

Datasheet

**Calibrated IEC Type K Mineral Insulated Thermocouple with Ceramic Thermocouple Plug & Socket SYSCAL**

Type 'K', either 1.0, 1.5 or 3.0mm diameter with insulated hot junction (un-grounded)



**A Calibrated Mineral Insulated Thermocouple**

- A certificated 2 point (0°C & 100°C) calibrated item straight out of the box, ready to use
- If a temperature indicator is also selected (as a SYSCAL) - a 4 point calibration is performed (-20°C, 0°C, 100°C & 190°C or -20°C, 0°C, 70°C & 140°C for food types)
- No hassle or wasted time getting your new item calibrated elsewhere and having to raise separate purchase orders

- Mineral insulated Type 'K' Thermocouple
- 310 stainless steel sheath
- Highly flexible, sheath can be bent/formed to suit many applications and processes
- Diameters include 1.0, 1.5 & 3.0mm
- Insulated hot junction
- Probe temperature range -40°C up to +1100°C
- Supplied with a miniature ceramic plug (fitted) and socket (loose) (650°C)
- connectors are White with colour coded dot on body
- Conforms to IEC 584 specification



**Specifications**

Sensor type:	Type 'K' (Nickel Chromium/Nickel Aluminium) to IEC 584
Construction:	Flexible mineral insulated probe with 310 stainless steel sheath
Element/hot junction:	Single element, junction insulated from sheath (offers protection against spurious electrical signals)
Termination:	Miniature ceramic plug, white with green dot, in accordance IEC 584
Probe temperature range:	-40°C to +1100°C for 1.5 & 3.0mm diameters -40°C to +750°C for 1.0mm diameter
Plug temperature range:	650°C

**310 stainless steel:** Good corrosion & oxidation resistance to suit a wide range of processes, satisfactorily operates in sulphur bearing atmospheres  
 Typical applications include brick & cement kilns, glass industry, heat treatment & annealing furnaces, power stations, flues, heat exchangers etc.

**Order codes:**

T/C Type	Probe Dia. (mm)	Probe Length (mm)	Sheath	Thermocouple junction	Allied code	RS order code	RS 2 Point Calibrated Version SYSCAL (0°C & 100°C)
K	1.0	150	310SS	Insulated	71232227	872-2654	<b>181-7275</b>
K	1.0	300	310SS	Insulated	71232230	872-2663	<b>181-7291</b>
K	1.5	150	310SS	Insulated	71232231	872-2666	<b>181-7292</b>
K	1.5	300	310SS	Insulated	71232229	872-2660	<b>181-7293</b>
K	3.0	150	310SS	Insulated	71232234	872-2679	<b>181-7294</b>
K	3.0	300	310SS	Insulated	71232232	872-2672	<b>181-7295</b>

**Why is Calibration So Important?**

Calibration defines the accuracy and quality of measurements recorded using a piece of equipment. Over time there is a tendency for results and accuracy to ‘drift’ particularly when using technologies or measuring parameters such as temperature and humidity. To be confident in the results being measured there is an ongoing need to maintain the calibration of equipment throughout its lifetime for reliable, accurate and repeatable measurements.

The goal of calibration is to minimise any measurement uncertainty by ensuring the accuracy of test equipment. Calibration quantifies and controls errors or uncertainties within measurement processes to an acceptable level.