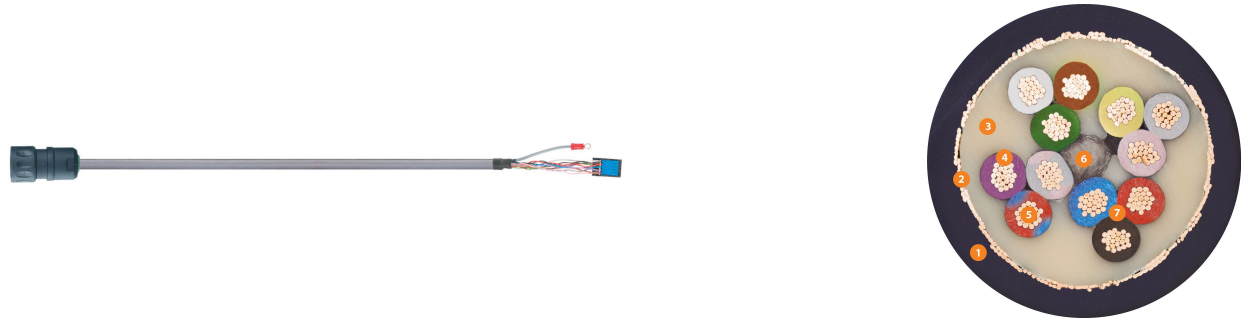


readycable® encoder cable suitable for Bosch
Rexroth IKS0251, basic cable TPE 5xd

MAT9100014



readycable® encoder cable suitable for Bosch
Rexroth IKS0251, basic cable TPE 5xd

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

Product description

Introducing the readycable® encoder cable designed for Bosch Rexroth IKS0251. This robust cable features a TPE outer jacket, ensuring exceptional durability for the heaviest duty applications. It's resistant to oil, including bio-oils, and is UV-resistant, making it suitable for both indoor and outdoor use. With low-temperature flexibility and hydrolysis resistance, this cable is perfect for storage and retrieval units, machining tools, and more, providing reliable performance in demanding environments.

Manufacturer attributes

Manufacturer Part No	IKS0251
Cable type	Basic cable

Connectors

Connector A	Connector M23 socket 12-pin
Connector B	Wire end sleeve



General properties

Number of cores and conductor nominal cross-section	(12x0.5)C
Outer diameter (d) max. mm	12 mm
Weight per km	198 kg/km
Copper index kg/km	107 kg/km

Electricity attributes

 Nominal voltage	300/500V (according to DIN VDE 0298-3)
UL Voltage Rating	1000 V
 Test voltage	2000V (according to DIN EN 50395)
Maximum conductor resistance at 20°C [$\mu\Omega$/km]	39.0000

Properties and approvals

 UV resistance	High
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/CSA AWM	Style 11886 and 22351, 1000 V, 90 °C
UL AWM	Style 11886 and 22351, 1000 V, 90 °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
 CE	According to 2014/35/EU



Cable structure



Conductor

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



Core insulation

Mechanically high-quality TPE mixture.



Core stranding

Cores wound in bundles are then wound around a high tensile strength centre element, all with optimised short pitch lengths and directions. Especially low-torsion structure.



Conductor colours

Colour code according to DIN 47100

Core group 1 core structure

(12x0.5)C



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®.



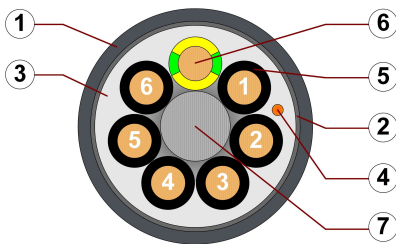
Outer jacket colour

Steel blue (comparable to RAL 5011)



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. CFRIP tear strip for faster stripping
5. Core insulation: mechanically high-quality TPE mixture
6. Conductor: stranded wire in especially flexible version consisting of bare copper wires
7. Strain relief: high tensile strength centre element
8. 12 cores or more: bundles with optimised pitch length and direction



Dynamic properties

	Min. bend radius, e-chain (factor)	5 x d
	Min. bend radius, e-chain	60 mm
	Min. bend radius, flexible (factor)	4 x d
	Min. bend radius, fixed (factor)	3 x d
	Temperature e-chain®	-35°C up to +100°C
	Temperature, flexible	-50°C to +100°C (according to DIN EN 60811-504)
	Temperature, fixed	-55°C to +100°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 the guarantee conditions

More information: [chainflex® Guarantee](#)

Double strokes*	5 million	7,5 million	12.5 million
Temperature,	R min.	R min.	R min.
from/to [°C]	[Factor x d]	[Factor x d]	[Factor x d]
-35 / -25	6,8	7,5	8,5
-25 / +90	5	6	7
+90 / +100	6,8	7,5	8,5

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

Certificates and standards

