OA16 1746 OW16 8 m 50
Suitable I/O card ble/line Cable length Number of positions Shielded	1746 OA16 1746 OW16 8 m 50 no
Suitable I/O card ble/line Cable length Number of positions Shielded Conductor type	1746 OA16 1746 OW16 8 m 50 no Assembled, halogen-free round cable
Suitable I/O card ble/line Cable length Number of positions Shielded Conductor type Conductor structure signal line	1746 OA16 1746 OW16 8 m 50 no Assembled, halogen-free round cable 7x 0.16 mm
Suitable I/O card ble/line Cable length Number of positions Shielded Conductor type Conductor structure signal line AWG signal line	1746 OA16 1746 OW16 8 m 50 no Assembled, halogen-free round cable 7x 0.16 mm 26
Suitable I/O card ble/line Cable length Number of positions Shielded Conductor type Conductor structure signal line AWG signal line Conductor cross section	1746 OA16 1746 OW16 8 m 50 no Assembled, halogen-free round cable 7x 0.16 mm 26 50x 0.14 mm ²
Suitable I/O card ble/line Cable length Number of positions Shielded Conductor type Conductor structure signal line AWG signal line Conductor cross section	1746 OA16 1746 OW16 8 m 50 no Assembled, halogen-free round cable 7x 0.16 mm 26 50x 0.14 mm² 1 mm ±0.03 mm
Suitable I/O card ble/line Cable length Number of positions Shielded Conductor type Conductor structure signal line AWG signal line Conductor cross section Wire diameter incl. insulation External cable diameter	1746 OA16 1746 OW16 1746 OW16 8 m 50 no Assembled, halogen-free round cable 7x 0.16 mm 26 50x 0.14 mm² 1 mm ±0.03 mm 10.30 mm ±0.4 mm
Suitable I/O card ble/line Cable length Number of positions Shielded Conductor type Conductor structure signal line AWG signal line Conductor cross section Wire diameter incl. insulation External cable diameter Outer sheath, material	1746 OA16 1746 OW16 1746 OW16 8 m 50 no Assembled, halogen-free round cable 7x 0.16 mm 26 50x 0.14 mm² 1 mm ±0.03 mm 10.30 mm ±0.4 mm halogen-free (type 2)
Suitable I/O card Suitable I/O card ble/line Cable length Number of positions Shielded Conductor type Conductor structure signal line AWG signal line Conductor cross section Wire diameter incl. insulation External cable diameter Outer sheath, material External sheath, color	1746 OA16 1746 OW16 1746 OW16 8 m 50 no Assembled, halogen-free round cable 7x 0.16 mm 26 50x 0.14 mm² 1 mm ±0.03 mm 10.30 mm ±0.4 mm halogen-free (type 2) gray
Suitable I/O card ble/line Cable length Number of positions Shielded Conductor type Conductor structure signal line AWG signal line Conductor cross section Wire diameter incl. insulation External cable diameter Outer sheath, material External sheath, color	1746 OA16 1746 OW16 1746 OW16 8 m 50 no Assembled, halogen-free round cable 7x 0.16 mm 26 50x 0.14 mm² 1 mm ±0.03 mm 10.30 mm ±0.4 mm halogen-free (type 2) gray Tin-plated Cu litz wires
Suitable I/O card ble/line Cable length Number of positions Shielded Conductor type Conductor structure signal line AWG signal line Conductor cross section Wire diameter incl. insulation External cable diameter Outer sheath, material External sheath, color Conductor material Cable resistance	$ \begin{array}{c} 1746 \text{ OA16} \\ 1746 \text{ OW16} \\ 1746 \text{ OW16} \\ 8 \text{ m} \\ 50 \\ 100 \\ 1$
Suitable I/O card Suitable I/O card ble/line Cable length Number of positions Shielded Conductor type Conductor structure signal line AWG signal line Conductor cross section Wire diameter incl. insulation External cable diameter Outer sheath, material External sheath, color Conductor material Cable resistance Insulation resistance	$ \begin{array}{c c} 1746 OA16 \\ 1746 OW16 \\ \end{array} $ $ \begin{array}{c c} 8 m \\ 50 \\ 50 \\ no \\ Assembled, halogen-free round cable \\ 7x 0.16 mm \\ 26 \\ 50x 0.14 mm^2 \\ 1 mm \pm 0.03 mm \\ 10.30 mm \pm 0.4 mm \\ halogen-free (type 2) \\ gray \\ Tin-plated Cu litz wires \\ \leq 145 \Omega/km (20 °C) \\ \geq 20 M\Omega^*km (20 °C) \\ \end{array} $
Suitable I/O card ble/line Cable length Number of positions Shielded Conductor type Conductor structure signal line AWG signal line Conductor cross section Wire diameter incl. insulation External cable diameter Outer sheath, material External sheath, color Conductor material Cable resistance Insulation resistance Smallest bending radius, fixed installation	$ \begin{array}{c} 1746 \text{ OA16} \\ 1746 \text{ OW16} \\ 1746 \text{ OW16} \\ 8 \text{ m} \\ 50 \\ 100 \\ 1$
Suitable I/O card ble/line Cable length Number of positions Shielded Conductor type Conductor structure signal line AWG signal line Conductor cross section Wire diameter incl. insulation External cable diameter Outer sheath, material External sheath, color Conductor material Cable resistance Insulation resistance Smallest bending radius, fixed installation	$ \begin{array}{c c c c c } 1746 OA16 \\ 1746 OW16 \\ 100$



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Flame resistance	VDE 0842, Part 332-1-2 (raw cable)
	IEC 60332-3-22 (raw cable)
Resistance to oil	can withstand occasional splashes (raw cable)
IDC/FLK50 (1)	IDC/FLK50 (1) = black
IDC/FLK50 (2)	IDC/FLK50 (2) = brown
IDC/FLK50 (3)	IDC/FLK50 (3) = red
IDC/FLK50 (4)	IDC/FLK50 (4) = orange
IDC/FLK50 (5)	IDC/FLK50 (5) = yellow
IDC/FLK50 (6)	IDC/FLK50 (6) = green
IDC/FLK50 (7)	IDC/FLK50 (7) = blue
IDC/FLK50 (8)	IDC/FLK50 (8) = violet
IDC/FLK50 (9)	IDC/FLK50 (9) = gray
IDC/FLK50 (10)	IDC/FLK50 (10) = white
IDC/FLK50 (11)	IDC/FLK50 (11) = white-black
IDC/FLK50 (12)	IDC/FLK50 (12) = white-brown
IDC/FLK50 (13)	IDC/FLK50 (13) = white-red
IDC/FLK50 (14)	IDC/FLK50 (14) = white-orange
IDC/FLK50 (15)	IDC/FLK50 (15) = white-yellow
IDC/FLK50 (16)	IDC/FLK50 (16) = white-green
IDC/FLK50 (17)	IDC/FLK50 (17) = white-blue
IDC/FLK50 (18)	IDC/FLK50 (18) = white-violet
IDC/FLK50 (19)	IDC/FLK50 (19) = white-gray
IDC/FLK50 (20)	IDC/FLK50 (20) = brown-black
IDC/FLK50 (21)	IDC/FLK50 (21) = brown-red
IDC/FLK50 (22)	IDC/FLK50 (22) = brown-orange
IDC/FLK50 (23)	IDC/FLK50 (23) = brown-yellow
IDC/FLK50 (24)	IDC/FLK50 (24) = brown-green
IDC/FLK50 (25)	IDC/FLK50 (25) = brown-blue
IDC/FLK50 (26)	IDC/FLK50 (26) = brown-violet
IDC/FLK50 (27)	IDC/FLK50 (27) = brown-gray
IDC/FLK50 (28)	IDC/FLK50 (28) = brown-white
IDC/FLK50 (29)	IDC/FLK50 (29) = green-black
IDC/FLK50 (30)	IDC/FLK50 (30) = green-brown
IDC/FLK50 (31)	IDC/FLK50 (31) = green-red
IDC/FLK50 (32)	IDC/FLK50 (32) = green-orange
IDC/FLK50 (33)	IDC/FLK50 (33) = green-blue
IDC/FLK50 (34)	IDC/FLK50 (34) = green-violet
IDC/FLK50 (35)	IDC/FLK50 (35) = green-gray
IDC/FLK50 (36)	IDC/FLK50 (36) = green-white
IDC/FLK50 (37)	IDC/FLK50 (37) = yellow-black
IDC/FLK50 (38)	IDC/FLK50 (38) = yellow-brown
IDC/FLK50 (39)	IDC/FLK50 (39) = yellow-red
IDC/FLK50 (40)	IDC/FLK50 (40) = yellow-orange
IDC/FLK50 (41)	IDC/FLK50 (41) = yellow-blue



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IDC/FLK50 (49) IDC/FLK50 (50)	IDC/FLK50 (49) = gray-yellow IDC/FLK50 (50) = gray-green
IDC/FLK50 (48)	IDC/FLK50 (48) = gray-orange
IDC/FLK50 (47)	IDC/FLK50 (47) = gray-red
IDC/FLK50 (46)	IDC/FLK50 (46) = gray-brown
IDC/FLK50 (45)	IDC/FLK50 (45) = gray-black
IDC/FLK50 (44)	IDC/FLK50 (44) = yellow-white
IDC/FLK50 (43)	IDC/FLK50 (43) = yellow-gray
IDC/FLK50 (42)	IDC/FLK50 (42) = yellow-violet

Connection data

Fi	eld	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 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

Standards and regulations

Air clearances and creepage distances	
Standards/regulations	DIN EN 50178

Notes

General	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.
General	Only the cable is halogen-free for this product.

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