

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 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

■ Recommended Applications

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

■ Approvals



■ 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

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

■ Technical Data

<p> Minimum Bend Radius: - for installation: 4 x cable diameter - shielded: 6 x cable diameter</p> <p> Temperature Range: - for stationary use: -40°C to +90°C - for flexible use: -5°C to +90°C</p> <p> Nominal Voltage: - UL MTW/CSA AWM: 600V - UL AWM: 1000V</p> <p> Test Voltage: 2000V</p> <p> 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</p>	<p> Color Code: Black with white numbers, plus green/yellow ground</p> <p> 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 FT1 CSA C22.2 210.2 Additional: Passes Impact and Crush tests per UL 1277 (excluding 20 AWG) CE & RoHS</p>
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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	269	541	S1129	620404 †	4	1.118 28.4	515	950	S1136
601850	50	1.092 27.7	305	825	S1136	600404*	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	20 AWG (0.50 mm²)					
601607	7	0.406 10.3	68	121	S1113	602002CY**	2	0.329 8.4	25	66	53112220
601609	9	0.509 12.9	88	174	S1116	602003CY	3	0.341 8.7	30	82	53112220
601612	12	0.557 14.1	112	209	S1121	602004CY	4	0.361 9.2	35	88	53112220
601618	18	0.644 16.4	175	298	S1121	602005CY	5	0.384 9.8	41	99	53112230
601625	25	0.733 18.6	242	417	S1129	602007CY	7	0.407 10.3	51	112	53112230
601634	34	1.020 25.9	296	760	S1136	602012CY	12	0.497 12.6	73	181	53112240
621634*	34	0.925 23.5	339	652	S1129	602025CY	25	0.678 17.2	139	295	53112260
601641	41	1.101 28.0	357	875	S1136	18 AWG (1.00 mm²)					

* Part numbers are not MTW

** 2c cable does not include ground

† Part numbers built to AWG dimension (4 AWG/21 mm², 2 AWG/33.7mm²)

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	600804CY	4	0.803 20.4	324	574	53112260
601818CY	18	0.678 17.2	216	317	53112260	6 AWG (16 mm²)					
601825CY	25	0.764 19.4	226	436	53112260	600604CY	4	0.994 25.2	494	1115	53112270
16 AWG (1.50 mm²)						4 AWG (25 mm²)					
601603CY	3	0.395 10.0	52	115	53112230	620404CY*	4	1.133 28.8	777	1153	53112270
601604CY	4	0.421 10.7	66	128	53112230	2 AWG (35 mm²)					
601605CY	5	0.451 11.5	76	150	53112240	620204CY*	4	1.247 31.7	1051	1987	53112270
601607CY	7	0.482 12.2	98	181	53112240	20 AWG (0.50 mm²)					
601612CY	12	0.556 16.7	167	311	53112250	602002CY**	2	0.329 8.4	25	66	53112220
601618CY	18	0.743 18.9	235	456	53112260	602003CY	3	0.341 8.7	30	82	53112220
601625CY	25	0.897 22.8	313	639	53112260	602004CY	4	0.361 9.2	35	88	53112220

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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.