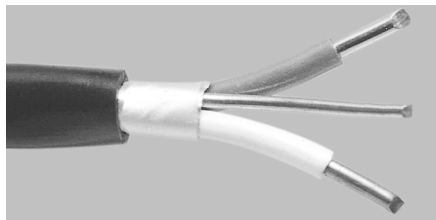


SERV-RITE Wire and Cable

Thermocouple Wire PVC Insulated and Shielded Thermocouple and Extension Wire SERIES 510



The SERIES 510 is a PVC insulated, twisted and shielded construction for systems sensitive to induced voltages and “noise.” SERIES 510 (see page 202) is also available as UL® listed PLTC.

The conductors are insulated with color coded PVC. The next operation twists the two insulated conductors with a copper drain wire. An aluminum polyester tape is wrapped around the wires to impart 100 percent shielding. Lastly, another layer of PVC is applied.

The twisting eliminates most EMI while the shield tape minimizes AC “noise”.

Continuous Use Temp.	Single Use Temp.
105°C (220°F)	105°C (220°F)

Resistance Properties		
Moisture	Chemical	Abrasion
Excellent	Good	Good

Wire Specifications

AWG	Nominal Conductor Size in. (mm)	Nominal Insulation Thickness		Nominal Overall Size		Approximate Shipping Weight	
		Conductor in. (mm)	Overall in. (mm)	in. (mm)	in. (mm)	lbs/1000 ft	(kg/km)
24	0.020 (0.508)	0.015 (0.381)	0.020 (0.508)	0.140 (3.56)	13	(19.4)	
24 S* (7/32)	0.024 (0.610)	0.015 (0.381)	0.020 (0.508)	0.148 (3.76)	14	(20.9)	
20	0.032 (0.813)	0.015 (0.381)	0.020 (0.508)	0.164 (4.17)	22	(32.8)	
20 S* (7/28)	0.038 (0.965)	0.015 (0.381)	0.020 (0.508)	0.176 (4.47)	24	(35.8)	
18	0.040 (1.02)	0.020 (0.508)	0.020 (0.508)	0.200 (5.08)	30	(44.7)	
18 S* (7/26)	0.048 (1.22)	0.020 (0.508)	0.020 (0.508)	0.216 (5.49)	32	(47.7)	
16	0.051 (1.29)	0.020 (0.508)	0.020 (0.508)	0.222 (5.64)	39	(58.1)	
16 S* (7/24)	0.060 (1.52)	0.020 (0.508)	0.020 (0.508)	0.240 (6.10)	41	(61.1)	
14	0.064 (1.63)	0.020 (0.508)	0.025 (0.635)	0.258 (6.55)	55	(82.0)	
14 S* (7/22)	0.076 (1.93)	0.020 (0.508)	0.025 (0.635)	0.282 (7.16)	58	(86.4)	

* “S” denotes stranded wire: e.g., “24 S (7/32)” is seven strands of 32 gauge wire to make a 24 gauge stranded conductor.

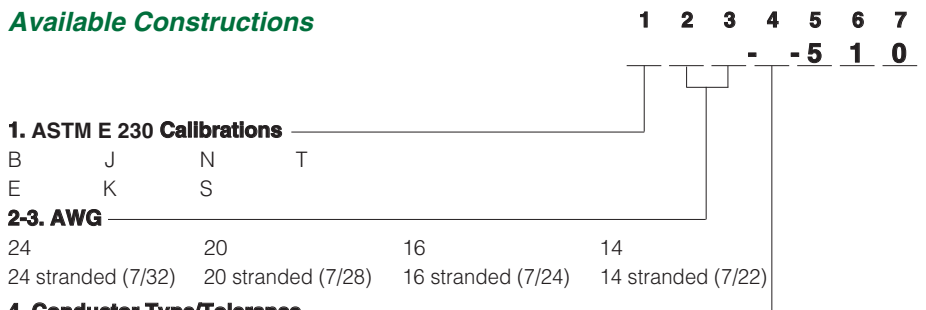
Popular Constructions

Grade	AWG	Wire Type	Limits of Error	Type K	Type J	Type T
Extension	16	Solid	Standard	K16-5-510	J16-5-510	T16-5-510
		Stranded	Standard	K16-7-510	J16-7-510	T16-7-510
	20	Solid	Standard	K20-5-510	J20-5-510	T20-5-510
		Stranded	Standard	K20-7-510	J20-7-510	T20-7-510
	24	Solid	Standard	K24-5-510	J24-5-510	T24-5-510
		Stranded	Standard	K24-7-510	J24-7-510	T24-7-510

Grade	AWG	Wire Type	Limits of Error	Type E	Type S
Extension	20	Solid	Standard	E20-5-510	S20-5-510

Note: Bolded products are stocked and shipped in 100, 250, 500 and 1000 foot spools.

Available Constructions



4. Conductor Type/Tolerance

- 1 = Thermocouple grade, solid wire, standard tolerance
- 2 = Thermocouple grade, solid wire, special tolerance
- 3 = Thermocouple grade, stranded wire, standard tolerance
- 4 = Thermocouple grade, stranded wire, special tolerance
- 5 = Extension grade, solid wire, standard tolerance
- 6 = Extension grade, solid wire, special tolerance
- 7 = Extension grade, stranded wire, standard tolerance
- 8 = Extension grade, stranded wire, special tolerance

Note: Minimum order sizes apply for non-stock constructions.

Performance Capabilities

- Continuous temperature rating 105°C (220°F)
- Flexible PVC plastic insulation
- Twisted and shielded construction to reduce electrical noise interference

- Available with optional metallic overbraid for additional abrasion resistance

Applications

- General use extension wire