



# FLAG DROP TYPE FAULT INDICATOR

## How to order

Select from the following product coding.

## PRODUCT CODING

### TK type

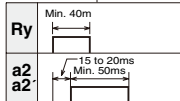
# TKL 121 -DC11-B

Basic type

Model for each contact configuration  
(See the list of function P.192.)

L	For voltage
H	For current

W Double-coil version



Surface cover color

B	N1.5
BG	7.5BG4 / 1.5

	Code	Rating (voltage · current)	Coil resistance (Ω)
L	DC02	24V DC	200 Ω ± 10%
	DC04	48V DC	1,170 Ω ± 10%
	DC11	100 / 110V DC	5,000 Ω ± 10%
	DC12	125V DC	5,400 Ω ± 10%
	DC22	200 / 220V DC	18,600 Ω ± 10%
	AC11	100 / 110V AC	5,000 Ω ± 10%
H	AC22	200 / 220V AC	18,600 Ω ± 10%
	DC0.5A	0.5A	3 Ω ± 10%
	DC0.7A	0.7A	2.0 Ω ± 10%
	DC1A	1A	0.75 Ω ± 10%
	DC2A	2A	0.35 Ω ± 10%

### MK type

# MK-A DC110

Basic type

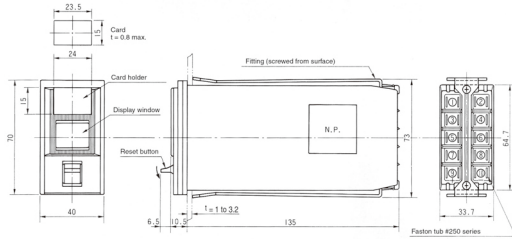
Voltage 100 / 110V DC

Circuit type

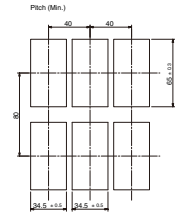
Code	Type
A	With built-in relay
B	Display only

# PILOT LAMP & INDICATOR

## TK TYPE



### ● Mounting hole size



● Operation ... Two modes: single-display manual resetting and multi-display automatic resetting




### Specification of element

Item	Type	For voltage	For current
Rating		Continuous at rated value	
Overload tolerance	Coil temperature rise of 55°C max. in the maximum operating range (1.3 times the rating for 3 hours)		30S at 500%
Minimum operating value	70% of rating		80% of rating
Contact current-carrying capacity		3A 110V DC	
Contact breaking capacity		R load: 0.4A (110V DC) 0.2A (220V DC) L load: 0.1A (110V DC) 0.03A (220V DC) L / R = 12 ms	
Operating time (at rated voltage and current)	a1: 60±15 ms a2: 40±10 ms a3: 90±10 ms		a1: 50±15 ms a2: 20±10 ms a3: 80±10 ms
Pulse contact time		50 to 70 ms	
Display panel color (Munsell color)	In normal use: N1.5 At failure: 2.5YR6/13 When failure persists: N1.5 and 2.5YR6/13 stripes		In normal use: N1.5 At failure: 2.5YR6/13
Insulation resistance		50MW or more (500V DC)	
Withstand voltage		Whole terminals and contact points: 2,000V AC / 1 min. Between electric circuit and contact: 2,000V AC / 1 min. Between contact circuits: 2,000V AC / 1 min. Between open contacts: 1,000V AC / 1 min.	
Lightning impulse		Between open contacts: 3,000V (1.2 / 50 μs) Between live parts and live part to assembly mounting panel: 4,000V (1.2 / 50 μs)	
Service life		10,000 times or more. each for electrical and mechanical life	
Vibration resistance		Frequency: 16.7 Hz Double amplitude: 4 mm 10 minutes in each of 3 axial directions	
Shock resistance		Shock resistance: 30G or more Each 2 axial directions: 2 times each	



# PILOT LAMP & INDICATOR

## LIST OF FUNCTIONS

No.	Model for each contact configuration	Input rating		Output contact			Reference * Standard { DC11 DC1A
		Voltage element (TKL)	Current element (TKH) (TKH...W)	Interlocked with display panel Manual resetting contact a1 ○  b1 ○	Interlocked with coil Automatic resetting contact a2 ○  b2 ○	Interlocked with display panel One-shot pulse contact a3 ○ 	
1	TK□100	○	○	1a	—	—	*
2	TK□200	○	○	2a	—	—	*
3	TK□110	○	○	1a	1a	—	
4	TK□111	○	○	1a	1a	1a	
5	TK□000	○	○	—	—	—	
6	TK□101	○	○	1a	—	1a	
7	TK□120	○	○	1a	2a	—	*
8	TK□121	○	○	1a	2a	1a	
9	TK□010	○	○	—	1a	—	
10	TK□011	○	○	—	1a	1a	
11	TK□021	○	○	—	2a	1a	
12	TK□020	○	○	—	2a	—	*
13	TK□001	○	○	—	—	1a	
14	TK□030	○	○	—	3a	—	
15	TK□210	○	○	2a	1a	—	
16	TK□1AB0	○	○	1a	1a1b	—	
17	TK□12B0	○	○	1a	2b	—	
18	TK□12B1	○	○	1a	2b	1a	
19	TK□1AB1	○	○	1a	1a1b	1a	
20	TK□0AB0	○	○	—	1a1b	—	
21	TK□AB00	○	○	1a1b	—	—	
22	TK□02C0	○	○	—	2c	—	
23	TK□2C00	○	○	2c	—	—	

1. For the above □, specify L for voltage or H for current.

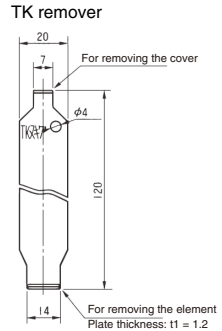
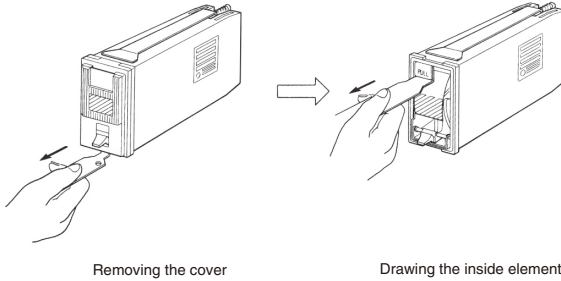
2. Contact configurations other than the above configurations are also available. Contact FUJI ELECTRIC INDUSTRY.



# TK TYPE

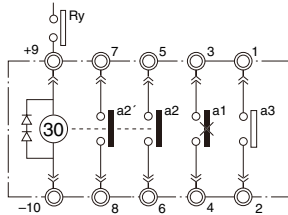
## HOW TO REMOVE THE INTERNAL ELEMENT

## ACCESSORY



## OPERATIONAL INTRODUCTION

- When the failure detection contact of the outside protective relay is closed, the operating coil is excited, and the display panel falls off. The display window changes from black (N1.5) indicating the normal status to orange (2.5YR6/13) indicating the failure status.
- When the reset button is pressed, the display panel will be returned to blank. If the failure is instantaneous and no input is provided, the display window will return to the black display in the normal status. If the failure persists, the coil receives input and a pattern of stripes of orange and black is displayed indicating that the failure persists. Once the failure is rectified, the display will automatically return to the black display in the normal status.
- Max. 4 contacts are available.  
 Contacts interlocked with the display panel may be taken for a maximum of 2 circuits. Those interlocked with the coil may be taken for a maximum of 3 circuits. One-shot pulse contacts interlocked with the display panel may be taken for a maximum of 2 circuits. Each circuit is provided with contacts a and b.
- The one-shot pulse contacts output pulses (50 to 70 ms) at the initial operation only.



1: All the coils for voltage type are added a counter induced-voltage absorption device.

Failure detection contact	Ry				
Display panel	Black				
	Orange				
	Pattern of stripes				
Contact	Interlocked with display panel (manual)	a1			
	Interlocked with coil (automatic)	a2			
		a2'			
	One-shot pulse	a3			
Resetting operation					



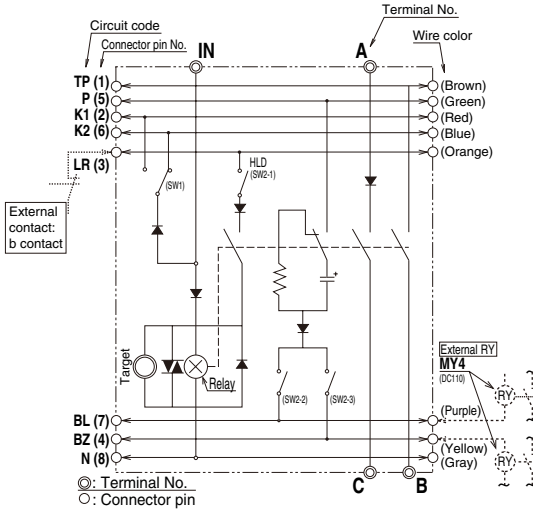


FLAG DROP TYPE FAULT INDICATOR

# MK TYPE

## CIRCUIT DIAGRAM

### MK-A



### MK-B

