

# OLFLEX® ROBOT 900 P/ 900 DP



## Robotic Cable for Continuous Twisting Motion

OLFLEX® ROBOT 900 P is a multi-conductor cable that transmits control and monitoring signals as well as power. Its high quality insulation with smooth surface and low friction wraps increases cable life expectancy under extreme twisting and bending stresses. The outer jacket of specially formulated polyurethane is highly resistant to abrasion, oil, notching, microbes and hydrolysis. In addition, the surface quality prevents adhesion to adjacently installed cables. The OLFLEX® ROBOT 900 DP with a tinned copper spiral shield is used for applications where EMI emissions need to be suppressed.

### Recommended Applications:

Where combined twisting and bending stresses occur on end-of-arm tooling of assembly and welding robots and automated handling equipment

### Application Advantage:

- The smooth elastomeric core insulation and low friction tape improves service life in applications where combined twisting and bending occur
- The specially formulated PUR jacket provides protection in the most harsh industrial plant environments preventing unplanned downtime and associated costs
- Maximum torsion twist of +/- 360° per meter is suitable for a wide variety of robot applications

### OLFLEX® ROBOT 900 P Construction:

Finely stranded bare copper conductors; special elastomeric insulation; low friction core wrap; specially formulated UV resistant black polyurethane jacket with matte finish.



### OLFLEX® ROBOT 900 DP Construction:

Finely stranded bare copper conductors; special elastomeric insulation; low friction core wrap; tinned copper spiral shield, specially formulated UV resistant black polyurethane jacket with matte finish.



Cable Attributes, See Page 653		Availability:	Complete the installation with:	
Oil Resistance: OR-05	Flame Resistance: FR-02	Standard put-ups are 164ft, 328ft, 1640ft, and 3280ft. Bulk reels can be cut to length.	SKINTOP® Strain Relief: Page 486	EPIC® Connectors: Page 251
Motion Type: T-01	Mechanical Properties: MP-05		OLFLEX® Tubing: Page 546	OLFLEX® ROBOT Track Page 616

### Technical Data:

Minimum Bending Radius for continuous flexing:	15 x cable diameter	Color Code:	Cores according to DIN 47100 Black with white numbers, plus green/yellow ground
Max. Torsion (twist): - without shield: - with shield (DP):	+/- 360° per meter +/- 180° per meter	- up to 0.34 mm <sup>2</sup> - 0.5 mm <sup>2</sup> and larger	
Temperature Range:	-40°C to +80°C	Nominal Capacitance:	Cond./ cond. approx. 30.5 pF/Ft Cond./ cond./ shield approx. 36.6 pF/Ft
Rated Voltage:	300/500V		
Test Voltage: - from 0.5 mm <sup>2</sup> - up to 0.34 mm <sup>2</sup>	3000V 1500V		
Conductor Stranding:	Flexible Fine Wire		

# OLFLEX® ROBOT 900 P/ 900 DP



Robotic Cable for Continuous Twisting Motion

## OLFLEX® ROBOT 900 P: Robotic Cable for Continuous Twisting Motion

Part Number	Number of Conductors includes ground	Nominal Outer Diameter		Copper Weight	Approx. Weight		Part Number	Number of Conductors includes ground	Nominal Outer Diameter		Copper Weight	Approx. Weight	
		inches	mm	lbs/mft	lbs/mft	kg/km			inches	mm	lbs/mft	lbs/mft	kg/km
24 AWG (14/34) 0.25 mm <sup>2</sup>							16 AWG (30/30) 1.50 mm <sup>2</sup>						
0028110	7	.244	6.2	11	32	48	0028198	18	.622	15.8	174	300	446
0028116	25	.402	10.2	40	95	141	0028200	25	.776	19.7	242	429	638
21 AWG (16/32) 0.50 mm <sup>2</sup>							14 AWG (50/30) 2.50 mm <sup>2</sup>						
0028145	18	.441	11.2	58	81	120	0028181	3	.366	9.3	48	91	136
0028146	25	.524	13.3	81	171	254	0028182	4	.398	10.1	65	115	171
19 AWG (24/32) 0.75 mm <sup>2</sup>							12 AWG (50/28) 4 mm <sup>2</sup>						
0028160	4	.260	6.6	19	42	63	0028184	3	.484	12.3	78	152	226
0028164	14	.449	11.4	68	134	199	8 AWG (80/26) 10 mm <sup>2</sup>						
18 AWG (32/32) 1.00 mm <sup>2</sup>							0028300						
0028170	2	.244	6.2	13	32	47	6 AWG (128/26) 16 mm <sup>2</sup>	3	.720	18.3	194	347	517
0028171	3	.256	6.5	19	41	61	0028400	3	.843	21.4	310	484	721
0028172	4	.283	7.2	26	51	76	4 AWG (200/26) 25 mm <sup>2</sup>						
0028174	7	.366	9.3	45	88	131	0028187	3	1.031	26.2	484	791	1178
0028176	12	.453	11.5	77	145	216	2 AWG (280/26) 35 mm <sup>2</sup>						
0028185	16	.650	16.5	131	253	376	0028189	3	1.134	28.8	677	1047	1559
0028178	18	.520	13.2	116	204	304							
0028186	23 + 18/1pr	.681	17.3	176	316	470							
0028180	25	.646	16.4	161	291	433							
0028190	34	.783	19.9	219	380	565							
0028191	41	.843	22.3	264	468	696							

## OLFLEX® ROBOT 900 DP: Shielded Robotic Cable for Continuous Twisting Motion

Part Number	Number of Conductors includes ground	Nominal Outer Diameter		Copper Weight	Approx. Weight		Part Number	Number of Conductors includes ground	Nominal Outer Diameter		Copper Weight	Approx. Weight	
		inches	mm	lbs/mft	lbs/mft	kg/km			inches	mm	lbs/mft	lbs/mft	kg/km
26 AWG (18/38) 0.14 mm <sup>2</sup>							16 AWG (30/30) 1.50 mm <sup>2</sup>						
0028100	12	.264	6.7	29	46	69	0028195	12	.551	14.0	174	265	395
0028105	3 pairs	.232	5.9	11	30	44	0028199	18	.665	16.9	263	396	590
24 AWG (14/34) 0.25 mm <sup>2</sup>													
0028126	25	.437	11.1	70	123	183							
22 AWG (19/34) 0.34 mm <sup>2</sup>													
0028135	4	.224	5.7	14	31	46							
0028136	5 pairs	.358	9.1	43	77	114							