

OMEGACLAD® Thermocouple Wire

Magnesium Oxide Insulation Metal Sheathed

0.010 to 0.312 inch Diameter

**MADE WITH HIGH PURITY
MAGNESIUM OXIDE (MgO)**

OMEGACLAD® metal-sheathed thermocouple wire containing inert, non-vitrified insulation is used in the manufacture of thermocouple probes. It can also be used as extension wire.



**Type N
Available with
Inconel Sheath**

Discount Schedule for OMEGACLAD®					
Dia. 1 mm or 0.040" and above			Dia. 0.8 mm or 0.032" and below		
Metric	Feet	Net	Metric	Feet	Net
0 to 3 m	0 to 10'		0 to 7.5 m	0 to 24'	
3.1 to 7.5 m	11 to 25'	10%	7.6 to 30 m	25 to 99'	10%
7.6 to 15 m	26 to 50'	25%	30.1 to 75 m	100 to 249'	25%
15.1 to 30 m	51 to 100'	30%	Over 75 m	Over 249'	30%

Consult sales on larger quantities.

Continuous Lengths from 5 feet to thousands of feet.

TYPICAL APPLICATION OMEGACLAD® wire used as extension wire feedthrough with a compression fitting.

- ✓ Available in 304, 310, 316, and 321 Stainless Steel, Inconel® 600 and Super OMEGACLAD® XL
- ✓ Withstands Vibration, High Temperatures and Pressures
- ✓ Easily Formed, Durable
- ✓ Highest Quality
- ✓ Can Be Welded

**Heavy Wall
OMEGACLAD®
Consult Custom
Engineering.**

Available in these sizes:

0.312"

0.250"

0.188"

0.125"

0.062"

0.040"

0.032"

0.020"

0.010"

To Order Visit newportUS.com/304_MO for Pricing and Details

Model Number	Wire Calibration	Sheath Material	Sheath Diameter (inch)	Wall Thickness (inch)	Resistance at 60°F Ω/ Dbl. ft.	Wire Diameter (inch)	AWG Gage
304-J-MO-020-(* 304-J-MO-032-(* 304-J-MO-040-(* 304-J-MO-062-(* 304-J-MO-125-(* 304-J-MO-188-(* 304-J-MO-250-(*	J Iron-Constantan	304 Stainless Steel	0.020	0.003	23	0.004	38
			0.032	0.005	14.2	0.005	36
			0.040	0.007	8.9	0.006	34
			0.062	0.010	3.6	0.010	30
			0.125	0.018	0.88	0.020	24
			0.188	0.025	0.36	0.032	20
			0.250	0.036	0.22	0.040	18
INC-J-MO-020-(* INC-J-MO-032-(* INC-J-MO-040-(* INC-J-MO-062-(* INC-J-MO-125-(* INC-J-MO-188-(* INC-J-MO-250-(*	J Iron-Constantan	Inconel 600	0.020	0.003	23	0.004	38
			0.032	0.005	14.2	0.005	36
			0.040	0.007	8.9	0.006	34
			0.062	0.010	3.6	0.010	30
			0.125	0.018	0.88	0.020	24
			0.188	0.025	0.36	0.032	20
			0.250	0.036	0.22	0.040	18
304-K-MO-010-(* 304-K-MO-020-(* 304-K-MO-032-(* 304-K-MO-040-(* 304-K-MO-062-(* 304-K-MO-125-(* 304-K-MO-188-(* 304-K-MO-250-(*	K CHROMEALOMEGA®	304 Stainless Steel	0.010	0.0015	600	0.0015	50
			0.020	0.003	38	0.004	38
			0.032	0.005	24.1	0.005	36
			0.040	0.007	15	0.006	34
			0.062	0.010	6.0	0.010	30
			0.125	0.018	1.5	0.020	24
			0.188	0.025	0.59	0.032	20
			0.250	0.036	0.37	0.040	18
INC-K-MO-010-(* INC-K-MO-020-(* INC-K-MO-032-(* INC-K-MO-040-(* INC-K-MO-062-(* INC-K-MO-125-(* INC-K-MO-188-(* INC-K-MO-250-(* INC-K-MO-312-(*	K or N† CHROMEALOMEGA® or OMEGA-P® OMEGA-N®	Inconel 600	0.010	0.0015	600	0.0015	50
			0.020	0.003	38	0.004	38
			0.032	0.005	24.1	0.005	36
			0.040	0.007	15	0.006	34
			0.062	0.010	6.0	0.010	30
			0.125	0.018	1.5	0.020	24
			0.188	0.025	0.59	0.032	20
			0.250	0.036	0.37	0.040	18
			0.312	0.040	0.37	0.044	18
304-T-MO-020-(* 304-T-MO-032-(* 304-T-MO-040-(* 304-T-MO-062-(* 304-T-MO-125-(* 304-T-MO-188-(* 304-T-MO-250-(*	T Copper-Copper-Constantan	304 Stainless Steel	0.020	0.003	20	0.004	38
			0.032	0.005	12.2	0.005	36
			0.040	0.007	7.7	0.006	34
			0.062	0.010	3.0	0.010	30
			0.125	0.018	0.75	0.020	24
			0.188	0.025	0.298	0.032	20
			0.250	0.036	0.19	0.040	18
INC-T-MO-020-(* INC-T-MO-032-(* INC-T-MO-040-(* INC-T-MO-062-(* INC-T-MO-125-(* INC-T-MO-188-(* INC-T-MO-250-(*	T Copper-Constantan	Inconel 600	0.020	0.003	19.99	0.004	38
			0.032	0.005	12.2	0.005	36
			0.040	0.007	7.66	0.006	34
			0.062	0.010	3.04	0.010	30
			0.125	0.018	0.75	0.020	24
			0.188	0.025	0.19	0.032	20
			0.250	0.036	0.19	0.040	18
304-E-MO-010-(* 304-E-MO-020-(* 304-E-MO-032-(* 304-E-MO-040-(* 304-E-MO-062-(* 304-E-MO-125-(* 304-E-MO-188-(* 304-E-MO-250-(*	E CHROMEALOMEGA®-Constantan	304 Stainless Steel	0.010	0.0015	716.9	0.0015	50
			0.020	0.003	45.1	0.004	38
			0.032	0.005	28.8	0.005	36
			0.040	0.007	18.09	0.006	34
			0.062	0.010	7.17	0.010	30
			0.125	0.018	1.78	0.020	24
			0.188	0.025	0.71	0.032	20
			0.250	0.036	0.45	0.040	18
INC-E-MO-010-(* INC-E-MO-020-(* INC-E-MO-032-(* INC-E-MO-040-(* INC-E-MO-062-(* INC-E-MO-125-(* INC-E-MO-188-(* INC-E-MO-250-(*	E CHROMEALOMEGA®-Constantan	Inconel 600	0.010	0.0015	716.9	0.0015	50
			0.020	0.003	45.1	0.004	38
			0.032	0.005	28.8	0.005	36
			0.040	0.007	18.09	0.006	34
			0.062	0.010	7.17	0.010	30
			0.125	0.018	1.78	0.020	24
			0.188	0.025	0.71	0.032	20
			0.250	0.036	0.45	0.040	18

* Specify length in feet. 5' minimum order. † For Type N, change "K" in model number to "N", no extra charge. For 310, 316 or 321 stainless steel sheath, change "304" in the model number to "310", "316" or "321"; no additional charge. For SUPER OMEGACLAD® XL, change "304" in the model number to "XL"; consult Sales for price. For Hastelloy-X, change "304" in the model number to "HASTX"; consult Sales for price. For Special Limits of Error, add suffix "SLE" to the model number; add 20% to price.

Ordering Examples: 304-K-MO-062-125, Inconel 600 sheath, Type K or N wire, CHROMEALOMEGA® insulation, 0.125" cable OD, 25'.

INC-N-MO-125-25, Inconel 600 sheath, Type N wire, MgO insulation, 0.125" cable OD, 25'.

Metric OMEGACLAD® Thermocouple Wire

0.025 to 8.0 mm Dia.

Bends Easily!

METAL SHEATH

MAGNESIUM OXIDE INSULATION

THERMOCOUPLE WIRES



Shown larger than actual size.

Available with 304 SS, 316 SS, 321 SS, INCONEL® 600, and Super OMEGACLAD® XL Sheaths!

Available!



Thermocouple Wire Stripper for metal sheathed or OMEGACLAD® wire. Please see PST Series Strippers on page H-61.

Type N Available with Inconel Sheath

Made with High Purity Magnesium Oxide (MgO)

Available in these sizes:

8.0 mm

6.0 mm

4.5 mm

3.0 mm

2.0 mm

1.5 mm

1.0 mm

0.5 mm

Technical Notes:
Compacted magnesium oxide is hygroscopic (absorbs moisture)

Custom Assemblies:

Special sheathing, insulation and thermocouple alloys are available on special order. Consult Sales Department for price and delivery.

Important Ordering Note:

OMEGACLAD® wire will be supplied to $\pm 10\%$ of specified length. Prices will be adjusted accordingly.

To Order visit newportUS.com/304_MO for Pricing and Details

Model Number	Wire Calibration	Sheath Material	Sheath Diameter mm	Wall Thickness mm	Resistance 15.5°C Ohm/dbl. meter	Wire Diameter mm
304-J-MO-0.25MM-(*)	Iron-Constantan J	304 Stainless Steel	0.25	0.04	1181	0.04
304-J-MO-0.5MM-(*)			0.5	0.08	98	0.09
304-J-MO-0.75MM-(*)			0.75	0.13	46	0.13
304-J-MO-1.0MM-(*)			1.0	0.15	26	0.18
304-J-MO-1.5MM-(*)			1.5	0.25	12	0.25
304-J-MO-2.0MM-(*)			2.0	0.31	6.9	0.36
304-J-MO-3.0MM-(*)			3.0	0.46	4.6	0.56
304-J-MO-4.5MM-(*)			4.5	0.66	1.5	0.79
304-J-MO-6.0MM-(*)			6.0	0.94	0.82	1.02
INC-J-MO-0.25MM-(*)	Iron-Constantan J	Inconel® 600	0.25	0.04	1181	0.04
INC-J-MO-0.5MM-(*)			0.5	0.08	98	0.09
INC-J-MO-0.75MM-(*)			0.75	0.13	46	0.13
INC-J-MO-1.0MM-(*)			1.0	0.15	26	0.18
INC-J-MO-1.5MM-(*)			1.5	0.25	12	0.25
INC-J-MO-2.0MM-(*)			2.0	0.31	6.9	0.36
INC-J-MO-3.0MM-(*)			3.0	0.46	4.6	0.56
INC-J-MO-4.5MM-(*)			4.5	0.66	1.5	0.79
INC-J-MO-6.0MM-(*)			6.0	0.94	0.82	1.02
304-K-MO-0.25MM-(*)	CHROMEGLA®-ALOMEGA® K	304 Stainless Steel	0.25	0.04	1968	0.04
304-K-MO-0.5MM-(*)			0.5	0.08	174	0.09
304-K-MO-0.75MM-(*)			0.75	0.13	79	0.13
304-K-MO-1.0MM-(*)			1.0	0.15	43	0.18
304-K-MO-1.5MM-(*)			1.5	0.25	19	0.25
304-K-MO-2.0MM-(*)			2.0	0.32	11	0.36
304-K-MO-3.0MM-(*)			3.0	0.46	4.9	0.56
304-K-MO-4.5MM-(*)			4.5	0.66	2.2	0.79
304-K-MO-6.0MM-(*)			6.0	0.94	1.2	1.02
INC-K-MO-0.25MM-(*)	CHROMEGLA®-ALOMEGA® or OMEGA-P™ OMEGA-N™ K or N†	Inconel® 600	0.25	0.04	1968	0.04
INC-K-MO-0.5MM-(*)			0.5	0.08	174	0.09
INC-K-MO-0.75MM-(*)			0.75	0.13	79	0.13
INC-K-MO-1.0MM-(*)			1.0	0.15	43	0.18
INC-K-MO-1.5MM-(*)			1.5	0.25	19	0.25
INC-K-MO-2.0MM-(*)			2.0	0.31	11	0.36
INC-K-MO-3.0MM-(*)			3.0	0.46	4.9	0.56
INC-K-MO-4.5MM-(*)			4.5	0.66	2.2	0.79
INC-K-MO-6.0MM-(*)			6.0	0.94	1.2	1.01
INC-K-MO-8.0MM-(*)			8.0	1.01	1.2	1.11
304-T-MO-0.25MM-(*)	Copper-Constantan T	304 Stainless Steel	0.25	0.04	1043	0.04
304-T-MO-0.5MM-(*)			0.5	0.08	66	0.09
304-T-MO-0.75MM-(*)			0.75	0.13	39	0.13
304-T-MO-1.0MM-(*)			1.0	0.15	24	0.18
304-T-MO-1.5MM-(*)			1.5	0.25	9.8	0.25
304-T-MO-2.0MM-(*)			2.0	0.31	5.6	0.36
304-T-MO-3.0MM-(*)			3.0	0.46	2.5	0.56
304-T-MO-4.5MM-(*)			4.5	0.66	1.2	0.79
304-T-MO-6.0MM-(*)			6.0	0.94	0.65	1.02
INC-T-MO-0.5MM-(*)	Copper-Constantan T	Inconel® 600	0.5	0.08	66	0.09
INC-T-MO-0.75MM-(*)			0.75	0.13	39	0.13
INC-T-MO-1.0MM-(*)			1.0	0.15	24	0.18
INC-T-MO-1.5MM-(*)			1.5	0.25	9.8	0.25
INC-T-MO-2.0MM-(*)			2.0	0.31	5.6	0.36
INC-T-MO-3.0MM-(*)			3.0	0.46	2.5	0.56
INC-T-MO-4.5MM-(*)			4.5	0.66	1.2	0.79
INC-T-MO-6.0MM-(*)			6.0	0.94	0.65	1.02
304-E-MO-0.25MM-(*)	CHROMEGLA®-ALOMEGA®-Constantan E	304 Stainless Steel	0.25	0.04	2352	0.04
304-E-MO-0.5MM-(*)			0.5	0.08	190	0.09
304-E-MO-0.75MM-(*)			0.75	0.13	95	0.13
304-E-MO-1.0MM-(*)			1.0	0.15	49	0.18
304-E-MO-1.5MM-(*)			1.5	0.25	20	0.25
304-E-MO-2.0MM-(*)			2.0	0.31	11	0.36
304-E-MO-3.0MM-(*)			3.0	0.46	5.2	0.56
304-E-MO-4.5MM-(*)			4.5	0.66	3.0	0.79
304-E-MO-6.0MM-(*)			6.0	0.94	1.6	1.02
INC-E-MO-0.25MM-(*)	CHROMEGLA®-ALOMEGA®-Constantan E	Inconel® 600	0.25	0.04	2352	0.04
INC-E-MO-0.5MM-(*)			0.5	0.08	190	0.09
INC-E-MO-0.75MM-(*)			0.75	0.13	95	0.13
INC-E-MO-1.0MM-(*)			1.0	0.15	49	0.18
INC-E-MO-1.5MM-(*)			1.5	0.25	20	0.25
INC-E-MO-2.0MM-(*)			2.0	0.31	11	0.36
INC-E-MO-3.0MM-(*)			3.0	0.46	5.2	0.56
INC-E-MO-4.5MM-(*)			4.5	0.66	3.0	0.79
INC-E-MO-6.0MM-(*)			6.0	0.94	1.6	1.02

* Specify length in meters (5 meters, minimum order). † For Type N change "K" in model number to "N", same price. For 310, 316 or 321 stainless steel sheath, change "304" in the Model Number to "310", "316" or "321"; no additional charge. For Hastelloy-X, change "304" in the Model Number to "HASTX"; consult Sales for price. For Special Limits of Error, add suffix "SLE" to the Model Number; add 20% to price. Ordering Example: 304-K-MO-1.5MM-10, 10 m of type K CHROMEGLA®-ALOMEGA® wire with 304 SS sheath, 1.5 mm diameter.