

COUPLIX®

**K/KX-M-8
E/EX-M-8**
(other couple on request)



- 1 • Couple K: Nickel – chrome / Nickel – alloy
Couple E: Nickel – chrome / Copper Nickel E
(other on request)
- 2 • Ceramic insulation (Grey)

Standards and approvals

CGP INNOVATION
COUPLIX® made with two
ceramic-insulated wires **CERAFIL®**
for very high temperatures.

These outstanding advantages - **miniature size, weighing far less and resistance to extreme temperatures** - mean that **CERAFIL®** is nowadays used in many highly technical applications and research projects in areas like the aerospace, space and nuclear industries.

Colour code
Grey

Applications

Thermocouple cables with **CERAFIL®** insulation to measure the temperature in contained environments subject to extreme heat

A FEW PRECAUTIONS WHEN USING

Ceramic is very different from traditional insulations. It is a rigid, hydrophilic material that requires special care when using. **CERAFIL®** must be stored in a dry environment and handled with care, without mechanical mistreatment (folding, traction, etc.). It must be stripped using fine grain sandpaper. Do not hesitate to contact us for further information.

Characteristics

- **Thermal**
Continuous operating temperature: **-90°C to +500°C**
+800°C during 240 h minimum
Peak temperature +1,000°C
At temperature > 315°C after extended use, **CERAFIL®** can experience migration of the nickel that may cause its max. resistivity to increase
- **Chemical**
Resistance to chemical environments: ★★★★★
(Inert to usual and organic solvents)
Resistance to humidity: ★☆☆☆☆
(Product sensitive to moisture - hydrophilic)

- **Electrical**
Test voltage (1 min): 150 AC / 212 V DC
- **Radiation Resistance ★★★★★**
Withstands prolonged exposure to neutrons and gamma rays without altering the mechanical resistance of the insulation
- **Fire resistance**
Totally non-combustible at temperatures over 1,000°C, **CERAFIL®** may melt but cannot catch fire

CONSTRUCTION

Couple	Core diameter (mm)	AWG	Nominal diameter (mm)	Linear weigh in (g / km)	Length in (m / kg)
K	2 x 20/100	2 x AWG 32	0.44	286	3,500
K	2 x 30/100	2 x AWG 28	0.68	637	1,570
K	2 x 50/100	2 x AWG 24	1.04	1,754	570
E	2 x 20/100	2 x AWG 32	0.44	286	3,500
E	2 x 30/100	2 x AWG 28	0.68	637	1,570

F.E.M – Couple K

Temperature	F.E.M	Tolerance	
		Class 1 (KX1)	Class 2 (KX2)
0°C	0 µV	± 60 µV	± 100 µV
100°C	4,095 µV	± 60 µV	± 100 µV
200°C	8,137 µV	± 60 µV	± 100 µV
400°C	16,395 µV	± 60 µV	± 100 µV

F.E.M – Couple E

Temperature	F.E.M	Tolerance	
		Class 1 (EX1)	Class 2 (EX2)
0°C	0 µV	± 120 µV	± 200 µV
100°C	6,319 µV	± 120 µV	± 200 µV
200°C	13,421 µV	± 120 µV	± 200 µV
400°C	28,946 µV	± 120 µV	± 200 µV

- Please contact us for other couple

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