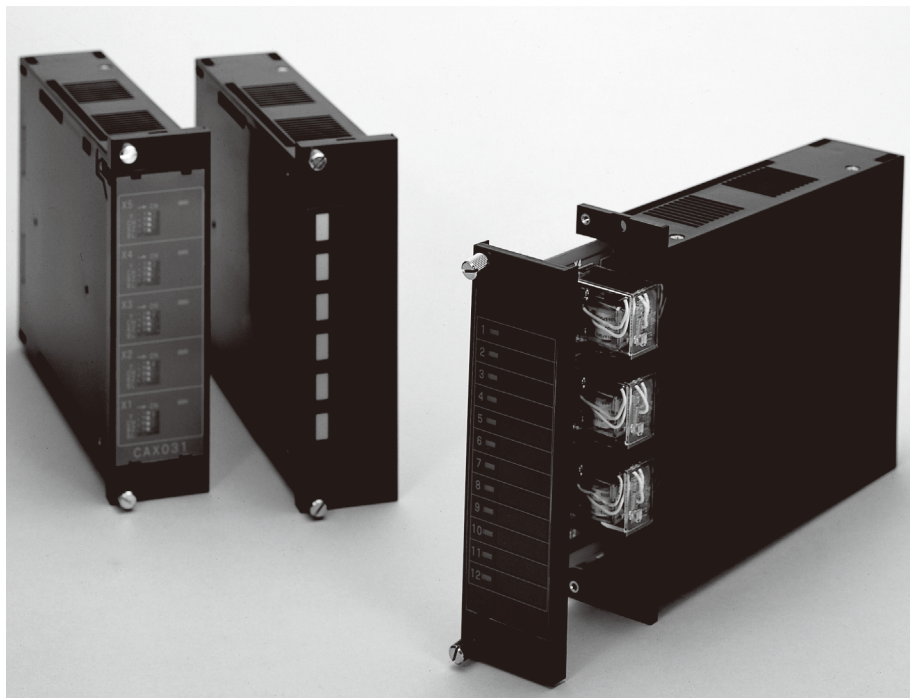




Annunciator relay

CAX-TYPE



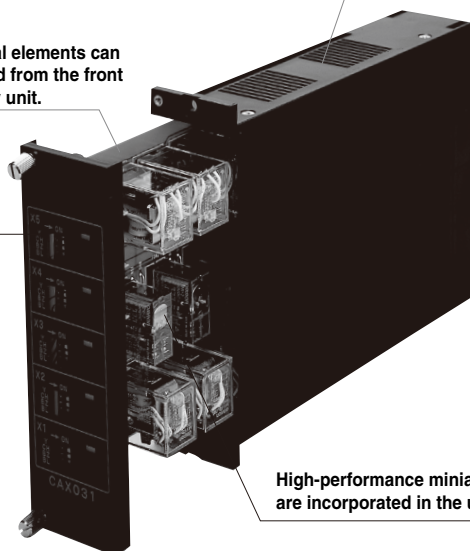
The relay case is made of a combination of plastic and metal, ensuring light weight and high unit strength.

The internal elements can be removed from the front of the relay unit.

Operation indicator LED
(except for some models)

All wires can be connected from the back of the relay unit.

High-performance miniature relays are incorporated in the unit.



FEATURES

- 1** With built-in high-performance relays, CAX type annunciator relay enables fault detection with high reliability.
- 2** CAX type provides a variety of sequences, suitable for applications.
- 3** With the card relay structure, maintenance from the front of the relay unit is available.
- 4** Common circuits can be connected with crossover wiring.
- 5** The internal relay status can be easily checked with the operation LED at the front of the unit.
- 6** CAX type incorporates up to 12 circuit elements which enables high-density mounting.

SPECIFICATION (RATINGS AND PERFORMANCE)

Type	CAX-021	CAX-031 CAX-032	CAX-041	CAX-051	CAX-061	CAX-071 CAX-072 CAX-073	CAX-081 CAX-082
Rated insulation voltage (UI)	250V AC / DC						
Rated operating voltage (Uth)	100 / 110 V DC (For indication: 24 V DC)	100 / 110 V DC		100 / 110 V DC (For indication: 24 V DC)	100 / 110 V DC	100 / 110 V DC (CAX-073: 100 / 110 V AC)	100 / 110 V DC
No. of built-in elements (circuits)	12 elements	5 elements	8 elements	11 elements	5 elements	(CAX-71) 6 elements	(CAX-81) 6 elements (CAX-82) 5 elements
Power supply voltage fluctuation	100 / 110 V DC: -20 to +30%, 24 V DC: ±10%, 100 / 110 V AC: ±15%						
Withstand voltage (L-A)	2,000 V AC for one minute						
Lightning impulse (L-A)	±4,500 V, 3 times for each pole (1.2 / 50 µs)						
Output contact rating	125 V DC, 1 A (3 A max. in total via common bus)						
Insulation resistance	10 MΩ or more (500 V DC Megger)						
Operating time	See each timing chart.						
Shock resistance	300 m/s ² , 3 times in each direction						
Vibration resistance	16.7 Hz, 0.4 mm double amplitude, Vibration time: 600 s						
Operating temperature	-10 to 55°C						
Storing temperature	-20 to 60°C						
Altitude	2,000 m max.						



Annunciator relay

CAX-TYPE

HOW TO ORDER

See the product coding.

PRODUCT CODING

CAX-021-DC110

Basic type

Circuit code

Rated operating voltage

OPERATING INSTRUCTIONS

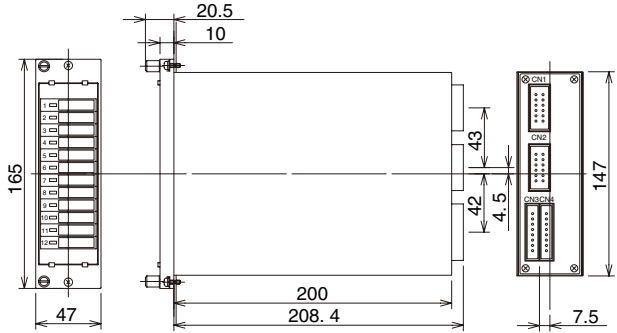
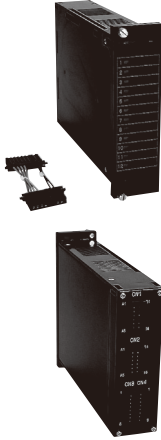
Type name	Item No. of elements	Operation indicator	Rated operating voltage	Built-in relay	Main functions (For details, see the circuit diagram.)
CAX-021	12	■ (R)	100/110 V DC	MY4Z G6S	X and Y relays are interlocked. X relay is synchronized with fault input. Output contact (1a) is provided. Y relay (24 V DC) is self-latched with X contact, and turns on the lamp. (Lamp test function is provided.)
CAX-031	5	■ (Y)	100/110 V DC 24 V DC	MY4Z G2R	X and Y relays are interlocked. X relay can cope with repeated fault inputs. Y relay (24 V DC) is self-latched with X contact, and interlocked with Z relay. Alarm selection (4-CH) is enabled. Lamp is controlled in D/D control mode. (Lamp test function is provided.)
CAX-032	2 (Common) 3	■ (Y)	100/110 V DC 24 V DC	MY4Z G2R	Built-in common relays (3-CH) are assigned to two elements of CAX-031 and alarm output contact. Built-in R and C circuits are provided. Intended for combination use with CAX-031.
CAX-041	8	■ (R)	100/110 V DC	MY4Z	Enables self-latching with X-relay operation. (Selectable with DIP switch) Alarm selection (2H) is synchronized with fault input. (Selectable with DIP switch) (Lamp test function is provided.)
CAX-051	11	■ (R)	100/110 V DC	HH54 BW	X and Y relays are interlocked. X relay is synchronized with fault input. Output contact (1a) is provided. Y relay (24 V DC) is self-latched with X contact, and turns on the lamp. (Lamp test function is provided.) Output contact (1a) is connected to common circuit.
CAX-061	5	None	100/110 V DC	HH54 BW	X, Y and Z relays are interlocked. One-shot pulse (alarm output) is retained for at least 150 ms. External lamp output contact and lamp test circuit are provided.
CAX-071	6	■ R,G,Y	100/110 V DC	HH54 BW	X and Y relays are interlocked. X relay is synchronized with fault input. Y relay is self-latched with X contact. Alarm selection (2H) is one-shot pulse. (Selectable with DIP switch) Lamp colors (R, G, Y) are also selectable with DIP switch.
CAX-072	(Common) 2	■ (R)	100/110 V DC	HH54 BW	Common relay (2-CH) for alarm circuit, intended for combination use with CAX-071. Built-in R and C circuits are provided. One-shot pulse from CAX-071 can be detected.
CAX-073	(AC) 1	■ R,G,Y	100/110 V AC	HH54 BW	Operates with an AC power supply. X, X1, Y and Z relays are interlocked, which are assigned to DC power supply fault output contacts. Each relay provides output contact (1a).
CAX-081	(Common) 3×2	None	100/110 V DC	MY4	Built-in common relays (3-CH x 2) are assigned to alarm output contacts. Each output contact (1a) is connected to common circuit. 3-CH relays for intensive contact are incorporated.
CAX-082	5	None	100/110 V DC	MY4	X and Y relays are interlocked. Each output contact (1a) is connected to common circuit.

* The built-in relays described in the above table are OMRON or Fuji Electric products.

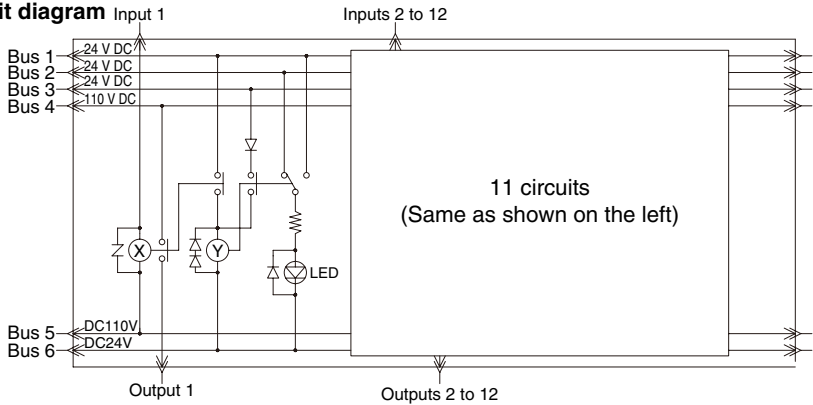
STANDARD PRODUCTS

CAX-021

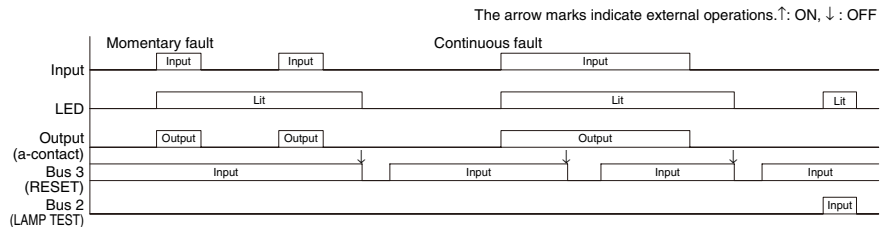
Outline drawing



Circuit diagram



Operation chart





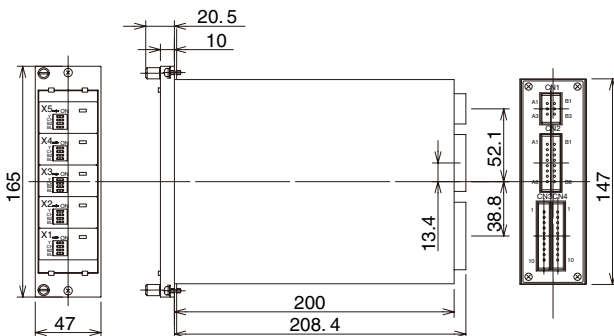
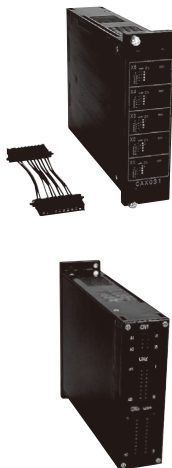
Annunciator relay

CAX-TYPE

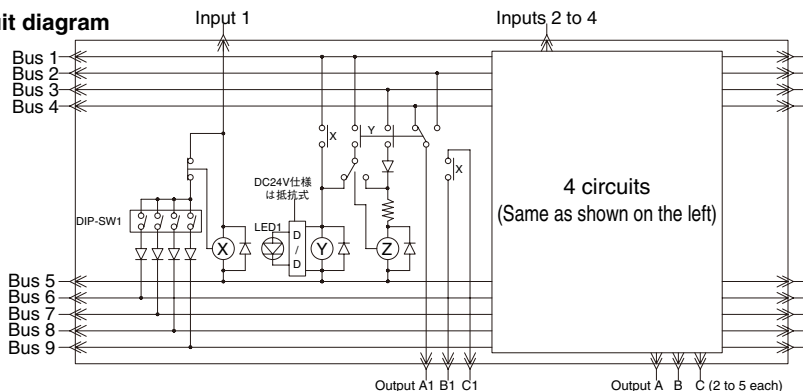
STANDARD PRODUCTS

CAX-031

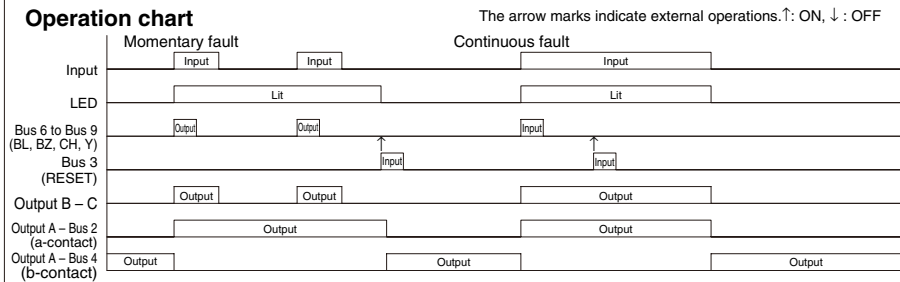
Outline drawing



Circuit diagram



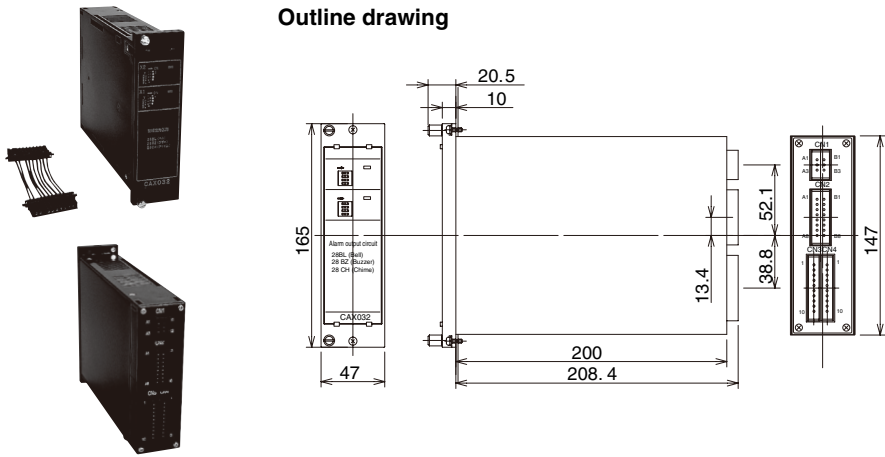
Operation chart



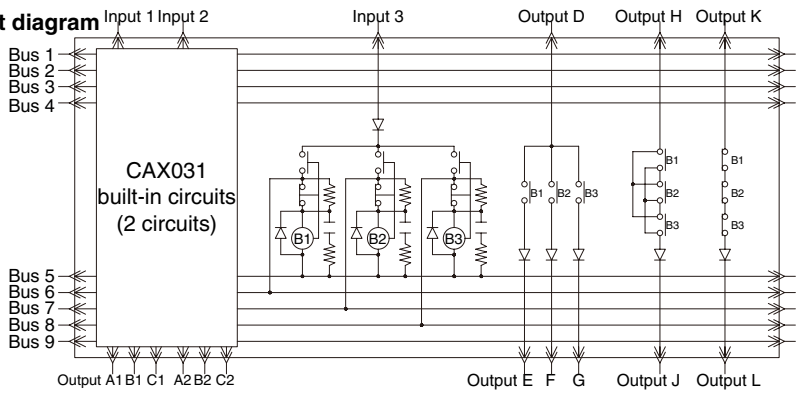
STANDARD PRODUCTS

CAX-032

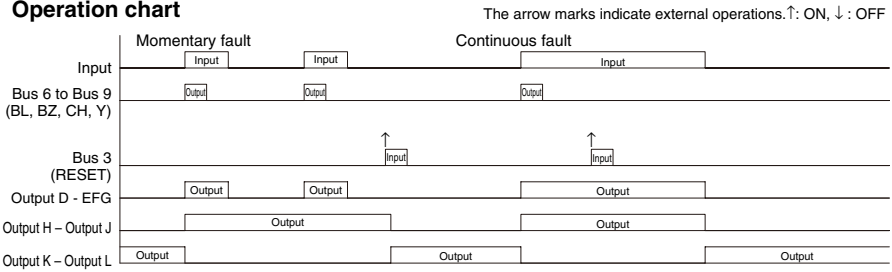
Outline drawing



Circuit diagram



Operation chart





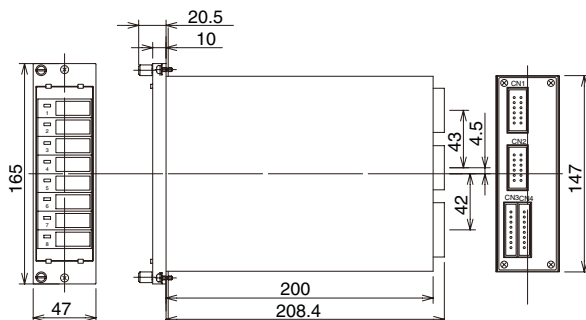
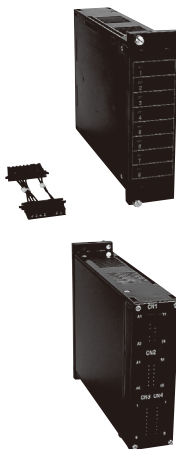
Annunciator relay

CAX-TYPE

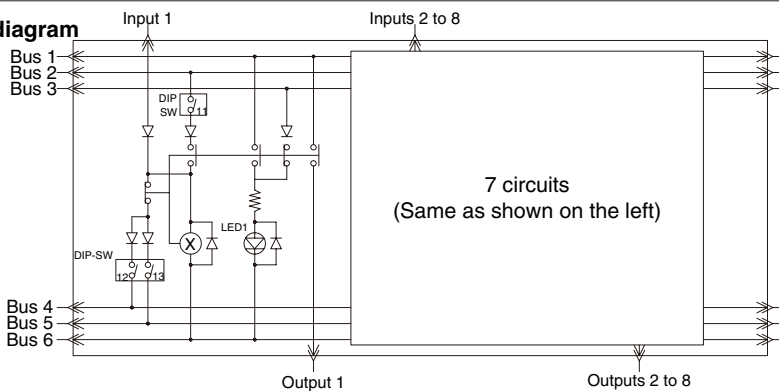
STANDARD PRODUCTS

CAX-041

Outline drawing

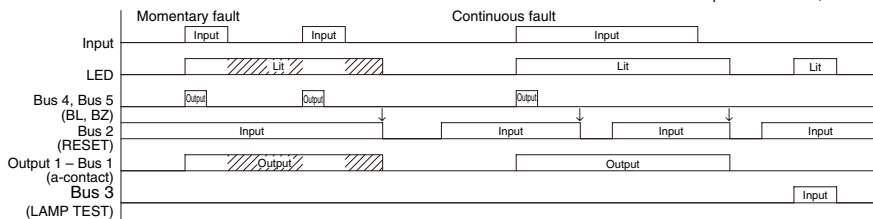


Circuit diagram



Operation chart

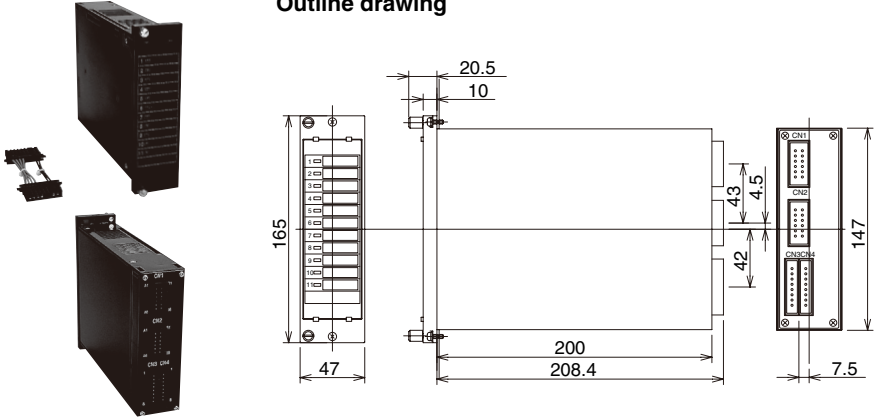
Operation indicated with diagonal lines: The LED and output can be turned on only while SW11 is ON. The arrow marks indicate external operations. ↑ : ON, ↓ : OFF



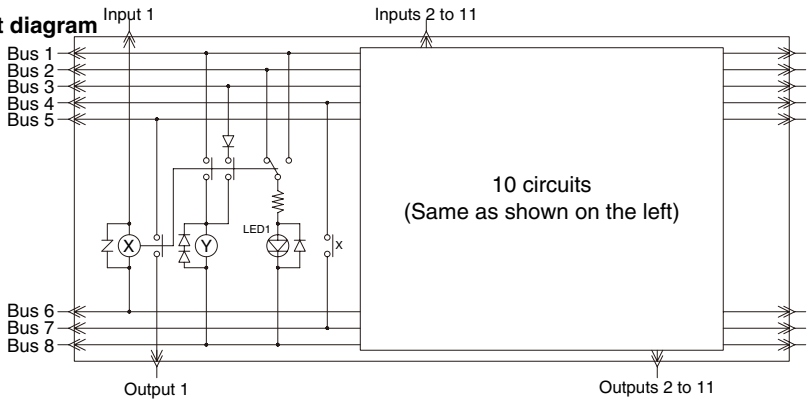
STANDARD PRODUCTS

CAX-051

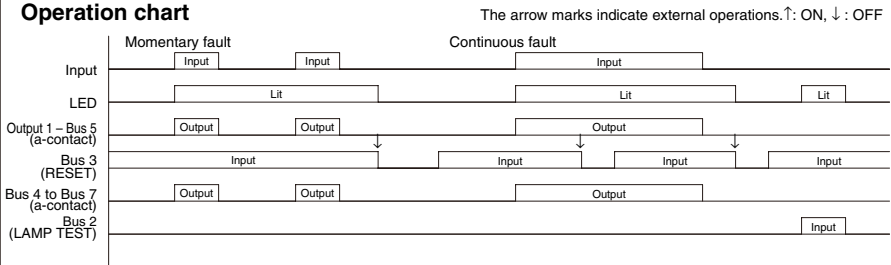
Outline drawing



Circuit diagram



Operation chart





Annunciator relay

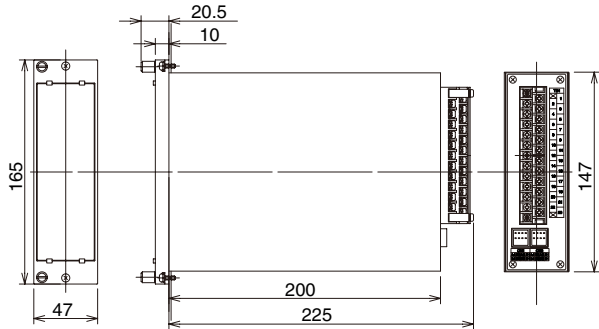
CAX-TYPE

STANDARD PRODUCTS

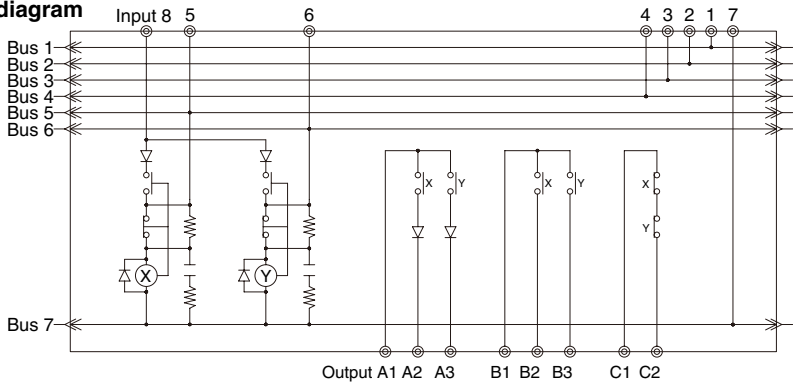
CAX-072



Outline drawing

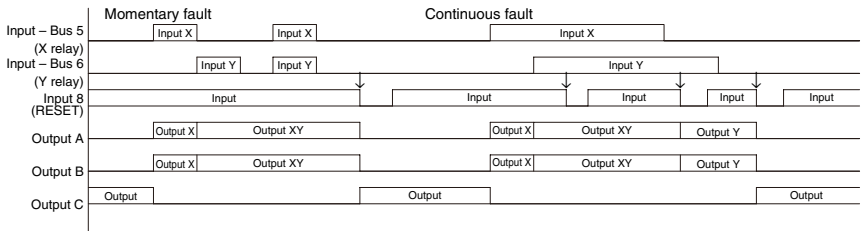


Circuit diagram



Operation chart

The arrow marks indicate external operations. ↑: ON, ↓: OFF

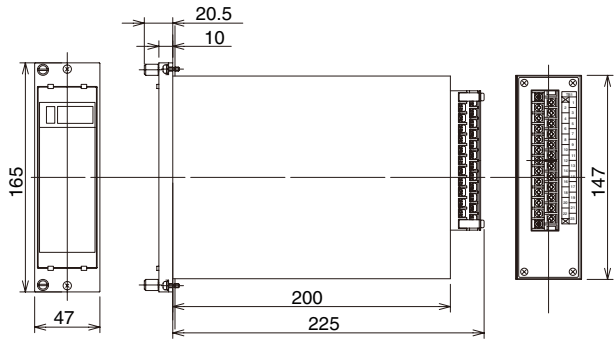


STANDARD PRODUCTS

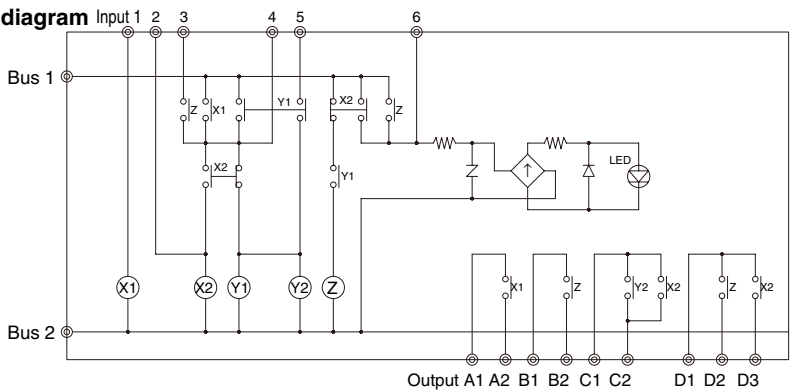
CAX-073



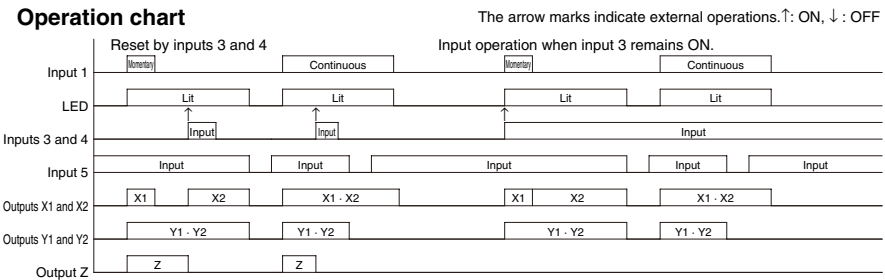
Outline drawing



Circuit diagram



Operation chart



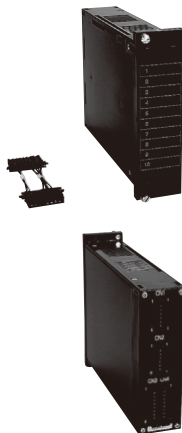


Annunciator relay

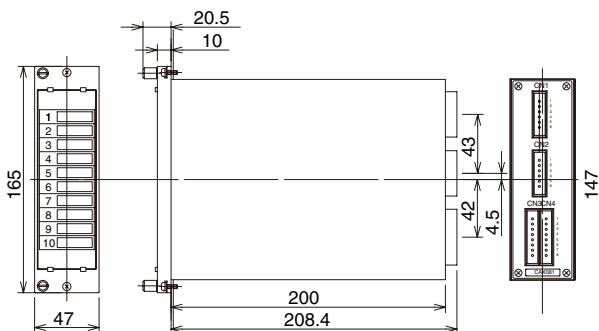
CAX-TYPE

STANDARD PRODUCTS

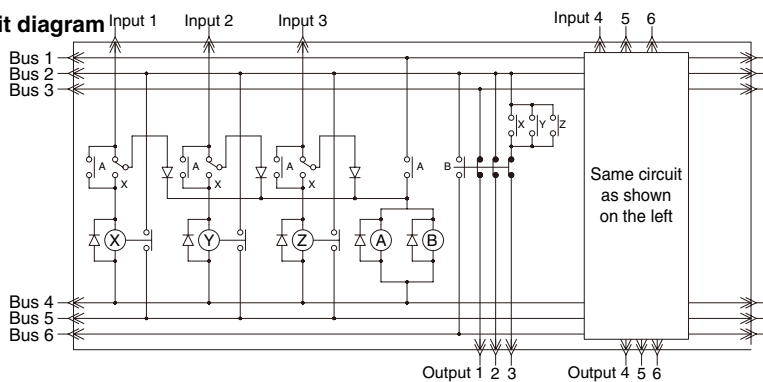
CAX-081



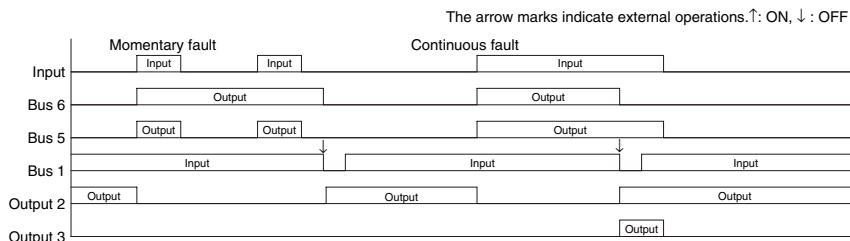
Outline drawing



Circuit diagram

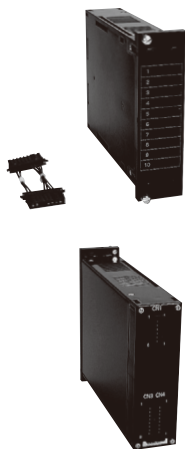


Operation chart

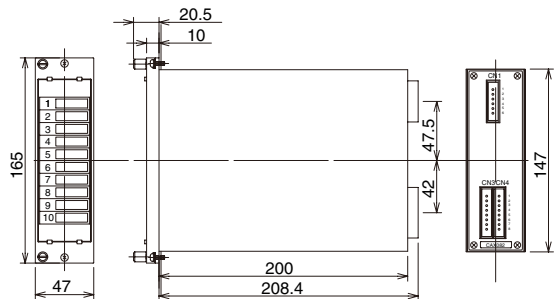


STANDARD PRODUCTS

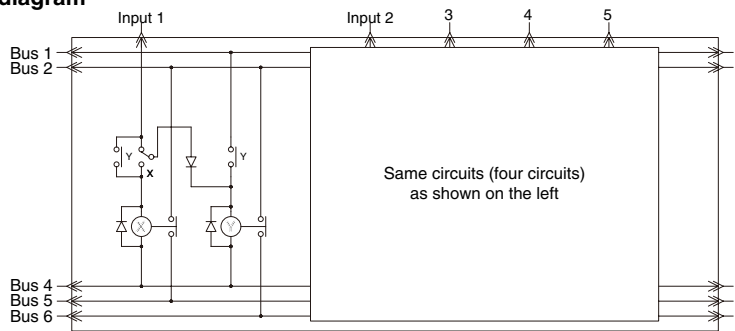
CAX-082



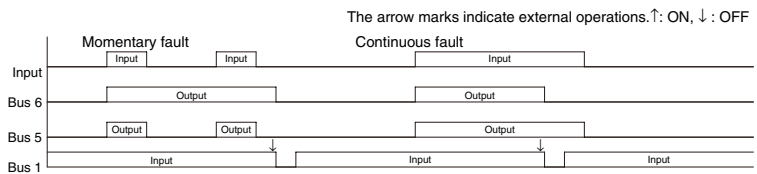
Outline drawing



Circuit diagram



Operation chart





Annunciator relay

CAX-TYPE

TERMINAL NUMBERS (back of relay unit)

CAX021

CN1

NO

Connection

NO

A1Input 1Output 1B1

A2Input 2Output 2B2

A3Input 3Output 3B3

A4Input 4Output 4B4

A5Input 5Output 5B5

A6Input 6Output 6B6

CN2

NO

Connection

NO

A1Input 7Output 7B1

A2Input 8Output 8B2

A3Input 9Output 9B3

A4Input 10Output 10B4

A5Input 11Output 11B5

A6Input 12Output 12B6

CN3 - CN4

NO

Connection

1Bus 4

2Bus 5

3

4

5Bus 1

6Bus 2

7Bus 3

8Bus 6

CAX031

CN1

NO

Connection

NO

A1Output A1Output A3B1

A2Output A2Output A4B2

A3Output A5B3

CN2

NO

Connection

NO

A1Output B1Output B2B1

A2Output C1Output C2B2

A3Output B3B3

A4Input 1Output C3B4

A5Input 2Output B4B5

A6Input 3Output C4B6

A7Input 4Output B5B7

A8Input 5Output C5B8

CN3 - CN4

NO

Connection

1Bus 1

2Bus 3

3Bus 5

4Bus 6

5Bus 7

6Bus 8

7Bus 9

8

9Bus 2

10Bus 4

CAX032

CN1

NO

Connection

NO

A1Output A1B1

A2Output A2B2

A3B3

CN2

NO

Connection

NO

A1Output B1Output DB1

A2Output C1Output EB2

A3Output B2Output FB3

A4Output C2Output GB4

A5Output H B5

A6Input 1Output JB6

A7Input 2Output KB7

A8Input 3Output LB8

CN3 - CN4

NO

Connection

1Bus 1

2Bus 3

3Bus 5

4Bus 6

5Bus 7

6Bus 8

7Bus 9

8

9Bus 2

10Bus 4

CAX041

CN1

NO

Connection

NO

A1Input 1Output 1B1

A2Input 2Output 2B2

A3Input 3Output 3B3

A4Input 4Output 4B4

A5Input 5Output 5B5

A6Input 6Output 6B6

CN2

NO

Connection

NO

A1Input 7Output 7B1

A2Input 8Output 8B2

A3B3

A4B4

A5B5

A6B6

CN3 - CN4

NO

Connection

1Bus 1

2Bus 2

3

4

5Bus 3

6Bus 4

7Bus 5

8Bus 6

CAX051

CN1

NO

Connection

NO

A1Input 1Output 1B1

A2Input 2Output 2B2

A3Input 3Output 3B3

A4Input 4Output 4B4

A5Input 5Output 5B5

A6Input 6Output 6B6

CN2

NO

Connection

NO

A1Input 7Output 7B1

A2Input 8Output 8B2

A3Input 9Input 9B3

A4Input 10Input 10B4

A5Input 11Input 11B5

A6Bus 4Bus 7B6

CN3 - CN4

NO

Connection

1Bus 5

2Bus 6

3

4

5Bus 1

6Bus 2

7Bus 3

8Bus 8

CAX061

CN1

NO

Connection

NO

A1Output 1Input 1B1

A2Output 2Input 2B2

A3Output 3Input 3B3

A4Output 4Input 4B4

A5Output 5Input 5B5

CN2 - CN3

NO

Connection

1Bus 1

2Bus 2

3Bus 3

4Bus 4

5Bus 5

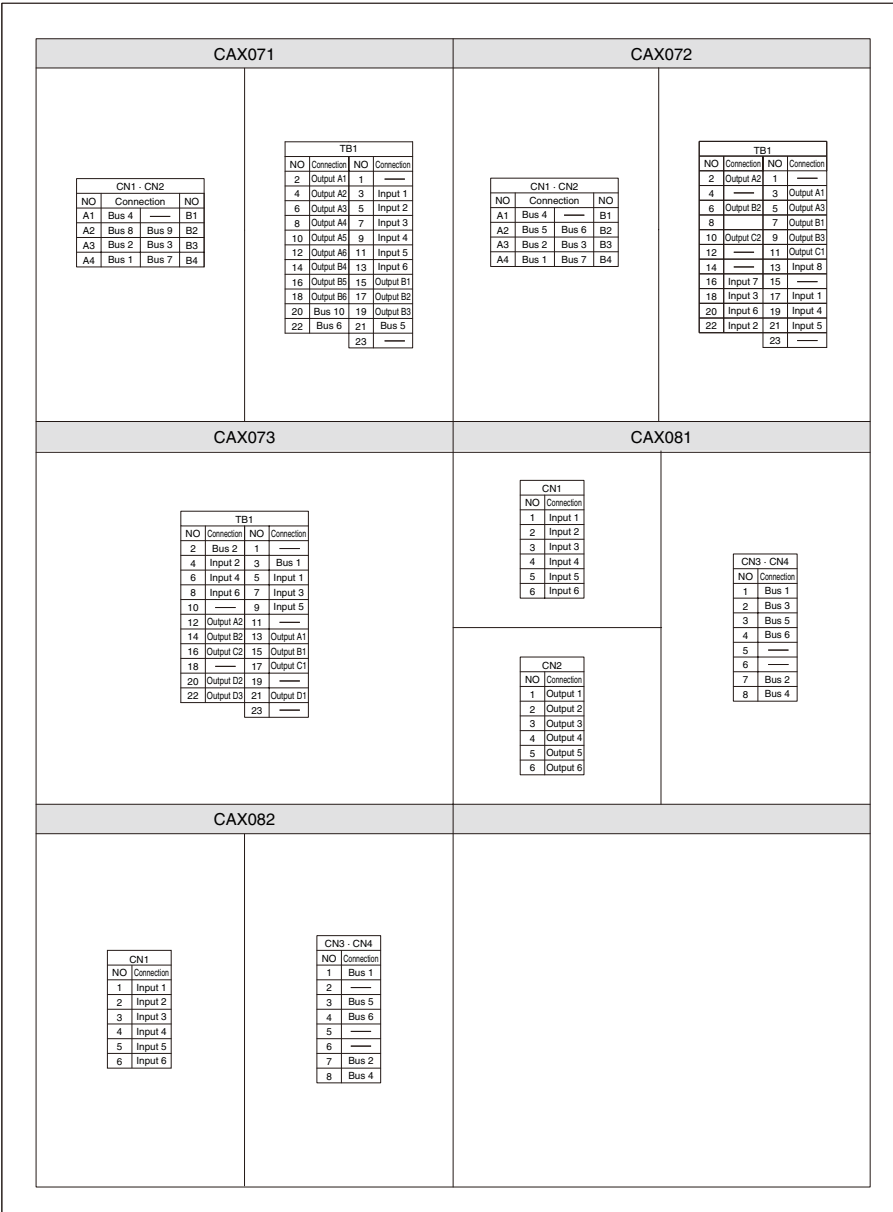
6Bus 6

7Bus 7

8Bus 8

9Bus 9

10Bus 10

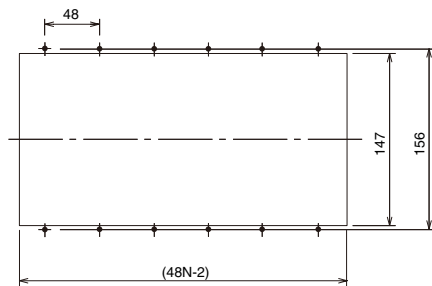




Annunciator relay

CAX-TYPE

MOUNTING HOLE DIMENSIONS



The panel cutout dimensions shown on the left apply to all types.
The recommended mounting panel thickness (t) is 1.6 to 3.2 mm.

Mounting procedure

1. Mount the unit case to the mounting panel (with M4 screws).
2. Insert the card relay into the unit case, and fasten it.
3. Connect wires to the back terminals of the relay.

ACCESSORIES

Connector housing for wiring

●Dynamic Series (manufactured by AMP)



Type name: CAX-Type **CN** No. of poles **P**

Type	No. of poles	AMP Model No.
CAX-021	12P	178289-6
CAX-031	6P	178289-3
	16P	178289-7
CAX-032	6P	178289-3
	16P	178289-7
CAX-041	12P	178289-6
CAX-051	12P	178289-6
CAX-061	10P	178289-5

Contact

●MIC Mark II (manufactured by AMP)



* Refer to the IS-259J (91592-1) or IS260J (755400-1) crimping tool instruction manual supplied by AMP.

AMP model No. 175217-2

Connector housing for crossover wiring

●Dynamic Series (manufactured by AMP)



Type name: CAX-Type **CL** No. of poles **P**

Type	No. of poles	AMP Model No.
CAX-021	8P	178288-7
CAX-031	10P	172888-8
CAX-032	10P	172888-8
CAX-041	8P	178288-7
CAX-051	8P	178288-7
CAX-061	10P	178288-8



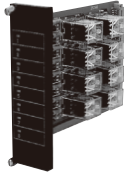
Type name: CAX-Type **CM** No. of poles **P**

Type	No. of poles	AMP Model No.
CAX-071	8P	1318119-4
CAX-072	8P	1318119-4
CAX-073	8P	1318119-4

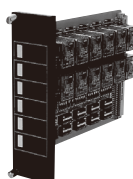
Card relay



CAX-021



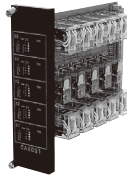
CAX-041



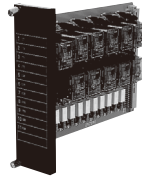
CAX-071



CAX-081



CAX-031



CAX-051



CAX-072



CAX-082



CAX-032



CAX-061



CAX-073

Case

Type name: **CAX-TypeCase**



Front cover

Type name: **CAX-CV**



* Transparent front cover only.