

## PVC/Nylon 600 Volts 90°C Overall Shield and PVC Jacket

PART NUMBER	NO. OF CONDS.	10 AWG		
		OVERALL JACKET THICK. (MILS)	APPROX. OUTSIDE DIAMETER (IN)	APPROX. WEIGHT 1000 FT. (POUNDS)
02-0172	2	45	.510	142
02-0173	3	60	.565	182
02-0174	4	60	.610	227
02-0175	5	60	.660	284
02-0176	6	60	.710	332
02-0177	7	60	.710	370
02-0178	8	60	.765	417
02-0179	9	60	.815	463
02-0180	10	80	.890	515
02-0181	11	80	.910	547
02-0182	12	80	.930	604
02-0183	13	80	.960	685
02-0184	14	80	.995	731
02-0185	15	80	1.015	780
02-0186	16	80	1.040	825
02-0187	17	80	1.070	869
02-0188	18	80	1.095	920
02-0189	19	80	1.095	943
02-0190	20	80	1.125	1030
02-0191	21	80	1.150	1071
02-0192	22	80	1.180	1126
02-0193	23	80	1.200	1157
02-0194	24	80	1.215	1181
02-0195	25	80	1.235	1232
02-0196	26	80	1.250	1274
02-0197	27	80	1.265	1321
02-0198	28	80	1.290	1361
02-0199	29	80	1.305	1399
02-0200	30	80	1.335	1469

### SCOPE:

This specification covers multiconductor shielded cables having VW-1 TFFN or THHN/THWN (PVC/Nylon) conductors, an aluminum polyester tape shield with drain wire, and 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 Electrical 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 dry and 75°C wet. They also meet the CSA FT4 and the IEEE 1202 70,000 BTU flame test.

### 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 shielding against external interference is required.

### CONSTRUCTION:

#### CONDUCTORS

Bare, soft annealed copper per ASTM B-3

**Sizes 18 and 16 AWG (TFFN)**

Bunch stranded, Size 18 (16/.010") and Size 16 (19/.0117") UL-62 paragraph 10.2

**Sizes 14, 12 and 10 AWG (THHN/THWN)**

Concentric stranded, class B (7 strands) per ASTM B-8 and UL-83 table 13.1

#### INSULATION:

High dielectric polyvinyl chloride

UL-1581 table 50.145 (THWN 75°C)

UL-1581 table 50.155 (THHN 90°C)

UL-1581 table 50.155 Class 12B (TFFN 90°C)

Thickness: UL-83 table 15.5 for THHN/THWN and UL-62 table 6.2 for TFFN

#### INSULATION ARMOR

Nylon: UL-83 paragraph 25.1 for THHN/THWN & UL-62 paragraph 22.1 for TFFN

Thickness: UL-83 table 15.5 for THHN/THWN and UL-62 paragraph 26.4 for TFFN

#### CABLING:

Two or more conductors are assembled round with fillers as needed.

A tape binder is applied over assembly.

#### DRAIN WIRE:

Tinned copper per ASTM B-33

**Sizes 20, 18 and 16 AWG**

Concentric stranded, class B (7 strands), ASTM B-8

#### SHIELDING:

A .00035 aluminum foil/.001 polyester tape shield is applied helically with a 15% minimum overlap.

#### OVERALL JACKET:

Gas/vapor-tight Polyvinyl Chloride (black) - UL 1277 table 10.1

Thickness - Specified herein

#### COLOR CODING:

ICEA Method 1 Table E-2

#### CONSTRUCTION OPTIONS:

Consult factory for specifications on cables with copper tape shield or copper braid (tinned or bare) shields.

»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.

CONDUCTOR DATA				
SIZE (AWG)	STRANDS NO./O.D. (INCHES)	PVC INSULATION (INCHES)	NYLON ARMOR (INCHES)	APPROX. O.D. (INCHES)
18	16/.010	.015	.004	.089
16	19/.0117	.015	.004	.100
14	7/.0242	.015	.004	.113
12	7/.0305	.015	.004	.132
10	7/.0385	.020	.004	.166

#### CABLE IDENTIFICATION:

Sizes 18 and 16 AWG

Ink print on one side of jacket

"Shielded (size) AWG Type TC 90°C dry 75°C wet, Sunlight Resistant, 600V (UL) Direct Burial"

DRAIN WIRE DATA	
SIZE (AWG)	STRANDS NO./O.D. (INCHES)
20	7/.0121
18	7/.0152
16	7/.0192

