

# ÖLFLEX® 190/190 CY

Extremely oil-resistant flexible control cable with UL TC & UL/CSA AWM



ÖLFLEX® 190 is a multi-conductor cable with a highly oil-, coolant-, and solvent-resistant thermoplastic polymer 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 is also UL TC approved so it can be routed in tray as well. ÖLFLEX® 190 CY is a shielded version for EMI and RFI protection.

## Recommended applications

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

## Approvals



Cable attributes		page 648	
OIL	OR-04	FLAME	FR-03
MOTION	WT-02	MECH.	MP-03

## Unshielded construction

**Conductors:** finely stranded bare copper

**Insulation:** specially formulated PVC

**Jacket:** specially formulated thermoplastic polymer; gray

## Shielded construction

**Conductors:** finely stranded bare copper

**Insulation:** specially formulated PVC

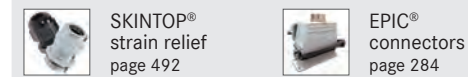
**Shielding:** PVC inner jacket; tinned copper braid (85% coverage)

**Jacket:** specially formulated thermoplastic polymer; gray

## 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
- Resistant to a wide range of disinfecting solutions used in the food, beverage, chemical and related industries, according to ECOLAB® PM 40-1 test procedure

## Complete the installation



## Technical data

**Minimum bend radius:**  
 - for installation: 4 x cable diameter  
 - shielded: 6 x cable diameter

**Temperature range:**  
 - UL TC: -25°C to +90°C  
 - for stationary use: -40°C to +105°C  
 - for flexible use: -25°C to +90°C

**Nominal voltage:**  
 - UL PLTC: 300V  
 - UL TC: 600V  
 - UL WTTC: 1000V  
 - UL/CSA AWM: 1000V

**Test voltage:** 2000V

**Conductor stranding:**  
 - 20 - 6 AWG: Class 5 fine wire\*  
 - 4 AWG and larger: Class K fine wire  
 \* 18 AWG meets only Class 5 cross section and DC resistance

**Color code:** black with white numbers, plus green/yellow ground

**Approvals:**  
 UL: TC-ER per UL 1277  
 WTTC per UL 2277  
 PLTC-ER per UL 13 (20 AWG)  
 AWM 2587 & 21098 (Oil)  
 Attributes: UL Oil Res I/II  
 90°C wet; 90°C dry  
 sunlight resistant  
 direct burial  
 NFPA 79  
 Canada: CSA AWM I/II A/B FT4  
 CSA C22.2 210.2  
 Additional: torsion rated for wind market  
 (± 90°/m) & (± 150°/m) (18 - 2 AWG)  
 CE & RoHS

If not otherwise specified, all values relating to the product are nominal values. Photographs are not to scale and are not true representations of the products in question.

ÖLFLEX® 190

Part number	Number of conductors incl. ground*	Nominal outer diameter		Copper weight lbs/mft	Approx. weight lbs/mft	SKINTOP® SL PG thread
		in	mm			
<b>20 AWG (0.5 mm²)</b>						
602002**	2	0.253	6.4	7	40	S1109
602003	3	0.265	6.7	10	42	S1109
602004	4	0.285	7.2	13	51	S1111
602005	5	0.308	7.8	17	60	S1111
602007	7	0.331	8.4	23	82	S1111
602009	9	0.409	10.4	30	100	S1113
602012	12	0.421	10.7	39	168	S1113
602018	18	0.487	12.4	59	198	S1116
602025	25	0.586	14.9	82	242	S1121
<b>18 AWG (1 mm²)</b>						
601802**	2	0.277	7.0	13	42	S1111
601803	3	0.291	7.4	20	44	S1111
601804	4	0.314	8.0	26	55	S1111
601805	5	0.340	8.6	33	64	S1111
601807	7	0.367	9.3	46	84	S1111
601809	9	0.454	11.5	59	119	S1113
601812	12	0.471	12.0	79	141	S1116
601818	18	0.579	14.7	118	207	S1121
601825	25	0.656	16.7	164	278	S1121
601834	34	0.761	19.3	206	575	S1129
601841	41	0.873	22.2	250	680	S1129
601850	50	0.927	23.5	305	825	S1129
<b>16 AWG (1.5 mm²)</b>						
601602**	2	0.303	7.7	20	57	S1111
601603	3	0.319	8.1	29	62	S1111
601604	4	0.345	8.8	39	75	S1111
601605	5	0.375	9.5	49	90	S1111
601607	7	0.406	10.3	68	121	S1113
601609	9	0.509	12.9	88	174	S1116
601612	12	0.557	14.1	112	209	S1121
601618	18	0.644	16.4	175	298	S1121
601625	25	0.733	18.6	242	417	S1129
601634	34	0.892	22.7	296	760	S1129
601641	41	0.974	24.7	357	875	S1236
601650	50	1.036	26.3	437	1020	S1136
601661	61	1.098	27.9	530	1180	S1136

\* 2c cable does not include ground

\*\* Part numbers are not -ER rated

ÖLFLEX® 190 CY

Part number	Number of conductors incl. ground*	Nominal outer diameter		Copper weight lbs/mft	Approx. weight lbs/mft	SKINTOP® MS-SC PG thread
		in	mm			
<b>20 AWG (0.5 mm²)</b>						
602002CY**	2	0.329	8.4	25	66	53112220
602003CY	3	0.341	8.7	30	82	53112220
602004CY	4	0.361	9.2	35	88	53112220
602005CY	5	0.384	9.8	41	99	53112230
602007CY	7	0.407	10.3	51	112	53112230
602012CY	12	0.497	12.6	73	181	53112240
602025CY	25	0.678	17.2	139	295	53112260
<b>18 AWG (1 mm²)</b>						
601802CY**	2	0.353	9.0	28	75	53112220
601803CY	3	0.367	9.3	40	82	53112230
601804CY	4	0.390	9.9	48	106	53112230
601805CY	5	0.416	10.6	57	123	53112230
601807CY	7	0.443	11.3	94	139	53112240
601812CY	12	0.586	14.9	153	229	53112250
601818CY	18	0.678	17.2	216	317	53112260
601825CY	25	0.764	19.4	226	436	53112260
<b>16 AWG (1.5 mm²)</b>						
601603CY	3	0.395	10.0	52	115	53112230
601604CY	4	0.421	10.7	66	128	53112230
601605CY	5	0.451	11.5	76	150	53112240
601607CY	7	0.482	12.2	98	181	53112240
601612CY	12	0.656	16.7	167	311	53112250
601618CY	18	0.743	18.9	235	456	53112260
601625CY	25	0.888	22.6	313	639	53112260

\* 2c cable does not include ground

\*\* Part numbers are not -ER rated

Recommended SKINTOP® assumes minimal OD variance. Additional configurations are available; please see our SKINTOP® section. If not otherwise specified, all values relating to the product are nominal values.

Part number	Number of conductors incl. ground*	Nominal outer diameter		Copper weight lbs/mft	Approx. weight lbs/mft	SKINTOP® SL PG thread
		in	mm			
<b>14 AWG (2.5 mm²)</b>						
601402**	2	0.337	8.6	33	88	S1111
601403	3	0.356	9.0	49	93	S1111
601404	4	0.386	9.8	65	121	S1113
601405	5	0.421	10.7	81	145	S1113
601407	7	0.457	11.6	113	192	S1113
601409	9	0.609	15.5	145	317	S1121
601412	12	0.628	16.0	194	401	S1121
601418	18	0.729	18.5	290	575	S1129
601425	25	0.872	22.1	404	860	S1129
<b>12 AWG (4 mm²)</b>						
601203	3	0.417	10.6	78	156	S1113
601204	4	0.454	11.5	104	198	S1113
601205	5	0.497	12.6	129	238	S1116
601207	7	0.573	14.6	181	363	S1121
601211	11	0.745	18.9	284	397	S1129
<b>10 AWG (6 mm²)</b>						
601003	3	0.466	11.8	116	223	S1116
601004	4	0.509	12.9	155	267	S1121
601005	5	0.590	15.0	194	322	S1121
<b>8 AWG (10 mm²)</b>						
600804	4	0.664	16.9	258	436	S1129
600805	5	0.728	18.5	323	525	S1129
<b>6 AWG (16 mm²)</b>						
600604	4	0.870	22.1	413	699	S1129
600605	5	0.955	24.3	516	842	S1129
<b>4 AWG (21 mm²)</b>						
600404	4	1.005	25.5	515	950	S1136
600405	5	1.105	28.1	645	1200	S1136
<b>2 AWG (33.7 mm²)</b>						
600204	4	1.178	29.9	876	1405	S1136
600205	5	1.300	33.0	1129	1752	S1248