

readycable® measuring system cable, suitable for
Harmonic Drive, AFC2-H-12M23-B-xxx-00, basic
cable PVC 10xd

MAT9742701



readycable® measuring system cable, suitable
for Harmonic Drive, AFC2-H-12M23-B-xxx-00,
basic cable PVC 10xd

- For medium-duty applications
- PVC outer jacket
- Oil resistant (following DIN EN 50363-4-1)
- Silicone-free
- Flame retardant
- Guarantee up to 4 years

Product description

Introducing the readycable® measuring system cable, designed for medium duty applications and compatible with Harmonic Drive. This cable features a durable PVC outer jacket that is oil-resistant and flame retardant, ensuring reliability in various environments. Ideal for indoor and outdoor use at temperatures above 5°C, it supports unsupported travel distances and is perfect for storage and retrieval units, processing machines, and indoor cranes. Choose readycable® for a robust and versatile solution.

Connectors

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

Manufacturer attributes

Manufacturer Part No	AFC2-H-12M23-B-xxx-00
----------------------	-----------------------

General properties

Number of cores and conductor nominal cross-section	(4x(2x0.25)C+(2x0.5))C
Outer diameter (d) max. mm	10.5 mm
Weight per km	124 kg/km
Copper index kg/km	77 kg/km

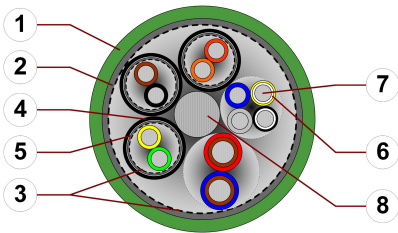


Electricity attributes

	Nominal voltage	50V
UL Voltage Rating		300 V
	Test voltage	500V

Cable structure

	Conductor	Very finely stranded special conductors of particularly bending resistant design made of tinned copper wires.
	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)C
Core group 1 colour code		white/brown, green/yellow, grey/pink, blue/red
Core group 2 core structure		(2x0.5)
	Element shield	Extremely bend-resistant, tinned copper shielding. Cover approx. 90% optical
Element jacket		TPE mixture on pair shielding adapted to suit the requirements in e-chains®.
	Overall shield	Extremely 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	Yellow-green (comparable to RAL 6018)



- 1. Outer jacket: pressure extruded, oil-resistant PVC mixture
- 2. Overall shield: extremely flexible braiding made of tinned copper wires
- 3. Banding: plastic foil
- 4. Element jacket: mechanically high-quality TPE mixture
- 5. Element shield: extremely flexible tinned copper wire
- 6. Core insulation: mechanically high-quality TPE mixture
- 7. Conductor: very finely stranded special conductors of a particularly bend-resistant design, made of tinned copper wires.
- 8. Strain relief: high tensile strength centre element



Properties and approvals

	UV resistance	none
	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: "The igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
	UL/CSA AWM	Style 10467 and 2464, 300 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	105 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)	5 m/s
	v max. gliding (speed)	3 m/s
	a max. (acceleration)	30 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	5	3	30	≤ 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

