

readycable® Hybrid cable suitable for Beckhoff

ZK4500-8024-xxxx, basic cable PVC 10xd

MAT9750312



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- For medium-duty applications
- PVC outer jacket
- Shielded
- Oil-resistant
- Flame retardant
- Guarantee up to 4 years

Product description

Introducing the readycable® Hybrid Cable, designed for Beckhoff ZK4500-8024-xxxx applications. This versatile cable features a durable PVC outer jacket, making it ideal for medium-duty tasks. It is oil-resistant, flame-retardant, and silicone-free, ensuring reliability in various environments. Suitable for indoor and outdoor use at temperatures above 5°C, it excels in wood processing, packaging, and handling applications. Experience superior performance with the readycable® Hybrid Cable, your go-to solution for demanding tasks.

Manufacturer attributes

Manufacturer Part No	ZK4500-8024-xxxx
Cable type	Basic cable

Connectors

Connector A	Connector M23 socket 9-pin
Connector B	Circuit board connection

General properties

Number of cores and conductor nominal cross-section	(4G2.5+(2x1.0)C)+(2xAWG22)C)C
Outer diameter (d) max. mm	14.5 mm
Weight per km	289 kg/km
Copper index kg/km	199 kg/km



Electricity attributes

	Nominal voltage	600/1,000V (according to DIN VDE 0298-3)
	UL Voltage Rating	1000 V
	Test voltage	4000V (according to DIN EN 50395)



Cable structure



Conductor

Stranded conductor in a bend-resistant version consisting of bare copper wires (according to DIN EN 60228).



Core insulation

Mechanically high-quality, especially low-capacity XLPE mixture.



Core stranding

Power cores and control pair elements wound with a short pitch length around a high tensile strength centre element.



Conductor colours

According to servo hybrid specification.

Core group 1 core structure

4G2.5

Core group 1 colour code

3 black cores with white printing: 1st core: U/L1/C/L+ 2nd core: V/L2 3rd core: W/L3/D/L- followed by a green-yellow core

Core group 2 core structure

(2x1.0)C



Element shield

Flexible braiding made of tinned copper wires.



Overall shield

Bend-resistant braiding made of tinned copper wires. Coverage approx. 55% linear, approx. 80% optical



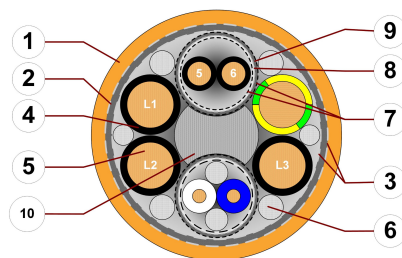
Outer jacket

Low-adhesion, oil-resistant PVC mixture, adapted to suit the requirements in e-chains® (according to DIN EN 50363-4-1).



Outer jacket colour

Pastel orange (comparable to RAL 2003)



1. Outer jacket: pressure extruded, PUR mixture Pressure extruded, PVC mixture
2. Overall shield: extremely flexible braiding made of tinned copper wires
3. Banding: plastic fleece
4. Core insulation: mechanically high-quality, especially low-capacity TPE mixture
5. Conductor: particularly resistant to bending made of bare copper wires
6. Filler: plastic yarns
7. Element banding: plastic foil
8. Shield film: aluminium-coated plastic foil
9. Element shield: bend-resistant braiding of tinned copper wires
10. Strain relief: high tensile strength centre element



Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (according to DIN EN 50363-4-1), Class 2
	Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2/Horizontal Flame
	Silicone-free	Free from silicone which can affect paint adhesion (according to PV 3.10.7 – status 1992)
	UL verified	Certificate no. V293650: "igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
	UL/CSA AWM	Style 10989 and 2570, 1000 V, 80 °C
	NFPA	According to NFPA 79-2018, chapter 12.9
	REACH	In accordance with Regulation (EC) No. 1907/2006 (REACH)
	Lead-free	According to 2011/65/EU (RoHS-II/RoHS-III)
	Cleanroom	According to ISO Class 2. The outer jacket material of this series complies with CF5.10.07 - tested by IPA according to standard DIN EN ISO 14644-1
	CE	According to 2014/35/EU



Dynamic properties

	Min. bend radius, e-chain (factor)	10 x d
	Min. bend radius, e-chain	145 mm
	Min. bend radius, flexible (factor)	8 x d
	Min. bend radius, fixed (factor)	5 x d
	Temperature e-chain®	+5°C up to +70°C
	Temperature, flexible	-5°C to +70°C (according to DIN EN 60811-504)
	Temperature, fixed	-15°C to +70°C (according to DIN EN 50305)
	v max. unsupported (speed)	10 m/s
	v max. gliding (speed)	2 m/s
	a max. (acceleration)	50 m/s ²
	travel length	Class 2
	torsion	No torsion



chainflex®Lifetime

Guaranteed service life for this series according to guarantee conditions

Further information: [chainflex® guarantee](#)

Double strokes*					5 million	7.5 million	10 million
Temperature,	v max. [m/s]		a max.	Travel	R min. [Factor x d]	R min. [Factor x d]	R min. [Factor x d]
from/to [°C]	unsupported	gliding	[m/s²]	[m]			
+5 / +15					12.5	13.5	14.5
+15 / +60	10	2	50	≤ 10	10	11	12
+60 / +70					12.5	13.5	14.5

* Higher number of double strokes possible - please ask for your individual calculation.

Certificates and standards

