

DIGITAL SETTING TEMPERATURE CONTROLLER DIGIZET MINI

DATA SHEET

P Z M

DIGIZET MINI is an economical temperature controller which is designed compact in compliance with DIN standards (48 mm x 96 mm size). It is equipped with functions optimum for temperature control in various types of equipments such as injection machine, and designed to assure high reliability as well as high operability.

FEATURES

1. Economical design

Compact light-weight design minimizes required panel space.

A unique power-ratio type offset correction mechanism is added for precise control.

2. Abundant functions equipped

Digital setter eliminates setting errors while assuring high repeatability even for an inexperienced operator. LED display permits monitoring control condition at a glance (LED display type).

Input switching J (IC) \rightleftharpoons K (CA) is possible with a touch of a pushbutton (J, K switching type).

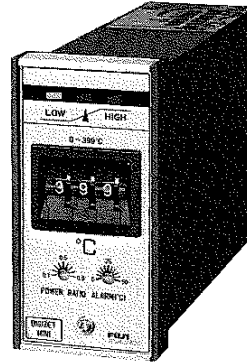
Control mode matched with controlled machine is selectable (P \rightleftharpoons PI) with a touch of a pushbutton (P, PI switching).

The temperature controller has an overshoot preventive circuit (P, PI switching type and PID type).

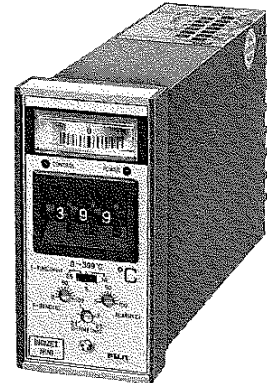
A burnout circuit is built in. Further, LED type of temperature controller flashes a red LED to notify of thermocouple wire breakage in burnout condition.

Plug-in method has been adopted for facilitating maintenance and checks.

Lower limit alarm device is equipped with a hold circuit which requires no interlock circuit for canceling alarm at rise time (but incompatible with PID action).



LED display type
P action



Indicator type
PID action

SPECIFICATIONS

Input signal, settable range and setting allowance

Code	Input signal	Note 2) Settable range (°C)	Setting allowance (°C)
1	Pt 100Ω resistance bulb	0 to 399	±2
2	J(IC) thermocouple		±3
6	Pt 100Ω resistance bulb	-99 to +99	±0.5 (0 to 99) ±0.75 (-50 to -1)
8	J(IC)/K(CA) thermocouple	0 to 399	±3
9	K(CA) thermocouple		

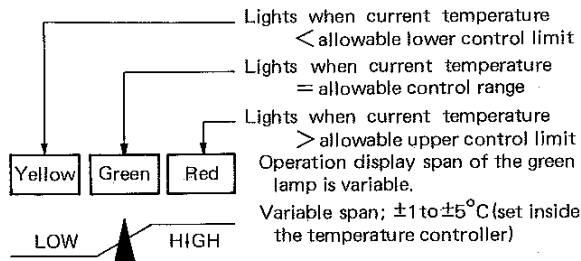
Note 1) Input signals from J(IC) and K(CA) thermocouples can be received while selecting them with an internal switch (common type with a selector switch).

Note 2) A mechanical stopper makes it impossible to set temperature outside the settable range.

Allowable external resistance:
100Ω or less for thermocouple input

Allowable wiring resistance:
10Ω max. per wire for input from resistance bulb

Deviation display system:
LED display; Light emitting diode type indicator (incompatible with PID action)
Number of LEDs; 3



Analog indicator; Scale range

Input signal	Control action		
	2 position	P(P/PI)	PID
Pt resistance bulb	20°C	20°C	20°C
J, K thermocouple			50°C

Output signal (in case of contact output):
Control action code; A, B, C, D, T, W, S, R
Output contact; 1c contact
Contact capacity; AC 220V, 3A max.
Contact action; Non-excited action

Output signal (in case of current output):
Control action code; N, P
Output current; DC 4 to 20mA
Allowable load resistance; 0 to 600Ω
Output action; Inverse action or positive action

Output signal (in case of SSR drive output):
Control action code; L, M, U, V
Output voltage;
DC 0.5V or less at OFF
DC 10 to 25V or less at ON (load resistance 1.2kΩ)
Dielectric strength;
AC 500V for 1 min (between output terminal and ground)

Control action: 2-position action at upper or lower limit
Proportional action at upper or lower limit
P/PI action at upper or lower limit (common type with a selector switch)
PID action at upper or lower limit
PID action with inverse or positive action

	2-position	P	P/PI	
	Dead band	P band	P band	I time
Pt 0 to 399°C	2°C or less	Approx. 12°C	Approx. 12°C	4 min
Pt -99 to +99°C	1°C or less	Approx. 6°C	Approx. 6°C	
J, K 0 to 399°C	2°C or less	Approx. 12°C	Approx. 12°C	

	PID		
	P band	I time	D time
Pt 0 to 399°C	0 to 50°C	Changeable in 3 steps of 2.5, 5 and 10 min	Continuously variable from 0.1 to 2.5min
Pt -99 to +99°C			
J, K 0 to 399°C	0 to 100°C		

Proportional cycle;
Approx. 40 sec
(in case of contact output)
Approx. 1 sec
(in case of SSR drive output)
In case of proportional action
With power ratio type of offset corrector
In case of PI and PID action
Overshoot preventive circuit built in

Power supply: AC 100/200V ±15%, 50/60 Hz
or AC 110/220V ±15%, 50/60 Hz

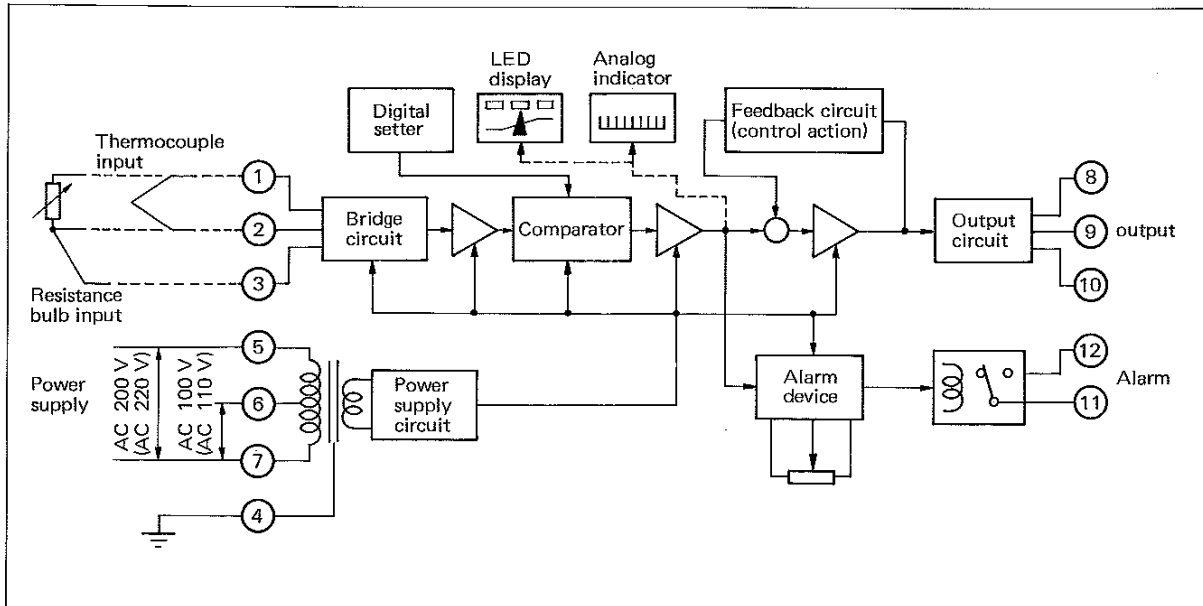
Power consumption:
Approx. 4 VA

Ambient temperature:
-10 to +50°C
(storage temperature -30 to +60°C)

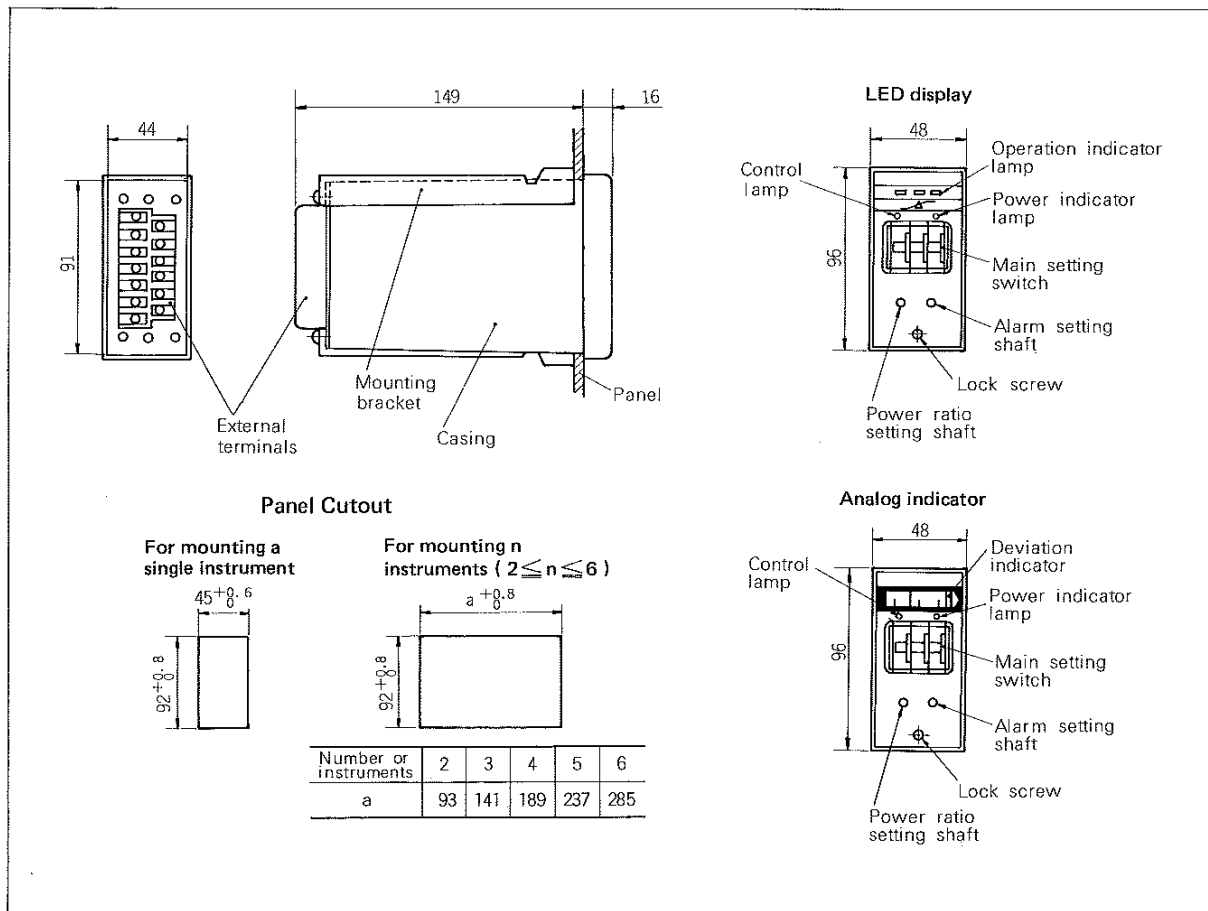
Ambient humidity:
90% RH or less

Housing: Plastic housing

BASIC CIRCUIT DIAGRAM



EXTERNAL VIEW (Unit:mm)



CONNECTION DIAGRAM

