

# HELUCONTROL® ROBOFLEX® 2001-D



HELUCONTROL® ROBOFLEX® 2001-D 3G1 QMM / 705462 CE

## TECHNICAL DATA

PUR robot cable in alignment with DIN VDE 0250, DIN VDE 0285-525-1 / DIN EN 50525-1

<b>Temperature range</b>	flexible -30°C to +90°C fixed -40°C to +90°C
<b>Nominal voltage</b>	AC U <sub>0</sub> /U 300/500 V
<b>Test voltage core/core</b>	3000 V
<b>Minimum bending radius</b>	flexible 7.5x Outer-Ø fixed 4x Outer-Ø

## CABLE STRUCTURE

- Copper wire bare, extra finely stranded acc. to DIN VDE 0295 Class 6 / IEC 60228 Class 6
- Core insulation: PP
- Core identification acc. to DIN VDE 0293-334, black cores with consecutive labeling in white digits
- G = with protective conductor GN-YE, x = without protective conductor
- Stranding:  
3 core(s): cores stranded into one layer with an optimally matched lay length  
12 - 25 core(s): cores stranded into bundles with optimally matched lay lengths; bundles stranded together around a tensile core
- Central filler or bundles with PTFE wrapping, depending on the part number
- PTFE and fleece wrapping
- Screen: helically wound tinned copper wires, approx. coverage 90%
- Fleece wrapping
- Outer sheath: Special grade of full polyurethane acc. to DIN VDE 0207-363-10-2 / DIN EN 50363-10-2 (compound type TmpU)
- Sheath colour: black (RAL 9005)
- Length marking: in metres

## PROPERTIES

- 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
- Torsion parameters  
Torsional stress up to +/- 180 °/m: 5 Mio. Cycles (min.)

## TESTS

- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2
- 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

## APPLICATION

This robotic cable is particularly designed for torsion and bending stresses in robots and handling tools. EMC = Electromagnetic Compatibility; in order to optimise EMC properties, we recommend a double-sided and all-round large contact area of the D-screen.

## NOTES

- the conductor is metrically (mm<sup>2</sup>) constructed, AWG numbers are approximated, and are for reference only

Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG, approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx.
25497	12 G 0.5	20	11.2	117.0	175.0
25498	18 G 0.5	20	13.6	160.0	231.0
25499	25 G 0.5	20	14.8	255.0	347.0
25500	12 G 0.75	19	11.8	155.0	220.0
25501	18 G 0.75	19	15.0	210.0	305.0
25502	25 G 0.75	19	16.6	275.0	415.0
705462	3 G 1	18	6.3	76.0	90.0

Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG, approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx.
25503	12 G 1	18	13.0	190.0	265.0
25504	18 G 1	18	16.1	245.0	390.0
25505	25 G 1	18	18.1	345.0	540.0
25506	12 G 1.5	16	16.2	260.0	345.0
25507	18 G 1.5	16	20.3	370.0	485.0
25508	25 G 1.5	16	22.5	498.0	710.0