

readycable® encoder cable suitable for Bosch
Rexroth IKS4042, basic cable TPE 7.5xd

MAT9100017



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- 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, expertly designed for Bosch Rexroth IKS4042 applications. This robust cable features a TPE outer jacket, offering exceptional resistance to oil, including bio-oils, making it ideal for heavy-duty use. Its halogen-free and silicone-free composition ensures safety in various environments. Suitable for both indoor and outdoor applications, this cable supports unsupported travels and gliding distances of 400m or more, making it perfect for storage, machining, and low-temperature applications.

Manufacturer attributes

Manufacturer Part No	IKS4042
Cable type	Basic cable

Connectors

Connector A	val_235
Connector B	SUB-D, pin, angled, 15-pin

General properties

Number of cores and conductor nominal cross-section	(4x(2x0.25)+2x0.5)C
Outer diameter (d) max. mm	8.5 mm
Weight per km	91 kg/km
Copper index kg/km	57 kg/km



Electricity attributes



Nominal voltage

50V

UL Voltage Rating

300 V



Test voltage

1500V (according to DIN EN 50395)



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

4x(2x0.25)

Core group 1 colour code

brown/green, blue/violet, grey/pink, red/black

Core group 2 core structure

2x0.5



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®.

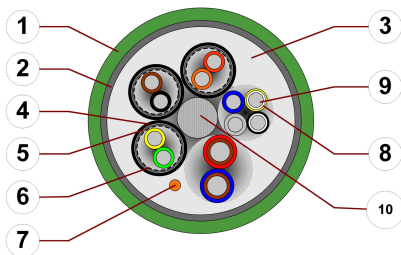


Outer jacket colour

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



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



Dynamic properties

	Min. bend radius, e-chain (factor)	6.8 x d
	Min. bend radius, e-chain	57.8 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

