

ÖLFLEX® ROBOT 900 P/900 DP

Robotic Cable for Flexing & Torsion Motion



ÖLFLEX® ROBOT 900 P is a multi-conductor control and signal monitoring cable. It is designed to withstand the extreme demands of twisting and bending stresses in robotic applications. ÖLFLEX® ROBOT 900 DP has a tinned copper spiral shield and is designed for use where EMI emissions need to be suppressed.

Recommended Applications

Multi-axis articulated robots with twisting and bending motion; automated handling equipment; cable tracks or moving machine parts.

Approvals



Unshielded Construction

Conductors: Finely stranded bare copper

Insulation: TPE; conductors twisted in layers with low-friction core wrap

Jacket: Polyurethane; black

Shielded Construction

Conductors: Finely stranded bare copper





Insulation: TPE; conductors twisted in layers with low-friction core wrap

Shielding: Tinned copper spiral shield

Jacket: Polyurethane; black

Application Advantage

- Designed for applications where combined twisting and bending occur
- Specially formulated PUR jacket protects against the harshest of industrial plant environments
- Maximum twist of $\pm 360^\circ/\text{m}$ unshielded for wide variety of robot applications

Cable Attributes				page 640	
	OIL	OR-05		FLAME	FR-02
	MOTION	T-01		MECH.	MP-05

Complete the Installation	
SKINTOP® Strain Relief	EPIC® Connectors
page 488	page 280

Technical Data

Minimum Bend Radius:	
- unshielded:	15 x cable diameter
- shielded:	15 x cable diameter

Test Voltage:	
- up to 22 AWG:	1500V
- 20 AWG & larger:	3000V

Maximum Torsion (Twist):	
- unshielded:	$\pm 360^\circ/\text{m}$
- shielded:	$\pm 180^\circ/\text{m}$

Conductor Stranding:	Extra fine wire
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Temperature Range:	
- for flexible use:	-40°C to $+80^\circ\text{C}$

Color Code:	
- up to 22 AWG:	DIN 47100: Chart 8, page 674
- 20 AWG & larger:	Black with white numbers, plus green/yellow ground

Nominal Voltage:	300/500V
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Approvals:	CE & RoHS
	Based on VDE 0281/0282 & 0812

ÖLFLEX® ROBOT 900 P

Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® Non-Metallic PG Thread	Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® Non-Metallic PG Thread
24 AWG (0.25 mm²)						16 AWG (1.50 mm²)					
0028110	7	0.244 6.2	11	32	S2107	0028198	18	0.622 15.8	174	300	S2121
0028116	25	0.402 10.2	40	95	S2113	14 AWG (2.50 mm²)					
20 AWG (0.50 mm²)						0028181	3	0.366 9.3	48	91	S2111
0028145	18	0.441 11.2	58	81	S2113	0028182	4	0.398 10.1	65	115	S2113
0028146	25	0.524 13.3	81	171	S2116	6 AWG (10 mm²)					
19 AWG (0.75 mm²)						0028400	3	0.843 21.4	310	484	S2129
0028160	4	0.260 6.6	19	42	S2109	4 AWG (25 mm²)					
0028164	14	0.441 11.2	68	134	S2113	0028187	3	1.031 26.2	484	791	S2136
18 AWG (1.00 mm²)						2 AWG (35 mm²)					
0028170*	2	0.244 6.2	13	32	S2107	0028189	3	1.134 28.8	677	1047	S2136
0028171	3	0.256 6.5	19	41	S2109						
0028172	4	0.276 7.0	26	51	S2111						
0028174	7	0.366 9.3	45	88	S2111						
0028176	12	0.453 11.5	77	145	S2113						
0028185	16 + 1 pr	0.630 16.0	131	253	S2121						
0028178	18	0.520 13.2	116	193	S2116						
0028186	23 + 1 pr	0.681 17.3	176	316	S2129						
0028180	25	0.646 16.4	161	291	S2121						
0028190	34	0.783 19.9	219	384	S2129						
0028191	41	0.878 22.3	264	474	S2129						

* 2c cable does not include ground.

ÖLFLEX® ROBOT 900 DP

Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread	Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread
26 AWG (0.14 mm²)						22 AWG (0.34 mm²)					
0028100	12	0.264 6.7	29	46	53112210	0028135	4	0.224 5.7	14	31	53112210
0028105	3pr	0.244 6.2	11	30	53112210	0028136	5pr	0.358 9.1	43	77	53112220
24 AWG (0.25 mm²)						16 AWG (1.50 mm²)					
0028126	25	0.437 11.1	70	123	53112230	0028195	12	0.551 14.0	174	265	53112250