

# TYPE TC - CONTROL CABLE

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

PART NUMBER	NO. OF CONDS.	18 AWG			PART NUMBER	NO. OF CONDS.	16 AWG		
		OVERALL JACKET THICK. (MILS)	APPROX. OUTSIDE DIAMETER (IN)	APPROX. WEIGHT 1000 FT. (POUNDS)			OVERALL JACKET THICK. (MILS)	APPROX. OUTSIDE DIAMETER (IN)	APPROX. WEIGHT 1000 FT. (POUNDS)
02-0472A	2 FL	45	.204x.315	39	02-0472B	2FL	45	.216x.339	55
02-0473A	2 RD	45	.315	49	02-0473B	2RD	45	.339	64
02-0474A	3	45	.331	62	02-0474B	3	45	.357	76
02-0475A	4	45	.360	70	02-0475B	4	45	.389	97
02-0476A	5	45	.392	87	02-0476B	5	45	.425	112
02-0477A	6	45	.426	108	02-0477B	6	45	.462	135
02-0478A	7	45	.426	117	02-0478B	7	45	.462	141
02-0479A	8	45	.460	128	02-0479B	8	45	.500	168
02-0480A	9	45	.493	137	02-0480B	9	60	.567	188
02-0481A	10	60	.514	165	02-0481B	10	60	.590	192
02-0482A	11	60	.558	173	02-0482B	11	60	.605	220
02-0483A	12	60	.572	191	02-0483B	12	60	.621	231
02-0484A	13	60	.592	203	02-0484B	13	60	.643	257
02-0485A	14	60	.612	214	02-0485B	14	60	.665	273
02-0486A	15	60	.628	228	02-0486B	15	60	.682	289
02-0487A	16	60	.644	239	02-0487B	16	60	.701	306
02-0488A	17	60	.662	248	02-0488B	17	60	.720	314
02-0489A	18	60	.678	268	02-0489B	18	60	.738	337
02-0490A	19	60	.678	277	02-0490B	19	60	.738	348
02-0491A	20	60	.697	289	02-0491B	20	60	.760	369
02-0492A	21	60	.712	304	02-0492B	21	60	.776	395
02-0493A	22	60	.732	313	02-0493B	22	60	.798	422
02-0494A	23	60	.745	322	02-0494B	23	60	.813	436
02-0495A	24	60	.757	335	02-0495B	24	80	.866	453
02-0496A	25	60	.767	346	02-0496B	25	80	.877	474
02-0497A	26	60	.780	358	02-0497B	26	80	.891	492
02-0498A	27	60	.789	369	02-0498B	27	80	.901	508
02-0499A	28	60	.803	421	02-0499B	28	80	.916	526
02-0500A	29	60	.814	433	02-0500B	29	80	.929	542
02-0501A	30	80	.873	446	02-0501B	30	80	.950	561
02-0502A	31	80	.877	458	02-0502B	31	80	.955	576
02-0503A	32	80	.890	467	02-0503B	32	80	.968	589
02-0504A	33	80	.906	482	02-0504B	33	80	.987	603
02-0505A	34	80	.913	495	02-0505B	34	80	.994	623
02-0506A	35	80	.924	511	02-0506B	35	80	1.006	637
02-0507A	36	80	.940	525	02-0507B	36	80	1.024	652
02-0508A	37	80	.940	536	02-0508B	37	80	1.024	668

### 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.

**Indicate AWG required, when ordering.**

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\*

\*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.



PITTSBURGH WIRE & CABLE INC.

www.pittsburghwire.com

Sales and Ordering: 1-800-458-1222