

Connection cable suitable for Keyence iOP-87231
PUR, 10xd
MAT904194311



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Product description

Introducing the Connecting Cable suitable for Keyence iOP-87231 PUR, designed for the most demanding applications. With a robust PUR outer jacket, this cable offers exceptional resistance to oil, UV rays, and flame. Its torsion capability of $\pm 360^\circ$ makes it perfect for robots and 3D movements, ensuring longevity with a guarantee of 10 million cycles. Ideal for both indoor and outdoor use, this cable is notch-resistant and PVC- and halogen-free, making it a reliable choice for handling and spindle drives.

General properties

Bus system	Profinet
Number of cores and conductor nominal cross-section	(4x0.34)C
Outer diameter (d) max. mm	7 mm
Weight per km	64 kg/km
Copper index kg/km	32 kg/km

Electricity attributes

Nominal voltage	50V
UL Voltage Rating	30 V
Test voltage	500V



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.
Conductor colours	white, orange, blue, yellow (star quad stranding) black, brown, grey, blue
Core group 1 core structure	(4x0.38)C
Core group 1 colour code	white, orange, blue, yellow (star-quad stranding)
Overall shield	Torsion-resistant, tinned braided copper shield. Cover approx. 80% optical
Outer jacket	Low-adhesion, halogen-free PUR mixture, adapted to suit the requirements in e-chains® (according to DIN EN 50363-10-2).
Outer jacket colour	Steel blue (comparable to RAL 5011)

Properties and approvals

UV resistance	High
Oil resistance	Oil-resistant (according to DIN EN 50363-10-2), Class 3
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 1598 and 20236, 30 V, 80 °C
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 CF77.UL.05.12.D - 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	70 mm
Min. bend radius, flexible (factor)	8 x d
Min. bend radius, fixed (factor)	5 x d
Temperature e-chain®	-25°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)	10 m/s
travel length	Class 8
torsion	Torsion ±360°, with 1m cable length, Class 4

Certificates and standards

