

PVC/Nylon, 600 Volts 90°C Overall Shield and 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)
02-0100A	2	45	.275	54	02-0100B	2	45	.295	62
02-0101A	3	45	.288	62	02-0101B	3	45	.310	80
02-0102A	4	45	.311	72	02-0102B	4	45	.340	94
02-0103A	5	45	.374	83	02-0103B	5	45	.416	109
02-0104A	6	45	.401	97	02-0104B	6	45	.447	124
02-0105A	7	45	.401	101	02-0105B	7	45	.447	132
02-0106A	8	45	.428	111	02-0106B	8	45	.478	148
02-0107A	9	45	.455	124	02-0107B	9	45	.509	162
02-0108A	10	45	.473	136	02-0108B	10	60	.558	178
02-0109A	11	45	.483	145	02-0109B	11	60	.570	194
02-0110A	12	45	.495	171	02-0110B	12	60	.584	220
02-0111A	13	45	.511	178	02-0111B	13	60	.602	236
02-0112A	14	60	.557	189	02-0112B	14	60	.620	249
02-0113A	15	60	.570	198	02-0113B	15	60	.635	262
02-0114A	16	60	.584	210	02-0114B	16	60	.650	277
02-0115A	17	60	.598	221	02-0115B	17	60	.666	293
02-0116A	18	60	.611	232	02-0116B	18	60	.675	303
02-0117A	19	60	.611	238	02-0117B	19	60	.675	316
02-0118A	20	60	.627	244	02-0118B	20	60	.695	330
02-0119A	21	60	.638	257	02-0119B	21	60	.705	347
02-0120A	22	60	.655	269	02-0120B	22	60	.725	360
02-0121A	23	60	.665	277	02-0121B	23	60	.735	373
02-0122A	24	60	.675	286	02-0122B	24	60	.745	387
02-0123A	25	60	.683	298	02-0123B	25	60	.755	404
02-0124A	26	60	.693	306	02-0124B	26	60	.765	426
02-0125A	27	60	.701	318	02-0125B	27	60	.775	439
02-0126A	28	60	.712	326	02-0126B	28	60	.790	448
02-0127A	29	60	.721	334	02-0127B	29	60	.800	457
02-0128A	30	60	.737	345	02-0128B	30	60	.815	481
02-0129A	31	60	.740	353	02-0129B	31	60	.820	488
02-0130A	32	60	.750	363	02-0130B	32	80	.870	537
02-0131A	33	60	.764	373	02-0131B	33	80	.885	552
02-0132A	34	60	.769	386	02-0132B	34	80	.890	566
02-0133A	35	60	.778	396	02-0133B	35	80	.900	579
02-0134A	36	60	.791	406	02-0134B	36	80	.915	594
02-0135A	37	60	.791	415	02-0135B	37	80	.915	610

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.

CONDUCTOR DATA

SIZE (AWG)	STRANDS NO./O.D. (INCHES)	PVC INSULATION (INCHES)	NYLON ARMOR (INCHES)	APPROX. O.D. (INCHES)
18	7/.0152	.015	.004	.089
16	7/.0192	.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

*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.

