# ZK7231-3031-0xxx | B17, Power cable, PUR, 5 G 1.5 mm<sup>2</sup>, drag-chain suitable, key 1 (24 V DC)



B17, plug, straight, male+blanking plug, pins 4+PE, Power – B17, plug, straight, female+blanking plug, pins 4+PE, Power



## **Plugs**

Electrical data	Head A	Head B
Rated voltage (power)	630 V AC / 850 V DC, 600V AC / DC (UL)	630 V AC / 850 V DC, 600V AC / DC (UL)
Rated current (power)	15.5 A at 45 °C	15.5 A at 45 °C
Rated impulse voltage (power)	6.0 kV	6.0 kV
Voltage proof (contact/contact)	3.31 kV AC	3.31 kV AC
Contact resistance	< 5 mΩ	< 5 mΩ
Insulation resistance	≥ 100 M $\Omega$ (according to IEC 60512)	≥ 100 M $\Omega$ (according to IEC 60512)
Mechanical data		
Installation size	B17	B17
Connector type	plug	plug
Configuration	straight	straight
Contact type	male+blanking plug	female+blanking plug
Number of positions (face)	pins 4+PE	pins 4+PE
Coding	Power	Power



Mechanical coding	key 1 (2 x 24 V DC + PE)	key 1 (2 x 24 V DC + PE)
Wire termination	crimp connection	crimp connection
Mating cycles	≥ 100	≥ 100
Way of locking	bayonet	bayonet
Weight per piece	0.090 kg (0.198 lb)	0.090 kg (0.198 lb)
Body color	black	black
Body material	TPU, UL 94 HB	TPU, UL 94 HB
Coupling nut material	GD-Zn, Ni	GD-Zn, Ni
Seal	NBR, FPM	NBR, FPM
Contact carrier material	PA 6, UL 94 V0	PA 6, UL 94 V0
Contact carrier color (power)	red	red
Contact plating	Au over Ni	Au over Ni
Contact material	copper alloy	copper alloy
Environmental data		
Shock resistance	50 g (490 m/s²) conforms to IEC 60512-6c, 11 ms; 18 shocks per direction, 3 axes	50 g (490 m/s²) conforms to IEC 60512-6c, 11 ms; 18 shocks per direction, 3 axes
Vibration resistance	5 g (50 m /s²) conforms to IEC 60512-6d, 10 Hz 500 Hz.; 10 cycles per axis; 6 h full duration	5 g (50 m /s²) conforms to IEC 60512-6d, 10 Hz 500 Hz.; 10 cycles per axis; 6 h full duration
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)

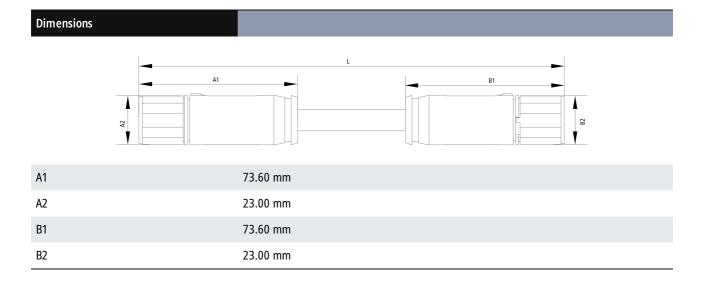
# Cable

Electrical data	
Operating voltage	≤ 300 V
Wire resistance	≤ 58 Ω/km (20°C)
Test voltage	≥ 3000 V
Mechanical data	
Conductor construction	84 x 0.15 mm
Cross-section	5 G 1.5 mm² (approx. AWG16)
Outer cable diameter	7.80 ±0.05 mm
Min. bending radius, moved	6 x outer cable diameter
Weight	112 kg/km (0.075 lb/1000 ft)
Use	drag-chain suitable
Max. acceleration	10 m/s <sup>2</sup>
Max. speed	5 m/s



Max. travel distance	100 m
Max. number of cycles	2 million
Jacket color	black
Material jacket	PUR (polyurethane)
Wire color code	brown, white, black, blue, green/yellow
Environmental data	
Operation temperature range, moved	-25+80°C
Flame-retardant	according to cULus 20549
Halogen-free	DIN VDE 0472 part 815
RoHS compliant	yes

Contact assembly	
	weiß/white 5
	grün-gelb/green-yellow 6
	schwarz/black 7
	blau/blue 8
	braun/brown 9



### **Notes**

- Depending on the cable length (L), the following length tolerances apply:
- 0 m...3.0 m: + 100 mm | 3.0...10.0 m:  $\pm$  100 mm |  $\geq$  10.0 m:  $\pm$  2%
- 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-xx020 = cable length 2.00 m
- B17 3-pin 1.5 mm<sup>2</sup> and B17 3 3-pin 2.5 mm<sup>2</sup> are not pin compatible



ZK7231-3031-0xxx www.beckhoff.com/ZK7231-3031-0xxx

CE, UL	
CE	yes

Ordering information	Length
ZK7231-3031-0030	3.00 m

Further length on request

Accessories	
ZS7200-B003	B17 protection cap, plug, plastic, IP67, packaging unit = 10 pieces, including loss protection
ZS7200-B004	B17 protection cap, plug, metal, IP67, packaging unit = 5 pieces, including loss protection
ZS7200-B005	B17 color coding connector/square flange, red, packaging unit = 10 pieces
ZS7200-B006	B17 color coding connector/square flange, yellow, packaging unit = 10 pieces
ZS7200-B007	B17 color coding connector/square flange, blue, packaging unit = 10 pieces
ZS7200-B008	B17 color coding connector/square flange, green, packaging unit = 10 pieces
ZS7200-B015	B17 color coding connector/square flange, orange, packaging unit = 10 pieces
ZS7200-B016	B17 color coding connector/square flange, gray, packaging unit = 10 pieces
ZB8802-0002	assembly tool for B17 connector, AF22
ZB8805-0001	Flange/Panel feed-through for B17 pre-assembled, for fixing the connector, plastic, including screws, washers and lock nuts



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.

Beckhoff®, TwinCAT®, TwinCATBSD®, TC/BSD®, EtherCAT®, EtherCAT G®, EtherCAT G10®, EtherCAT P®, Safety over EtherCAT®, TwinSAFE®, XFC®, XTS® and XPlanar® are registered trademarks of and licensed by Beckhoff Automation GmbH. Other designations used in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owners.

#### © Beckhoff Automation GmbH & Co. KG 02/2025

The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual application do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressively agreed in the terms of contract.