

# SERV-RITE Wire

## Thermocouple and Extension Wire

### High-Temperature Braided Fiberglass Thermocouple Wire SERIES 321

The addition of color coding and impregnation to the high temperature fiberglass make this wire the next logical step for systems which exceed temperature capabilities of the standard glass insulated series.

Each conductor is covered with a color coded, high temperature fiberglass braid. This braid is then impregnated to enhance abrasion resistance and reduce fraying. The insulated conductors are laid parallel and covered with another braid of high temperature fiberglass and impregnation.

#### Performance Capabilities

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



#### Applications

- Heat treating
- Aluminum and steel

#### 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	<b>K20-1-321</b>	<b>J20-1-321</b>
		Solid	Special	<b>K20-2-321</b>	<b>J20-2-321</b>
		Solid	Special		<b>J20-2-321-CAL*</b>
	24	Solid	Standard	K24-1-321	J24-1-321
		Solid	Special	K24-2-321	J24-2-321

\* Calibrated from 200 to 2200°F (93 to 1204°C), every 200°F (93°C). Only available in this construction.

**Bolded** products are stocked.

## Wire Specifications

AWG	Nominal Conductor Size in. (mm)		Nominal Insulation Thickness		Nominal Overall Size in. (mm)		Approximate Shipping Weight lbs/1000 ft (kg/km)	
			Conductor in. (mm)	Overall in. (mm)				
24	0.020	(0.508)	0.015 (0.381)	0.010 (0.254)	0.072 x 0.120	(1.83 x 3.05)	10	(14.9)
20	0.032	(0.965)	0.015 (0.381)	0.010 (0.254)	0.082 x 0.140	(2.08 x 3.56)	13	(19.4)
18	0.040	(1.02)	0.015 (0.381)	0.010 (0.254)	0.090 x 0.156	(2.29 x 3.96)	18	(26.8)

## Ordering Information

### Part Number

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

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

② ③	AWG
24 =	24 gauge solid
20 =	20 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.