ZK4514-1520-0xxx | Encoder connection cable 0.25 mm² with M12 plug, drag-chain suitable

M12, plug, straight, male, 12-pin, A-coded – open end, 10-wire + shielding

Plugs

Electrical data	Head A	Head B
Rated voltage	30 V	-
Rated current	1.5 A	-
Rated impulse voltage	0.8 kV	-
Insulation resistance	≥ 100 MΩ	-
Insulation group	III	-
Mechanical data		
Installation size	M12	open end
Connector type	plug	-
Configuration	straight	-
Contact type	male	-
Number of positions (face)	12-pin	10-wire + shielding
Coding	A-coded	-
Wire termination	solder connection	-
Recommended torque, nut	0.8 ... 1.0 Nm	-

Mating cycles	≥ 500	-
Body color	metal	-
Body material	CuZn (nickel-plated brass)	-
Contact carrier color	black	-
Contact carrier material	PBT, UL 94 V-0	-
Contact plating	Au	-
Contact material	CuZn	-
Max. wire cross-section	AWG24 (0.25 mm²)	-
Max. cable outer diameter	8.0...10.0 mm	-
Environmental data		
RoHS compliant	yes	-
Ambient temperature (operation)	-40...+85°C, -40...+185°F	-
Protection rating	IP68 in screwed condition (according to IEC 60529)	-
Pollution level	3	-
UL	yes, UL2238	-

Cable

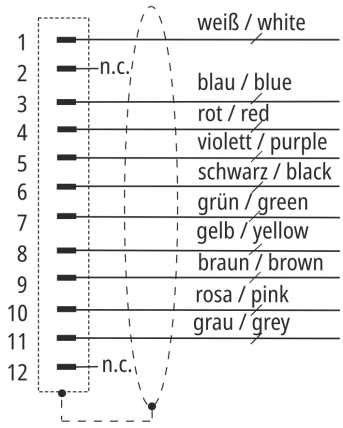
Electrical data	
Operating voltage	max. 300 V AC (UL)
Mutual capacitance wire/wire	max. 55 pF/m (800 Hz)
Insulation resistance	≥ 500 MΩ * km (DIN EN 50395)
Wire resistance	≤ 76.0 Ω/km
Characteristic impedance	90 Ω (1 MHz)
Test voltage	1500 V, 50 Hz, 1 min. (wire/wire and wire/screen)
Mechanical data	
Cross-section	5 x 2 x 0.25 mm² (AWG24)
Outer cable diameter	9.6 mm ± 0.2 mm (0.193" ± 0.0079")
Min. bending radius, moved	5 x outer cable diameter
Min. bending radius, fixed installation	10 x outer cable diameter
Weight	122.1 kg/km (82.1 lb/1000 ft)
Conductor material	copper, tinned
Shielding	braiding of tinned copper wires
Optical covering factor of shielding	≥ 85%
Use	drag-chain suitable
UL-Style	AWM 20233 (80°C/300V)

Max. acceleration	20 m/s²
Max. speed	5 m/s
Max. number of cycles	5 million
Jacket color	green
Material jacket	PUR (polyurethane)
Wire color code	white, brown, green, yellow, gray, pink, blue, red, black, purple
Wire insulation material	PP (polypropylene)
Printing color	black
Torsion angle in °/m	max. ± 30 °/m

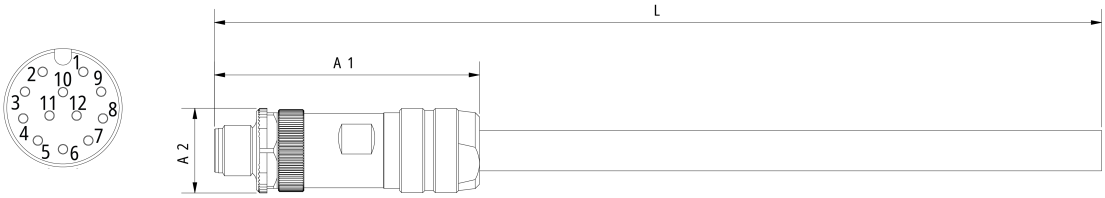
Environmental data

Operation temperature range, moved	-30...+80°C
Operation temperature range, fixed installation	-40...+80°C, -40...+176°F
Oil resistance	according to DIN EN 60811-404, HD22.10 appendix A
Flame-retardant	according to IEC 60332-1-2 UL758 cable flame test
Halogen-free	according to DIN VDE 0472 part 815
Silicone-free	yes
RoHS compliant	yes
CE	yes
UL	yes, UL E-file number: E170315
Approvals	UL758 (AWM) Style 20233 (jacket) and Style 10152 (core)

Pin assignment



Dimensions



A1	63 mm
A2	20 mm

Notes

- Depending on the cable length (L), the following length tolerances apply:
0.5 m: ± 30 mm | 1.0 m ... 3.0 m: ± 50 mm | 5.0 m: ± 100 mm
- Illustrations similar
- Further cable length on request.

CE, UL	
UL	yes

Ordering information	Length
ZK4514-1520-0030	3.00 m
ZK4514-1520-0050	5.00 m
ZK4514-1520-0100	10.00 m
ZK4514-1520-0150	15.00 m
ZK4514-1520-0200	20.00 m

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.