



# TC Control Cable THHN-1

## APPLICATIONS Suitable for use as follows:

- 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 is also listed for direct burial and for use in Class 1, Division 2 hazardous locations and Class 1 control circuits
- Conductors may be used at temperatures not to exceed 75°C in wet locations or 90°C in dry locations

## CONSTRUCTION

Type TC Control Cable is available in sizes 16 AWG through 10 AWG, with multiconductor constructions of 2 through 37 conductors. The product uses Type THHN or THWN conductors in sizes 14 AWG through 10 AWG. Individual conductors are bare annealed copper covered with a polyvinyl chloride (PVC) insulation over which a nylon (polyamide) or UL listed equal jacket is applied. The overall jacket consists of a heat, moisture and sunlight-resistant PVC. Non-halogen jacket is available upon request.

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

## STANDARDS & REFERENCES

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-30-250 - Vertical Cable Tray Flame 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)

### Type TC Control Cable

600 Volt

### Copper Conductors

PVC/Nylon Insulated  
Singles Sizes 16 AWG  
through 10 AWG



Overall PVC Jacket  
Heat, Moisture and  
Sunlight-Resistant

WEIGHTS, MEASUREMENTS AND PACKAGING					
NUMBER OF CONDUCTORS	JACKET THICKNESS (inches)	AVERAGE OVERALL DIAMETER		APPROXIMATE WEIGHT	
		inches	mm	lbs/1000 ft	kg/km
<b>16 AWG (26 STRANDS) TYPE TC-TFFN* CONDUCTORS</b>					
2	0.045	0.288	7.32	43	64
3	0.045	0.303	7.70	53	79
4	0.045	0.329	8.36	66	98
5	0.045	0.357	9.07	81	120
<b>14 AWG (7 STRANDS) TYPE TC-THHN OR THWN CONDUCTORS</b>					
2	0.045	0.305	7.8	55	82
3	0.045	0.322	8.2	74	110
4	0.045	0.350	8.9	89	133
5	0.045	0.381	9.7	109	162
<b>12 AWG (7 STRANDS) TYPE TC-THHN OR THWN CONDUCTORS</b>					
2	0.045	0.340	8.6	75	111
3	0.045	0.360	9.2	105	156
4	0.045	0.392	10.0	129	193
5	0.045	0.428	10.9	154	229
<b>10 AWG (7 STRANDS) TYPE TC-THHN OR THWN CONDUCTORS</b>					
2	0.045	0.407	10.3	111	165
3	0.045	0.433	11.0	154	230
4	0.045	0.473	12.0	198	295
5	0.060	0.549	13.9	249	371

\* Similar to Type TFFN except rated 75°C in wet locations or 90°C in dry locations.