Mineral-Insulated Metal Sheathed Thermocouple Probes

Bare Leads Mineral-Insulated Cable

Available as

MEETS OR EXCEEDS SPECIAL LIMITS OF ERROR (SLE) AND EN 60584-2: Tolerance Class 1

SUPER OMEGACLAD™XL THERMOCOUPLE PROBES

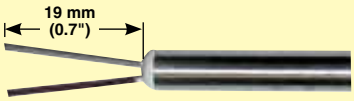
BLMI Series

Epoxy sealed "cold end", rated to 175°C (350°F). Bare 19 mm (¾") leads.

BLMI-XL-14U-12 shown smaller than actual size.

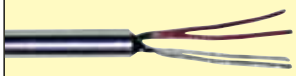


Cold-End Option



Shown actual size.

BLMI probes are also available in a high-temperature version. The cold end is potted using a ceramic cement rated to 1200°C (2200°F). Add "**-CC**" to the end of the probe model number for an additional cost. (The actual temperature rating of the probe is dependent upon the calibration, sheath material, and probe diameter.)



"DUAL" Construction

Also available in a 4-wire construction (2 thermocouple junctions). Add "**–DUAL**" to the end of the model number for an additional cost. Consult Sales for probe lenghts over 12".

BLMI Probes Deliver Consistent, Superior Quality Through Automated Manufacturing

Thermocouple users demand products able to deliver accurate measurements over long lifetimes. They also want proven track records from the probes they buy. With OMEGA's automated manufacturing and testing systems, these customers can be assured of consistently high-quality products, and the ability to track the manufacturing process and retrieve the initial calibration values and material sources.

OMEGA's bare leads MI (BLMI) finished probes begin with OMEGA's own high-purity magnesium oxide thermocouple cable. This mineral-insulated, metal-sheathed cable uses SLE-class materials throughout its construction.

For some applications, such as ceramic kilns, BLMI probes combined with the accessories shown on these pages offer expedient and accurate temperature solutions to 1204°C (2200°F) with XL probes. BLMI probes meet and exceed the rigorous standards for thermocouples, including ANSI/ASTM-E-230, ASTM-E-608, and the British/European BS/EN 61515 standard. The combined BLMI probe with Super OMEGACLAD® XL sheathing produces superior measurement results.

OMEGA's BLMI Series probes are built and quality tested on our automated manufacturing lines. OMEGACLAD® mineral-insulated, metal-sheathed thermocouple cable is cut, stripped, beaded, closed, potted, and tested by equipment designed and built in-house exclusively for these tasks.

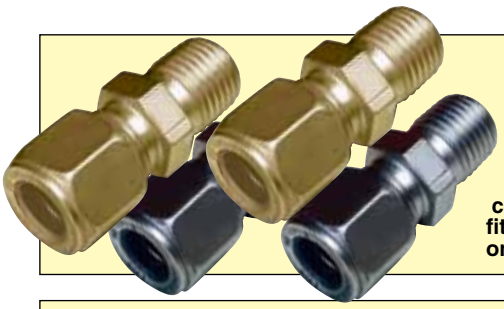
Programmable controller-based automation used in manufacturing BLMI probes ensures the same high quality from lot to lot—from cutting to final test. After final QA tests for insulation resistance and weld and seal leakage [nitrogen pressure test at 2.5 MPa (362 psi)], OMEGA assigns identification codes to each device, which can be used to track products through the entire manufacturing process.



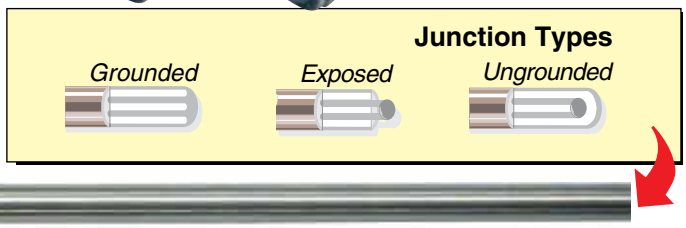
To pass the IR test according to ASTM specs, OMEGA's BLMI probes must achieve at least a 1 GΩ reading. The unit under test scored 50 GΩ.



Probes are subjected to a leak test at the welded thermocouple junction (hot end) with a pressurization greater than 2.5 MPa (362 psi).



BRLK and SSLK compression fittings. Visit us online.





Super OMEGACLAD® XL "BLMI" probes used in ceramic kiln firing applications. For more information on Super OMEGACLAD® XL probes, visit us online.

- J, K, T, Calibrations in Stock—Also Available in E and N
- 304 SS, 310 SS, 316 SS, Inconel® 600, and Super OMEGACLAD® XL Sheaths
- Exposed, Grounded, and Ungrounded Hot Junctions
- Exposed 19 mm (0.7") Bare Conductors
- Epoxy or Ceramic Cement Cold-End Seal
- Standard Lengths, 150 or 300 mm (6 or 12")—Custom Lengths Available
- Vast Selection of Termination Accessories—See Window to the Right
- Metric Diameters and Lengths Available—Contact Sales for Details

Accessories



Ceramic terminal blocks.

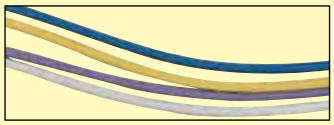
Compensated spade lugs.





TX93A, ultra miniature transmitters.

Fiberglass sleeving for insulating bare wire up to 480°C (900°F).



Discount Schedule	
1 to 10	Net
11 to 24	10%
25 to 49	20%
50 to 99	25%
100 and over	Consult Sales

To Order

Calibration ANSI Color	Sheath Material	Sheath Dia. mm (in)	Upper Temperature Guidelines °C (°F) T/C Junction	Model No.
K	304 SS	1/16 (1.59)	899 (1650)	BLMI-304-K-116(*)-(**)
	304 SS	1/8 (3.18)	899 (1650)	BLMI-304-K-18(*)-(**)
	304 SS	3/16 (4.78)	899 (1650)	BLMI-304-K-316(*)-(**)
	304 SS	1/4 (6.35)	899 (1650)	BLMI-304-K-14(*)-(**)
K	INC 600	1/16 (1.59)	921 (1690)	BLMI-INC-K-116(*)-(**)
	INC 600	1/8 (3.18)	1071 (1960)	BLMI-INC-K-18(*)-(**)
	INC 600	3/16 (4.78)	1149 (2100)	BLMI-INC-K-316(*)-(**)
	INC 600	1/4 (6.35)	1149 (2100)	BLMI-INC-K-14(*)-(**)
K	XL	1/16 (1.59)	1038 (1900)	BLMI-XL-K-116(*)-(**)
	XL	1/8 (3.18)	1149 (2100)	BLMI-XL-K-18(*)-(**)
	XL	3/16 (4.78)	1204 (2200)	BLMI-XL-K-316(*)-(**)
	XL	1/4 (6.35)	1204 (2200)	BLMI-XL-K-14(*)-(**)
J	304 SS	1/16 (1.59)	441 (825)	BLMI-304-J-116(*)-(**)
	304 SS	1/8 (3.18)	521 (970)	BLMI-304-J-18(*)-(**)
	304 SS	3/16 (4.78)	621 (1150)	BLMI-304-J-316(*)-(**)
	304 SS	1/4 (6.35)	721 (1330)	BLMI-304-J-14(*)-(**)
T	304 SS	1/16 (1.59)	260 (500)	BLMI-304-T-116(*)-(**)
	304 SS	1/8 (3.18)	316 (600)	BLMI-304-T-18(*)-(**)
	304 SS	3/16 (4.78)	371 (700)	BLMI-304-T-316(*)-(**)
	304 SS	1/4 (6.35)	371 (700)	BLMI-304-T-14(*)-(**)

** Specify junction **(G)**rounded, **(E)**xposed, or **(U)**ngrounded. ** Probe length 6" (150 mm), 12" (300 mm), 18" (450 mm) are standard.*
*Dual element also available, add suffix **"-DUAL"** to model number for additional cost.*
***Ordering Example: BLMI-XL-K-316-G-24,** mineral-insulated grounded probe, 316 SS sheath, 24" length (304, 310, 316 SS also available).*