

ZK1031-6451-1xxx | PROFIBUS cable, PUR, drag-chain suitable



M12, socket, angled, female, 4-pin, B-coded – M12, plug, straight, male, 4-pin, B-coded



Plugs

Electrical data	Head A	Head B
Rated voltage	160 V (according to IEC 61076-2-101)	160 V (according to IEC 61076-2-101)
Rated current	4 A at 40°C (according to IEC 61076-2-101)	4 A at 40°C (according to IEC 61076-2-101)
Rated impulse voltage	-	1.5 kV
Shielding	yes	yes
Contact resistance	-	< 5 mΩ
Insulation resistance	≥ 10 GΩ (according to IEC 60512-2)	-
Mechanical data		
Installation size	M12	M12
Connector type	socket	plug
Configuration	angled	straight
Contact type	female	male
Number of positions (face)	4-pin	4-pin
Coding	B-coded	B-coded

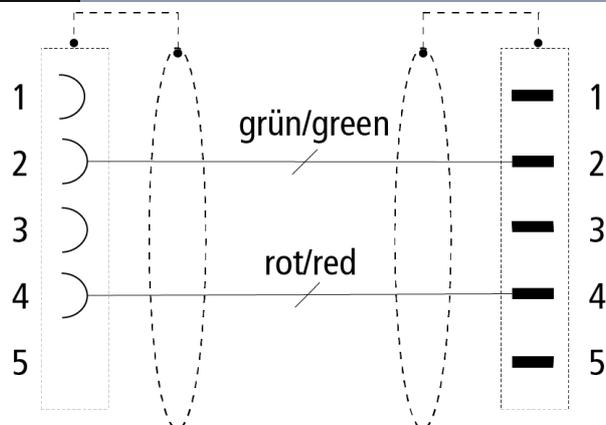
Recommended torque, nut	0.6 Nm	0.6 Nm
Mating cycles	≥ 100 (according to IEC 60512-9a)	≥ 100 (according to IEC 60512-9a)
Way of locking	screw	screw
Body color	black	black
Body material	TPU, UL 94	TPU, UL 94
Coupling nut material	CuZn, Ni	CuZn, Ni
Seal	FPM	FPM
Contact carrier color	violet RAL 4001	violet RAL 4001
Contact carrier material	TPU GF, UL 94	TPU GF, UL 94
Contact plating	Ni, Au gal.	Ni, Au gal.
Contact material	CuZn	CuZn
Environmental data		
Special features	flame-resistant as per IEC 60332-1-2, oil-resistant as per DIN EN 60811-2-1	halogen-free, flame-resistant as per IEC 60332-1-2, oil-resistant as per DIN EN 60811-2-1
RoHS compliant	yes	yes
Ambient temperature (operation)	-30...+80°C, -22...+176°F	-30...+80°C, -22...+176°F
Protection rating	IP65/67 in screwed condition (according to IEC 60529)	IP65/67 in screwed condition (according to IEC 60529)
Pollution level	3/2 (according to IEC 60664-1)	3/2 (according to IEC 60664-1)

Cable

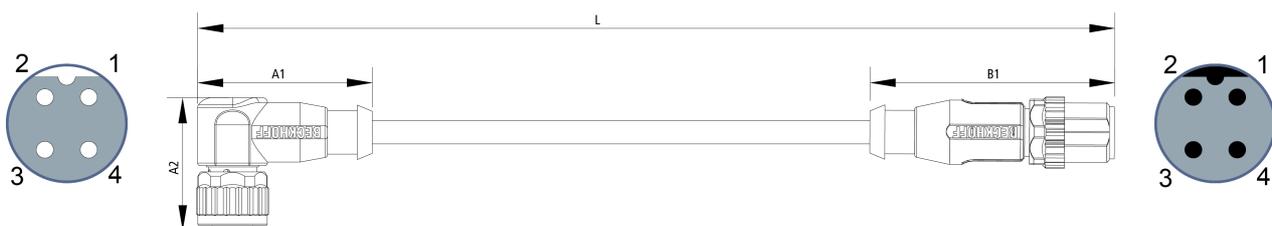
Electrical data		
Operating voltage	≤ 300 V	
Mutual capacitance wire/wire	max. 30 nF/km (800 Hz)	
Insulation resistance	≥ 16 GΩ/km	
Mutual capacitance	28.5 nF/km (1 kHz)	
Wire resistance	≤ 58 Ω/km (20°C)	
Loop resistance	≤ 133 Ω/km	
Test voltage	≥ 3000 V	
Mechanical data		
Cable structure	2 wires stranded with 2 drain wires	
Conductor construction	19 x 0.14 mm	
Cross-section	2 x 0.25 mm ² (AWG24)	
Outer cable diameter	8.50 ±0.40 mm	
Min. bending radius, fixed installation	7.5 x outer cable diameter	
Weight	62 kg/km (41.66 lb/1000 ft)	

Conductor material	copper bare
Shielding	aluminum-clad foil, braiding of tinned copper wires
Optical covering factor of shielding	≥ 85%
Use	drag-chain suitable
Max. acceleration	4 m/s ²
Max. number of cycles	5 million
Jacket color	violet (similar to RAL 4001)
Material jacket	PUR (polyurethane)
Wire color code	red, green
Wire insulation material	PE (polyethylene)
Printing color	black
Environmental data	
Operation temperature range, fixed installation	-40...+80°C, -40...+176°F
Oil resistance	according to DIN EN 60811-2-1
Flame-retardant	according to IEC 60332-1-2
RoHS compliant	DIN VDE 0472, PART 815/A

Contact assembly



Dimensions



A1	35.00 mm
A2	26.80 mm

B1	49.00 mm
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Notes

- Depending on the cable length (L), the following length tolerances apply:
0 m...<0.2 m: ± 10 mm | 0.2...4.0 m: $+ 40$ mm | ≥ 4.0 m: $+ 1\%$
- Illustrations similar
- Further cable length on request.

CE, UL

UL	yes, UL E-file number: E318363
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Ordering information

Ordering information	Length
ZK1031-6451-1025	2.50 m
ZK1031-6451-1050	5.00 m

Accessories

ZB8801-0000	torque wrench for hexagonal plugs, adjustable
ZB8801-0002	torque cable key, M12/wrench size 13, for ZB8801-0000
ZB8803-0003	Flange/Panel feed-through for M12 pre-assembled, for fixing the connector, plastic



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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