ZK4511-0000-xxxx | Encoder extension cable 0.14 mm² with M23 plug, for fixed installation



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)

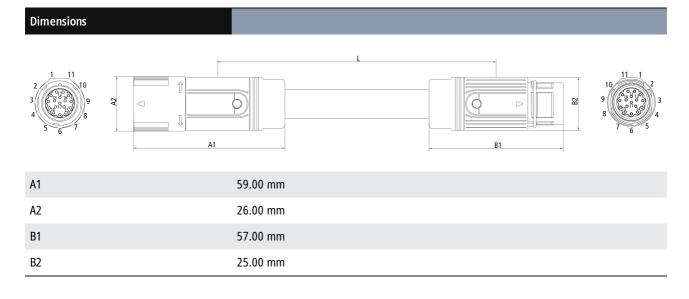
Cable

Electrical data	
Operating voltage	30 V
Insulation resistance	≥ 20 MΩ*km
Wire resistance	0.14 mm^2 : $\leq 138.0 \Omega/\text{km}$, 0.5 mm^2 : $\leq 40.0 \Omega/\text{km}$
Test voltage	1000 V (wire/wire), 800 V (wire/screen)
Mechanical data	
Cross-section	7 x 2 x 0.14 mm ² + 2 x 0.5 mm ²
Min. bending radius, fixed installation	5 x outer cable diameter
Weight	81 kg/km (54.424 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	fixed installation
Jacket color	green
Material jacket	PVC (polyvinyl chloride)
Wire insulation material	PP (polypropylene)
Printing color	black
Torsion angle in °/m	max. ± 30 °/m
Max. tensile load, dynamic	20 N/mm ²
Max. tensile load, static	50 N/mm ²



Environmental data	
Operation temperature range, fixed installation	-40+80 °C, -40+176 °F
Oil resistance	according to UL 1581
Flame-retardant	according to IEC 60332-1
CFC-free	yes
Silicone-free	yes
RoHS compliant	yes
Approvals	RU AWM Style 2502, CSA AWM I/II AB/B 80°C 30V, CE compliant

Contact assembly	
	rot-blau/ red-blue (SIN-) weiß / white 0.5mm² (GND 5V/8V) grün / green (COS-) braun - frowin 0.5mm² (SV) grau / grey (DX Data+) braun-grün / brown-green (9V) blau / blue (CLK Clock+) grau-rosa / grey-pink (SIN+) lila / violett (GND 0V Sense) glab / yellow (COS+) gelb / yellow (COS+) rosa / pink (DX Data-) rosa / pink (DX Data-) 12 13 14 rot / red (CLK Clock-) 15 16 7 17



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 decimeters, e.g. ZK4xxx-xxxx-x020 = cable length 2.00 m

Ordering information	Length
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ZK4511-0000-xxxx www.beckhoff.com/ZK4511-0000-xxxx

ZK4511-0000-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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