

OLFLEX® ROBOT F1



Robotic Cable for Continuous Twisting Motion

OLFLEX® ROBOT F1 is designed to transmit control and monitoring signals as well as power supply in installations where combined twisting and bending stresses occur. The special polyurethane jacket compound is resistant against oils, microbes, hydrolysis and abrasion. OLFLEX® ROBOT F1 is also available in a shielded version.

Recommended Applications:

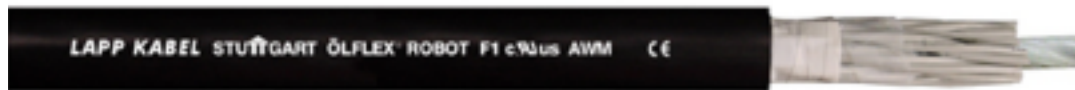
For connecting handling tools of assembly and polyarticulated robots, also to connect rotations on tilting tables





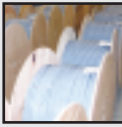




Application Advantage:

- UL AWM approval for USA and Canada
- The smooth TPE core insulation and low friction tape improves service life in applications where combined twisting and bending occur
- The specially formulated PUR provides protection in the most harsh industrial plant environments preventing unplanned downtime and associated costs








OLFLEX® ROBOT F1 Construction:

Highly flexible tinned copper conductors; special polymer insulation cores (or core pairs) twisted in bundles or layers; low friction tape wrapping; tinned copper shield; polyurethane elastomer jacket.



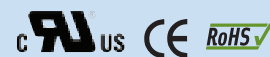
Cable Attributes, See Page 653  Oil Resistance: OR-04  Flame Resistance: FR-02  Motion Type: TCF-01  Mechanical Properties: MP-05		Availability:  Standard put-ups are 164ft, 328ft, 1640ft, and 3280ft. Bulk reels can be cut to length.	Complete the installation with:  SKINTOP® Strain Relief: Page 486  EPIC® Connectors: Page 251  OLFLEX® Tubing: Page 546  OLFLEX® ROBOT Track Page 616
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Technical Data:

 Minimum Bending Radius for continuous flexing: 10 x cable diameter	 Conductor Stranding: Flexible Fine Wire
 Max. Torsion (twist): without shield: +/- 360° per Meter with shield (DP): +/- 180° per Meter	 Color Code: - up to 0.34 mm ² - 0.5 mm ² and larger Cores according to DIN 47100 White with black numbers, plus green/yellow ground
 Temperature Range: -40°C to +80°C	 Approvals: UL: - UL AWM Style 20940 VW1 CSA: - cUL AWM I/IIA/B FT1
 Rated Voltage: UL/CSA: - up to 1.5 mm ² 600V - 2.5 mm ² and larger 1000V IEC: - up to 0.34 mm ² 250V - 0.5 - 2.5 mm ² 300/500V	

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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 (0.25 mm²)							0029614						
0029590	7	.264	6.7	11	42	62	0029615	12	.488	12.4	74	159	237
0029591	12	.354	9.0	20	82	122	0029616	14	.520	13.2	86	173	257
0029592	18	.417	10.6	30	105	156	0029617	16	.606	15.4	128	233	346
0029593	25	.492	12.5	40	138	205	0029618	18	.634	16.1	114	235	349
22 AWG (0.34 mm²)							0029619						
0029594	2	.181	4.6	5	26	38	0029620	25	.701	17.8	161	273	407
0029595	3	.189	4.8	7	27	40	0029621	34	.831	21.1	215	403	600
0029596	4	.205	5.2	10	32	48	0029622	41	.929	23.6	262	506	753
0029599	12	.370	9.4	27	87	130	16 AWG (1.50 mm²)						
0029600	18	.441	11.2	40	114	170	0029624	4	.323	8.2	38	77	114
0029601	25	.516	13.1	56	148	220	0029625	5	.358	9.1	48	95	141
20 AWG (0.50 mm²)							0029627						
0029608	18	.484	12.3	56	136	202	0029629	12	.563	14.3	114	198	294
0029609	25	.599	15.2	81	191	284	0029630	18	.689	17.5	174	302	450
18 AWG (1.00 mm²)							0029631						
0029610	2	.248	6.3	13	40	60	14 AWG (2.50 mm²)						
0029611	3	.260	6.6	19	48	71	0029632	3	.358	9.1	48	91	136
0029612	4	.283	7.2	26	58	87	0029641	4	.524	13.3	148	222	330

OLFLEX® ROBOT F1: 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
24 AWG (0.25 mm²)							16 AWG (1.50 mm²)						
0029653	3 pr	.315	8.0	26	67	100	0029689	12	.606	15.4	155	255	380
0029654	25	.543	13.8	77	188	280	0029690	18	.728	18.5	228	370	550
22 AWG (0.34 mm²)													
0029655	2	.205	5.2	12	36	54							
0029656	3	.213	5.4	13	38	56							
0029657	4	.260	6.6	19	48	72							
0029658	5 pr	.402	10.2	46	106	158							

24 & 22 AWG cables have a tinned copper spiral shield; 16 AWG cables have a tinned copper braid shield.