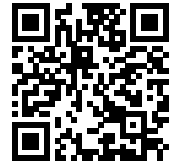
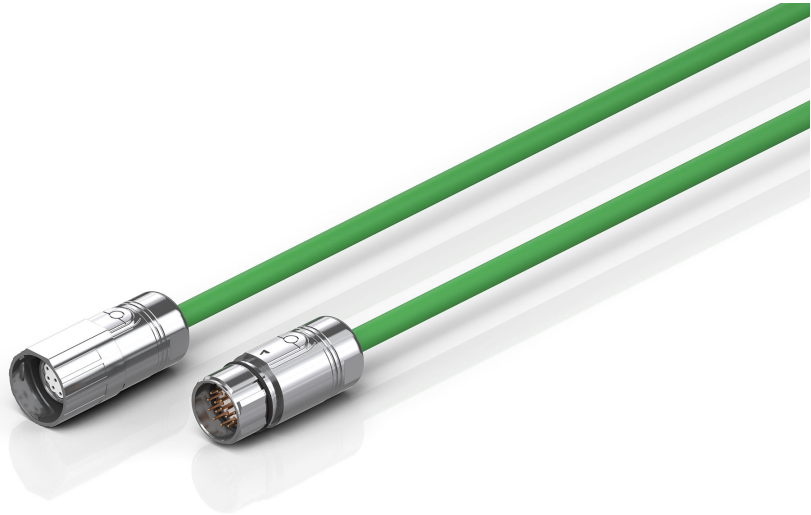


ZK4511-8020-xxxx | Encoder extension cable with M23 speedtec® plug, drag-chain suitable



M23, plug, straight, female, 17-pin – M23, socket, straight, male, 17-pin



Plugs

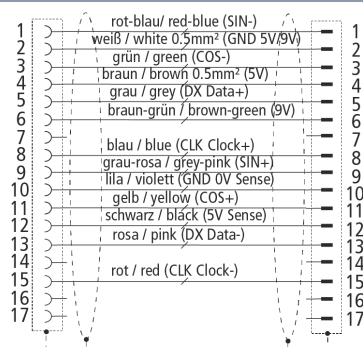
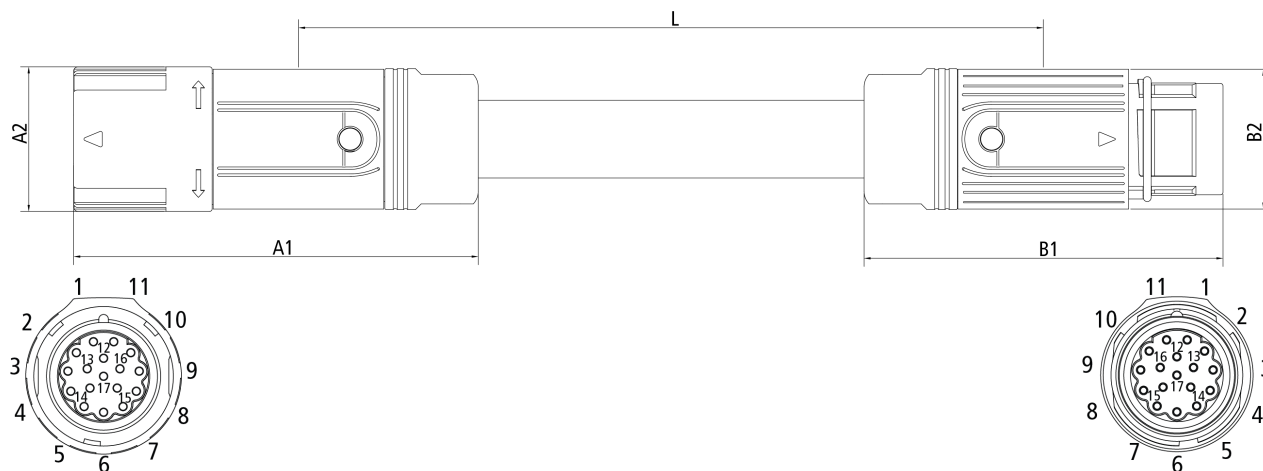
Electrical data	Head A	Head B
Rated voltage (signal/24V)	125 V AC/DC	125 V AC/DC
Rated current (signal/24V)	7 A max.	7 A max.
Rated impulse voltage (signal/24V)	2.0 kV	2.0 kV
Contact resistance	< 5 mΩ	< 5 mΩ
Mechanical data		
Accessories type	Connector/cable	Connector/cable
Installation size	M23	M23
Connector type	plug	socket
Configuration	straight	straight
Contact type	female	male
Number of positions (face)	17-pin	17-pin
Wire termination	crimp connection	crimp connection
Mating cycles	500	500
Way of locking	Speedtec®	Speedtec®

Weight per piece	0.089 kg (0.1962 lb)	0.087 kg (0.1918 lb)
Body colour	metal	metal
Body material	zinc diecast/nickel plated	zinc diecast/nickel plated
Seal	FKM	FKM
Clamp ring	brass/nickel plated	brass/nickel plated
Contact carrier material	PBT, UL 94 V-0	PBT, UL 94 V-0
Contact material	brass/gold plated	brass/gold plated
Environmental data		
Special features	Max. height for operation 2000 m	Max. height for operation 2000 m
Ambient temperature (operation)	-20...+130 °C, -4...+266 °F	-20...+130 °C, -4...+266 °F
Protection class	IP 66/67 in screwed condition	IP 66/67 in screwed condition
Pollution level	3 (according to VDE 0110/EN61984 part 6.19.2.2)	3 (according to VDE 0110/EN61984 part 6.19.2.2)
Overvoltage category	3 (according to VDE 0110/EN61984 part 6.19.2.2)	3 (according to VDE 0110/EN61984 part 6.19.2.2)

Cable

Electrical data	
Operating voltage	30 V
Insulation resistance	$\geq 1 \text{ G}\Omega \cdot \text{km}$
Wire resistance	$0.14 \text{ mm}^2: \leq 142.0 \text{ }\Omega/\text{km}, 0.5 \text{ mm}^2: \leq 40.1 \text{ }\Omega/\text{km}$
Test voltage	1500 V (wire/wire and wire/screen)
Mechanical data	
Cross section	$7 \times 2 \times 0.14 \text{ mm}^2 + 2 \times 0.5 \text{ mm}^2$
Min. bending radius, moved in drag chain	50 mm
Min. bending radius, fixed installation	30 mm
Outer cable diameter	$7.6 \text{ mm} \pm 0.3 \text{ mm} (0.2992" \pm 0.0118")$
Conductor material	copper, tinned
Optical covering factor of shielding	$\geq 85\%$
Use	drag-chain suitable
Max. acceleration	60 m/s^2
Max. speed	10 m/s
Max. travel distance	20 m
Max. number of cycles	10 million
Jacket colour	green
Material jacket	PUR (polyurethane)

Wire insulation material	PP (polypropylene)
Printing colour	black
Torsion angle in °/m	max. ± 30 °/m
Max. tensile load, dynamic	20 N/mm ²
Environmental data	
Operation temperature range, moved	-40...+80 °C, -40...+176 °F
Operation temperature range, fixed installation	-50...+80 °C, -58...+176 °F
Oil resistance	according to UL 1581
Flame-retardant	according to IEC 60332-1-2
Halogen-free	yes
Silicone-free	yes
RoHS compliant	yes
Approvals	UL-Style 20236 80°C 30V

Contact assembly**Dimensions**

A1	59.00 mm
A2	26.00 mm
B1	57.00 mm
B2	25.00 mm

Notes

- Depending on the cable length (L), the following length tolerances apply: $\pm 2-3\%$
- Illustrations similar
- The last three digits of the ordering information is the cable length in decimetres, e.g. ZK4xxx-xxxx-x020 = cable length 2.00 m

Ordering information	Length
ZK4511-8020-xxxx	xxxx = cable length in decimetres
xxxx = 0050	example for 5 m length
	sold by the metre, admissible total cable length see documentation of Servo Drive

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