Reflash Unit

KFA-333

■ Features

- KFA-333 collects multiple inputs and creates a single output to the annunciator (KFA-600/KFA-330D/KFA-330G).
- By using KFA-333, the number of annunciators (KFA-600/KFA-330D/KFA-330G) can be less than the number of fault inputs.
- 4 fault input points are packaged into one unit (KFA-39).
- A maximum of 50 units (4 fault inputs per unit) can be configured. The maximum number of fault inputs is 200.
- Two types of chassis units (KFA-38) which can mount 2 or 6 reflash units (KFA-39) are available.

NOTICE

- Always turn the power OFF when attaching and removing the reflash unit.
- Use twist-pair wire when wiring the fault input contact and the operation switches.
- Operation switches that are not to be used should be left OPEN.
- This reflash unit must be used in combination with a KFA-330D or KFA-330G annunciator.

■ Product Configuration

This reflash unit must be used in combination with a KFA-330D or 330G annunciator.
The KFA-333 consists of a KFA-39 reflash unit and a KFA-38 chassis unit. This unit produces one output for four fault inputs of the same group. A maximum of 50 units (4 fault inputs per unit) can be configured. The reflash units can be easily plugged into the connector on the chassis. Chassis units (KFA-38) to accommodate 2 reflash units and 6 reflash units are available. Two types of reflash units (KFA-39) for output level 10mA (B) and 50mA (C) are available. Reflash units with 10mA (B) are used when output to KFA-600/KFA-330D/KFA-330G. Reflash units with 50mA (C) are used when outputing to a device which requires a large load capacity, such as a relay.

■ Model Designation

Chassis Unit

KFA-38 □

Number of Units
A : 6 units
B : 2 units

Model Name

Reflash Unit

KFA-39 □ □

Operating Voltage
6 : 24V DC
7 : 48V DC
8 : 100 / 110V DC
9 : 125V DC

Type
B : Basic [10mA: output level]
C : High-capacity [50mA: output level]

Model Name

Dummy Unit

KFA-35D

Basic type

■ Specifications

KFA-333 System

Rated Voltage	**DC**	24V	48V	100/110V	125V
	Allowable range	±10% of the rated voltage			
Environment	**Temperature · Humidity**	-10%~+60°C, RH 45~95% (No freezing or condensation)			
	Storage temperature	-20~+70°C (No freezing or condensation)			
Vibration Resistance		JIS C 0911			
Shock Resistance		JIS C 0912 (10G applied 3 times in each X, Y, and Z directions)			
Noise Resistance	**Impulse**	Pulse width 1μs, 15ns, 1800V, 80Hz			

Chassis Unit KFA-38

Insulation Resistance	**Between live part and chassis**	50MΩ or more between live parts and ground by a 500V DC megohmmeter
Withstand Voltage		2000V AC for 1 minute more between live parts and ground

Reflash Unit KFA-39B

Item \ Model		KFA-39B6	KFA-39B7	KFA-39B8	KFA-39B9
Power consumption (excluding fault output)		0.5W max.	1.0W max.	1.5W max.	1.7W max.
Fault input	**Contact input**	N.O. contact (solid state open collector "L" received by photo-coupler)			
	Input voltage	24V	48V	110/110V	125V
	Input resistance	8KΩ	16KΩ	60KΩ	70KΩ
	Response time *	30msec			
Alarm output	**Output level**	Ic : 10mA, Vceo : 150V			
	Output pulse	300msec open collector			

*The response time of 30msec is when responding to output OUT2 and OUT3. For output OUT1, the response time is at least 350msec.

Reflash Unit KFA-39C

Model \ Item		KFA-39C6	KFA-39C7	KFA-39C8	KFA-39C9
Power consumption (excluding fault output)		0.5W max.	1.0W max.	1.5W max.	1.7W max.
Fault input	**Contact**	Contact, N.O. contact, solid state open collector "L" (received by photo-coupler)			
	Input voltage	24V	48V	110/110V	125V
	Input resistance	8KΩ	16KΩ	60KΩ	70KΩ
	Response time *	30msec			
Alarm output	**Output level**	Ic : 50mA, Vceo : 150V			
	Output pulse	500msec open collector			

*The response time of 30msec is when responding to output OUT2 and OUT3. For output OUT1, the response time is at least 550msec.

■ Materials

Terminal Block	TS-135	
Terminal Screws	Carbon steel (nickel plated)	M3×6
Terminal Cover	Polycarbonate resin	
Print Board	Glass epoxy	
Alarm/Common Unit Case	Polycarbonate resin	1.6mm thick
Chassis	Polished steel board	

■ Weight

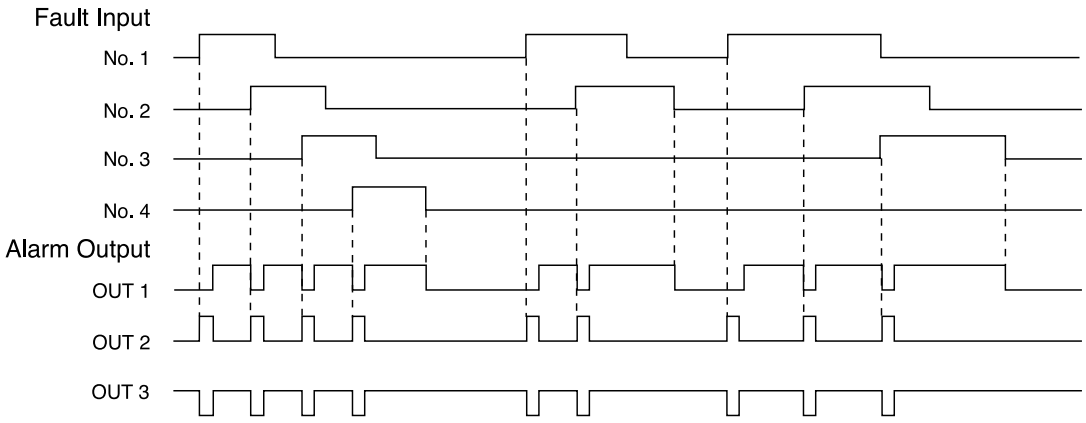
Chassis Unit

KFA-38A 1,700g

KFA-38B 900g

Reflash Unit 100g

■ Sequence Pattern

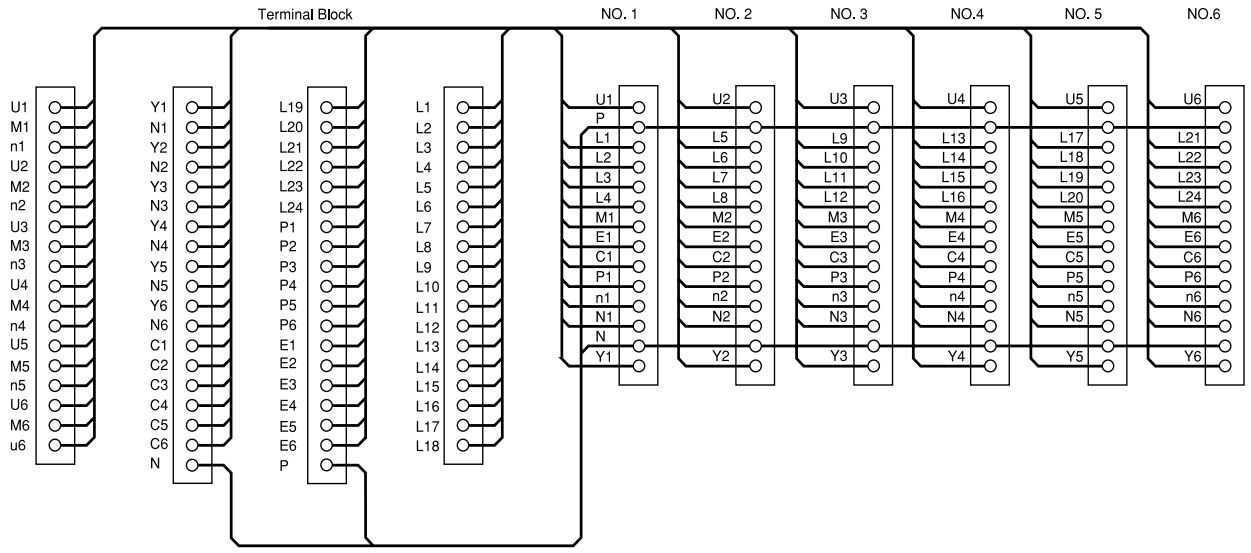


■ Reflash Unit Input/Output Terminal Numbers

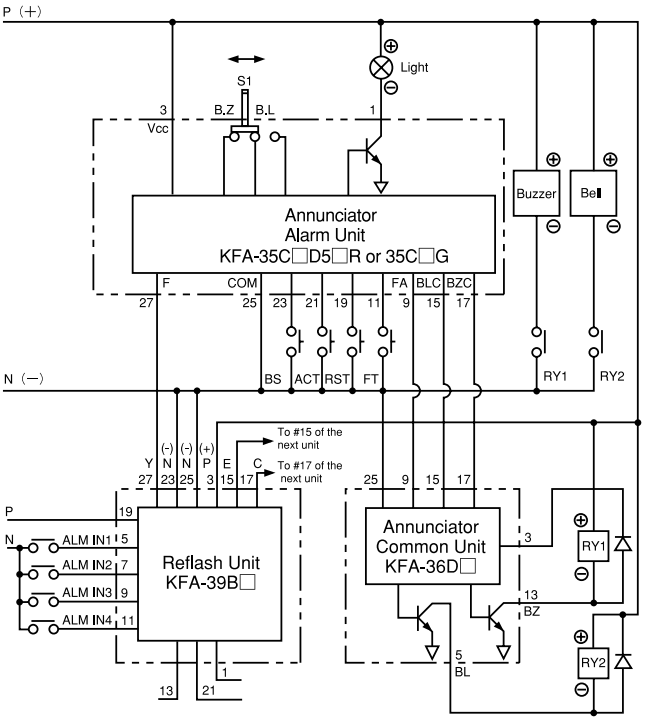
Number	Symbol	Function
1	U ALM OUT 2	Alarm output pulse signal (about 300ms) positive logic, 10mA/150V (KFA-39B□) Alarm output pulse signal (about 500ms) positive logic, 50mA/150V (KFA-39C□)
3	P Rated Voltage	Plus pole of the rated voltage
5,7,9,11	L ALM IN	Fault input is contact or contactless (photo-coupler) input
13	M ALM OUT 3	Alarm output pulse signal (about 300ms) negative logic, 10mA/150V (KFA-39B□) Alarm output pulse signal (about 500ms) negative logic, 50mA/150V (KFA-39C□)
15	E CONT 1	Signal No. 1 for the reflash group
17	C CONT 2	Signal No. 2 for the reflash group
19	P	External (user side) plus power source (for the photo-coupler) of the fault input (4 inputs)
21	n	Minus power source for the alarm output U and M
23	N	Minus power source (for ANN) for the alarm output Y (reflash signal)
25	N	Minus pole of the rated voltage
27	Y ALM OUT 1	Alarm output level signal (reflash signal) open collector 10mA/150V (KFA-39B□) Alarm output level signal (reflash signal) open collector 50mA/150V (KFA-39C□) This signal is connected to the F terminal on the ANN side

■ Chassis Unit Connection Diagram

This is the diagram of the reflash unit (KFA-39□), with 6 units, connected to the chassis (KFA-38A).



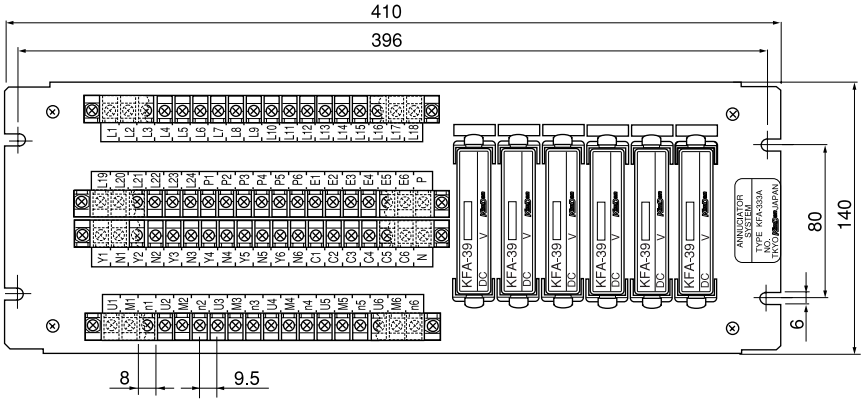
■ System Connection Diagram (Connecting the system to KFA-330D/330G)



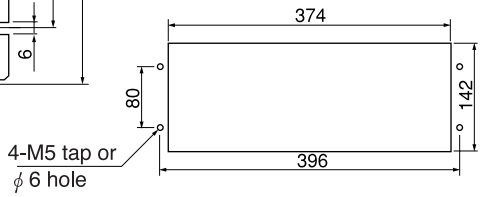
- The input/output number of each unit is the connector pin number.
- Switch S1 is used to select BZ or BL PN indicates the polarity of the rated voltage.
- RY indicates the relay. Power to the buzzer is supplied through this contact.
- When desiring to have more than four inputs combined into a single output, the reflash unit must be connected to another reflash units. In this case, connect the 17 (C) and 15 (E) terminals of one reflash unit to the corresponding 17 (C) and 15 (E) terminals of the other reflash unit.
- In order to protect the internal wiring of the chassis, insert a 5A fuse into the external power line.

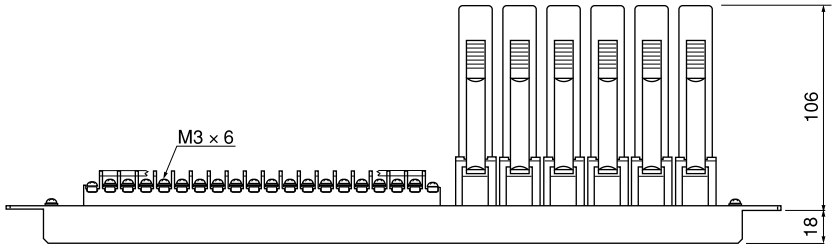
■ Dimensions

▼ KFA-333A for 6 units

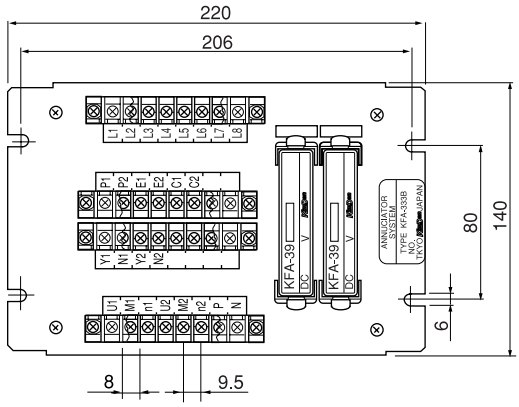


Panel Cut Dimensions





▼ KFA-333B for 2 units



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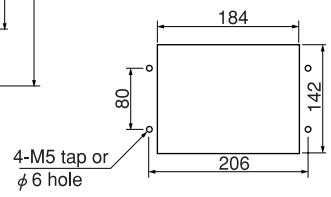

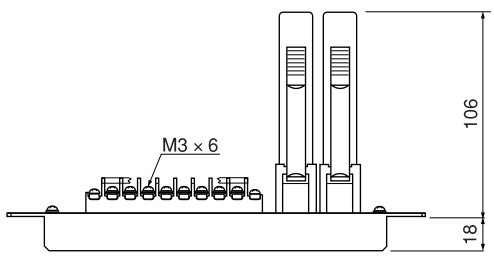

▼ KFA-39