



# ÖLFLEX® ROBOT 900 P

TPE-PUR robot cable for flexing and torsion load



### Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Space-saving installation due to small cable diameters
- 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

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

### Product features

- Abrasion and notch-resistant
- Flame-retardant
- High oil-resistance
- Flexible at low temperatures
- Low-adhesive surface

### Norm references / Approvals

- For travel distances up to 10 m.
- For use in power chains: Please comply with assembly guideline Appendix T3

### Product Make-up

- Fine or extra-fine strands made of bare copper wire
- Core insulation: TPE
- Cores twisted in layers
- Versions with additional center pair: 2 cores twisted to a pair, PTFE foil wrapping, layer of tinned copper wires
- PTFE tape wrapping
- PUR outer sheath, black (RAL 9005)

### Similar products

- ÖLFLEX® ROBOT F1 refer to page 142

### Accessories

- SILVYN® RILL PA 12 refer to page 863

Article number	Number of cores and mm <sup>2</sup> per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
<b>ÖLFLEX® ROBOT 900 P</b>				
0028110	7 X 0.25	6.2	16.8	48
0028116	25 X 0.25	10.2	60	141
0028188	2 X 0.34	5.0	7	27
0028145	18 G 0.5	11.2	86.4	120
0028146	25 G 0.5	13.3	120	254
0028160	4 G 0.75	6.6	28.8	63
0028164	14 G 0.75	11.2	100.8	199
0028170	2 X 1.0	6.2	19.2	47
0028171	3 G 1.0	6.5	29	61
0028172	4 G 1.0	7.0	38.4	76
0028174	7 G 1.0	9.3	67.2	131
0028176	12 G 1.0	11.5	115.2	216
0028185	16 G 1,0 + (2 x 1,0)	16.0	195	376
0028178	18 G 1.0	13.2	172.8	287
0028186	23 G 1,0 + (2 x 1,0)	17.3	262	470
0028180	25 G 1.0	16.4	240	433
0028190	34 G 1.0	19.9	326.4	571
0028191	41 G 1.0	22.3	393.6	705
0028198	18 G 1.5	15.8	259.2	446
0028181	3 G 2.5	9.3	72	136
0028182	4 G 2.5	10.1	96	171
0028400	3 G 16	21.4	460.8	721
0028187	3 G 25	26.2	720	1178
0028189	3 G 35	28.8	1008	1559

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](http://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.



### Info

- Simultaneous bending and torsion
- Torsion angle up to +/- 360 °/m

### Technical data



#### Classification

ETIM 5.0 Class-ID: EC000104  
 ETIM 5.0 Class-Description:  
 Control cable



#### Core identification code

Up to 0.34 mm<sup>2</sup>: DIN 47100 cores  
 From 0.5 mm<sup>2</sup>: black cores with white printed numbers



#### Mutual capacitance

C/C approx. 100 nF/km  
 C/S approx. 120 nF/km



#### Peak operating voltage

0.34 mm<sup>2</sup>: 350 V  
 (not for power transmission)



#### Inductivity

approx. 0.7 mH/km



#### Conductor stranding

Fine wire or extra-fine wire



#### Torsion

Torsion load max. ± 360 °/m



#### Minimum bending radius

Flexing: 15 x outer diameter  
 Fixed installation: 4 x outer diameter



#### Nominal voltage

Up to 0.34 mm<sup>2</sup>: 48 V AC  
 From 0.5 mm<sup>2</sup> U<sub>0</sub>/U: 300/500 V



#### Test voltage

Up to 0.34 mm<sup>2</sup>: 1500 V  
 From 0.5 mm<sup>2</sup>: 3000 V



#### 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