

# ÖLFLEX® 190/190 CY

Extremely Oil-Resistant Flexible Control Cable with UL MTW; Unshielded & Shielded



ÖLFLEX® 190 is a multi-conductor cable with a highly oil-, coolant-, and solvent-resistant PVC jacket for control and power applications in an industrial environment. It is designed for use in all electrical equipment under dry, damp, and wet conditions. ÖLFLEX® 190 CY is a shielded version for EMI and RFI protection.

### Unshielded Construction

- Conductors:** Finely stranded bare copper
- Insulation:** Specially blended PVC/nylon
- Jacket:** Specially formulated oil-resistant gray PVC

### Shielded Construction

- Conductors:** Finely stranded bare copper
- Insulation:** Specially blended PVC/nylon
- Shielding:** PVC inner jacket; tinned copper braid (85% coverage)
- Jacket:** Specially formulated oil-resistant gray PVC

### Recommended Applications

CNC machining centers; grinding machines; bottling equipment; conveyors; processing equipment; assembly lines; control panels

### Application Advantage

- Extremely oil-resistant (Oil Res I & II)
- Meets NFPA 79 machinery wiring standard
- Very flexible and number-coded for easy routing and termination
- Round jacket for optimal seal with a SKINTOP® strain relief cable gland
- 20+ years of reliable performance

### Approvals



**Cable Attributes, see page 659**

OR-04	FR-02	FL-02	MP-02
OIL	FLAME	MOTION	MECHANICAL

**Similar Cables**

- ÖLFLEX® CONTROL TM
- ÖLFLEX® 150 QUATTRO

**Complete the Installation**

SKINTOP® Strain Relief: page 502	EPIC® Connectors: page 278
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### Technical Data

<p><b>Minimum Bend Radius:</b></p> <ul style="list-style-type: none"> <li>- for installation: 4 x cable diameter</li> <li>- shielded: 6 x cable diameter</li> </ul> <p><b>Temperature Range:</b></p> <ul style="list-style-type: none"> <li>- for stationary use: -40°C to +90°C</li> <li>- for flexible use: -5°C to +90°C</li> </ul> <p><b>Nominal Voltage:</b></p> <ul style="list-style-type: none"> <li>- UL MTW/CSA AWM: 600V</li> <li>- UL AWM: 1000V</li> </ul> <p><b>Test Voltage:</b> 2000V</p> <p><b>Conductor Stranding:</b></p> <ul style="list-style-type: none"> <li>- 20 - 6 AWG: Class 5 fine wire*</li> <li>- 4 AWG and larger: Class K fine wire</li> <li>- MTW: Class K fine wire</li> <li>- AWM only: Class 5 fine wire</li> </ul>	<p><b>Color Code:</b> Black with white numbers, plus green/yellow ground</p> <p><b>Approvals:</b></p> <p>UL: MTW per UL 1063 (P/Ns with * are not MTW)</p> <p>AWM 2587 &amp; 21098 (Oil)</p> <p>Attributes: UL Oil Res I/II NFPA 79 2012</p> <p>Canada: CSA AWM I/II A/B FT1 CSA C22.2 210.2</p> <p>Additional: Passes Impact and Crush tests per UL 1277, excluding 20 AWG CE &amp; RoHS</p>
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\* 18 AWG meets only the Class 5 cross section and DC resistance

Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

ÖLFLEX® 190

Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (inches) (mm)		Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® Non-Metallic PG Thread	Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (inches) (mm)		Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® Non-Metallic PG Thread
<b>20 AWG (0.50 mm<sup>2</sup>)</b>							621641*	41	0.988	25.1	407	768	S1136
602002**	2	0.253	6.4	7	40	S1109	601650	50	1.192	30.3	437	1020	S1136
602003	3	0.265	6.7	10	42	S1109	621650*	50	1.079	27.4	504	911	S1136
602004	4	0.285	7.2	13	51	S1111	601661	61	1.265	32.1	530	1180	S1248
602005	5	0.308	7.8	17	60	S1111	621661*	61	1.142	29.0	591	1036	S1136
602007	7	0.331	8.4	23	82	S1111	<b>14 AWG (2.50 mm<sup>2</sup>)</b>						
602009	9	0.409	10.4	30	100	S1113	601402**	2	0.337	8.6	33	88	S1111
602012	12	0.421	10.7	39	168	S1113	601403	3	0.356	9.0	49	93	S1111
602018	18	0.487	12.4	59	198	S1116	601404	4	0.386	9.8	65	121	S1113
602025	25	0.586	14.9	82	242	S1121	601405	5	0.421	10.7	81	145	S1113
<b>18 AWG (1.00 mm<sup>2</sup>)</b>							601407	7	0.457	11.6	113	192	S1113
601802**	2	0.277	7.0	13	42	S1111	601409	9	0.609	15.5	145	317	S1121
601803	3	0.291	7.4	20	44	S1111	601412	12	0.628	16.0	194	401	S1121
601803NG	3	0.291	7.4	20	44	S1111	601418	18	0.729	18.5	290	575	S1129
601804	4	0.314	8.0	26	55	S1111	601425	25	0.872	22.1	404	860	S1129
601805	5	0.340	8.6	33	64	S1111	<b>12 AWG (4 mm<sup>2</sup>)</b>						
601807	7	0.367	9.3	46	84	S1111	601203	3	0.417	10.6	78	156	S1113
601809	9	0.454	11.5	59	119	S1113	601204	4	0.454	11.5	104	198	S1113
601812	12	0.471	12.0	79	141	S1116	601205	5	0.497	12.6	129	238	S1116
601818	18	0.579	14.7	118	207	S1121	601207	7	0.573	14.6	181	363	S1121
601825	25	0.656	16.7	164	278	S1121	601211	11	0.745	18.9	284	397	S1129
601834	34	0.937	23.8	206	575	S1129	<b>10 AWG (6 mm<sup>2</sup>)</b>						
621834*	34	0.783	19.9	232	475	S1129	601003	3	0.492	12.5	116	223	S1116
601841	41	1.041	26.4	250	680	S1136	601004	4	0.570	14.5	155	267	S1121
621841*	41	0.846	21.5	289	541	S1129	601005	5	0.623	15.8	194	322	S1121
601850	50	1.092	27.7	305	825	S1136	<b>8 AWG (10 mm<sup>2</sup>)</b>						
621850*	50	0.961	24.4	336	697	S1129	600804	4	0.695	17.7	258	436	S1129
<b>16 AWG (1.50 mm<sup>2</sup>)</b>							600805	5	0.764	19.4	323	525	S1129
601602**	2	0.303	7.7	20	57	S1111	<b>6 AWG (16 mm<sup>2</sup>)</b>						
601603	3	0.319	8.1	29	62	S1111	600604	4	0.870	22.1	413	699	S1129
601604	4	0.345	8.8	39	75	S1111	600605	5	0.955	24.3	516	842	S1129
601605	5	0.375	9.5	49	90	S1111	<b>4 AWG (25 mm<sup>2</sup>)</b>						
601607	7	0.406	10.3	68	121	S1113	600404	4	1.118	28.4	515	950	S1136
601609	9	0.509	12.9	88	174	S1116	620404*	4	0.976	24.8	646	863	S1136
601612	12	0.557	14.1	112	209	S1121	600405	5	1.228	31.2	645	1200	S1248
601618	18	0.644	16.4	175	298	S1121	620405*	5	1.094	27.8	807	1105	S1136
601625	25	0.733	18.6	242	417	S1129	<b>2 AWG (35 mm<sup>2</sup>)</b>						
601634	34	1.020	25.9	296	760	S1136	600204	4	1.292	32.8	876	1405	S1248
621634*	34	0.925	23.5	339	652	S1129	620204*	4	1.091	27.7	904	1165	S1136
601641	41	1.101	28.0	357	875	S1136	600205	5	1.422	36.1	1129	1752	S1142

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Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (inches) (mm)		Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread	Part Number	Number of Conductors (incl. ground)	Nominal Outer Diameter (inches) (mm)		Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread
<b>20 AWG (0.50 mm<sup>2</sup>)</b>							<b>14 AWG (2.50 mm<sup>2</sup>)</b>						
602002CY**	2	0.329	8.4	25	66	53112220	601403CY	3	0.432	11.0	75	148	53112230
602003CY	3	0.341	8.7	30	82	53112220	601404CY	4	0.462	11.7	93	181	53112240
602004CY	4	0.361	9.2	35	88	53112220	601405CY	5	0.497	12.6	115	218	53112240
602005CY	5	0.384	9.8	41	99	53112230	601407CY	7	0.572	14.5	147	282	53112250
602007CY	7	0.407	10.3	51	112	53112230	601412CY	12	0.736	18.7	253	516	53112260
602012CY	12	0.497	12.6	73	181	53112240	601418CY	18	0.905	23.0	361	741	53112260
602025CY	25	0.678	17.2	139	295	53112260	<b>12 AWG (4 mm<sup>2</sup>)</b>						
<b>18 AWG (1.00 mm<sup>2</sup>)</b>							601203CY	3	0.500	12.7	124	227	53112240
601802CY**	2	0.353	9.0	28	75	53112220	601204CY	4	0.585	14.9	154	311	53112250
601803CY	3	0.367	9.3	40	82	53112230	601205CY	5	0.628	16.0	180	359	53112250
601804CY	4	0.390	9.9	48	106	53112230	601207CY	7	0.672	17.1	234	494	53112260
601805CY	5	0.416	10.6	57	123	53112230	<b>10 AWG (6 mm<sup>2</sup>)</b>						
601807CY	7	0.443	11.3	94	139	53112240	601003CY	3	0.623	15.8	164	311	53112250
601812CY	12	0.586	14.9	153	229	53112250	601004CY	4	0.669	17.0	208	386	53112250
601818CY	18	0.678	17.2	216	317	53112260	601005CY	5	0.731	18.6	255	474	53112260
601825CY	25	0.764	19.4	226	436	53112260	601007CY	7	0.786	20.0	335	639	53112260
<b>16 AWG (1.50 mm<sup>2</sup>)</b>							<b>8 AWG (10 mm<sup>2</sup>)</b>						
601603CY	3	0.395	10.0	52	115	53112230	600804CY	4	0.803	20.4	324	574	53112260
601604CY	4	0.421	10.7	66	128	53112230	<b>6 AWG (16 mm<sup>2</sup>)</b>						
601605CY	5	0.451	11.5	76	150	53112240	600604CY	4	0.994	25.2	494	1115	53112270
601607CY	7	0.482	12.2	98	181	53112240	<b>4 AWG (25 mm<sup>2</sup>)</b>						
601612CY	12	0.656	16.7	167	311	53112250	620404CY*	4	1.133	28.8	777	1153	53112270
601618CY	18	0.743	18.9	235	456	53112260	<b>2 AWG (35 mm<sup>2</sup>)</b>						
601625CY	25	0.897	22.8	313	639	53112260	620204CY*	4	1.247	31.7	1051	1987	53112270

\* Part numbers are not MTW.

\*\* 2c cable does not include ground.

Recommended SKINTOP® assumes minimal OD variance. Additional configurations are available, please see our SKINTOP® Section. Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.