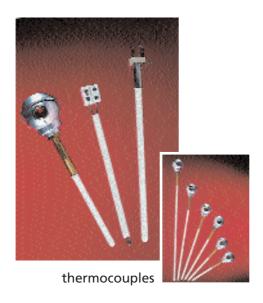


Sensing and Measuring thermocouples and readings



Estimating is good, measuring is better. Our TM20 and TM25 measure the temperature, our TM-O2 measures both temperature and kiln atmosphere. Depending on the applications various types of thermocouples are available. Of course these thermocouples are exactly the same as used on our other controllers.



The readings and thermocouples

readings

model	TM 25	TM 20	TM-O2
description	temperature reading for hobby applications, battery operated hand-held unit, direct reading of the kiln temperature on 3 1/2 digit display (LCD), connection to thermocouple by chinch plug.	temperature reading for professional applications, mains operated unit for wall mounting, direct reading of the kiln temperature on bright red 4 digit display (LED), connection to thermocouple by gold plated banana plugs 4mm.	Industrial measurement equipment for temperature and atmosphere (%O2 and %CO), direct reading of temperature, kiln temperature and oxygen concentration on dual display. Automatic reference air for the probe is performed by a pneumatic pump, adjustable rate and time for the refresh. Allows exact reproduceable reduction firings e.g. in gas kilns.
sensor types	thermocouple (type S, R, K)	thermocouple (type S, R, K, J)	bentrup/AIC oxygen probe (zircon-oxide probe combined with thermocouple type S)
range	20 °C to 1400 °C	0°C to 1600°C	0°C to 1800°C, 50% O2to 50% CO
accuracy	ca. +/- 1 %	+/- 0,35 %	temp. +/- 0,1%, O2/CO dep. on sensor
power supply	9 V battery, ca.100 h	220 V / 50-60 Hz, 3 W	220 V / 50-60 Hz, 15 W
additional features	-	error messages	error messages, alarm outputs
dimensions in mm	85 x 150 x 30, hand-held	65 x 130 x 65, desk use or wall mounting	150 x 170 x 250, desk use or wall mounting
weight (w/o sensor)	180 g	650 g	1100g

thermocouples

We supply thermocouples in various versions and layouts.

Please refer on the front page to the three most commonly used types:

- simple thermocouple with ceramic clamps

- assembled in protection tube with ceramic connection-plate and metal bracket

- assembled in protection tube with isolated aluminium head

type simple thermocouple / protection tube with bracket / protection tube with head / special types

thermocouples IEC S (PtRh 10 %-Pt), R (PtRh 13 %-Pt), K (NiCr-Ni), J (Fe-CuNi), B (PtEL 18), ...

fixation / protection tube metal / ceramic tube type 610, (d=15mm for large head)

wire diameter 0,35 mm (S,R,B), 2 mm (K)

length in mm 120 / 150 / 180 / 210 / 250 / 280 / 300 / 350 / 400 / 450 / 500

mounting accessories for type "head": metal bracket

connection lead option (chinch (for TM25), banana plugs (for TM20))

