



## ZK1031-6251-1xxx | PROFIBUS cable, PUR, drag-chain suitable

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

### Plugs

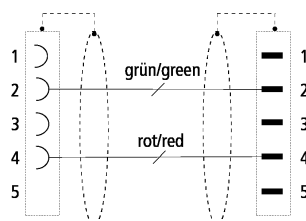
Electrical data	Head A	Head B
Rated voltage	160 V (according to IEC 61076-2-101)	160 V (according to IEC 61076-2-101)
Rated current	4 A at 40 °C (according to IEC 61076-2-101)	4 A at 40 °C (according to IEC 61076-2-101)
Rated impulse voltage	-	1.5 kV
Shielding	yes	yes
Contact resistance	-	< 5 mΩ
Insulation resistance	≥ 10 GΩ (according to IEC 60512-2)	-
Mechanical data		
Installation size	M12	M12
Connector type	socket	plug
Configuration	straight	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 colour	black	black
Body material	TPU, UL 94	TPU, UL 94
Coupling nut material	CuZn, Ni	CuZn, Ni
Seal	FPM	FPM
Contact carrier colour	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	halogen-free, 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 class	IP 65/67 in screwed condition (according to IEC 60529)	IP 65/67 in screwed condition (according to IEC 60529)
Pollution level	3/2 (according to IEC 60664-1)	3/2 (according to IEC 60664-1)

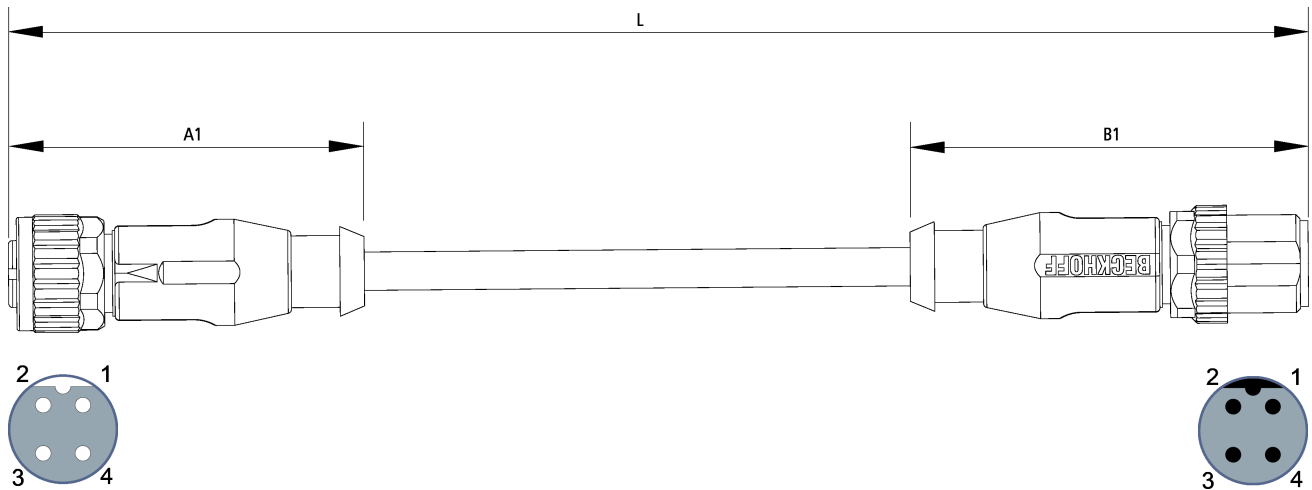
## Cable

Electrical data	
Rated voltage	250 V
Operating voltage	≤ 300 V
Mutual capacitance wire/wire	max. 30 nF/km (800 Hz)
Insulation resistance	≥ 16 GΩ/km
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
Cross section	2 x 0.34 mm <sup>2</sup> (AWG22)
Min. bending radius, fixed installation	7.5 x outer cable diameter
Weight	62 kg/km (41.66 lb/1000 ft)
Outer cable diameter	8.5 mm ± 0.4 mm (0.3346" ± 0.0157")
Conductor material	Copper bare
Shielding	aluminium-clad foil, braiding of tinned copper wires
Optical covering factor of shielding	≥ 85%
Use	drag-chain suitable
Max. acceleration	4 m/s <sup>2</sup>
Max. number of cycles	5 million
Jacket colour	violet (similar to RAL 4001)
Material jacket	PUR (polyurethane)
Wire colour code	red, green
Wire insulation material	PE (polyethylene)
Printing on the jacket	BECKHOFF AUTOMATION ZB3200 PROFIBUS-DP 1x2x0.25 [length in meters] [internal number]
Printing colour	black
Environmental data	
Operation temperature range, fixed installation	-40...+80 °C, -40...+176 °F
Flame-retardant	according to IEC 60332-1-2

### Contact assembly



## Dimensions



A1	43.80 mm
B1	49.00 mm

## 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. The last three digits of the ordering information is the cable length in decimeters, e.g. ZKxxxx-xxxx-x020 = cable length 2.00 m

Ordering information	Length
ZK1031-6251-1003	0.30 m
ZK1031-6251-1005	0.50 m
ZK1031-6251-1010	1.00 m
ZK1031-6251-1020	2.00 m
ZK1031-6251-1025	2.50 m
ZK1031-6251-1030	3.00 m
ZK1031-6251-1050	5.00 m
ZK1031-6251-1070	7.00 m
ZK1031-6251-1080	8.00 m
ZK1031-6251-1090	9.00 m
ZK1031-6251-1095	9.50 m
ZK1031-6251-1100	10.00 m
ZK1031-6251-1105	10.50 m
ZK1031-6251-1110	11.00 m
ZK1031-6251-1130	13.00 m
ZK1031-6251-1145	14.50 m
ZK1031-6251-1150	15.00 m
ZK1031-6251-1195	19.50 m
ZK1031-6251-1200	20.00 m
ZK1031-6251-1220	22.00 m
ZK1031-6251-1250	25.00 m

## Accessories

ZB8801-0000	torque wrench for hexagonal plugs, adjustable
ZB8801-0002	torque cable key, M12/wrench size 13, for ZB8801-0000

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