

SERV-RITE Wire

Thermocouple and Extension Wire

High-Temperature Fiberglass Twisted Thermocouple Wire SERIES 314

The SERIES 314 is an economical construction for general, high temperature applications. The braided high temperature yarn is applied in a unique manner that allows SERIES 314 to be competitively priced with other fiberglass constructions. It produces a finished wire that performs at temperatures to 1600°F (870°C).

The conductors are insulated with braided, high strength fiberglass and impregnated to improve abrasion resistance. The impregnation is tinted to impart color coding to primary insulations. The insulated single conductors are then twisted together to yield a construction flexible enough for almost any application.

Performance Capabilities

- Continuous temperature rating: 1300°F (705°C)
- Fiberglass braided yarn insulation
- Twisted design has no jacket
- Available with an optional metallic overbraid for additional abrasion resistance



Applications

- Heat treating
- Aluminum stress relieving
- Steel annealing

Specifications

Continuous use temperature

- 1300°F (705°C)

Single use temperature

- 1600°F (870°C)

Resin retained to 400°F (204°C)

Resistance properties

- Moisture: Good
- Chemical: Good
- Abrasion: Good

Popular Constructions

Grade	AWG	Wire Type	Limits of Error	Type K	Type J
Thermocouple	20	Solid	Standard	K20-1-314	J20-1-314
		Solid	Special	K20-2-314	J20-2-314
	24	Solid	Standard	K24-1-314	J24-1-314
		Solid	Special	K24-2-314	J24-2-314

Note: Bolded products are stocked.

Wire Specifications

AWG	Nominal Conductor Size		Nominal Conductor Insulation Thickness		Nominal Overall Size		Approximate Shipping Weight	
	in.	(mm)	in.	(mm)	in.	(mm)	lbs/1000 ft	(kg/km)
24	0.020	(0.508)	0.015	(0.381)	0.100	(2.54)	6	(8.9)
20	0.032	(0.965)	0.015	(0.381)	0.124	(3.15)	10	(14.9)
18	0.040	(1.02)	0.018	(0.457)	0.152	(3.56)	16	(23.8)
16	0.051	(1.29)	0.018	(0.457)	0.174	(4.42)	21	(31.3)

Ordering Information

Part Number

①	② ③	④	⑤	⑥	⑦
ASTM E 230 Calibration	AWG	Conductor Type/Tolerance			
			3	1	4

①	ASTM E 230 Calibration
J	= Type J
K	= Type K

② ③	AWG
24	= 24 gauge solid
20	= 20 gauge solid
16	= 16 gauge solid

④	Conductor Type/Tolerance
1	= Thermocouple grade, solid wire, standard tolerance
2	= Thermocouple grade, solid wire, special tolerance

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