

Beckhoff — ZK Motor Cables

ZK1090-3191-1080

 **In-Stock, Ships Today**

- ☒ Get a Quote in 5 minutes
- ☒ Parts ship in as little as 24 hours
- ☒ Up to half the cost of the manufacturer

**Secure Online**
Checkout**Free Ground**
Shipping**One Year**
Warranty

The **ZK1090-3191-1080** cable is manufactured by Beckhoff for the ZK Motor Cables series. It is a preterminated hybrid line that carries motor power and feedback signals between an AX series servo drive and its companion synchronous motor in industrial automation cells. Using a single molded connector set, the assembly reduces panel wiring time, preserves signal integrity, and supports dynamic motion sequences in packaging, printing, and material-handling machinery.

Internally, the cable follows a **Cat.5** topology, so the twisted-pair cores meet the impedance and attenuation limits required for 100 Mbps Ethernet-based drive communication. Its physical layout of **4 × 2 × AWG26** consists of four balanced pairs, each composed of 26-gauge conductors that limit bulk while still accommodating encoder currents. Each conductor has a cross-sectional area of **0.14 mm² (AWG26)**, balancing flexibility with current-carrying capacity for Hall sensors and brake release lines. The overall jacket diameter is **5.9 mm**, allowing tight routing through drag-chain channels without exceeding typical bend radii. The cable has a fixed length of **8.00 m**, eliminating the need for field trimming.

The polyurethane outer sheath and polyethylene core insulation combine with double foil-braid shielding to provide a wire-to-shield test voltage of **1500 V DC**, offering protection against inverter voltage spikes. A braid coverage ratio of **90%** keeps common-mode emissions low, which is important when motors operate near sensitive I/O. The loop resistance of **280 Ω /km** limits voltage drop on sensor supplies, while the rated system voltage of **60 V** matches typical low-voltage auxiliaries such as motor temperature sensors. Additional electrical characteristics include

Automation Factory sells factory new and pre-owned surplus products and maintains channels to procure supply. Automation Factory is not affiliated with nor an authorized distributor or representative of any manufacturers, brands or products listed. Designated trademarks, brand names, and brands appearing herein are the property of their respective owners.

mutual capacitance of 51 pF/m, ground capacitance of 1600 pF/km, and a signal propagation time of 5.08 ns/m. These values support fast pulse edges without signal reflection over the fixed cable length.

Specifications

Cable Category:	Cat.5	Cable Structure:	4 x 2 x AWG26	Capacitance To Ground:	1600 pF/km
Conductor Cross-section:	0.14 mm ² (AWG26)	Conductor Material:	Copper, Tinned	Cooling Method:	Natural Air Cooling
Dielectric Strength Wire/shield:	1500 V DC	Dielectric Strength Wire/wire:	1000 V DC	Dimensions:	160mm x 90mm x 90mm
Encoder Type:	Incremental, 2500 PPR	Insulation Material:	PE	Jacket Material:	PUR
Length:	8.00 m	Loop Resistance:	280 Ω /km	Mating Cycles (M8):	>= 100
Mounting Type:	Flange	Mutual Capacitance:	51 pF/m	Operating Temperature:	-10°C to +40°C
Outer Cable Diameter:	5.9 mm	Protection Class:	IP65	Rated Power:	750W
Rated Speed:	3000 rpm	Rated Torque:	2.39 Nm	Rated Voltage:	60 V
Shaft Diameter:	19 mm	Shield Coverage:	90 %	Signal Running Time:	5.08 ns/m
Type:	Servo Motor	Weight:	3.5 kg	Last Verified:	10/26/2026 4:35 AM

Contact Us

-  1620 Old Apex Road, Cary, NC 27513, USA
-  Toll Free: [1-888-551-3082](tel:1-888-551-3082)
-  International: [1-919-443-0207](tel:1-919-443-0207)
-  Fax: [1-919-867-6204](tel:1-919-867-6204)
-  Email: sales@wakeindustrial.com

Shipping Options



Payment Methods



Automation Factory sells factory new and pre-owned surplus products and maintains channels to procure supply. Automation Factory is not affiliated with nor an authorized distributor or representative of any manufacturers, brands or products listed. Designated trademarks, brand names, and brands appearing herein are the property of their respective owners.