

ZK4100-8101-0xxx | Motor connection cable 0.75 mm² with M23 speedtec[®] plug, fixed installation



M23, plug, straight, female, Power: 3+PE, Signal: 5 – ix Industrial[™], plug, straight, male, 10-pin, Type A – Pitch dimension 5.08 mm, plug, straight, female, 6-pin



Plugs

Electrical data	Head A	Head B	Head D
Rated voltage	-	50 V AC/60 V DC	-
Rated voltage (power)	630 V AC/DC	-	300 V (accordig to UL 1059)
Rated voltage (signal/24V)	250 V AC/DC	-	-
Rated current (power)	30 A max.	-	18.5 A at AWG26 ... 10 A at AWG12 (according to UL 1059)
Test voltage	-	500 V	-
Rated current	-	1.5 A	-
Rated current (signal/24V)	7 A max.	-	-
Rated impulse voltage (power)	6.0 kV	-	4.0 kV
Rated impulse voltage (signal/24V)	2.5 kV	-	-
Shielding	-	yes	-

Contact resistance	< 5 mΩ (signal), < 3 mΩ (power)	< 30 mΩ	< 5 mΩ
Insulation resistance	-	≥ 500 MΩ/km	≥ 100 MΩ (according to IEC 60512)
Insulation group	-	-	IIIa
Transmission characteristics	-	Cat.6 Class EA up to 500 MHz, 10/100 Mbit/s, 1/10 Gbit/s	-
Mechanical data			
Accessories type	Connectors	-	Connectors
Installation size	M23	ix Industrial™	Pitch dimension 5.08 mm
Connector type	plug	plug	plug
Configuration	straight	straight	straight
Contact type	female	male	female
Number of positions (face)	Power: 3+PE, Signal: 5	10-pin	6-pin
Coding	-	Type A	-
Wire termination	crimp connection	IDC	Push-in
Recommended torque, screw termination	-	-	0.5...0.6 Nm
Mating cycles	500	≥ 5000	25
Insertion force	-	-	7 N / pol
Way of locking	Speedtec®	push-pull	locking pin
Weight	0.143 kg (0.3153 lb)	-	0.011 kg (0.0242 lb)
Body color	metal	black	black, similar to RAL 9011
Body material	zinc diecast/nickel plated	Polycarbonate resin	PBT, UL 94 V-0
Seal	FKM	-	-
Clamp ring	brass/nickel plated	-	-
Contact carrier color	-	-	black
Contact carrier material	PA 6.6 mod., UL 94 V-0	-	PBT, UL 94 V-0
Contact plating	-	Au	tinned
Contact material	brass/gold plated	copper alloy	copper alloy
Max. wire cross-section	-	AWG24...AWG22 (0,25mm²...0.34mm²)	AWG26...AWG12 (0.13 mm²...4 mm²)
Stripping length	-	-	10 mm + 0,5 mm
Max. cable outer diameter	-	6.0...7.2 mm	-
Environmental data			
Special features	Max. height for operation 2000 m	-	-
RoHS compliant	-	yes	yes

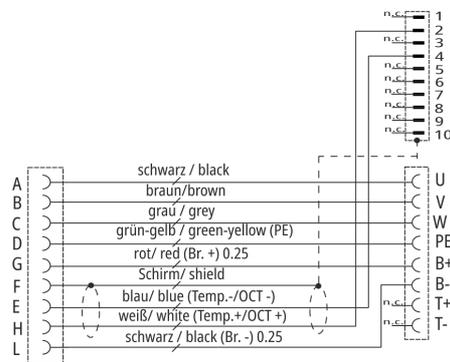
Ambient temperature (operation)	-20...+130°C, -4...+266°F	-	-50...+100°C, -58...+212°F
Protection rating	IP66/67 in screwed condition	IP20	IP20 plugged in IP10 not plugged
Pollution level	3 (according to VDE 0110/EN61984 part 6.19.2.2)	-	3/2 (according to IEC 60664-1)
Approvals	-	UL 1977 ECBT2.E102079, CSA-C22.2 No. 182.3 ECBT8.E102079	-
UL	yes, UL E-file number: E247738	yes	yes
Overvoltage category	3 (according to VDE 0110/EN61984 part 6.19.2.2)	-	2

Cable

Electrical data	
Operating voltage	≤ 600 V
Insulation resistance	10 MΩ * km
Wire resistance (power)	≤ 26.0 Ω/km (DIN EN 50395)
Wire resistance (signal/24V)	≤ 87.0 Ω/km (DIN EN 50395)
Wire resistance (brake)	≤ 80.0 Ω/km (DIN EN 50395)
Characteristic impedance	100 Ω (100 MHz)
Dielectric strength wire/wire	3 kV
Dielectric strength wire/shield	2 kV
Mechanical data	
Cross-section	4 x 0.75 mm ² + 2 x 0.25 mm ² + (2 x AWG24)
Cross-section (power)	0.75 mm ² (approx. AWG18)
Outer cable diameter	8.3 ± 0.3 mm
Min. bending radius, moved	10 x outer cable diameter
Min. bending radius, fixed installation	5 x outer cable diameter
Conductor material	copper bare
Use	fixed installation
UL-Style	cULus AWM Style 2570 80°C 600V
Jacket color	orange
Material jacket	PVC (polyvinyl chloride)
Wire color code	power: black, brown, gray, green/yellow brake: black, red signal: white, blue
Wire insulation material	PVC (polyvinyl chloride)
Printing on the jacket	Beckhoff Automation GmbH & Co. KG - D - Verl - 4G0.75 + 2x0.25 + (2xAWG24)/D E63216 (UL) AWM Style 2570 80°C 600V XX/JJ - Desina -

Printing color	black
Environmental data	
Operation temperature range, moved	-20...+80°C, -4...+176°F
Ambient temperature, transport/storage	-40...+80°C, -40...+176°F
Halogen-free	no
RoHS compliant	yes
UL	yes, UL E-file number: E63216
Approvals	UL-Style AWM 2570 80°C 600V

Pin assignment



Dimensions



A1	79.00 mm
A2	28.00 mm
B1	30.00 mm
B2	17.00 mm
D1	28,00 mm
D2	31,00 mm

Notes

- Depending on the cable length (L), the following length tolerances apply: $\pm 2\text{-}3\%$
- 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

CE, UL	
CE	yes
UL	no

Ordering information	Length
ZK4100-8101-0005	0.50 m
ZK4100-8101-0010	1.00 m
ZK4100-8101-0030	3.00 m
ZK4100-8101-0050	5.00 m
ZK4100-8101-0250	0.25 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.

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