



## The Low Cost, Easy-to-Use Controller

*The economical Konbo 480 is a great choice when expensive, advanced features aren't necessary. The controller has widespread use in a variety of industrial applications.*

480

*The  
Konbo  
480  
<sup>1</sup>/<sub>16</sub> DIN  
temperature  
controller*

The Konbo 480 is our most economical, general purpose controller. It offers a simple-to-operate dial indicator and features both on/off and time-proportional controls. The 480 is perfect for applications where more expensive advanced features aren't needed and for OEM applications which call for easy installation. Industrial control applications for the 480 include plastics and rubber molding, textile processing, food baking, hot stamping, and control of flow ordering machinery.

A number of features make this controller an excellent choice. The 480 offers automatic thermocouple cold junction compensation to provide accurate control regardless of ambient conditions. Open sensor protection prevents your system from overheating in the event of sensor failure. The controller operates at either 110 or 220V AC, and can be ordered in either Fahrenheit or Celsius configurations. The 480 accepts input from thermocouple (J or K) or RTD sensors.

And what else? There's more! A list of some of the key features and how they'll benefit you is shown on the following page.

# 480 SPECIFICATIONS

## Input:

Thermocouple: J (IC) or K (CA)  
RTD: Pt100 (DIN)

## Cold Junction Compensation:

Automatic

## Input Break Protection:

Output OFF on open sensor

## Contact Output:

SPDT relay, 5A at 120V AC or 3A at 240V AC, resistive load

## Service Life:

Mechanical: 10,000,000 operations min  
Electrical: 100,000 operations min

## Voltage Output:

SSR Drive Voltage 12V DC

## Control Mode:

Jumper selectable at connector between ON-OFF and time proportioning or ON-OFF and PD control

## ON-OFF Differential:

0.5% FS, symmetrical around setpoint

## Proportional Band:

2.5% FS, symmetrical around setpoint

## Proportional Cycle:

Approx. 20 sec (relay output) or  
2 sec (SSR drive output)

## Setting Mode:

Analog via single-turn, wire-wound, precision potentiometer

## Setting Accuracy:

Within  $\pm 2\%$  of FS

## Setting Scale length:

Approx. 90mm

## Output Indicator:

Red LED

## Power Supply Voltage:

110/220V AC, 50/60Hz, user-selectable at connector

## Supply Voltage Variation:

90–110% of rated voltage

## Power consumption:

Less than 2V A

## Ambient Operating Temperature:

0°C+50°C

## Ambient Operating Humidity:

45–85% RH

## Insulation:

20M $\Omega$  Min (500V DC)

## Dielectric Strength:

1,500V AC, 50/60Hz for 1 min

## Vibration:

10–55Hz, amplitude 0.5mm

## Net Weight:

Approx. 200g including panel mount bracket

## Mounting:

Panel mount. Requires 11-pin socket

# MODEL CONFIGURATION

4 8 0 - - - -

INPUT & RANGE			
Set Ranges	Code Number For Range		
	J	K	Pt100
-100 to +100°C	01		16
0 to 100°C	02		18
0 to 400°C	04	09	20
0 to 1000°C		11	
0 to 1200°C		12	
0 to 200°F	05		22
0 to 600°F	06	13	24
0 to 800°F	07		
0 to 1000°F	08	14	
600 to 1600°F		15	

CONTROL OUTPUT	
Relay	1
SSR Drive voltage	2

CONTROL MODE	
ON-OFF/P	4
ON-OFF/PD	5

**J:** Iron Constantan, **K:** Chromel Alumel, **Pt100:**  $\alpha=0.00385 \Omega/\Omega/^\circ\text{C}$ .  
11-pin socket required.

ACCESSORIES:	Part #
<b>11-Pin Socket</b>	
Screw-down type (terminals on back)	PG-11
Screw-down type (UL) (terminals on back)	TP311SB
Screw-down type (UL) (terminals on front)	TP311S



## KONBO 480 BENEFITS:

**Inputs**—J, K, or RTD

**Outputs**—relay or DC voltage pulse

**Choice of °F or °C temperature scale**

**Cold junction compensation**—ensures accuracy over a wide range of ambient temperatures

**Open sensor protection**—prevents overheating in the event of sensor failure

**On/Off and time proportioning control**—allows you to choose the mode of control operation

**Solid-state electronics**—provides reliable and accurate performance

**Plug-in or panel-mounted installation**—choose the method of installation