HELUCONTROL® ROBOFLEX® 2001

TECHNICAL DATA

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

Temperature range	flexible -30°C to +90°C fixed -40°C to +90°C
Nominal voltage	AC U_0/U 300/500 V
Test voltage core/core	3000 V
Minimum bending radius	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:
  2 - 8 core(s): cores stranded into one layer with an optimally matched lay length
  12 - 41 core(s): cores stranded into bundles with optimally matched lay lengths; bundles stranded together around a tensile core
- Central filler, cores with PTFE wrapping, bundles with PTFE wrapping; depending on the part number
- 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 +/- 360 °/m: 10 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.

NOTES

- the conductor is metrically (mm²) constructed, AWG numbers are approximated, and are for reference only

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx.
25463	12 G 0.5	20	10.4	57.8	90.0
25519	16 G 0.5	20	11.6	76.8	277.0
25464	18 G 0.5	20	12.7	86.4	121.0
25465	25 G 0.5	20	14.2	120.0	256.0
25466	4 G 0.75	19	6.0	28.8	63.0
25450	7 G 0.75	19	7.9	50.4	96.0
25467	12 G 0.75	19	11.5	84.4	171.0
25468	14 G 0.75	19	12.8	100.8	200.0
25469	2 x 1	18	5.5	19.2	48.0
25470	3 G 1	18	6.0	29.0	60.0
25471	4 G 1	18	6.3	38.4	78.0
25472	7 G 1	18	8.5	67.2	131.0
25473	12 G 1	18	12.5	115.2	216.0
25474	18 G 1	18	15.4	172.8	306.0
25475	25 G 1	18	17.4	240.0	432.0
25476	34 G 1	18	21.3	326.4	569.0
25477	41 G 1	18	23.2	393.6	694.0

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx.
25520	3 G 1.5	16	6.9	43.2	94.0
25529	4 G 1.5	16	7.9	57.6	107.0
25559	5 G 1.5	16	8.5	72.0	121.0
25509	8 G 1.5	16	11.1	115.2	292.0
25478	12 G 1.5	16	15.5	172.8	356.0
25479	18 G 1.5	16	19.3	259.2	445.0
25480	25 G 1.5	16	21.8	360.0	636.0
25481	3 G 2.5	14	8.4	72.0	136.0
25482	4 G 2.5	14	9.1	96.0	170.0
25483	3 G 4	12	10.3	116.0	227.0
25530	4 G 4	12	11.2	153.6	261.0
25510	4 G 6	10	14.1	230.4	341.0
25484	3 G 10	8	16.5	288.0	518.0
25485	3 G 16	6	19.5	460.8	722.0
25486	3 G 25	4	22.9	720.0	1180.0
25487	3 G 35	2	27.3	1008.0	1600.0