

Harnessed SPE cables, PUR 12.5xd, connector A:
Weidmüller, connector B: Weidmüller
CAT9471002



Harnessed SPE cables, PUR 12.5xd, connector
A: Weidmüller, connector B: Weidmüller

Product description

Introducing the Harnessed SPE Cables from our premium series, designed for medium duty applications. These cables feature a durable PUR outer jacket that is oil-resistant, flame-retardant, and notch-resistant, ensuring longevity in various environments. With connectors from Weidmüller, they are perfect for indoor and outdoor use (excluding direct sunlight) and support unsupported travel distances up to 20m. Enjoy reliable performance with guaranteed 10 million double strokes, making them ideal for processing and machine tools.

Dimensions

Outer diameter (d) max. mm	5.5 mm
Weight per km	33 kg/km

Electricity attributes

Nominal voltage	50V
-----------------	-----

Cable structure

Conductor	Stranded conductor in an especially bend-resistant version consisting of bare copper wires (according to DIN EN 60228).
Core insulation	According to bus specification.
Overall shield	Bend-resistant braiding made of tinned copper wires. Coverage approx. 55% linear, approx. 80% optical
Outer jacket	Low-adhesion, halogen-free, highly abrasion-resistant PUR mixture, adapted to suit the requirements in e-chains® (according to DIN EN 50363-10-2).
Outer jacket colour	Red lilac (comparable to RAL 4001)
Test voltage	50 V



General properties

Bus system	Single Pair Ethernet/CAT5e
Number of cores and conductor nominal cross-section	(2x0.15)C
Copper index kg/km	12 kg/km
Core group 1 core structure	2x0.15
Core group 1 colour code	white/blue

Connectors

Manufacturer connector A	Weidmüller
Manufacturer connector B	Weidmüller

Properties and approvals

UV resistance	Medium
EAC	Certificate No. RU C-DE.ME77.B.00295/19
CE	According to 2014/35/EU
UL verified	Certificate no. V293650: "The igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"



Dynamic properties

	Min. bend radius, e-chain (factor)	12.5 x d
	Min. bend radius, fixed (factor)	7 x d
	Min. bend radius, flexible (factor)	10 x d
	Min. bend radius, e-chain	68.75 mm
	Min. bend radius, fixed	38.5 mm
	Min. bend radius, flexible	55 mm
	Temperature e-chain®	-20°C up to +70°C
	Temperature, flexible	-40°C to +70°C (according to DIN EN 60811-504)
	Temperature, fixed	-50°C to +70°C (according to DIN EN 50305)
	v max. unsupported (speed)	3 m/s
	a max. (acceleration)	30 m/s ²
	travel length	Class 3
	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,	R min.	R min.	R min.
from/to [°C]	[Factor x d]	[Factor x d]	[Factor x d]
-20 / -10	15	16	17
-10 / +60	12.5	13.5	14.5
+60 / +70	15	16	17

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

Technical note on bus cables

chainflex® bus cables have been specially developed and tested for continuously moving use in e-chains® applications. Depending on the outer jacket material and the design principle, the bus cables are designed for different mechanical requirements and media resistance. The cables have been electrically designed in such a way that, on the one hand, the electrical requirements of the respective bus specification are reliably met and, on the other, that great value is placed on a high degree of EMC reliability. It is also ensured that the electrical values remain stable over the long term in spite of permanent movement. However, the overall quality of transmission in a complete bus communication system is not solely dependent on the cable used. Rather, it requires precise co-ordination of all components (electronic components,

connection technology and cable) as well as observing the maximum transmission levels depending on the respective systems in relation to the required data transmission rates. A cable is therefore not solely responsible for the secure transmission of signals.

igus® advises you when you are designing your bus system to take all these factors into account and, with extensive tests, helps you to ensure the process reliability of your system from the very beginning.

Certificates and standards

