

## EnergySafe™ XS Instrumentation Cable (PSOS)

multipair with dual shield / reduced diameter / LSZH / 18 & 16 AWG / 600 volt



### Applications

EnergySafe™ XS reduced diameter Low Smoke Zero Halogen (LSZH) cable is used for utility, power generation and industrial applications where safety of personnel and equipment is required. EnergySafe™ cable is available for instrumentation applications for installation indoors or outdoors, in conduits, ducts, cable trays, aerially and direct burial up to 600 volts.

EnergySafe™ XS is engineered with reduced insulation and jacket thicknesses to create a smaller cable perfect for use in crowded raceways.

EnergySafe™ cable is NEC-compliant for continuous operation at 90°C in wet and dry locations, 130°C for emergency overload conditions and 250°C for short circuit conditions.

### Specifications and Ratings

- UL Standard 1581 70,000 BTU/hr
- IEEE 1202 70,000 BTU/hr and/or 210,000 BTU/hr vertical tray flame tests (as detailed in ICEA T-29-520 and T-30-520)

### Can be manufactured to meet:

- NEC Type TC per article 336, 392 and 501.4 (b) and Class 1 circuits per NEC article 725
- UL Sunlight Resistant
- Approved for direct burial
- LS Rated in accordance with UL 1685
- NEC Class I and II, Division 2 Hazardous Locations
- ICEA S-73-532 (NEMA WC-57)
- VW-1 rated insulated conductors in accordance with UL 44

### Design Parameters

**CONDUCTORS:** Bare or tinned annealed copper per ASTM B3 or B33, Class B concentrically stranded per ASTM B8.

**INSULATION:** Heat and moisture resistant crosslinked polyethylene (XLPE) in accordance with ICEA S-73-532 suitable for continuous use at 90°C wet and dry. VW-1 rated conductors in accordance with UL 44 are available

**NOTE:** VW-1 rated conductors may contain trace amounts of halogens).

**CIRCUIT IDENTIFICATION:** One black and one white insulated single conductor in each pair with printed pair numbers.

**PAIR ASSEMBLY:** Two insulated conductors twisted with a Class K stranded tinned copper drain wire per ASTM B33 & B174 and wrapped with a helically-applied aluminum foil/mylar shield and an isolation tape.

**CABLING:** Required number of pairs are cabled with non-hygroscopic fillers where necessary to form a round compact core and wrapped with a binder tape.

**SHIELD OPTIONS:** Aluminum/mylar tape (with or without a drain wire)

- Corrugated longitudinally-applied .005 or .010 copper
- Flat helically-applied .005 or .010 copper
- Longitudinally-applied copper or aluminum copolymer-bonded shield
- Copper braid (specify percentage of coverage for optimum EMI protection)

**OVERALL JACKET:** Sunlight, abrasion, oil and chemical resistant low smoke zero halogen jacket in accordance with ICEA S-73-532.

### Prysmian Group

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Part Number	Conductor Number	Conductor Size/Stranding	Drain Size/Stranding	Insulation Thickness in (mm)	Average Jacket Thickness in (mm)	Minimum Bend Radius in (mm)	Cable Outside Diameter in (mm)	Approximate Cable Weight Lbs/Mft (Kg/Km)
418-02	2	18 AWG / 7x0.0152	20 AWG / 10x0.010	.020 (.51)	.030 (.76)	5.0 (127.0)	0.415 (10.5)	80 (119)
418-03	3	18 AWG / 7x0.0152	20 AWG / 10x0.010	.020 (.51)	.030 (.76)	5.3 (134.6)	0.440 (11.1)	105 (156)
418-04	4	18 AWG / 7x0.0152	20 AWG / 10x0.010	.020 (.51)	.030 (.76)	5.8 (147.3)	0.485 (12.3)	132 (197)
418-05	5	18 AWG / 7x0.0152	20 AWG / 10x0.010	.020 (.51)	.045 (1.1)	6.8 (172.7)	0.565 (14.3)	178 (265)
418-09	9	18 AWG / 7x0.0152	20 AWG / 10x0.010	.020 (.51)	.045 (1.1)	8.4 (213.4)	0.700 (17.8)	259 (386)
418-12	12	18 AWG / 7x0.0152	20 AWG / 10x0.010	.020 (.51)	.045 (1.1)	9.5 (241.3)	0.790 (20.1)	325 (484)
418-15	15	18 AWG / 7x0.0152	20 AWG / 10x0.010	.020 (.51)	.065 (1.7)	11.1 (282.0)	0.920 (23.4)	432 (643)
418-19	19	18 AWG / 7x0.0152	20 AWG / 10x0.010	.020 (.51)	.065 (1.7)	11.7 (297.2)	0.970 (24.6)	522 (777)
418-27	27	18 AWG / 7x0.0152	20 AWG / 10x0.010	.020 (.51)	.065 (1.7)	14.0 (355.0)	1.165 (29.6)	714 (1062)
418-37	37	18 AWG / 7x0.0152	20 AWG / 10x0.010	.020 (.51)	.065 (1.7)	15.6 (396.3)	1.300 (33.0)	1000 (1488)
416-02	2	16 AWG / 7x0.0192	18 AWG / 16x0.010	.020 (.51)	.030 (.76)	5.5 (139.7)	0.455 (11.5)	103 (153)
416-03	3	16 AWG / 7x0.0192	18 AWG / 16x0.010	.020 (.51)	.030 (.76)	5.8 (147.3)	0.485 (12.3)	137 (204)
416-04	4	16 AWG / 7x0.0192	18 AWG / 16x0.010	.020 (.51)	.045 (1.1)	6.8 (172.7)	0.565 (14.3)	193 (288)
416-05	5	16 AWG / 7x0.0192	18 AWG / 16x0.010	.020 (.51)	.045 (1.1)	7.4 (188.0)	0.620 (15.7)	231 (344)
416-07	7	16 AWG / 7x0.0192	18 AWG / 16x0.010	.020 (.51)	.045 (1.1)	8.1 (205.7)	0.675 (17.1)	302 (450)
416-09	9	16 AWG / 7x0.0192	18 AWG / 16x0.010	.020 (.51)	.045 (1.1)	8.8 (223.5)	0.770 (19.6)	341 (508)
416-12	12	16 AWG / 7x0.0192	18 AWG / 16x0.010	.020 (.51)	.065 (1.7)	9.5 (241.3)	0.910 (23.1)	452 (673)
416-15	15	16 AWG / 7x0.0192	18 AWG / 16x0.010	.020 (.51)	.065 (1.7)	11.3 (287.0)	1.015 (25.8)	570 (848)
416-19	19	16 AWG / 7x0.0192	18 AWG / 16x0.010	.020 (.51)	.065 (1.7)	12.5 (317.5)	1.045 (26.5)	675 (1004)
416-27	27	16 AWG / 7x0.0192	18 AWG / 16x0.010	.020 (.51)	.065 (1.7)	13.2 (335.3)	1.275 (32.4)	922 (1372)
416-37	37	16 AWG / 7x0.0192	18 AWG / 16x0.010	.020 (.51)	.065 (1.7)	17.8 (452.1)	1.435 (36.4)	1300 (1934)

The data herein is approximate and subject to normal manufacturing tolerances. These specifications are subject to change without notice.

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