

J Duplex Insulated Iron-Constantan Duplex ANSI Type J

ANSI Color Code: Positive Wire, White;
Negative Wire, Red; Overall, Brown

OMEGA Engineering does not use reprocessed PFA or PVC in manufacturing thermocouple wire

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Insulation	AWG No.	Model Number	Type Wire	Insulation		Max Temp		Nominal Size mm (inch)	Wt.† kg/300 m (lb/1000')
				Conductor	Overall	°C	°F		
Ceramic*	14	XC-J-14	Solid	Nextel Ceramic	Nextel Ceramic	590	1100	3.6 x 5.0 (0.140 x 0.200)	18 (38)
	20	XC-J-20	Solid			480	900	3.4 x 4.8 (0.135 x 0.190)	8 (16)
	20	XT-J-20	Solid			480	900	2.7 x 3.9 (0.105 x 0.155)	7 (15)
	24	XL-J-20	Solid			480	900	2.4 x 3.4 (0.095 x 0.135)	7 (14)
	24	XC-J-24	Solid			370	700	2.9 x 4.4 (0.115 x 0.175)	6 (12)
	24	XT-J-24	Solid			370	700	2.2 x 3.4 (0.088 x 0.132)	5 (11)
	24	XL-J-24	Solid			370	700	2.0 x 3.0 (0.078 x 0.116)	5 (10)
Silica*	14	XS-J-14	Solid	Silica	Silica	590	1100	3.6 x 5.0 (0.140 x 0.200)	16 (35)
	20	XS-J-20	Solid			480	900	2.7 x 3.9 (0.105 x 0.155)	6 (12)
	24	XS-J-24	Solid			370	700	2.2 x 3.4 (0.088 x 0.132)	5 (10)
High Temp. Glass**	20	HH-J-20	Solid	High Temp. Glass	High Temp. Glass	480	900	1.5 x 2.7 (0.060 x 0.105)	4 (9)
	24	HH-J-24	Solid			370	700	1.1 x 2.2 (0.055 x 0.090)	3 (5)
Glass	14	GG-J-14	Solid	Glass Braid	Glass Braid	480	900	1.5 x 2.4 (0.060 x 0.095)	4 (9)
	20	GG-J-20	Solid			480	900	1.5 x 2.5 (0.060 x 0.100)	4 (9)
	20	GG-J-20S	7 x 28			480	900	1.3 x 2.0 (0.050 x 0.080)	3 (5)
	24	GG-J-24	Solid			370	700	1.3 x 2.2 (0.050 x 0.085)	3 (5)
	24	GG-J-24S	7 x 32			370	700	1.1 x 2.0 (0.045 x 0.075)	2 (4)
	28	GG-J-28	Solid			370	700	1.0 x 1.4 (0.040 x 0.055)	2 (3)
	30	GG-J-30	Solid			320	600	0.9 x 1.3 (0.037 x 0.050)	2 (3)
	36	GG-J-36	Solid			320	600	0.8 x 1.1 (0.033 x 0.045)	1 (2)
Glass with Stainless Steel Overbraid	20	GG-J-20-SB	Solid	Glass	SS Braid over Glass	482	900	2.3 x 3.0 (0.090 x 0.120)	6 (14)
	20S	GG-J-20S-SB	7 x 28			482	900	2.3 x 3.2 (0.090 x 0.127)	7 (15)
	24	GG-J-24-SB	Solid			482	900	2.2 x 3.0 (0.085 x 0.117)	5 (11)
	24S	GG-J-24S-SB	7 x 32			482	900	2.0 x 2.8 (0.080 x 0.110)	5 (11)
Kapton Fused Polyimide Tape	20	KK-J-20	Solid	Fused Polyimide Tape	Fused Polyimide Tape	260	500	1.5 x 2.5 (0.060 x 0.100)	5 (11)
	20S	KK-J-20S	7 x 28			260	500	1.5 x 2.7 (0.060 x 0.105)	5 (11)
	24	KK-J-24	Solid			260	500	1.3 x 1.9 (0.050 x 0.075)	3 (6)
	24S	KK-J-24S	7 x 32			260	500	1.3 x 2.2 (0.050 x 0.085)	3 (6)
	30	KK-J-30	Solid			260	500	1.0 x 1.4 (0.040 x 0.055)	3 (5)
PFA and Glass	30	TG-J-30	Solid	PFA	Glass Braid	260	500	0.9 x 1.2 (0.034 x 0.047)	1 (2)
	36	TG-J-36	Solid			260	500	0.7 x 1.0 (0.028 x 0.038)	1 (2)
	40	TG-J-40	Solid			260	500	0.7 x 0.9 (0.026 x 0.035)	1 (2)
Neoflon PFA (High Performance)	20	TT-J-20	Solid	PFA	PFA	260	500	1.7 x 3.0 (0.068 x 0.116)	5 (11)
	20	TT-J-20S	7 x 28			260	500	1.9 x 3.2 (0.073 x 0.126)	5 (11)
	22	TT-J-22S	7 x 30			260	500	1.7 x 3.4 (0.065 x 0.133)	4 (9)
	24	TT-J-24	Solid			260	500	1.4 x 2.4 (0.056 x 0.093)	3 (6)
	24	TT-J-24S	7 x 32			260	500	1.6 x 2.6 (0.063 x 0.102)	3 (6)
	30	TT-J-30††	Solid			260	500	0.6 x 1.0 (0.024 x 0.040)	1 (2)
	36	TT-J-36††	Solid			260	500	0.5 x 0.8 (0.019 x 0.030)	1 (2)
	40	TT-J-40††	Solid			260	500	0.4 x 0.7 (0.017 x 0.026)	1 (2)
PFA Polymer w/Twisted & Shielded Conductors	20	TT-J-20-TWSH	Solid	PFA Polymer	PFA Polymer and Shielding	260	500	3.7 (0.15)	9 (20)
	20S	TT-J-20S-TWSH	7 x 28			260	500	3.8 (0.15)	9 (20)
	24	TT-J-24-TWSH	Solid			260	500	2.7 (0.11)	4 (9)
	24S	TT-J-24S-TWSH	7 x 32			260	500	2.9 (0.12)	4 (9)
Neoflon FEP	20	FF-J-20	Solid	FEP	FEP	200	392	1.7 x 3.0 (0.068 x 0.116)	5 (11)
	24	FF-J-24	Solid			200	392	1.7 x 3.0 (0.056 x 0.092)	3 (5)
FEP Polymer w/Twisted & Shielded Conductors	20	FF-J-20-TWSH	Solid	FEP Polymer	FEP Polymer and Shielding	200	392	3.7 (0.15)	9 (20)
	20S	FF-J-20S-TWSH	7 x 28			200	392	3.8 (0.15)	9 (20)
	24	FF-J-24-TWSH	Solid			200	392	2.7 (0.11)	4 (9)
	24S	FF-J-24S-TWSH	7 x 32			200	392	2.9 (0.12)	4 (9)
TFE Tape Polymer	20	TFE-J-20	Solid	TFE Tape Polymer	Fused TFE Tape Polymer	260	500	1.5 x 2.5 (0.060 x 0.100)	5 (11)
	20S	TFE-J-20S	7 x 28			260	500	1.5 x 2.7 (0.060 x 0.105)	5 (11)
	24	TFE-J-24	Solid			260	500	1.3 x 1.9 (0.050 x 0.075)	3 (6)
	24S	TFE-J-24S	7 x 32			260	500	1.3 x 2.2 (0.050 x 0.085)	3 (6)
Polyvinyl	24	PR-J-24	Solid	Polyvinyl	(Rip Cord)*** Polyvinyl	105	221	1.3 x 2.2 (0.050 x 0.085)	3 (5)
	24	PP-J-24S	7 x 32			105	221	2.0 x 3.4 (0.082 x 0.134)	3 (5)

* Has color tracers on jacket and conductors, **HH Wire has trace thread in positive leg, negative leg is red, overall has trace thread.

*** Two insulated leads bonded together, but with no overjacket.

† Weight of spool and wire rounded to the next highest lb (does not include packing material).

†† Overall color clear.

††† To order special limits of error wire, add "--SLE" to model number before spool length.

Ordering Example: GG-J-24-SLE-1000, 1000' (300 m) of Type J duplex insulated special limits of error thermocouple wire.

Note: Published prices are based on market value at time of printing and are subject to change due to Nickel surcharges, Chromium and precious-metal market fluctuations.

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Stainless Steel, Inconel®
or Tinned Copper
Overbraiding to Your
Insulated Thermocouple
Wire!