

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.

Recommended Applications

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

Approvals



Cable Attributes		page 640	
OIL	OR-04	FLAME	FR-02
MOTION	FL-02	MECH.	MP-02

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

Unshielded Construction

Conductors: Finely stranded bare copper
Insulation: Specially formulated PVC/nylon
Jacket: Specially formulated PVC; gray

Shielded Construction

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

Technical Data

Minimum Bend Radius:
 - for installation: 4 x cable diameter
 - shielded: 6 x cable diameter

Temperature Range:
 - for stationary use: -40°C to +90°C
 - for flexible use: -5°C to +90°C

Nominal Voltage:
 - UL MTW/CSA AWM: 600V
 - UL AWM: 1000V

Test Voltage: 2000V

Conductor Stranding:
 - 20 - 6 AWG: Class 5 fine wire*
 - 4 AWG and larger:
 - MTW: Class K fine wire
 - AWM only: Class 5 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: MTW per UL 1063 (P/Ns with * are not MTW)
 AWM 2587 & 21098 (Oil)
 Attributes: UL Oil Res I/II
 NFPA 79
 Canada: CSA AWM I/II A/B FT 1
 CSA C22.2 210.2
 Additional: Passes Impact and Crush tests per UL 1277 (excluding 20 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. For current information go to our website.

ÖLFLEX® 190

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		
20 AWG (0.50 mm²)						14 AWG (2.50 mm²)							
602002**	2	0.253	6.4	7	40	S1109	621641*	41	0.988	25.1	407	768	S1136
602003	3	0.265	6.7	10	42	S1109	601650	50	1.192	30.3	437	1020	S1136
602004	4	0.285	7.2	13	51	S1111	621650*	50	1.079	27.4	504	911	S1136
602005	5	0.308	7.8	17	60	S1111	601661	61	1.265	32.1	530	1180	S1248
602007	7	0.331	8.4	23	82	S1111	621661*	61	1.142	29.0	591	1036	S1136
602009	9	0.409	10.4	30	100	S1113	12 AWG (4 mm²)						
602012	12	0.421	10.7	39	168	S1113	601402**	2	0.337	8.6	33	88	S1111
602018	18	0.487	12.4	59	198	S1116	601403	3	0.356	9.0	49	93	S1111
602025	25	0.586	14.9	82	242	S1121	601404	4	0.386	9.8	65	121	S1113
18 AWG (1.00 mm²)						10 AWG (6 mm²)							
601802**	2	0.277	7.0	13	42	S1111	601405	5	0.421	10.7	81	145	S1113
601803	3	0.291	7.4	20	44	S1111	601407	7	0.457	11.6	113	192	S1113
601803NG	3	0.291	7.4	20	44	S1111	601409	9	0.609	15.5	145	317	S1121
601804	4	0.314	8.0	26	55	S1111	601412	12	0.628	16.0	194	401	S1121
601805	5	0.340	8.6	33	64	S1111	601418	18	0.729	18.5	290	575	S1129
601807	7	0.367	9.3	46	84	S1111	601425	25	0.872	22.1	404	860	S1129
601809	9	0.454	11.5	59	119	S1113	8 AWG (10 mm²)						
601812	12	0.471	12.0	79	141	S1116	600804	4	0.695	17.7	258	436	S1129
601818	18	0.579	14.7	118	207	S1121	600805	5	0.764	19.4	323	525	S1129
601825	25	0.656	16.7	164	278	S1121	6 AWG (16 mm²)						
601834	34	0.937	23.8	206	575	S1129	600604	4	0.870	22.1	413	699	S1129
621834*	34	0.783	19.9	232	475	S1129	600605	5	0.955	24.3	516	842	S1129
601841	41	1.041	26.4	250	680	S1136	4 AWG (25 mm²)						
621841*	41	0.846	21.5	289	541	S1129	600404	4	1.118	28.4	515	950	S1136
601850	50	1.092	27.7	305	825	S1136	620404*	4	0.976	24.8	646	863	S1136
621850*	50	0.961	24.4	336	697	S1129	600405	5	1.228	31.2	645	1200	S1248
16 AWG (1.50 mm²)						2 AWG (35 mm²)							
601602**	2	0.303	7.7	20	57	S1111	600204	4	1.292	32.8	876	1405	S1248
601603	3	0.319	8.1	29	62	S1111	620204*	4	1.091	27.7	904	1165	S1136
601604	4	0.345	8.8	39	75	S1111	600205	5	1.422	36.1	1129	1752	S1142
601605	5	0.375	9.5	49	90	S1111	8 AWG (10 mm²)						
601607	7	0.406	10.3	68	121	S1113	600804	4	0.695	17.7	258	436	S1129
601609	9	0.509	12.9	88	174	S1116	600805	5	0.764	19.4	323	525	S1129
601612	12	0.557	14.1	112	209	S1121	6 AWG (16 mm²)						
601618	18	0.644	16.4	175	298	S1121	600604	4	0.870	22.1	413	699	S1129
601625	25	0.733	18.6	242	417	S1129	600605	5	0.955	24.3	516	842	S1129
601634	34	1.020	25.9	296	760	S1136	4 AWG (25 mm²)						
621634*	34	0.925	23.5	339	652	S1129	600404	4	1.118	28.4	515	950	S1136
601641	41	1.101	28.0	357	875	S1136	620404*	4	0.976	24.8	646	863	S1136

* Part numbers are not MTW

** 2c cable does not include ground

ÖLFLEX® 190 CY

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		
20 AWG (0.50 mm²)						14 AWG (2.50 mm²)							
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	12 AWG (4 mm²)						
18 AWG (1.00 mm²)						10 AWG (6 mm²)							
601802CY**	2	0.353	9.0	28	75	53112220	601203CY	3	0.500	12.7	124	227	53112240
601803CY	3	0.367	9.3	40	82	53112230	601204CY	4	0.585	14.9	154	311	53112250
601804CY	4	0.390	9.9	48	106	53112230	601205CY	5	0.628	16.0	180	359	53112250
601805CY	5	0.416	10.6	57	123	53112230	601207CY	7	0.672	17.1	234	494	53112260
601807CY	7	0.443	11.3	94	139	53112240	8 AWG (10 mm²)						
601812CY	12	0.586	14.9	153	229	53112250	601003CY	3	0.623	15.8	164	311	53112250
601818CY	18	0.678	17.2	216	317	53112260	601004CY	4	0.669	17.0	208	386	53112250
601825CY	25	0.764	19.4	226	436	53112260	601005CY	5	0.731	18.6	255	474	53112260
16 AWG (1.50 mm²)						2 AWG (35 mm²)							
601603CY	3	0.395	10.0	52	115	53112230	601007CY	7	0.786	20.0	335	639	53112260
601604CY	4	0.421	10.7	66	128	53112230	6 AWG (16 mm²)						
601605CY	5	0.451	11.5	76	150	53112240	600804CY	4	0.803	20.4	324	574	53112260
601607CY	7	0.482	12.2	98	181	53112240	600604CY	4	0.994	25.2	494	1115	53112270
601612CY	12	0.656	16.7	167	311	53112250	4 AWG (25 mm²)						
601618CY	18	0.743	18.9	235	456	53112260	620404CY*	4	1.133	28.8	777	1153	53112270
601625CY	25	0.897	22.8	313	639	53112260	2 AWG (35 mm²)						
						620204CY*							
						4							
						1.247							
						31.7							
						1051							
						1987							
						53112270							

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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. For current information go to our website.