

HELUDATA® ROBOFLEX®-recycle PUR UL/CSA

welding spark resistant sensor cable



HELUDATA® ROBOFLEX®-recycle PUR UL/CSA 4x0,34 QMM E170315 AWM STYLE 20233 CE

TECHNICAL DATA

Robot cable acc. to UL-Std. 758 (AWM) Style 20233, CSA-Std. C22.2 No. 210 - AWM I/II A/B

Temperature range	flexible -30°C to +105°C fixed -40°C to +105°C UL (AWM) to +80°C
Nominal voltage	VDE AC U ₀ /U 300/300 V UL (AWM) AC 300 V
Test voltage core/core	2000 V
Minimum bending radius	fixed 5x Outer-Ø flexible: see properties

■ CABLE STRUCTURE

- Copper wire bare, extra finely stranded
- Wire structure:
0.34 mm²: approx. 42 x 0.1 mm
- Core insulation: TPE
- Core identification:
3 core(s): brown, blue, black
4 core(s): brown, blue, black, white
5 core(s): brown, blue, black, white, grey
- x = without protective conductor
- Cores stranded with optimally matched lay lengths
- Fleece wrapping
- Outer sheath: Special grade of full polyurethane
- Sheath colour: see table
- 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, welding sparks
- highly abrasion-resistant, notch-resistant, tear-resistant, cut-resistant, wear-resistant, low adhesion
- 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 360 °/m: 10 Mio. Cycles (max.)
- 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 (max.): 10 Mio.
- halogen-free
- recyclable
- 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
- 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

Welding spark and oil-resistant sensor cable for use in robots (torsional load) as well as in drag chains (dynamic load); for applications in automation technology, machine and plant engineering, assembly and welding robots, machine tools, foundries and rolling mills. Temperature resistance of up to 105°C enables use in environments close to engines and other areas with increased heat radiation. Highly abrasion and notch resistant outer sheath ensures long service life and economy. Recyclable jacket material offers advantages in operational environmental protection management.

■ NOTES

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

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Sheath color: black (RAL 9005)

Part no.	No. cores x cross-sec. mm ²	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
11022475	3 x 0.34	22	5.1	9.6	32.0
11022476	4 x 0.34	22	5.4	12.8	38.0
11022477	5 x 0.34	22	5.9	16.0	46.0

Sheath colour: grey (RAL 7001)

Part no.	No. cores x cross-sec. mm ²	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
11022478	3 x 0.34	22	5.1	9.6	32.0
11022479	4 x 0.34	22	5.4	12.8	38.0
11022480	5 x 0.34	22	5.9	16.0	46.0

Sheath colour: yellow (RAL 1021)

Part no.	No. cores x cross-sec. mm ²	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
11022481	3 x 0.34	22	5.1	9.6	32.0
11022482	4 x 0.34	22	5.4	12.8	38.0
11022483	5 x 0.34	22	5.9	16.0	46.0