

readycable® adapter cable suitable for Heidenhain

309 780-xx, linking cable TPE 7.5xd

MAT93909002



readycable® adapter cable suitable for

Heidenhain 309 780-xx, linking 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® adapter cable, designed for Heidenhain 309 780-xx applications. This robust linking cable features a durable TPE outer jacket, making it ideal for extremely heavy-duty use. It offers exceptional oil resistance, including with bio-oils, and is perfect for both indoor and outdoor environments (excluding direct sunlight). With its halogen-free and silicone-free composition, this cable is also hydrolysis and microbe-resistant, ensuring long-lasting performance in demanding conditions.

Manufacturer attributes

Manufacturer Part No	309 780-xx
Cable type	Connecting cable

Connectors

Connector A	coupling, pin
Connector B	open cable end

General properties

Number of cores and conductor nominal cross-section	(3x(2x0.14)C+2x(0.5)C)C
Outer diameter (d) max. mm	10 mm
Weight per km	125 kg/km
Copper index kg/km	74 kg/km



Electricity attributes



Nominal voltage

50V

UL Voltage Rating

300 V

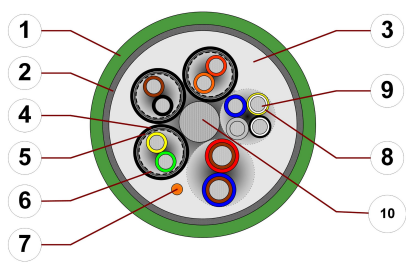


Test voltage

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		3x(2x0.14)C
Core group 1 colour code		green/yellow, black/brown, red/orange
Core group 2 core structure		2x(0.5)C
	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	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

