

MI Thermocouple Cable

“Mineral insulated Thermocouple Cable”

Type:

K type thermocouple
N type thermocouple
E type thermocouple
J type thermocouple
T type thermocouple

Conductor material:

Ni Cr	Ni Si ,
Ni Cr Si	Ni Si,
Ni Cr	Constantan,
Fe	Constantan,
Cu	Constantan,



Insulator:

99.6% high purity MgO “Magnesium oxide”.

Core number:

2: Simplex
4: Duplex
6: Triplex

Sheath material:

SS304,
SS321,
SS316,
SS310,
INCL600
NICROBELL

Diameter (mm):

From 0.25mm to 12.7mm

Application:

Thermocouple and instrument machine

Place of Origin: China (Mainland)



Coding:

MIC **1** **2** **3** **4**

1	S	Simplex
	D	Duplex
	T	Triplex

2	Thermocouple type :	
	K	N E J T

3	Outer diameter mm
----------	--------------------------

4	Sheath material
	304: SS304
	321: SS321
	316: SS316
	310: SS310
	600: INCL600
	NICROBELL

Type and sheath table:

Product Name	Code	ype	Sheath Material	Outer dia.(mm)	Temperature
Ni Cr - Ni Si	KK	K	SS304	0.5-1.0	400
			SS321	1.5-3.2	600
			SS316	4.0-8.0	800
				0.5-1.0	500
			SS310	1.5-3.2	800
			INCL600	4.0-6.4	900
				8.0-12.7	1000
			NICROBELL	4.0-6.4	900
				8.0-12.7	1200
Ni Cr Si - Ni Si	NK	N	SS304	0.5-1.0	400
			SS321	1.5-3.2	600
			SS316	4.0-8.0	800
				0.5-1.0	500
			SS310	1.5-3.2	800
			INCL600	4.0-6.4	900
				8.0-12.7	1000
			NICROBELL	4.0-6.4	900
				8.0-12.7	1200
Ni Cr- Constantan	EK	E	SS304	0.5-1.0	400
			SS321	1.5-3.2	500
			SS316	4.0-8.0	800
Fe- Constantan	JK	J	SS304	1.0	300
			SS321	1.5-3.2	500
			SS316	4.0-8.0	800
CU- Constantan	TK	T	SS304	1.0	-200-100
			SS321	1.5-3.2	100-200
			SS316	4.0-8.0	100-350

Accuracy table:

Name	Type	Class of Accuracy					
		I		II		III	
		Tolerance	Temp. C	Tolerance	Temp. C	Tolerance	Temp. C
Ni Cr - Ni Si	K	1.5℃ or 0.4%t	-40~1000	1.5℃ or 0.4%t	-40~1000	1.5℃ or 0.4%t	-200~40
Ni Cr Si – Ni Si	N		-40~1000		-40~1000		-200~40
Ni Cr- Constantan	E		-40~ 800		-40~ 800		-200~40
Fe- Constantan	J		-40~ 750		-40~ 750		-----
CU- Constantan	T	1.5℃ or 0.4%t	-40~ 350	1℃ or 0.75%t	-40~ 350	1℃ or 0.75%t	-200~40

Wall thickness table:

Outer Sheath (mm)		Core wire Dia. (mm)	Sheath Material		Length(m)
Outer dia.	Wall thick.	For K,N,E,J, T type	For K,N type	For E,J, T type	
0.5	0.05-0.10	0.08-0.12	SS304, SS321, SS316, SS310, INCL 600, NICROBELL	SS304, SS321 SS316	500
1.0	0.10-0.20	0.15-0.20			300
1.5	0.15-0.25	0.23-0.30			200
1.6	0.16-0.26	0.26-0.36			200
2.0	0.25-0.35	0.40-0.50			180
3.0	0.38-0.48	0.50-0.60			80
3.2	0.48-0.58	0.58-0.68			75
4.0	0.52-0.62	0.60-0.70			70
4.8	0.73-0.83	0.75-0.85			40
5.0	0.78-0.88	0.80-0.90			40
6.0	0.98-1.08	0.90-1.10			30
6.4	1.05-1.15	1.02-1.12			30
8.0	1.30-1.44	1.30-1.40			20
12.7	1.75-1.90	1.95-2.05			10

TEST REPORT

Microbell Sample

Report No:							
Order No: MICC 20150118-NICROBELL				Order Date: 18TH JAN. 2015			
Manufacturer: MICC TECH. LIMITED				STANDARD: Norm:IEC 584-2			
TYPE: K, N		NUMBER OF CORES: 2			DIAMETER: Φ3MM, 4.5MM,		
Product Name	Model	Test data(°C)			Insulating Resistance	Amount (m)	Class of accuracy
		400	600	800			
Mineral Insulated	MICS-K-6-Nicrobell-1	398.95	598.89	798.24	> 500MΩ	13.5	I
		401.25	601.71	802.02	> 500MΩ	21.6	I
		401.24	601.69	802.13	> 500MΩ	14.5	I
		398.95	598.89	798.24	> 500MΩ	22	I
		399.98	600.01	800.12	> 500MΩ	6.1	I
		400	599.98	799.95	> 500MΩ	21.9	I
Mineral Insulated	MICS-N-4.5-	401.48	601.87	801.52	> 500MΩ	80.3	I
Mineral Insulated	MICS-N-6-Nicrobell-1	400.87	501.77	801.91	> 500MΩ	44.7	I
		500.53	600.44	801.12	> 500MΩ	20	I
		400.37	602.1	802.11	> 500MΩ	21.4	I
		400.43	600.12	800.98	> 500MΩ	19.2	I
Mineral Insulated	MICS-N-3-Nicrobell-1	401.51	601.11	801.77	> 500MΩ	88	I
Mineral Insulated	MICS-K-3-Nicrobell-1	399.74	601.01	801.58	> 500MΩ	32.4	I
		400.11	601.45	801.17	> 500MΩ	40.9	I
		399.83	601.22	800.87	> 500MΩ	34.1	I
Remark: NICROBELL						Qty: 480.6m	
Insulation Typical Insulation MgO: ≥99.6% Ca: <0.06% Fe: <0.0005% Mn : <0.0003% Pb: <0.0005% SO4: <0.0005% C: <0.0007% Density g/cm3: ≥2.2				Sheath Chemical Stainless Steel: C: = 0.0042% Si: = 1.36% Mo: = 0.16% Nb: = 0.48% Co: = 0.28% Ni: = Balance Cr: = 23.67% Fe: = 0.13% Mg: = 0.013%			
SIGNATURE: _____		TITLE: FINAL INSPECTOR		DATE: 2015-01-18			