



ÖLFLEX® ROBOT F1 (C)

Screened TPE-PUR robot cable for bending and torsion loads, certified



Info

- Simultaneous bending and torsion
- Torsion angle up to +/- 180 °/m
- AWM certification for USA and Canada

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Multi-standard certification reduces part varieties and saves costs
- Increased durability under harsh conditions thanks to robust PUR outer sheath
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- Wide temperature range for applications in harsh climatic environments

Application range

- Multi-axis articulated robots
- Automated handling equipment
- Industrial machinery and machine tools
- In power chains or moving machine parts
- Plant engineering

Product features

- Abrasion and notch-resistant
- Flame-retardant
- High oil-resistance
- Resistant to cold temperatures
- Low-adhesive surface

Norm references / Approvals

- UL AWM Style 20940
cUL AWM I/II A/B
- UL File No. E213974
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Extra-fine strands, 0.14 mm² - 0.5 mm², made from tinned-copper wires, bare above.
- Core insulation: TPE
- Cores (or core pairs) twisted in layers or bundles
- PTFE tape wrapping
- Braiding or wrapping of tinned copper wires
- PUR outer sheath, black (RAL 9005)

Technical data

- Classification**
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable
- Core identification code**
Up to 0.34 mm²: DIN 47100 cores
From 0.5 mm²: white cores with black printed numbers
- Conductor stranding**
Extra-fine wire
- Torsion**
Torsion load max. ± 180 °/m
- Minimum bending radius**
Flexible use: 10 x outer diameter
Fixed installation: 4 x outer diameter
- Nominal voltage**
IEC: up to 0.34 mm² 250 Vss.
0.5 - 2.5 mm² 300/500 V
UL/CSA up to 1.5 mm² 600 V,
from 2.5 mm² 1000 V
- Test voltage**
Cores: spark test 6 kV
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -40 °C to +80 °C
Fixed installation: -50 °C to +80 °C

| Article number | Number of cores and mm ² per conductor | Outer diameter (mm) | Copper index (kg/km) | Weight (kg/km) |
|-----------------------------|---|---------------------|----------------------|----------------|
| ÖLFLEX® ROBOT F1 (C) | | | | |
| 0029653 | 3 x 2 x 0,25 | 8.0 | 38 | 100 |
| 0029654 | 25 x 0,25 | 13.8 | 115 | 280 |
| 0029655 | 2 x 0,34 | 5.2 | 18 | 54 |
| 0029656 | 3 x 0,34 | 5.4 | 20 | 56 |
| 0029657 | 4 x 0,34 | 6.6 | 28 | 72 |
| 0029658 | 5 x 2 x 0,34 | 10.2 | 69 | 158 |
| 0029689 | 12 G 1,5 | 15.4 | 230 | 380 |
| 0029690 | 18 G 1,5 | 18.5 | 340 | 550 |
| 0029664 | 4 G 1,5 | 8.8 | 75.1 | 120 |
| 0029665 | 4 G 2,5 | 10.3 | 116 | 200 |
| 0029691 | 4 G 1,5 + (2 x 1,0) | 11.0 | 116 | 213 |
| 0029692 | 4 G 2,5 + (2 x 1,0) | 12.0 | 150 | 270 |

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- SILVYN® RILL PA 12 refer to page 863