

DIGITAL SETTING TEMPERATURE CONTROLLER DIGIZET MINI

DATA SHEET

PZM

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

Control mode matched with controlled machine is selectable (P 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).







Indicator type PID action

SPECIFICATIONS

Input signal, settable range and setting allowance

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	Code	Input signal	Note 2) Settable range (°C)	Setting allowance (°C)	
	1	Pt 100Ω resistance bulb	0.1- 200	±2	
	2	J(IC) thermocouple	0 to 399	±3	
	6	Pt 100 Ω resistance bulb	–99 to +9 9	±0.5 (0 to 99) ±0.75 (-50 to -1)	
_	8	Note 1) J(IC)/K(CA) thermocouple	0 to 399	±3	
	9	K(CA) thermocouple	0 10 099		

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).

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

Fuji Electric Co.,Ltd.

EDS11-44a Date Aug. 10, 1981 Allowable external resistance:

 100Ω or less for thermocouple input

Allowable wiring resistance:

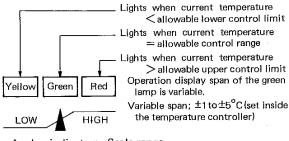
 10Ω max, per wire for input from

reistance bulb

Deviation display system:

LED display; Light emitting diode type indicator (incompatible with PID action)

Number of LEDs; 3



Analog indicator; Scale range

Control Input action signal	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. Non-excited action Contact action;

Output signal (in case of current output):

Control action code;

N, P

DC 4 to 20mA Output current;

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 $1.2k\Omega$)

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

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

rector

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

Attachments:

Alarm device

Upper or lower limit alarm

(with hold circuit for lower limit)
Upper-lower non-discriminative alarm
(with hold circuit for lower limit)
Note) The lower limit hold circuit is incompatible with PID action

		Settable range	Dead band	Allowance
2-position, proportional or P/PI action		0 to 50°C	3°C or less	Within ±5°C
PID	Thermo- couple input	0 to 100°C	4°C or less	Within ±10°C
action	Pt input	0 to 50°C	3°C or less	Within ±5°C

Output contact;

Non-excited ON alarm

Contact capacity;

AC 220V, 3A

Reference junction compensator (for thermocouple input only)

Burnout circuit

(for thermocouple input only)

Burnout condition display function

(LED dispaly)

A red operation indicator lamp flickers in burnout condition.

External dimensions (HxWxD):

96 x 48 x 149 mm

Weight:

Approx. 680 g

Finish color:

Munsell 7.5 BG 3.2/0.8

Scope of delivery:

Temperature controller and mounting

bracket

Mounting:

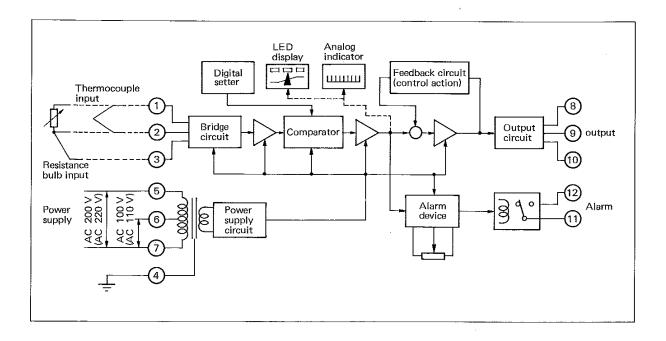
Panle mount



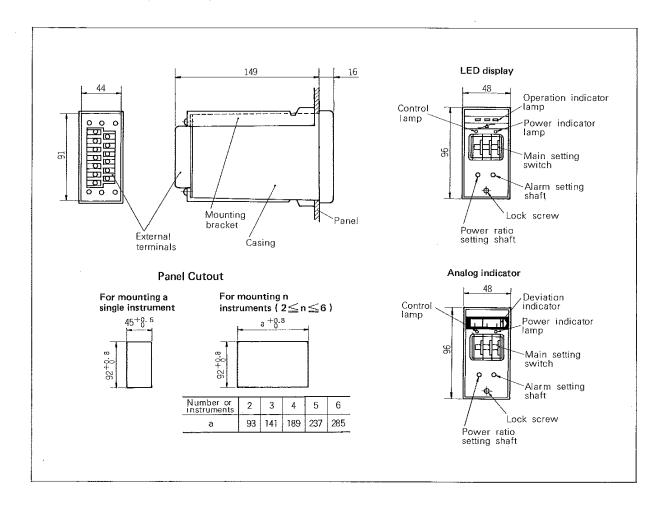
CODE SYMBOLS

PZM	11-0	П	Description	on
L			Configuration LED display (incompatible with f Analog indicator	PID action)
1			Input signal and settal Pt resistance bulb J(IC) thermocouple Pt resistance bulb J(IC)/K(CA) thermocouple K(CA) thermocouple	0 to 399°C 0 to 399°C -99 to +99°C
A B C C C T W L N V S F N P L	4		Control action Upper limit 2-position action Upper limit 2-position action Upper limit 2-position action Upper limit proportional action Upper limit proportio	
L	78	H	PID action Power supply AC 100/200V 50/60 AC 110/220V 50/60 Alarm Upper limit alarm Lower limit alarm (with hold circuit) Upper-lower limit non alarm (with hold circuit) limit, incompatible vaction)	Hz a-discriminative cuit for lower

BASIC CIRCUIT DIAGRAM



EXTERNAL VIEW (Unit:mm)



CONNECTION DIAGRAM

