

# ULTROL® 60+ Instrumentation Cable

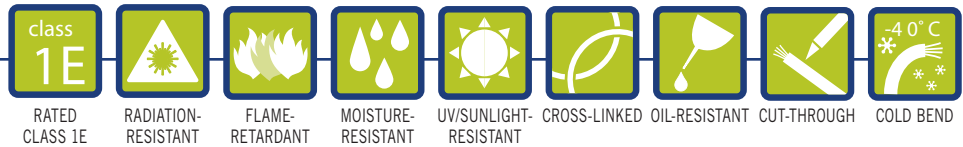
## Individually Shielded Pairs or Triads

### Overall Shield

Class 1E Nuclear

600 V, 90°C, VW-1

SPEC 250-60  
May, 2023



## Product Construction

### 1. Conductor:

- 18 AWG and 16 AWG tinned annealed copper per ASTM B33; Class B stranding per ASTM B8

### 2. Insulation:

- Flame-retardant, heat-, moisture- and radiation-resistant, thermoset ULTROL® 60+ Cross-linked Polyethylene (FR-XLPE)
- Color code: Per ICEA Method 1 — Pairs: black and white; Triads: black, white and red. One conductor in each pair/triad is printed alpha-numerically for easy identification

### 3. Shields:

- Individually shielded: pairs or triads are 100% shielded with a copper/polyester tape in contact with a stranded tinned copper drain wire and an overall polyester electrical isolation tape
- Overall shield: copper/polyester tape in contact with a stranded tinned copper drain wire

### 4. Jacket:

- Flame-retardant, moisture-, oil-, sunlight- and radiation-resistant, thermoset ULTROL® 60+ Cross-linked Polyolefin (XLPO) — Black

### Print:

- PRYSMIAN GROUP (WC) ULTROL® 60+ XX/ PR OR TRIADS XXAWG COPPER FR-XLPE XLPO SHIELDED 600V 90C SUN RES OIL RES I & II DIR BUR NUCLEAR DAY/MONTH/YEAR TRACEABILITY NUMBER SEQUENTIAL FOOTAGE

### Options:

- Conductor stranding
- ISO Metric conductors
- Tinned copper braid shield

### Applications:

- ULTROL® 60+ instrumentation cable is a 600 V individual shielded pairs or triads with overall shield, thermoset, Class 1E rated construction specifically designed for applications in nuclear generating stations and where flame retardancy is critical

### Applications (cont'd):

- Designed for use on critical circuits where total isolation is required between pairs/triads and from external interference
- Can be installed in trays, conduit, ducts, or in direct burial applications

### Features:

- Rated at 90°C wet or dry
- Fully traceable
- Qualified for 60-year service life
- Gamma and beta radiation resistant (up to 350 megarads)
- Submergence operability
- Long-term thermal endurance and superior electricals
- Excellent mechanical cut-through properties
- Long-term moisture and radiation stability
- Free stripping for ease of termination
- Meets cold bend test at -40°C

### Industry Compliances:

- Class 1E Qualified in accordance with IEEE 323-1974/2003 and IEEE 383-1974/2003
- ICEA S-73-532

### Flame Test Compliances:

- IEEE 383:1974
- IEEE 383:2003
- ICEA T-29-520
- IEEE 1202/FT4-1991, Aged & Unaged
- VW-1

### Other:

- Quality assurance program in accordance with NRC 10CFR50 Appendix B
- ANSI N45.2
- ASME NQA-1
- NIAC
- NUPIC

### Packaging:

- Material to be shipped on non-returnable wooden reels

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### Overall Shield

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CATALOG NUMBER	NO. OF PAIRS/TRIADS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		DRAIN WIRE SIZE (AWG)	MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm		INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km
25060.18.2P	2 SPS	18	7/.0152	0.025	0.64	20	0.045	1.14	0.462	11.7	30	45	140	208
25060.18.3P	3 SPS	18	7/.0152	0.025	0.64	20	0.045	1.14	0.490	12.5	43	65	173	257
25060.18.4P	4 SPS	18	7/.0152	0.025	0.64	20	0.060	1.52	0.567	14.4	57	85	245	365
25060.18.5P	5 SPS	18	7/.0152	0.025	0.64	20	0.060	1.52	0.619	15.7	70	105	290	432
25060.18.7P	7 SPS	18	7/.0152	0.025	0.64	20	0.060	1.52	0.673	17.1	97	145	313	465
25060.18.9P	9 SPS	18	7/.0152	0.025	0.64	20	0.060	1.52	0.784	19.9	125	186	389	579
25060.18.12P	12 SPS	18	7/.0152	0.025	0.64	20	0.080	2.03	0.923	23.4	165	246	536	798
25060.18.19P	19 SPS	18	7/.0152	0.025	0.64	20	0.080	2.03	1.077	27.4	259	385	708	1054
25060.16.2P	2 SPS	16	7/.0192	0.025	0.64	18	0.045	1.14	0.495	12.6	48	71	180	268
25060.16.3P	3 SPS	16	7/.0192	0.025	0.64	18	0.060	1.52	0.556	14.1	69	103	239	356
25060.16.4P	4 SPS	16	7/.0192	0.025	0.64	18	0.060	1.52	0.608	15.4	91	135	307	456
25060.16.5P	5 SPS	16	7/.0192	0.025	0.64	18	0.060	1.52	0.665	16.9	113	168	370	550
25060.16.7P	7 SPS	16	7/.0192	0.025	0.64	18	0.060	1.52	0.725	18.4	156	232	401	597
25060.16.9P	9 SPS	16	7/.0192	0.025	0.64	18	0.080	2.03	0.887	22.5	199	296	551	820
25060.16.12P	12 SPS	16	7/.0192	0.025	0.64	18	0.080	2.03	0.996	25.3	264	393	694	1033
25060.16.19P	19 SPS	16	7/.0192	0.025	0.64	18	0.080	2.03	1.164	29.6	414	616	935	1391
25060.18.2T	2 STS	18	7/.0152	0.025	0.64	20	0.045	1.14	0.489	12.4	40	60	188	280
25060.18.3T	3 STS	18	7/.0152	0.025	0.64	20	0.045	1.14	0.519	13.2	59	87	235	350
25060.18.4T	4 STS	18	7/.0152	0.025	0.64	20	0.060	1.52	0.599	15.2	77	115	337	502
25060.18.5T	5 STS	18	7/.0152	0.025	0.64	20	0.060	1.52	0.655	16.6	96	143	398	593
25060.18.7T	7 STS	18	7/.0152	0.025	0.64	20	0.060	1.52	0.714	18.1	133	198	433	645
25060.18.9T	9 STS	18	7/.0152	0.025	0.64	20	0.060	1.52	0.833	21.2	170	253	533	794
25060.18.12T	12 STS	18	7/.0152	0.025	0.64	20	0.080	2.03	0.979	24.9	226	336	741	1102
25060.18.19T	19 STS	18	7/.0152	0.025	0.64	20	0.080	2.03	1.145	29.1	356	530	977	1454
25060.16.2T	2 STS	16	7/.0192	0.025	0.64	18	0.060	1.52	0.554	14.1	64	96	241	359
25060.16.3T	3 STS	16	7/.0192	0.025	0.64	18	0.060	1.52	0.587	14.9	94	139	325	484
25060.16.4T	4 STS	16	7/.0192	0.025	0.64	18	0.060	1.52	0.642	16.3	124	185	423	630
25060.16.5T	5 STS	16	7/.0192	0.025	0.64	18	0.060	1.52	0.704	17.9	154	229	506	752
25060.16.7T	7 STS	16	7/.0192	0.025	0.64	18	0.060	1.52	0.768	19.5	213	317	553	823
25060.16.9T	9 STS	16	7/.0192	0.025	0.64	18	0.080	2.03	0.939	23.9	272	405	762	1134
25060.16.12T	12 STS	16	7/.0192	0.025	0.64	18	0.080	2.03	1.055	26.8	361	537	958	1425
25060.16.19T	19 STS	16	7/.0192	0.025	0.64	18	0.080	2.03	1.236	31.4	569	847	1287	1916

Insulated conductor diameter (inches) 18 AWG (.10) and 16 AWG (.11).  
Dimensions and weights are nominal; subject to industry tolerances.

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