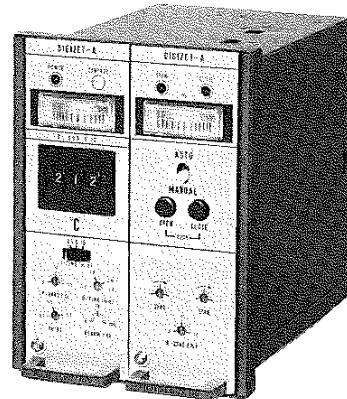


**POSITION FEEDBACK TYPE  
DIGITAL SETTING TEMPERATURE CONTROLLER DIGIZET-A**

DATA SHEET

PZAG~L

This is an electronic instrument for operating motor-driven control devices while receiving input directly from various types of thermocouples or temperature measuring resistance bulbs. The instrument assures highly precise control through accurate digital temperature setting and positioning of control devices by position feedback systems. As control devices for use with the temperature controller DIGIZET-A, there are a variety of products prepared such as damper controller, globe valves and butterfly valves operated with FUJI control motor featuring field-proven performance.



**FEATURES**

1. Digital system assures fail-free accurate temperature setting.
2. Position feedback type PID action is performed for accurate control with manual controller.
3. Since the instrument is designed as an independent unit which can accommodate up to three electric-electric positioners, it is possible to operate up to three control devices in parallel.
4. A control deviation indicator and an opening indicator are provided as standard equipment for each monitoring of operating conditions.
5. Highly reliable solid state design allows direct mounting on a machine.

**SPECIFICATIONS**

Input signal, setting range and setting accuracy :

Code No.	Input signal	Setting range	Setting accuracy
1	Pt resistance bulb	0 to 499°C	±2°C over full range
2	IC thermocouple	0 to 499°C	±3°C over full range
3	CA thermocouple	0 to 999°C	±3°C ; 0 to 599°C ±5°C ; 600 to 999°C
4	CRC thermocouple	0 to 799°C	±3°C ; 0 to 599°C ±5°C ; 600 to 799°C
5	PR thermocouple	0 to 1699°C	±7°C ; 1000 to 1600°C
*6	Pt resistance bulb	-99.9 to +99.9°C	±0.5°C ; 0 to +99.9°C ±0.75°C ; -50 to -0.1°C
*7	CA thermocouple	0 to 1199°C	±3°C ; 0 to 599°C ±5°C ; 600 to 1199°C

Note: "Code No." indicates 5th digit of the instrument code symbols.  
Even when the dial is set outside the "setting range" listed above, setting signal is electrically limited and cannot exceed the limits.

**Allowable external resistance :**

Thermocouple input, less than 100Ω

**Allowable wiring resistance :**

Resistance bulb input, less than 10Ω per wire

**Deviation indicator :**

Scale length 30mm

Scale range ±20°C for resistance bulb input  
±50°C for thermocouple input

**Control action:** PID action with overshoot preventive circuit

P ; 5 to 50°C for resistance bulb input

10 to 100°C for thermocouple input

I ; 2.5, 5, 10 min

(changeable in 3 steps)

D ; 0.1 to 2.5 min

(continuously changeable)

N (neutral zone) ; 0 to 10% (continuously changeable) of control device full span

**Feedback resistance :**

Potentiometer having resistance variable range of 135Ω

With zero point and full span adjusting functions

**Output signal :** 1a contact each in opening and closing directions

Contact capacity AC 100V, 0.3A (resistance load)

**AUTO-MAN switching :**

Balanceless bumpless switching with a selector switch on the front panel

Manual control: Pushbutton operation

Opening indicator:

Scale length 30mm  
Scale range 0 to 100%

Accessories:

- Reference contact compensator (for thermocouple input only)
- Burn-out circuit (for thermocouple input only)
- Alarm device;
  - For upper or lower limit
  - Settable range;
    - For resistance bulb input, main setting 0 to +50°C or 0 to -50°C
    - For thermocouple input, main setting 0 to +100°C or 0 to -100°C
  - Output contact;
    - Alarm contact ON in nonexcited condition
    - AC 100V, 0.3A

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

Power consumption:

Approx. 4VA for controller unit  
Approx. 4VA/unit for electric-electric positioner unit

Ambient temperature:

-10 to +50°C  
(-30 to +60°C for storage)

Ambient humidity:

Less than 90%RH

Housing: Steel plate

External dimensions (H×W×D):

147×[48.5×(1+n)+12.5]×150mm  
n; number of valve position control unit

Weight:

Approx. 1+n (kg)  
n; number of valve position control unit

Finish color: Unit front panel; Silver satin

Housing; Munsell 7.5BG 3.2/0.8

Range of delivery:

Controller and brackets

Mounting method:

Panel flush mounting

## CODE SYMBOLS

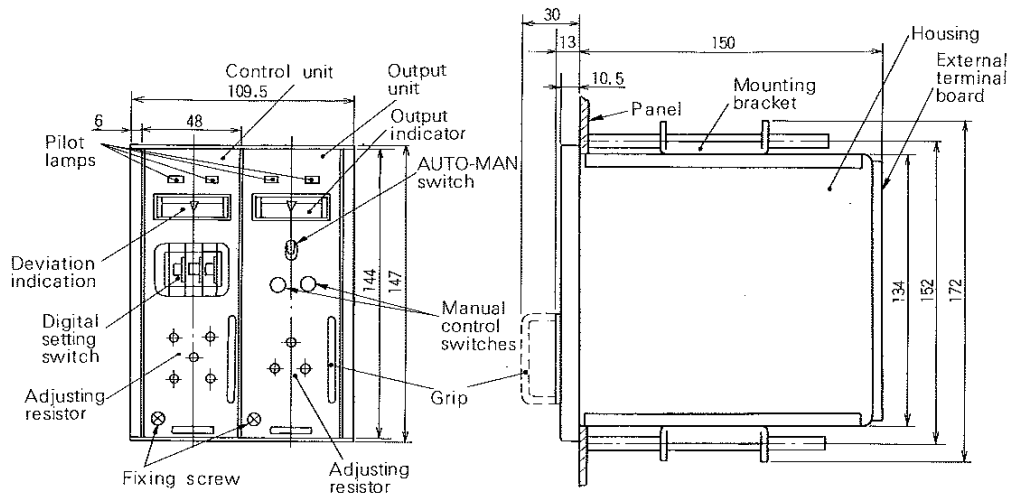
Position feedback type DIGIZET-A

P	Z	A								Description
						2				<b>Configuration</b>
		G								Controller × 1 + Valve position control unit × 1
		*H								Controller × 1 + Valve position control unit × 2
		*J								Controller × 1 + Valve position control unit × 3
										<b>Input signal settable range</b>
						1				Pt resistance bulb 0 to 499°C
						2				IC thermocouple 0 to 499°C
						3				CA thermocouple 0 to 999°C
						4				CRC thermocouple 0 to 799°C
						5				PR thermocouple 0 to 1699°C
						*6				Pt resistance bulb -99.9 to +99.9°C
						*7				CA thermocouple 0 to 1199°C
										<b>Control action</b>
									P	PID action (Note: one contact each for addition and subtraction at final stage)
										<b>Power supply</b>
									7	AC 100/200V, 50/60Hz
									8	AC 110/220V, 50/60Hz
										<b>Application</b>
									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 JLS.]
										<b>Alarm device</b>
									H	Upper limit
									L	Lower limit
									Y	None

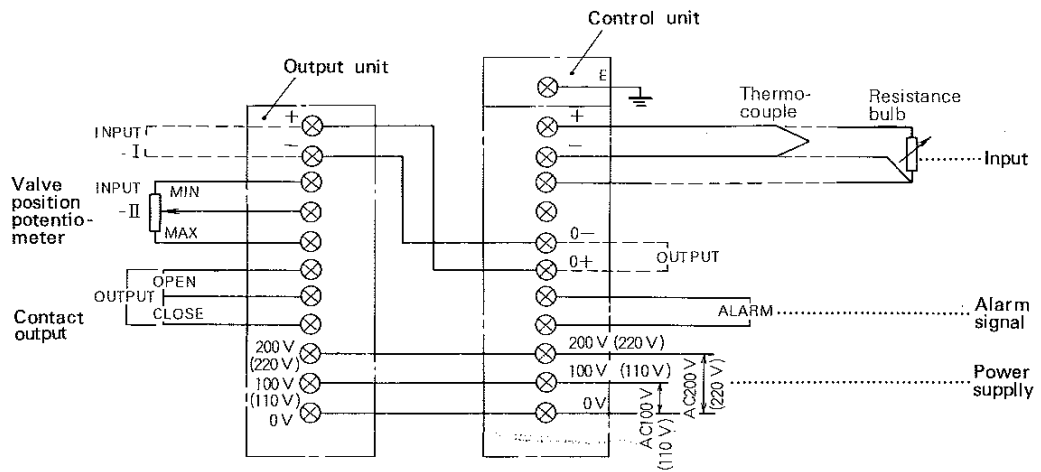
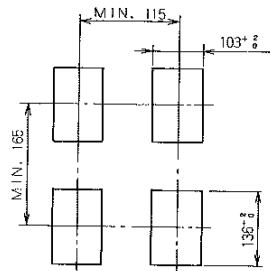
Valve position control unit

P	Z	A	9	Y	2	-	0	Y	Description	
									<b>Configuration</b>	
									K	Valve position control unit (with housing)
									L	Valve position control unit (without housing)
										<b>Input signal</b>
									9	DC 4 to 20mA
										<b>Control action</b>
									Y	None
										<b>Power supply</b>
									7	AC 100/200V, 50/60Hz
									8	AC 110/220V, 50/60Hz
										<b>Alarm device</b>
									Y	None

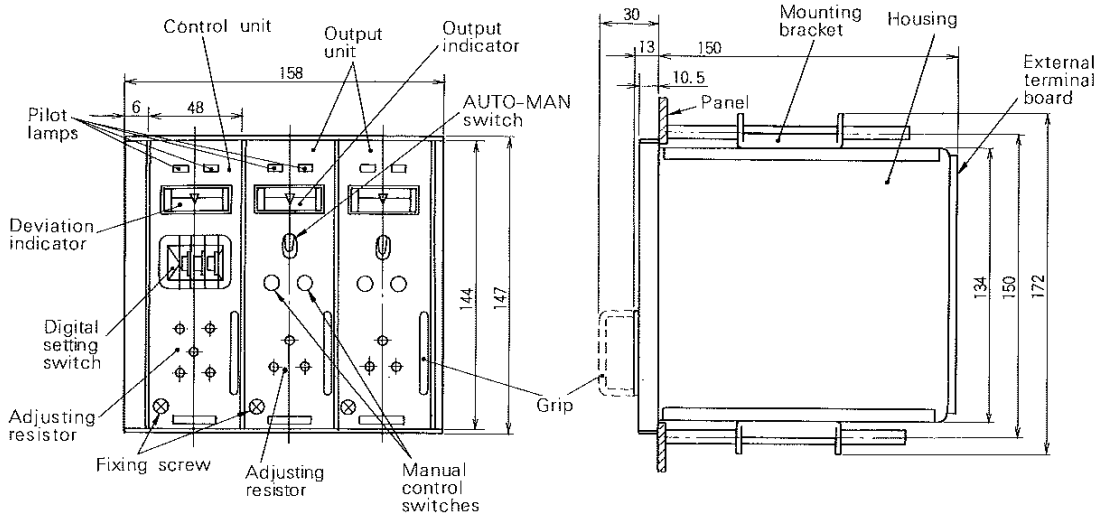
# EXTERNAL VIEW (Unit:mm) AND CONNECTION DIAGRAM



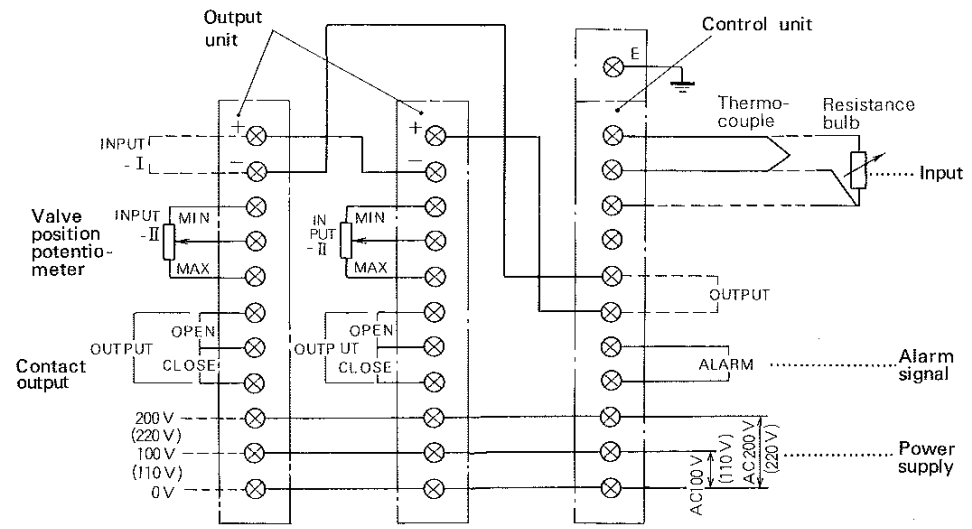
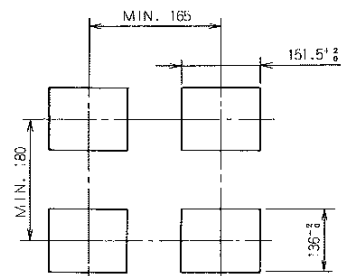
## Panel Cutout



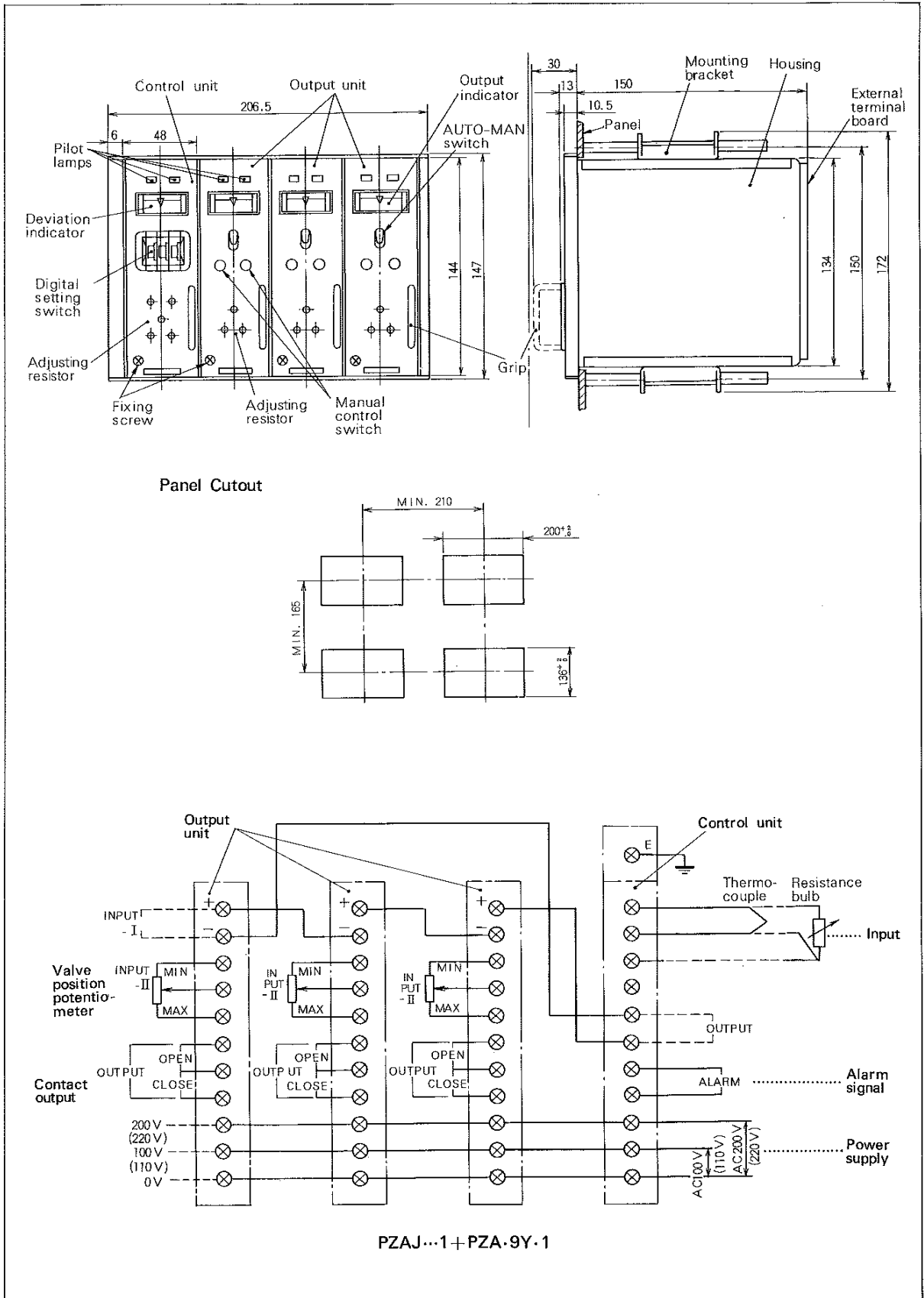
PZAG... 1+PZA·9Y·1



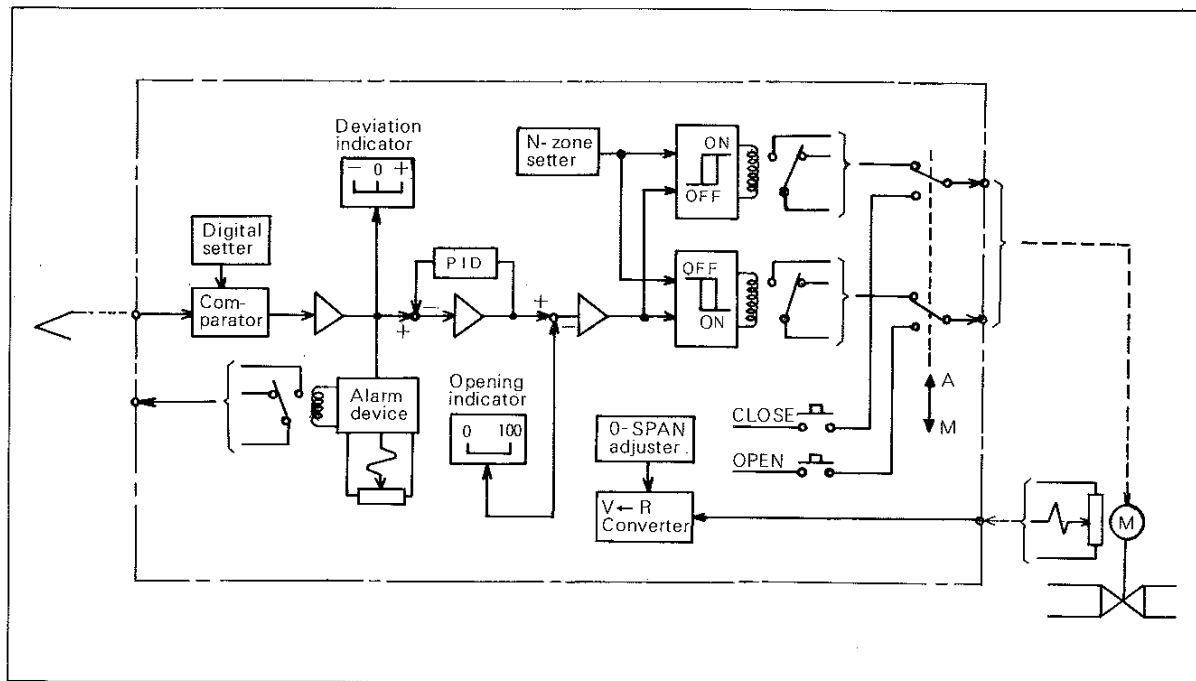
Panel Cutout



PZAH...1 + PZA·9Y·1



# BASIC CIRCUITS DIAGRAM



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



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