

TYPE TC CONTROL CABLE

XHHW-SOLONON® JACKET



Type TC Control Cable

**600 Volt Copper
Conductors**

**(VW-1) FR-XLP
Insulated Singles**

Overall SOLONON® Jacket

**Heat, Moisture and
Sunlight Resistant**

APPLICATIONS Suitable for use as follows:

Southwire's Type TC Control Cable is for use in industrial power or control circuits where small diameter, flame retardant cables are desired. Primary installations include cable trays, raceways and outdoor locations where supported by a messenger wire. Type TC Control Cable is also listed for direct burial and for use in Class 1, Division 2 hazardous locations and Class 1 control circuits. Constructions with 3 or more conductors are listed for exposed runs (TC-ER) per NEC® 336.10. Conductors may be used in wet or dry locations at temperatures not to exceed 90°C.

SPECIFICATIONS

Southwire's Type TC Control Cable meets or exceeds the applicable requirements of the following standards and specifications:

- ASTM - (All applicable standards)
- UL 1277 - Electrical Power and Control Tray Cables
- UL 1581 - Electrical Wires, Cables and Flexible Cords
- ICEA S-58-679 - Control Cable Conductor Identification. (Method 1, Table 2 - colored compounds with tracer colors - excluding white and green)
- UL 1685 - UL Flame Exposure Test (70,000 BTU/hr)
- ICEA T-29-520 - Vertical Cable Tray Flame Test (210,000 BTU/hr)
- IEEE 1202 - Flame Testing of Cables for Use in Cable Tray in Industrial and Commercial Occupancies (70,000 BTU/hr)
- ICEA S-95-658 (NEMA WC 70) - Nonshielded 0 - 2 kV Cables, with testing frequencies based on UL requirements
- RoHS Compliant

CONSTRUCTION

Southwire's Type TC Control Cable is available in sizes 14 AWG through 10 AWG, with multiconductor constructions of 2 through 37 conductors. The product uses Type XHHW-2 rated VW-1 conductors. Individual conductors are bare annealed copper covered with a cross-linked polyethylene (XLP) insulation. The overall jacket consists of a flame retardant, moisture and sunlight resistant SOLONON® SOLONON® is a low smoke, non-halogen, flame retardant polyethylene jacket.



SOLAR

WEIGHTS, MEASUREMENTS AND PACKAGING

TYPE TC CONTROL CABLE XHHW-SOLONON® JACKET

NUMBER OF CONDUCTORS	JACKET THICKNESS	AVERAGE OVERALL DIAMETER		APPROXIMATE WEIGHT	
		inch	mm	lbs/1000 ft	kg/km
AWG 14 (7 STRANDS) TYPE TC-XHHW-2 CONDUCTORS					
2	.045	0.349	8.90	63	94
3	.045	0.370	9.40	87	129
3 w/ground	.045	0.403	10.2	106	157
4	.045	0.403	10.2	106	157
4 w/ground	.045	0.440	11.2	125	186
5	.045	0.440	11.2	125	186
6	.045	0.479	12.2	146	218
7	.045	0.479	12.2	164	245
8	.060	0.549	13.9	201	299
9	.060	0.588	14.9	223	332
10	.060	0.638	16.2	247	367
12	.060	0.659	16.7	285	424
15	.060	0.730	18.6	347	517
19	.060	0.768	19.5	424	630
20	.060	0.808	20.5	446	664
25	.080	0.938	23.8	582	866
30	.080	0.991	25.2	680	1012
37	.080	1.067	27.1	818	1217
AWG 12 (7 STRANDS) TYPE TC-XHHW-2 CONDUCTORS					
2	.045	0.384	9.80	85	127
3	.045	0.408	10.4	115	172
3 w/ground	.045	0.445	11.3	147	219
4	.045	0.445	11.3	147	219
4 w/ground	.045	0.487	12.4	171	255
5	.045	0.487	12.4	171	255
6	.060	0.562	14.3	217	323
7	.060	0.562	14.3	244	363
8	.060	0.607	15.4	275	410
9	.060	0.651	16.5	307	457
10	.060	0.709	18.0	340	506
12	.060	0.732	18.6	396	589
15	.060	0.813	20.7	484	721
19	.080	0.896	22.8	628	934
20	.080	0.942	23.9	661	984
25	.080	1.043	26.5	811	1207
30	.080	1.104	28.0	953	1418
37	.080	1.190	30.2	1152	1714
AWG 10 (7 STRANDS) TYPE TC-XHHW-2 CONDUCTORS					
2	.045	0.431	11.0	116	172
3	.045	0.459	11.7	161	239
3 w/ground	.045	0.502	12.8	205	306
4	.045	0.502	12.8	205	306
4 w/ground	.060	0.581	14.8	260	387
5	.060	0.581	14.8	260	387
6	.060	0.632	16.1	306	455
7	.060	0.632	16.1	346	514
8	.060	0.685	17.4	392	583
9	.060	0.736	18.7	437	651
10	.060	0.803	20.4	485	721
12	.080	0.870	22.1	599	892
15	.080	0.964	24.5	733	1091
19	.080	1.014	25.7	901	1340
20	.080	1.066	27.1	949	1412
25	.080	1.184	30.1	1168	1739
30	.080	1.254	31.9	1379	2052
37	.080	1.355	34.4	1674	2491

Southwire offers three and four conductor cables in sizes AWG 14, 12, 10, with a green insulated ground wire using ICEA color code Method 1, Table 2.

TYPE TC CONTROL CABLE

XHHW-SOLONON® JACKET



Type TC Control Cable

**600 Volt Copper
Conductors**

**(VW-1) FR-XLP
Insulated Singles**

Overall SOLONON® Jacket

**Heat, Moisture and
Sunlight Resistant**

APPLICATIONS Suitable for use as follows:

Southwire's Type TC Control Cable is for use in industrial power or control circuits where small diameter, flame retardant cables are desired. Primary installations include cable trays, raceways and outdoor locations where supported by a messenger wire. Type TC Control Cable is also listed for direct burial and for use in Class 1, Division 2 hazardous locations and Class 1 control circuits. Constructions with 3 or more conductors are listed for exposed runs (TC-ER) per NEC® 336.10. Conductors may be used in wet or dry locations at temperatures not to exceed 90°C.

SPECIFICATIONS

Southwire's Type TC Control Cable meets or exceeds the applicable requirements of the following standards and specifications:

- ASTM - (All applicable standards)
- UL 1277 - Electrical Power and Control Tray Cables
- UL 1581 - Electrical Wires, Cables and Flexible Cords
- ICEA S-58-679 - Control Cable Conductor Identification. (Method 1, Table 2 - colored compounds with tracer colors - excluding white and green)
- UL 1685 - UL Flame Exposure Test (70,000 BTU/hr)
- ICEA T-29-520 - Vertical Cable Tray Flame Test (210,000 BTU/hr)
- IEEE 1202 - Flame Testing of Cables for Use in Cable Tray in Industrial and Commercial Occupancies (70,000 BTU/hr)
- ICEA S-95-658 (NEMA WC 70) - Nonshielded 0 - 2 kV Cables, with testing frequencies based on UL requirements
- RoHS Compliant

CONSTRUCTION

Southwire's Type TC Control Cable is available in sizes 14 AWG through 10 AWG, with multiconductor constructions of 2 through 37 conductors. The product uses Type XHHW-2 rated VW-1 conductors. Individual conductors are bare annealed copper covered with a cross-linked polyethylene (XLP) insulation. The overall jacket consists of a flame retardant, moisture and sunlight resistant SOLONON® SOLONON® is a low smoke, non-halogen, flame retardant polyethylene jacket.



SOLAR

WEIGHTS, MEASUREMENTS AND PACKAGING

TYPE TC CONTROL CABLE XHHW-SOLONON® JACKET

NUMBER OF CONDUCTORS	JACKET THICKNESS	AVERAGE OVERALL DIAMETER		APPROXIMATE WEIGHT	
		inch	mm	lbs/1000 ft	kg/km
AWG 14 (7 STRANDS) TYPE TC-XHHW-2 CONDUCTORS					
2	.045	0.349	8.90	63	94
3	.045	0.370	9.40	87	129
3 w/ground	.045	0.403	10.2	106	157
4	.045	0.403	10.2	106	157
4 w/ground	.045	0.440	11.2	125	186
5	.045	0.440	11.2	125	186
6	.045	0.479	12.2	146	218
7	.045	0.479	12.2	164	245
8	.060	0.549	13.9	201	299
9	.060	0.588	14.9	223	332
10	.060	0.638	16.2	247	367
12	.060	0.659	16.7	285	424
15	.060	0.730	18.6	347	517
19	.060	0.768	19.5	424	630
20	.060	0.808	20.5	446	664
25	.080	0.938	23.8	582	866
30	.080	0.991	25.2	680	1012
37	.080	1.067	27.1	818	1217
AWG 12 (7 STRANDS) TYPE TC-XHHW-2 CONDUCTORS					
2	.045	0.384	9.80	85	127
3	.045	0.408	10.4	115	172
3 w/ground	.045	0.445	11.3	147	219
4	.045	0.445	11.3	147	219
4 w/ground	.045	0.487	12.4	171	255
5	.045	0.487	12.4	171	255
6	.060	0.562	14.3	217	323
7	.060	0.562	14.3	244	363
8	.060	0.607	15.4	275	410
9	.060	0.651	16.5	307	457
10	.060	0.709	18.0	340	506
12	.060	0.732	18.6	396	589
15	.060	0.813	20.7	484	721
19	.080	0.896	22.8	628	934
20	.080	0.942	23.9	661	984
25	.080	1.043	26.5	811	1207
30	.080	1.104	28.0	953	1418
37	.080	1.190	30.2	1152	1714
AWG 10 (7 STRANDS) TYPE TC-XHHW-2 CONDUCTORS					
2	.045	0.431	11.0	116	172
3	.045	0.459	11.7	161	239
3 w/ground	.045	0.502	12.8	205	306
4	.045	0.502	12.8	205	306
4 w/ground	.060	0.581	14.8	260	387
5	.060	0.581	14.8	260	387
6	.060	0.632	16.1	306	455
7	.060	0.632	16.1	346	514
8	.060	0.685	17.4	392	583
9	.060	0.736	18.7	437	651
10	.060	0.803	20.4	485	721
12	.080	0.870	22.1	599	892
15	.080	0.964	24.5	733	1091
19	.080	1.014	25.7	901	1340
20	.080	1.066	27.1	949	1412
25	.080	1.184	30.1	1168	1739
30	.080	1.254	31.9	1379	2052
37	.080	1.355	34.4	1674	2491

Southwire offers three and four conductor cables in sizes AWG 14, 12, 10, with a green insulated ground wire using ICEA color code Method 1, Table 2.