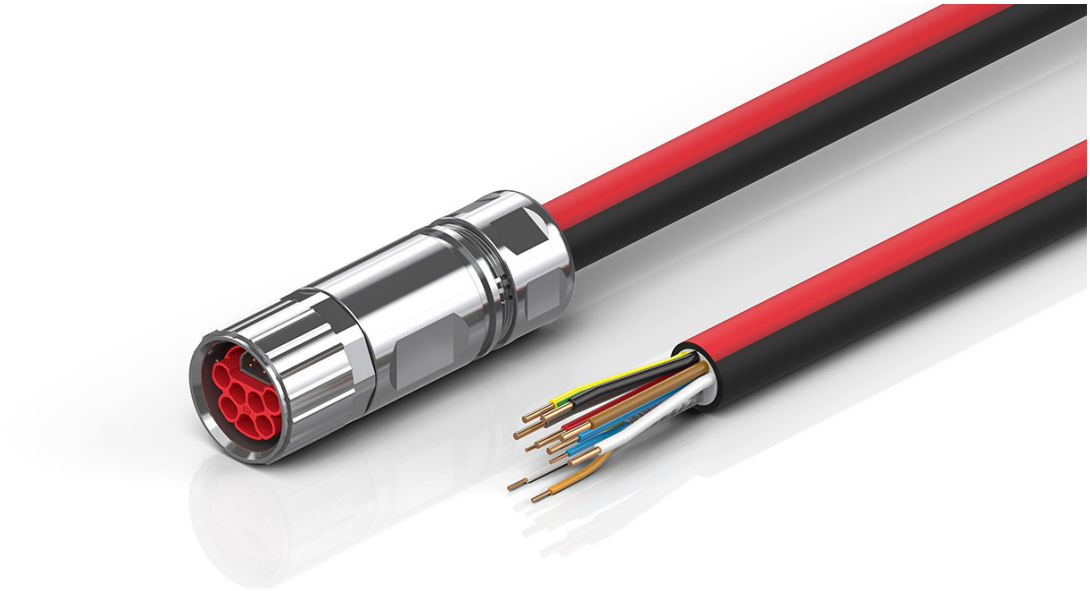
ZK7755-6500-0xxx | B23, ECP cable, PUR, 7 G 2.5 mm² + (1 x 4 x AWG22), drag-chain suitable, key 2 (400 V AC)

B23, plug, straight, male+male, pins 6+PE+4, EtherCAT P-coded – open end, 7-wire



Plugs

Electrical data	Head A	Head B
Rated voltage (Ethernet)	60 V DC	-
Rated current (Ethernet)	4 A at 40°C	-
Rated voltage (power)	630 V AC / 850 V DC, 600V AC / DC (UL)	-
Rated current (power)	20 A at 30°C	-
Rated impulse voltage (power)	6.0 kV	-
Rated impulse voltage (Ethernet)	1.0 kV	-
Shielding (Ethernet)	yes	-
Contact resistance	< 10 mΩ (signal), < 5 mΩ (power)	-
Insulation resistance	≥ 100 MΩ (according to IEC 60512)	-
Mechanical data		
Installation size	B23	open end
Connector type	plug	-

Configuration	straight	-
Contact type	male+male	-
Number of positions (face)	pins 6+PE+4	7-wire
Coding	EtherCAT P-coded	-
Mechanical coding	key 2 (400 V AC)	-
Wire termination	crimp connection	-
Mating cycles	≥ 100	-
Way of locking	bayonet	-
Weight	0.100 kg (0.2205 lb)	-
Body color	black	-
Body material	**TPU, UL 94 HB**	-
Coupling nut material	GD-Zn, Ni	-
Seal	NBR, FPM	-
Contact carrier material	PA 6, UL 94 V0	-
Contact carrier color (Ethernet)	red	-
Contact carrier color (power)	red	-
Contact plating	Au over Ni	-
Contact material	copper alloy	-
Environmental data		
Shock resistance	50 g (490 m/s²) conforms to IEC 60512-6c, 11 ms; 18 shocks per direction, 3 axes	-
Vibration resistance	5 g (50 m /s²) conforms to IEC 60512-6d, 10 Hz. ... 500 Hz.; 10 cycles per axis; 6 h full duration	-
Ambient temperature (operation)	-30...+90°C, -22...+194°F	-
Protection rating	IP65/67 in screwed condition (according to IEC 60529)	-
Pollution level	3/2 (according to IEC 60664-1)	-

Cable

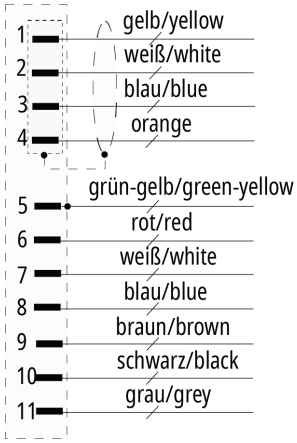
Electrical data	
Operating voltage	≤ 1000 V AC
Mutual capacitance wire/wire (Ethernet)	50 ±15 pF/m at 800 Hz (EN 50289-1-5)
Insulation resistance	≥ 1 GΩ * km
Wire resistance (power)	≤ 7.98 Ω/km (DIN EN 50395)
Wire resistance (Ethernet)	≤ 55.0 Ω/km (DIN EN 50395)
Characteristic impedance (Ethernet)	100 Ω ±15 Ω (100 MHz)
Dielectric strength wire/wire (power)	4 kV 50 Hz 5 min. (DIN VDE 0472 T.509C)

Dielectric strength wire/shield (power)	4 kV 50 Hz 5 min. (DIN VDE 0472 T.509C)
Mechanical data	
Cable structure (Ethernet)	star quad
Conductor construction (Ethernet)	7-strand
Cross-section (power)	7 x 2.5 mm² (approx. AWG14)
Cross-section (Ethernet)	1 x 4 x 0.34 mm² (AWG22)
Outer cable diameter	14.3 mm ± 0.2 mm (0.563" ± 0.0079")
Min. bending radius, moved	7 x outer cable diameter
Min. bending radius, fixed installation	4 x outer cable diameter
Conductor material (power)	copper bare, Class 6 according to DIN EN 60228
Conductor material (Ethernet)	tinned copper
Shielding	braiding of tinned copper wires, metallized plastic fleece, aluminum-clad foil
Optical covering factor of shielding (Ethernet)	≥ 85 %
Optical covering factor of shielding (total)	no
Use	drag-chain suitable
Jacket color	black (similar to RAL 9005) with red stripe (similar to RAL 3020)
Material jacket	PUR (polyurethane)
Wire color code	Ethernet: white, yellow, blue, orange Power: red, blue, white, grey, brown, black, green/yellow
Wire insulation material	PP (polypropylene)
Printing on the jacket	xxxxM Motion OCT 7G2.5+1x (4x0.34) mm2 High Dynamic Performance PUR - Oil Resistant - E356538 () cURus AWM STYLE 22381 90 °C 1000 V - AWM I/II A/B 90 °C 1000V FT2 - 7x14AWG+1x(4x22AWG) - YY/WW CE Meter Marking
Printing color	white
Environmental data	
Operation temperature range, moved	-50...+90°C, -58...+194°F
Operation temperature range, fixed installation	-40...+90°C, -40...+194°F
Flame-retardant	according to IEC 60332-1-2, UL/CSA FT1, UL VW1, UL/CSA FT2
CFC-free	yes
Halogen-free	yes
Silicone-free	yes

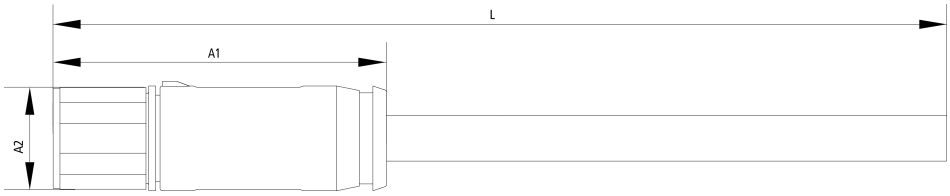
Attenuation								
Max. insertion loss								
Frequency [MHz]	**1**	**4**	**10**	**16**	**20**	**31.25**	**62.5**	**100**

[db/100 m]	2.1	4.1	6.5	8.3	9.3	11.7	17.0	22.0
[db/100 ft]	0.6	1.2	2	2.5	2.8	3.6	5.2	6.7
Min. near-end crosstalk attenuation								
Frequency [MHz]	**1**	**4**	**10**	**16**	**20**	**31.25**	**62.5**	**100**
[db/100 m]	65.3	56.3	50.3	47.2	45.8	42.9	38.4	35.3
[db/100 ft]	19.9	17.2	15.3	14.4	14	13.1	11.7	10.8

Pin assignment



Dimensions



A1	93.60 mm
A2	28.50 mm

Mechanical coding

Mechanical keying uses defined keyways that only allow insertion and subsequent locking rotation when correctly aligned. For more information, please refer to the keying guide for correct use.

Notes

- Depending on the cable length (L), the following length tolerances apply:
0 m...3.0 m: + 100 mm | 3.0...10.0 m: ± 100 mm | ≥ 10.0 m: ± 2%
- Illustrations similar
- Further cable length on request. The last three digits of the ordering information is the cable length in decimeters, e.g. ZKxxxx-xxxx-x020 = cable length 2.00 m

- The design of the pre-assambled cable shown here may differ from the products supplied, despite technically identical specifications.

CE, UL	
CE	yes

Ordering information	Length
ZK7755-6500-0050	5.00 m
ZK7755-6500-0100	10.00 m

Further length on request

Accessories	
ZS7300-B003	B23 protection cap, plug, plastic, IP67, packaging unit = 10 pieces, including loss protection
ZS7300-B004	B23 protection cap, plug, metal, IP67, packaging unit = 5 pieces, including loss protection
ZS7300-B005	B23 color coding connector/square flange, red, packaging unit = 10 pieces
ZS7300-B006	B23 color coding connector/square flange, yellow, packaging unit = 10 pieces
ZS7300-B007	B23 color coding connector/square flange, blue, packaging unit = 10 pieces
ZS7300-B008	B23 color coding connector/square flange, green, packaging unit = 10 pieces
ZS7300-B015	B23 color coding connector/square flange, orange, packaging unit = 10 pieces
ZS7300-B016	B23 color coding connector/square flange, gray, packaging unit = 10 pieces
ZB8805-0002	Flange/Panel feed-through for B23 pre-assembled, for fixing the connector, plastic, including screws, washers and lock nuts
ZB8802-0003	assembly tool for B23 connector, AF27

Products marked with a crossed-out wheeled bin shall not be discarded with the normal waste stream. The device is considered as waste electrical and electronic equipment. The national regulations for the disposal of waste electrical and electronic equipment must be observed.

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