

BO POWER HYBRID ROBOT C-PUR UL/CSA

EXTRAFLEX CU/PP/C/TPE



Image for illustration only

Conductor:	Copper wire bare, 0,5 - 2,5 mm ² : extra finely stranded acc. to DIN VDE 0295 Class 6 / IEC 60228 Class 6 • Wire structure: 0,25 mm ² : ca. 32 x 0,1 mm
Insulation:	PP
Colour Code:	Core identification acc. to DIN VDE 0293-334, black cores with consecutive labeling in white digits; Identification of control pairs: 0.25 mm ² : acc. to DIN 47100 (paired stranding) 0.5 – 1.5 mm ² : 1 pair – numbers 5+6; 2 pairs – numbers 5+6, 7+8 • G = with protective conductor GN-YE, x = without protective conductor
Stranding:	Cores stranded with optimal lay lengths in pairs, triads or bundles Fleece wrapping of the pairs, triads or bundles
Screen:	Screening element: control pairs, helically wound tinned copper wires, approx. coverage 90%, Fleece wrapping
Assembly:	Control pairs and power cores stranded with optimally matched lay lengths • Fleece wrapping
Screen 2:	Screen: helically wound tinned copper wires, approx. Coverage 90% + Fleece Wrapping
Outer Sheath:	Special grade of full polyurethane (PUR) colour: black (RAL 9005)
Cable Printing:	- length marking: in metres
Technical Data & Standard References	PUR robot cable acc. to UL-Std. 758 (AWM) Style 21209, CSA-Std. C22.2 No. 210 - AWM I/II A/B, in alignment with DIN VDE 0285-525-1 / DIN EN 50525-1 • resistant to: oil, UV radiation, ozone, oxygen, weathering effects, hydrolysis, microbes, coolants, hydraulic fluids, acids, alkalis, greases, seawater and wastewater • highly abrasion-resistant, notch-resistant, tear-resistant, cut-resistant, wear-resistant, low adhesion • smooth, high-quality core insulation for eased sliding and optimized core stranding ensure long service-life within applications that request combined bending and torsion movements

	• for outdoor use • torsion rated • suitable for use in drag chains • Torsion parameters Acceleration (max.): 60 °/s² Velocity (max.): 180 °/s Minimum bending radius: 10x Outer-Ø Torsional stress up to +/- 180 °/m: 5 Mio. Cycles (min.) • Drag chain parameters Acceleration (max.): 10 m/s² Velocity (max.), unsupported: 3 m/s Velocity (max.), gliding: 2 m/s Traverse path (max.): 10 m Minimum bending radius (Traverse path ≤ 3m): 10x Outer-Ø Minimum bending radius (Traverse path > 3m): 12.5x Outer-Ø Bending cycles (min.): 5 Mio. • halogen-free • the materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers TESTS • halogen-free acc. to DIN VDE 0482-754-1 / DIN EN 60754-1 / IEC 60754-1 • flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2, UL VW-1, CSA FT1 • oil-resistant acc. to DIN VDE 0473-811-404 / DIN EN 60811-404 / IEC 60811-404 • UV-resistant acc. to DIN EN ISO 4892-2 • weather-resistant acc. to DIN EN ISO 4892-2
Electrical & Mechanical Data	Temperature range flexible -30°C to +90°C; fixed -40°C to +90°C Nominal voltage VDE AC U0/U 600/1000 V, UL (AWM) AC 1000 V Test voltage core/core 3000 V Minimum bending radius flexible see properties fixed 5x Outer-Ø
Notes	• Part no. 1103022491: Power cores stranded in pairs; identification: number 1+2, number 3+GN-GE • for use in energy supply systems: 1) the assembly instructions must be observed 2) for special applications, we recommend contacting us and using our data entry form for energy supply systems

Application: Hybrid cable designed for combined torsion and bending movements consisting of components for power supply and the transmission of control signals; for use in robot control devices, assembly and welding robots, in material handlings and automation centres, in transport and conveyor systems, on rotary and swivel tables and wherever a defined cable routing with only alternating bending movements is not applicable, but 3D-movements and torsional load have an impact on the cable; for

applications with the highest requirements on mechanical, chemical and thermal resilience. EMC = Electromagnetic Compatibility; in order to optimise EMC properties, we recommend a double-sided and all-round large contact area of the D-screen.