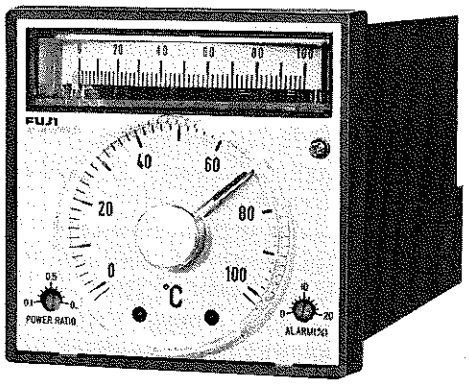
FUJI ELECTRIC

ELECTORONIC TEMPERATURE CONTROLLER (WITH ABSOLUTE VALUE INDICATOR) C-ZET

DATA SHEET PZXV

This instrument indicates temperature detected with a thermocouple or resistance bulb, and controls it by make-break operation with or without proportional action. Developed for economical temperature control with a highly reliable and compact instrument, it assures a high shock resistance and requires only a minimum space for easy mounting on an instrument panel.



FEATURES

Trustworthy monitoring: The instrument is equipped with an absolute value indicator which permits monitoring temperature from the start of a process line. An alarm device can be added as an optional accessory for emitting alarm in case of emergency. The instrument can be combined with a sequence device for safer operation.

High reliability: The indicator is isolsted from the control circuit so as not to affect control operation if the indicator should become troublous. In a controller with proportional action, a unique power ratio type offset correction system is added for accurate temperature control. The control amplifier uses ICs and DC direct coupling system for assuring high reliability. When the instrument uses a thermocouple as temperature detector, a burn-out circuit is comprised for protecting the instrument from troubles such as breakage or disconnection of wires.

Easy operation: After external cables have been connected to the terminals, the instrument operates properly without requiring any adjustment. The instrument can be operated at since the lower limit alarm has a hold circuit, an interlock circuit for alarm reset at startup is unecessary (only excited alarm possible).

Compact design: For mouting, the instrument requires a space of only 96×96 (panel surface)×150mm (panel depth), and weighs only 800g.

SPECIFICATIONS

Input signal: J: thermocouple: 0 to 200,0 to 300, 0 to 400°C
K: thermocouple: 0 to 400,0 to 600, 0 to 1000, 0 to 1200°C
E: thermocouple: 0 to 200, 0 to 300, 0 to 400°C
R: thermocouple: 0 to 1000, 0 to 1400, 0 to 1600°C
Pt resistance bulb(three-wire type, 100Ω at 0°C): 0 to 50, 0 to 100, 0 to 150°C and −50 to +50°C

Allowable external resistance: Thermocouple input;Less than 100Ω

Allowable wiring resistance: Resistance bulb input;Less than 10Ω per wire

Indicator scale length: Approx. 65mm

Indication accuracy: ±1.5% of full scale

Setting scale length: Approx. 130mm

Setting accuracy: ±1% of full scale

Control operation:
ON-OFF operation (at upper or lower limit)
ON-OFF operation width: 0.5% of Full scale
ON-OFF operation with proportional action (at upper or lower limit)
Proportional action band: Approx. 3% of full scale
Proportional action period: Approx. 40sec (approx. 1sec for voltage output)
Offset correction: Power ratio system

Output signal: In case of contact output
One transfer contact
Contact capacity AC 200V, 3A (resistance load)
In case of voltage output
Approx. 0V at OFF
Approx. 24V at ON

Attachments: Reference junction compensator (for thermocouple input only)
Burn-out circuit (for thermocouple input only)
Alarm device (option)
Setting range: 0 to +20% of full scale for upper limit control
0 to −20% of full scale for lower limit control
Setting accuracy: ±2% of full scale
H, L, K: excited alarm
(hold circuit equipped with lower limit)
F, G: non-excited alarm
Contact capacity: AC 220V, 2A (resistive load)

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

Power consumption:
Approx. 4VA

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

Ambient humidity:
Less than 90% RH

Enclosure: Plastic casing

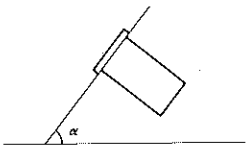
External dimensions (H×W×D):
96×96×150mm

Weight: Approx. 800g

Finish color: Munsell 7.5BG 3.2/0.8 or equivalent

Range of delivery:
Controller and mounting brackets

Mounting method:
Flush on panel

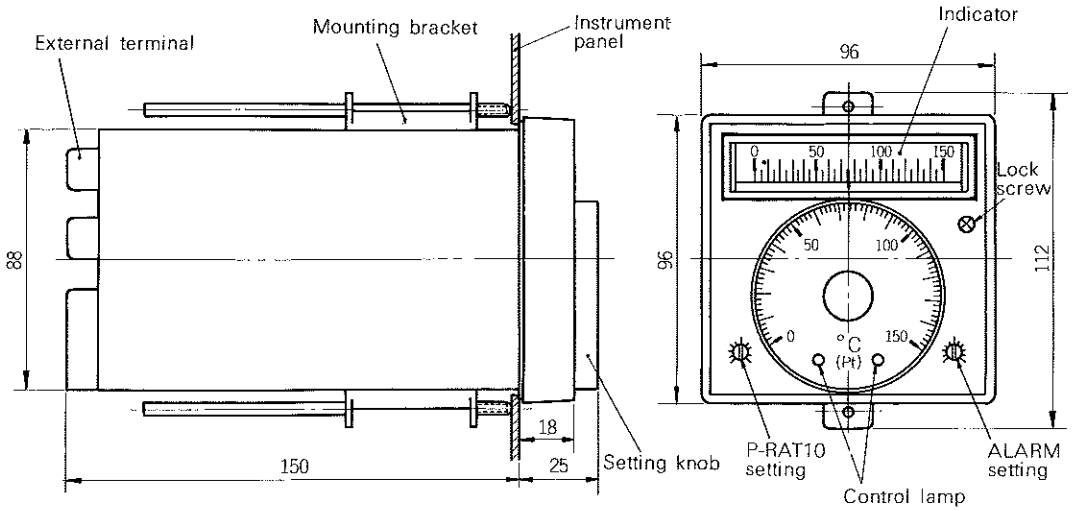


∠α =60~90°

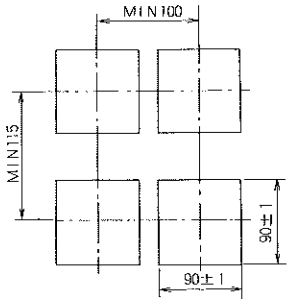
CODE SYMBOLS

PZXV 2–	Descriptions
	Input signal
F	Thermocouple input (DC 0 to 10mV or higher)
H	Pt resistance bulb (100Ω at 0°C), measuring range wider than 50 deg., 3-wire type
	Control action
A	Upper limit
B	Lower limit
C	Upper limit control + proportional action
D	Lower limit control + proportional action
L	Upper limit contactless output
M	Upper limit contactless output + proportional action
	Power supply
7	AC 100/200V, 50/60Hz
8	AC 110/220V, 50/60Hz
	Application
0	General use
3	For connecting Zener barrier ("3" is to be specified when controller is connected to Zener barrier. As the sensor, use only thermocouple or resistance bulb (Pt 100Ω) conforming to JIS.
	Alarm device
※F	Upper limit alarm (Non-excited alarm)
※G	Lower limit alarm (Non-excited alarm)
H	Upper limit alarm (Excited alarm)
L	Lower limit alarm (Excited alarm)
K	Upper/lower limit alarm (Excited alarm)
Y	None

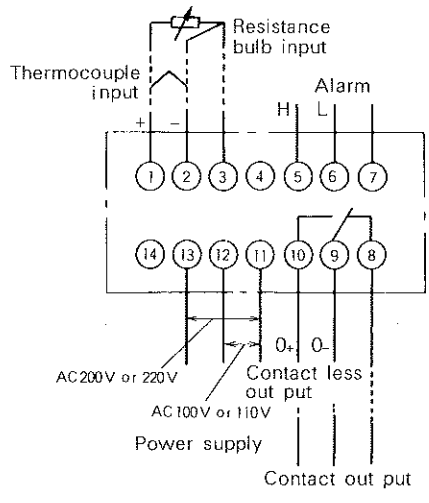
EXTERNAL VIEW (Unit : mm)



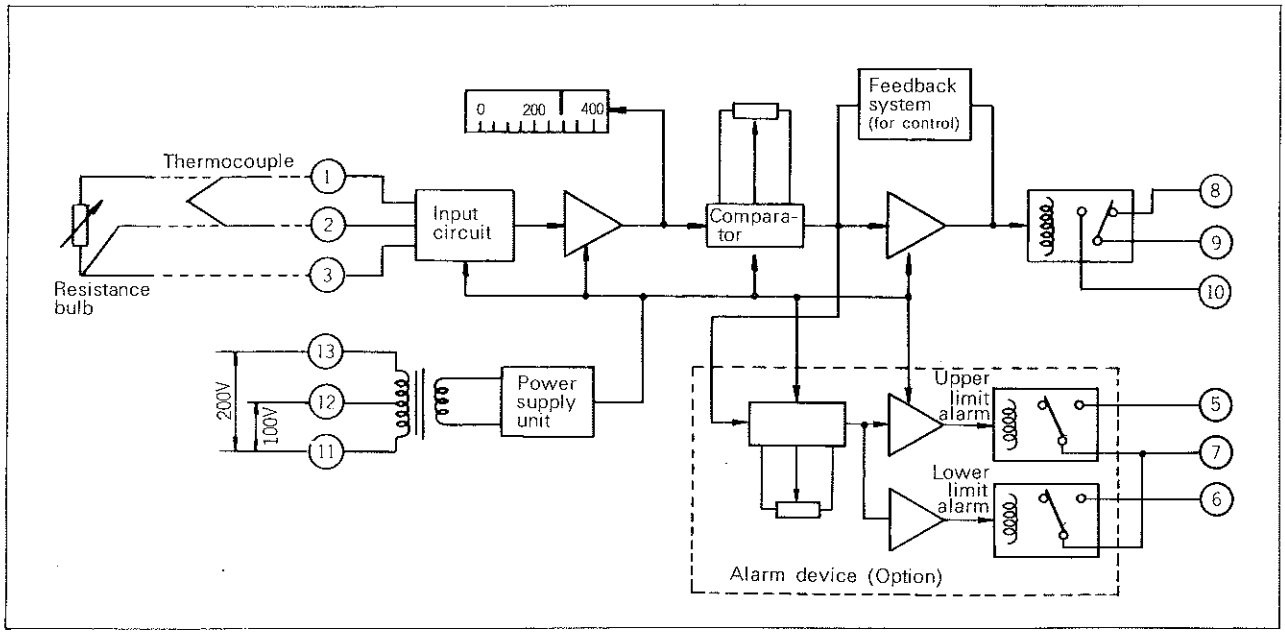
PANEL CUTOUT



CONNECTION



BASIC CIRCUIT DIAGRAM



Note) · Alterations reserved without notice.
· Contact us for specifications unlisted herein.
· Asterisked (*) items; Non-standard.

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