

readycable® encoder cable suitable for Beckhoff

ZK4520-0020-xxxx, basic cable PUR 10xd

MAT9382002



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Beckhoff ZK4520-0020-xxxx, basic cable PUR

10xd

- For heavy-duty applications
- PUR outer jacket
- Overall shield
- Oil-resistant (according to DIN EN 50363-10-2)
- Notch-resistant
- Hydrolysis and microbe-resistant
- Flame retardant
- Halogen-free
- Silicone-free
- PVC-free
- UV-resistant
- Guarantee up to 4 years

Product description

Introducing the readycable® encoder cable, designed for heavy-duty applications and compatible with Beckhoff ZK4520-0020-xxxx. This robust cable features a PUR outer jacket, making it resistant to oil, UV radiation, and flame. With its overall shield and notch resistance, it ensures reliable performance in various environments, from machining to refrigeration. Enjoy peace of mind with its hydrolysis and microbe resistance, all while being halogen, silicone, and PVC-free. Perfect for both indoor and outdoor use.

Manufacturer attributes

Manufacturer Part No	ZK4520-0020-xxxx
Cable type	Connecting cable

Connectors

Connector A	SUB-D, pin
Connector B	round plug, socket



General properties

Number of cores and conductor nominal cross-section	(6x(2x0.25))C
Outer diameter (d) max. mm	9 mm
Weight per km	102 kg/km
Copper index kg/km	62 kg/km

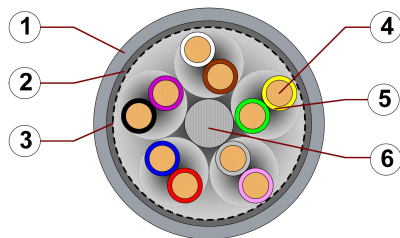
Electricity attributes

 Nominal voltage	300/300V (according to DIN VDE 0298-3)
UL Voltage Rating	300 V
 Test voltage	1500V (according to DIN EN 50395)
Maximum conductor resistance at 20°C [μm]	79.0000



Cable structure

	Conductor	Very finely stranded special conductors of a particularly bend-resistant design, made of bare copper wires.
	Core insulation	Mechanically high-quality TPE mixture.
	Core stranding	Cores twisted in pairs with short pitch lengths, core pairs then wound with short pitch lengths.
	Conductor colours	Colour code according to DIN 47100
Core group 1 core structure		(6x(2x0.25))C
	Overall shield	Extremely flexible braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
	Outer jacket	Low-adhesion, halogen-free, highly abrasion-resistant PUR mixture, adapted to suit the requirements in e-chains® (according to DIN EN 50363-10-2).
	Outer jacket colour	Window grey (comparable to RAL 7040)



1. Outer jacket: pressure extruded PUR mixture
2. Overall shield: extremely flexible braiding made of tinned copper wires.
3. Banding: plastic foil
4. Conductor: very finely stranded special conductor of particularly bend-resistant design made of bare copper wires
5. Core insulation: mechanically high-quality TPE mixture
6. Strain relief: high tensile strength centre element



Dynamic properties

	Min. bend radius, e-chain (factor)	7.5 x d
	Min. bend radius, e-chain	67.5 mm
	Min. bend radius, flexible (factor)	6 x d
	Min. bend radius, fixed (factor)	4 x d
	Temperature e-chain®	-25°C up to +80°C
	Temperature, flexible	-40°C to +80°C (according to DIN EN 60811-504)
	Temperature, fixed	-50°C to +80°C (according to DIN EN 50305)
	v max. unsupported (speed)	5 m/s
	v max. gliding (speed)	3 m/s
	a max. (acceleration)	50 m/s ²
	travel length	Class 5
	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,	R min.	R min.	R min.
from/to [°C]	[Factor x d]	[Factor x d]	[Factor x d]
-25 / -15	10	11	12
-15 / +70	7.5	8.5	9.5
+70 / +80	10	11	12

* Higher number of double strokes possible - use the service life calculation function on this page.



Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (according to DIN EN 50363-10-2), Class 3
	Offshore	MUD-resistant according to NEK 606 - status 2018
	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)
	Halogen-free	According to DIN EN 60754
	UL verified	Certificate no. V293650: "The igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
UL/CSA AWM		val_ul_csa_75
	NFPA	According to NFPA 79-2018, chapter 12.9
	DNV	Type approval certificate TAE00003X3
	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 1. The outer jacket material of this series complies with CF77.UL.05.12.D - tested by IPA according to standard DIN EN ISO 14644-1
	CE	According to 2014/35/EU



Certificates and standards

