

readycable® encoder cable suitable for Bosch
Rexroth RKG0028, basic cable TPE 7.5xd

MAT9100031



readycable® encoder cable suitable for Bosch
Rexroth RKG0028, basic cable TPE 7.5xd

- For extremely heavy duty applications
- TPE outer jacket
- Oil-resistant (following DIN EN 60811-404), resistant to bio oils (following VDMA 24568 with Plantocut 8 S-MB tested by DEA)
- Halogen-free
- Silicone-free
- Hydrolysis and microbe-resistant
- PVC-free
- CFRIP®
- Guarantee up to 4 years

Product description

Introducing the readycable® encoder cable, designed for Bosch Rexroth RKG0028 applications. This robust cable features a TPE outer jacket, ensuring exceptional durability for extremely heavy-duty environments. With outstanding oil resistance, including bio-oils, it is perfect for both indoor and outdoor use (excluding direct sunlight). Its halogen-free, silicone-free, and PVC-free composition guarantees a safe operation, making it ideal for storage and retrieval units, machine tools, and low-temperature applications.

Manufacturer attributes

Manufacturer Part No	RKG0028
Cable type	Basic cable

Connectors

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

General properties

Number of cores and conductor nominal cross-section	(3x(2x0.25)C)+(3x0.25)+2x1.0)C
Outer diameter (d) max. mm	10 mm
Weight per km	120 kg/km
Copper index kg/km	93 kg/km



Electricity attributes

	Nominal voltage	50V
	UL Voltage Rating	300 V
	Test voltage	1500V (according to DIN EN 50395)

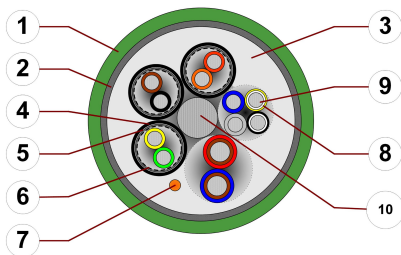
Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (according to DIN EN 60811-404), bio-oil-resistant (according to VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4
	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 AWM	Style 10467 and 22355, 300 V, 80 °C
	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 CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1
	DESINA	According to VDW, DESINA standardisation
	CE	According to 2014/35/EU



Cable structure

	Conductor	Stranded conductor in an especially flexible design consisting of tinned copper wires (according to DIN EN 60228).
	Core insulation	Mechanically high-quality TPE mixture.
	Core stranding	According to measuring system specification
	Conductor colours	according to measuring system specification
Core group 1 core structure		3x(2x0.25)C
Core group 1 colour code		brown/green, grey/pink, red/black
Core group 2 core structure		(3x0.25)
	Element shield	Extremely flexible braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
Element jacket		TPE mixture on pair shielding adapted to suit the requirements in e-chains®.
Inner jacket		TPE mixture adapted to suit the requirements in e-chains®.
	Overall shield	Extremely flexible braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
	Outer jacket	Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®.
	Outer jacket colour	Yellow-green (comparable to RAL 6018)
	CFRIP®	Strip cables faster: a tear strip is moulded into the inner jacket



1. Outer jacket: pressure-extruded, halogen-free TPE mixture
2. Overall shield: extremely flexible braiding made of tinned copper wires
3. Inner jacket: pressure-extruded, gusset-filling TPE mixture
4. Element jacket: mechanically high-quality TPE mixture
5. Element shield: extremely flexible tinned copper wire
6. Banding: plastic foil
7. CFRIP: tear strip for faster stripping
8. Core insulation: mechanically high-quality TPE mixture
9. Conductor: stranded wire conductors in a particularly flexible design made of tinned copper wires
10. Strain relief: high tensile strength centre element



Dynamic properties

	Min. bend radius, e-chain (factor)	6.8 x d
	Min. bend radius, e-chain	68 mm
	Min. bend radius, flexible (factor)	5 x d
	Min. bend radius, fixed (factor)	4 x d
	Temperature e-chain®	-35°C up to +90°C
	Temperature, flexible	-50°C to +90°C (according to DIN EN 60811-504)
	Temperature, fixed	-55°C to +90°C (according to DIN EN 50305)
	v max. unsupported (speed)	10 m/s
	v max. gliding (speed)	6 m/s
	a max. (acceleration)	100 m/s ²
	travel length	Class 6
	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		12.5 million	
Temperature,	R min. [Factor x d]		R min. [Factor x d]		R min. [Factor x d]	
from/to [°C]	< 10 m	≥ 10 m	< 10 m	≥ 10 m	< 10 m	≥ 10 m
-35/-25	8.5	10	9.5	11	10.5	12
-25/+80	6.8	7.5	7.5	8.5	8.8	9.5
+80/+90	8.5	10	9.5	11	10.5	12

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

Certificates and standards

