

# TYPE TC - CONTROL CABLE

## VW-1 Rated XLP Insulation 600 Volt 90°C PVC Jacket

PART NUMBER	NO. OF CONDS.	10 AWG		
		OVERALL JACKET THICK. (MILS)	APPROX. OUTSIDE DIAMETER (IN)	APPROX. WEIGHT 1000 FT. (POUNDS)
02-0546	2 FL	45	.274x.455	130
02-0547	2 RD	45	.455	137
02-0548	3	45	.482	175
02-0549	4	60	.559	238
02-0550	5	60	.611	285
02-0551	6	60	.666	352
02-0552	7	60	.666	384
02-0553	8	60	.722	435
02-0554	9	60	.776	480
02-0555	10	60	.810	520
02-0556	11	80	.872	560
02-0557	12	80	.896	605
02-0558	13	80	.928	645
02-0559	14	80	.961	695
02-0560	15	80	.986	745
02-0561	16	80	1.013	790
02-0562	17	80	1.042	820
02-0563	18	80	1.068	855
02-0564	19	80	1.068	900
02-0565	20	80	1.100	950
02-0566	21	80	1.124	1000
02-0567	22	80	1.156	1055
02-0568	23	80	1.178	1120
02-0569	24	80	1.198	1165
02-0570	25	80	1.214	1210
02-0571	26	80	1.234	1255
02-0572	27	80	1.249	1300
02-0573	28	80	1.272	1345
02-0574	29	80	1.290	1390
02-0575	30	80	1.321	1435
02-0576	31	80	1.328	1480
02-0577	32	80	1.348	1525
02-0578	33	80	1.375	1570
02-0579	34	80	1.386	1615
02-0580	35	80	1.404	1665
02-0581	36	80	1.430	1710
02-0582	37	80	1.430	1750

CONDUCTOR DATA			
SIZE (AWG)	STRANDS NO./O.D. (INCHES)	PVC INSULATION (INCHES)	APPROX. O.D. (INCHES)
18	16/.010	.030	.109
16	26/.010	.030	.121
14	7/.0242	.030	.134
12	7/.0305	.030	.153
10	7/.0385	.030	.177

**CABLE IDENTIFICATION:**

Sizes 18 and 16 AWG  
Ink print on one side of jacket  
"(size) AWG Type 90°C wet or dry. Sunlight Resistant, 600V (UL) Direct Burial"

Sizes 14, 12 and 10 AWG  
Ink print on one side of jacket  
"(size) AWG Type TC 90°C wet or dry. Cdrs. (Type XHHW-2) Sunlight Resistant, 600V (UL) Direct Burial"

**SCOPE:**

This specification covers multiconductor cables having cross-linked polyethylene (XLP) insulation with an overall gas/vapor-tight polyvinyl chloride (PVC) jacket; conforming to Article 318 "Cable Trays" and Article 340 "Power and Control Cable Type TC" of the 1999 National Electric Code, and Standard 1277 of Underwriters Laboratories, Inc. They meet the requirements of the ICEA T-29-520 and T-30-520 flame tests as well as the 70,000 BTU "Cable Tray Propagation Test" per IEEE-383 and show reserve capabilities by also passing the 210,000 BTU flame test. Rated 600 Volts, 90°C wet and dry. Sizes 14, 12, and 10 AWG conductors are UL Type XHHW-2. They also meet the CSA FT4 and the IEEE 1202 70,000 BTU flame tests.

**APPLICATIONS:**

UL listed and OSHA acceptable. Recognized for use in Class 1 or 2, Division 2 hazardous locations and for installation in trays, wireways, troughs, channels, ducts and conduit. Specifically approved for direct burial, wet or dry locations and outdoors in cable trays where a sunlight resistant rating is required. Designed for control, power, lighting, telemetering, signals and relay or traffic control where a low loss, high temperature insulation is specified.

**CONSTRUCTION:**

**CONDUCTORS**

Bare, soft annealed copper per ASTM B-3

**Sizes 18 and 16 AWG**

Bunch stranded, class K (.010" #30 strands) per ASTM B-174, and UL-62 paragraph 10.2

**Sizes 14, 12 and 10 AWG (XHHW-2)**

Concentric stranded, class B (7 strands) per ASTM B-8 and UL-44 paragraph 12.6. (An opaque separator is applied between the conductor and the insulation to facilitate stripping.)

**INSULATION:**

Cross-linked polyethylene

**Sizes 18 and 16 AWG:** UL-1581 table 50.241

**Sizes 14, 12, and 10 AWG:** UL-44 class XL compound and ICEA S-73-532 part 3

Thickness

**Sizes 18 and 16 AWG:** UL-62 table 6.1 (RFH-2)

**Sizes 14, 12, and 10 AWG:** UL-44 table 15.3 and ICEA S-73-532 part 3 table 3-1

**CABLING:**

Three or more conductors are assembled round with fillers as needed. A tape binder is applied over the assembly. Sizes 14, 12 and 10 AWG have a nylon ripcord inserted under the jacket for ease of stripping. Two conductors are assembled flat parallel (round, with fillers as needed, is available upon request).

**OVERALL JACKET:**

Gas/vapor-tight Polyvinyl Chloride (black) per UL-1277 table 10.1 & ICEA S-73-532 part 4 table 4-2.

Thickness - Specified herein

**COLOR CODING:**

ICEA Method 1 using solid colors with stripes in accordance with Table E-2.

**CONSTRUCTION OPTIONS:**

Consult factory for specifications on cables with USE-2 or RHW-2 insulation and/or with Neoprene or CPE jackets and CSA approved cables.

Information on this sheet is subject to change without notice. All diameters are nominal values. All diameters and weights are subject to normal manufacturing tolerances.



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