

Hybrid cable suitable for Bosch Rexroth iRH2-521-
DBB-NN, basic cable, 10xd, PVC

MAT97513990



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iRH2-521-DBB-NN, basic cable, 10xd, PVC

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

Product description

Introducing the MAT97513990 from the chainflex family, designed for medium duty applications. This flexible cable features a durable PVC outer jacket that is oil resistant, silicone-free, and flame retardant, ensuring safety and reliability. With an overall shield for enhanced protection, this cable is perfect for demanding environments. Trust MAT97513990 for your next project and experience the quality of chainflex.

Manufacturer attributes

Manufacturer Part No	iRH2-521-DBB-NN
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General properties

Number of cores and conductor nominal cross-section	(4G1.5+(2x0.75)C+(2x2x0.14+2x0.25)C)C
Outer diameter (d) max. mm	13.5 mm
Weight per km	240 kg/km
Copper index kg/km	150 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

4G1.5

Core group 2 core structure

(2x0.75)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)



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
	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	135 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

