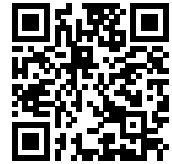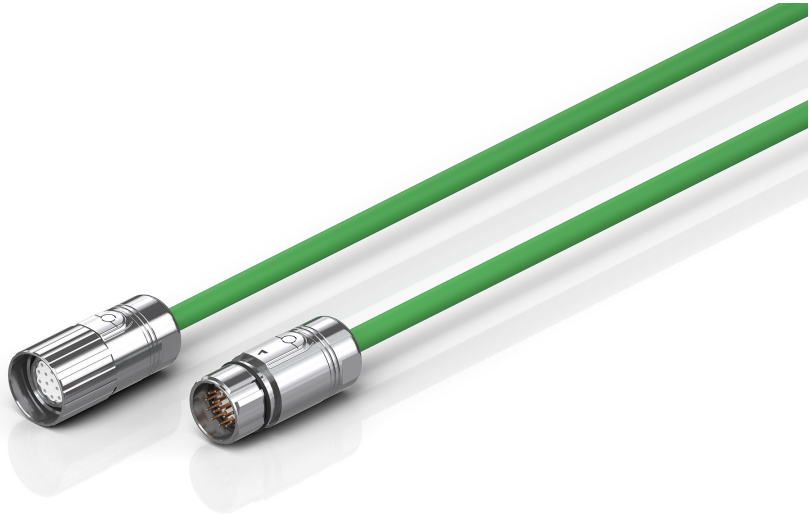# ZK4511-0020-xxxx | Encoder extension cable 0.14 mm² with M23 plug, drag-chain suitable

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	Connectors/Cables	Connectors/Cables
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	0.090 kg (0.1984 lb)	0.087 kg (0.1918 lb)
Body color	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 rating	IP66/67 in screwed condition	IP66/67 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	≥ 20 MΩ*km
Wire resistance	0.14 mm²: ≤ 138.0 Ω/km, 0.5 mm²: ≤ 40.0 Ω/km
Test voltage	1000 V (wire/wire), 800 V (wire/screen)
Mechanical data	
Cross-section	7 x 2 x 0.14 mm² + 2 x 0.5 mm²
Min. bending radius, moved in drag-chain	7 x outer cable diameter
Min. bending radius, fixed installation	4 x outer cable diameter
Weight	84 kg/km (55.440 lb/1000 ft)
Outer cable diameter	7.6 mm ± 0.3 mm (0.2992" ± 0.0118")
Conductor material	copper, tinned
Optical covering factor of shielding	≥ 85%
Use	drag-chain suitable
Max. acceleration	30 m/s²
Max. speed	4 m/s
Max. travel distance	20 m
Max. number of cycles	10 million
Jacket color	green

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Material jacket	PUR (polyurethane)
Wire insulation material	PP (polypropylene)
Printing color	black
Torsion angle in °/m	max. ± 30 °/m
Max. tensile load, dynamic	20 N/mm²
Max. tensile load, static	50 N/mm²
Environmental data	
Operation temperature range, moved	-10...+80 °C, 14...+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
CFC-free	yes
Halogen-free	DIN VDE 0472 part 815
Silicone-free	yes
RoHS compliant	yes
Approvals	RU AWM Style 20236, CSA AWM I/II AB/B 80°C 30V, CE compliant

Contact assembly
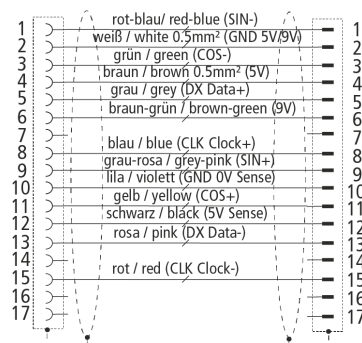
Dimensions
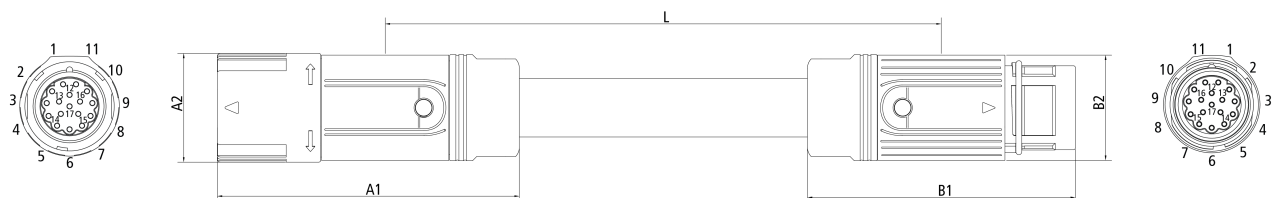
A1	59.00 mm
A2	26.00 mm
B1	57.00 mm
B2	25.00 mm

Notes

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

Ordering information	Length
ZK4511-0020-xxxx	xxxx = cable length in decimeters
xxxx = 0050	example for 5 m length
	sold by the meter, admissible total cable length see documentation of Servo Drive

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