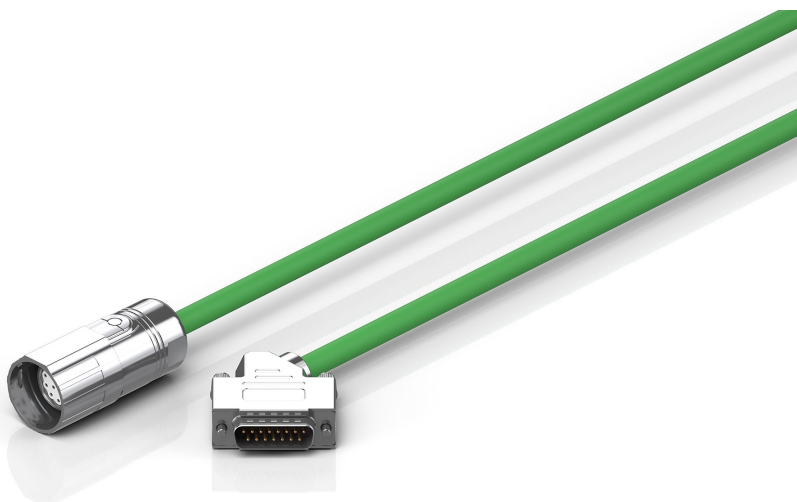


ZK4510-8020-xxxx | Encoder connection cable with M23 speedtec® plug, drag-chain suitable



M23, plug, straight, female, 17-pin – D-sub, socket, angled, male, 15-pin



Plugs

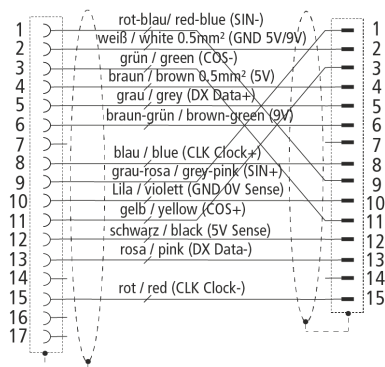
Electrical data	Head A	Head B
Rated voltage (signal/24V)	125 V AC/DC	-
Rated current (signal/24V)	7 A max.	-
Rated impulse voltage (signal/24V)	2.0 kV	-
Contact resistance	< 5 mΩ	-
Mechanical data		
Accessories type	Connector/cable	Connector/cable
Installation size	M23	D-sub
Connector type	plug	socket
Configuration	straight	angled
Contact type	female	male
Number of positions (face)	17-pin	15-pin
Wire termination	crimp connection	solder connection
Mating cycles	500	-
Way of locking	Speedtec®	screw

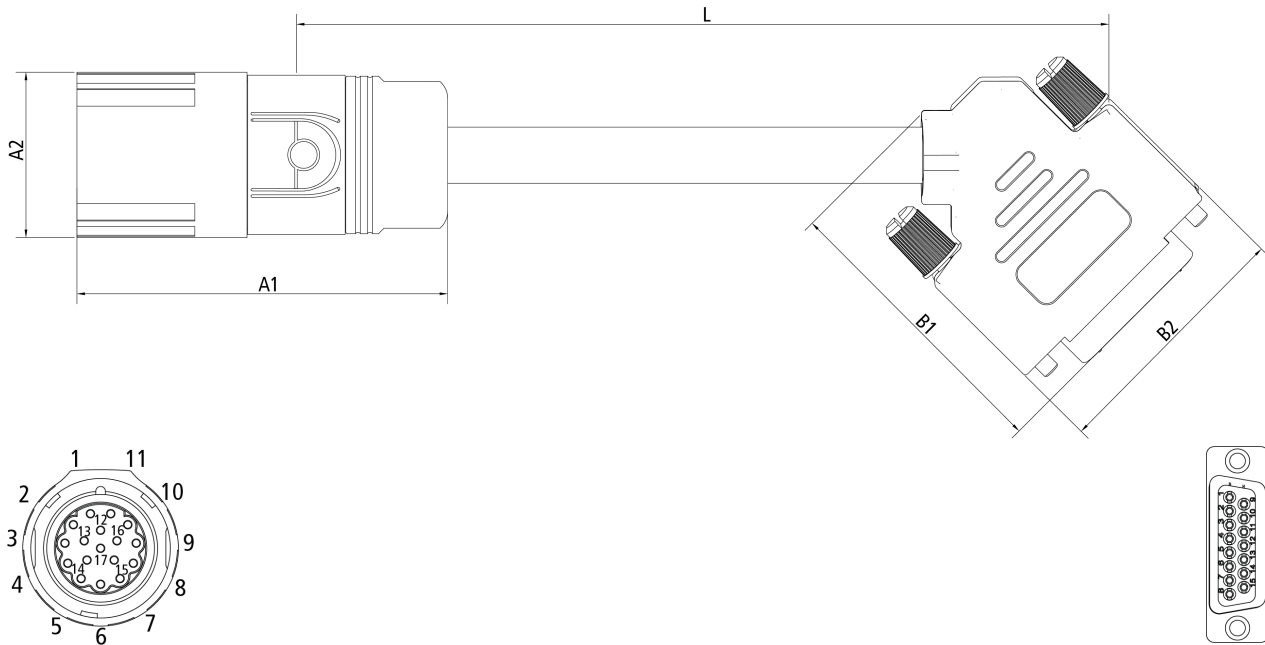
Weight per piece	0.089 kg (0.1962 lb)	0.055 kg (0.1213 lb)
Body colour	metal	metal
Body material	zinc diecast/nickel plated	zinc diecast/nickel plated
Seal	FKM	-
Clamp ring	brass/nickel plated	-
Contact carrier material	PBT, UL 94 V-0	-
Contact material	brass/gold plated	-
Environmental data		
Special features	Max. height for operation 2000 m	-
Ambient temperature (operation)	-20...+130 °C, -4...+266 °F	-40...+120 °C, -40...+248 °F
Protection class	IP 66/67 in screwed condition	IP 20
Pollution level	3 (according to VDE 0110/EN61984 part 6.19.2.2)	-
Overvoltage category	3 (according to VDE 0110/EN61984 part 6.19.2.2)	-

Cable

Electrical data		
Operating voltage	30 V	
Insulation resistance	≥ 1 GΩ * km	
Wire resistance	0.14 mm ² : ≤ 142.0 Ω/km, 0.5 mm ² : ≤ 40.1 Ω/km	
Test voltage	1500 V (wire/wire and wire/screen)	
Mechanical data		
Cross section	7 x 2 x 0.14 mm ² + 2 x 0.5 mm ²	
Min. bending radius, moved in drag chain	50 mm	
Min. bending radius, fixed installation	30 mm	
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	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	46.00 mm
B2	41.00 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
ZK4510-8020-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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