



ANNUNCIATOR RELAY

# XK TYPE

Indicators built in relays help  
reduction of auxiliary relays in the panel



## FEATURES

### **High brightness by 4 elements LED (Al InGap-LED)**

4 elements LED (Al InGap-LED)  
improves brightness.  
(new one is 4 times as bright as  
the previous model)



(XK44 Type)



(LK44 Type)

### **Easy wiring by built in relays**

High performance and reliability of  
built in relays reduce wiring work.



### **Various sequence type are available**

Almost all standard pattern  
sequence circuits are lined up, which  
helps speed up of circuit design.

### **24mm, 30mm, 40mm square windows are available**

Three different size windows are  
available for various application needs,  
and XK units and XL units can be mixed  
in one assembly.



### **Easy setting of alarm output**

Each alarm output (bell, buzzer,  
chime) can be easily selected by  
the switch on the rear side.



### **A new structural lens**

A label film indicated words can be  
installed with a single motion.

Insertable size of label film (mm)

- XK44TYPE ... (H)35.0×(W)33.5
- XK33TYPE ... (H)25.0×(W)23.5
- XK22TYPE ... (H)19.0×(W)17.5



\* Label film is gold optionally.

## SPECIFICATIONS (RATING, PERFORMANCE / NORMAL SERVICE CONDITION)

Specification	XK22	XK33	XK44	
Rating	Rated insulation voltage (Ui)	250V		
	Rated operating voltage	24V DC	100 / 110V DC	110V DC
	Input signal time	20ms or more (at rated voltage)		
	Insulated resistance	10MΩ or more (between electrical circuit and ground)		
	Power frequency withstand voltage	2,000V AC / 1min. (between electrical circuit and ground)		
	Impulse withstand voltage (Uimp)	±4.5kV (1.2 / 50μs) each pole (between electrical circuit and ground)		
Performance	Visibility of light flashing	Mounted side brightness: 1,000Lx, Visible distance: 10m		
	Degree of protection	IP40 (at illuminating portion)		
	Terminal size	M3 screw or Faston tab # 187		
	Vibration resistance	Frequency: 10Hz Amplitude: 5mm (vertical direction: 2.5mm) Time: 30sec. (3 axial direction)		
		Frequency: 16.7Hz Amplitude: 0.4mm Time: 600sec. (3 axial direction)		
Shock resistance	294m/s <sup>2</sup> (6 directions, 3 times / each)			
Normal service condition	Power consumption (1 unit)	Approx. 1W	Approx. 1W (110V DC)	Approx. 2W (110V DC, 1 relay) Approx. 3W (110V DC, 2 relays)
	Operating temperature	0 to 40°C (-10 to 50°C allowed for a few hours in a day)		
	Storing temperature	-20 to 60°C		
	Relative humidity	30 to 80%		
Altitude	2,000 m max. no freeze / no condensation			

## HOW TO ORDER

[XK22 TYPE] **XK22-01S-02 × 02-DC024-O W**<sup>\*1</sup>

Basic type: 01, 02

Circuit code: 01, 02

Terminal type: Code Spec  
S Screw M3×6  
F Faston tab #187

No. of columns: 02

No. of rows: 02

Rated operating voltage: Code Voltage  
DC024 24V DC

Display color: Code Color Code Color  
R Red Y Yellow  
O Orange B Blue  
W White M Mix  
G Green

[XK33 TYPE] **XK33-04S-02 × 02-DC110-O W**<sup>\*1</sup>

Basic type: 04

Circuit code: 04

Terminal type: Code Spec  
S Screw M3×6  
F Faston tab #187

No. of columns: 02

No. of rows: 02

Rated operating voltage: Code Voltage  
DC110 100 / 110V DC

Display color: Code Color Code Color  
R Red Y Yellow  
O Orange B Blue  
W White M Mix  
G Green

[XK44 TYPE] **XK44-01S-02 × 02-DC110-O W**<sup>\*1</sup>

Basic type<sup>\*2</sup>: 01, 03, 04

Circuit code<sup>\*2</sup>: 01, 03, 04 | 05, 06, 07

Terminal type: Code Spec  
S Screw M3×6  
F Faston tab #187

No. of columns: 02

No. of rows: 02

Rated operating voltage: Code Voltage  
DC024 24V DC (special)  
DC110 110V DC  
MIX Mix<sup>\*3</sup>

Display color: Code Color Code Color  
R Red Y Yellow  
O Orange B Blue  
W White M Mix  
G Green

\*1 The choice of all white lens is also available.

\*2 When Circuit code is 03 and 04, the basic type is XK44M (short body).

\*3 In case the controll power supply voltage and lamp voltage are different, please consult with us (Some types are available).

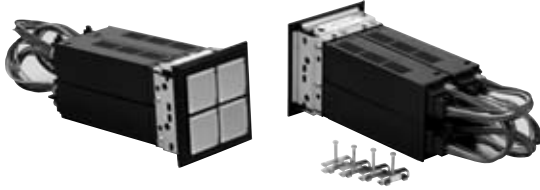


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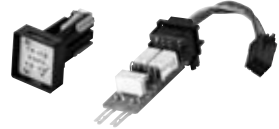
# XK TYPE

## STANDARD PRODUCTS

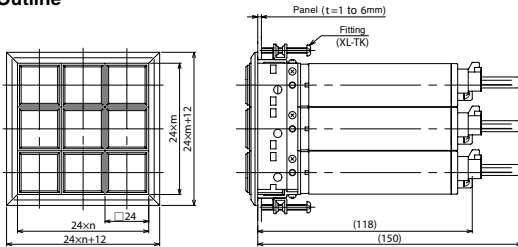
### XK22-01



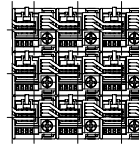
### ■ Lamp, Inner element



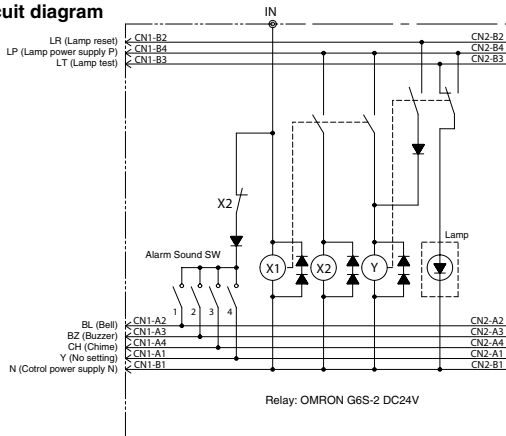
### ■ Outline



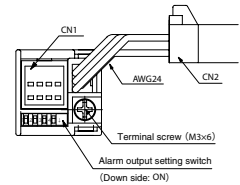
Standard attachment : fitting tool (XL-TK)



### ■ Circuit diagram



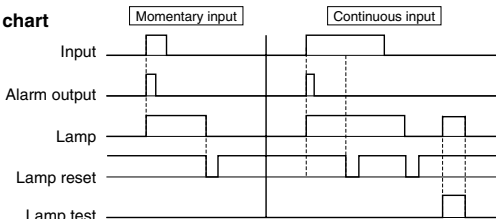
### ■ Rear side



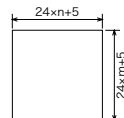
### ■ Function

External output	—	
Alarm	Output	b contact
	Type	Pulse output
	Sound	4 type (BL, BZ, CH, Y)
Input holding circuit	—	

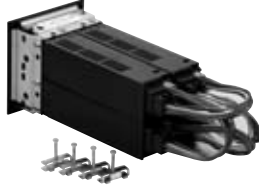
### ■ Operation chart



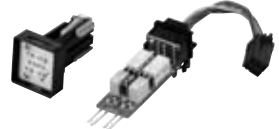
### ■ Mounting hole size



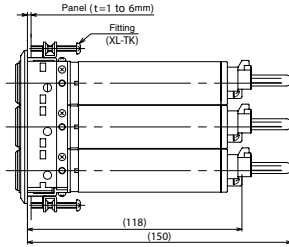
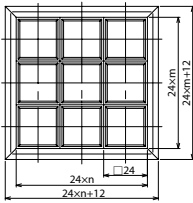
## XK22-02



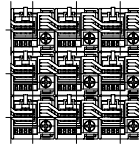
### ■ Lamp, Inner element



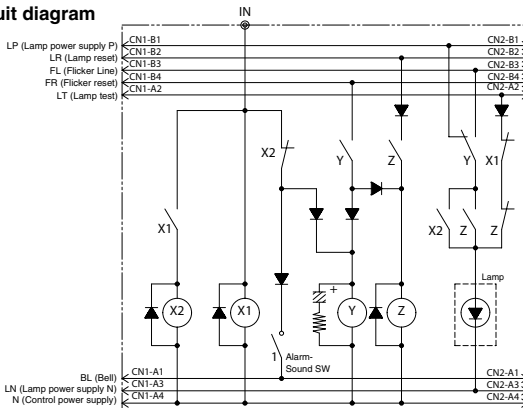
### ■ Outline



Standard attachment : fitting tool (XL-TK)

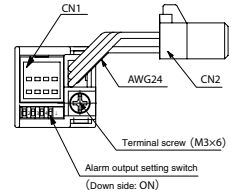


### ■ Circuit diagram



\* Alarm setting switch must be on in case of combination use with interface unit (UKTF2).

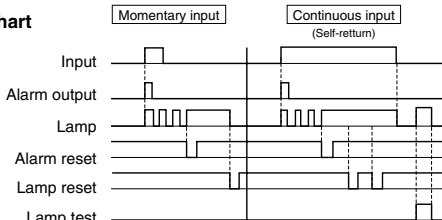
### ■ Rear side



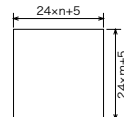
### ■ Function

External output	-	
Alarm	Output	b contact
	Type	Pulse output
	Sound	1 type (BL)
Interface unit	UKTF2	

### ■ Operation chart



### ■ Mounting hole size





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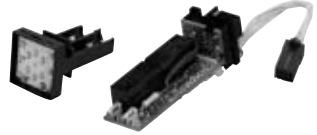
# XK TYPE

## STANDARD PRODUCTS

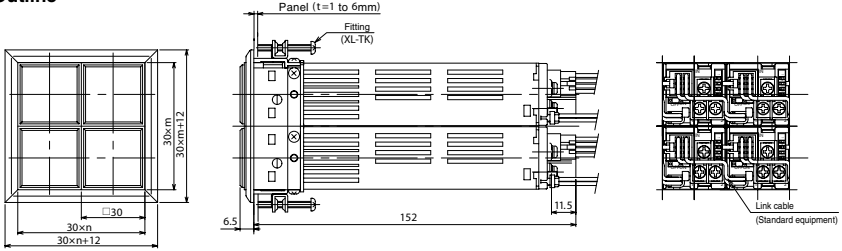
### XK33-04



### ■ Lamp, Inner element

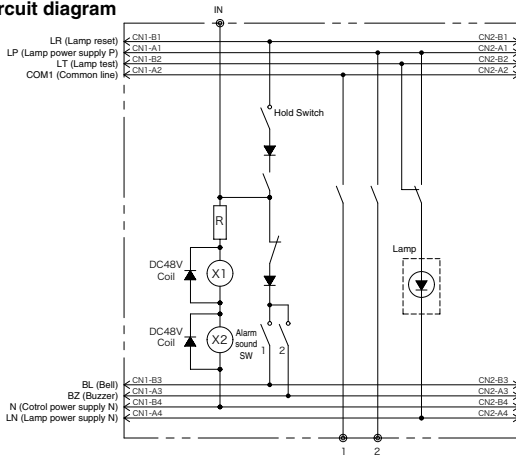


### ■ Outline

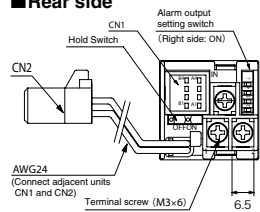


Standard attachment : fitting tool (XL-TK)

### ■ Circuit diagram



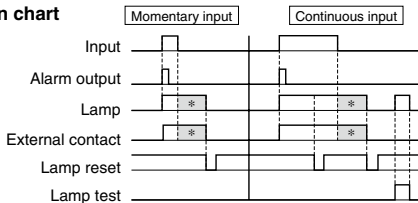
### ■ Rear side



### ■ Function

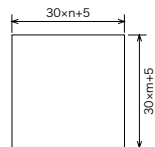
External output	2 a contact	
Alarm	Output	b contact
	Type	Pulse output
	Sound	2 type (BL, BZ)
Input holding circuit	available	

### ■ Operation chart

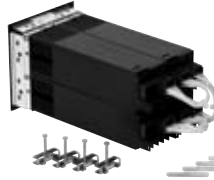


\* When hold switch is ON

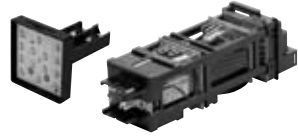
### ■ Mounting hole size



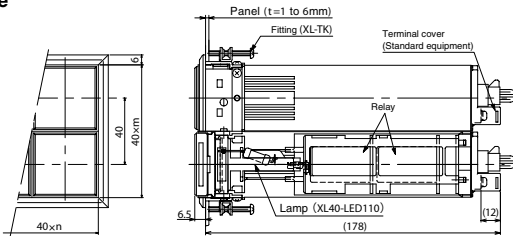
## XK44-01



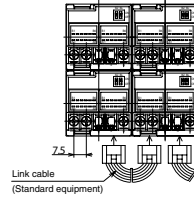
### ■ Lamp, Inner element



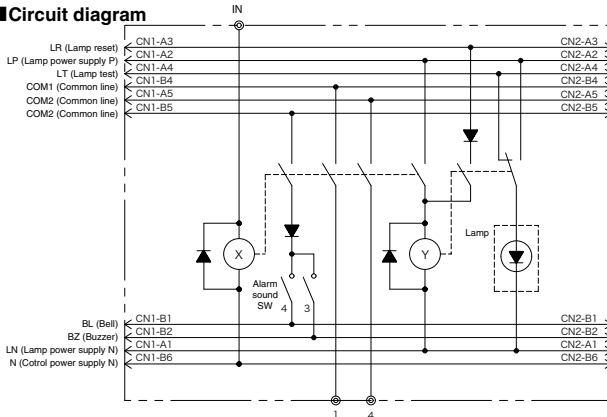
### ■ Outline



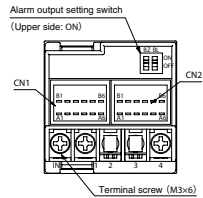
Standard attachment : fitting tool (XL-TK), terminal cover (XK-CV)



### ■ Circuit diagram



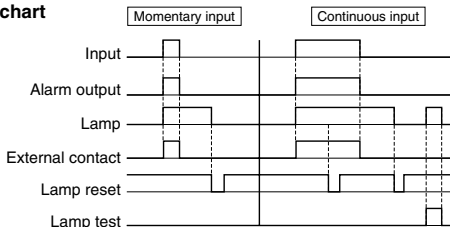
### ■ Rear side



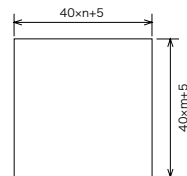
### ■ Function

External output	2 a contact
Output	a contact
Alarm Type	Sync with input
Sound	2 type (BL, BZ)
Input holding circuit	—

### ■ Operation chart



### ■ Mounting hole size





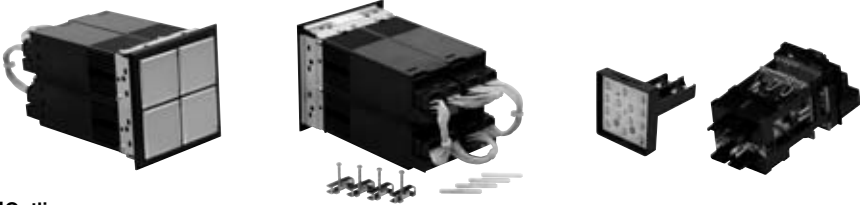
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# XK TYPE

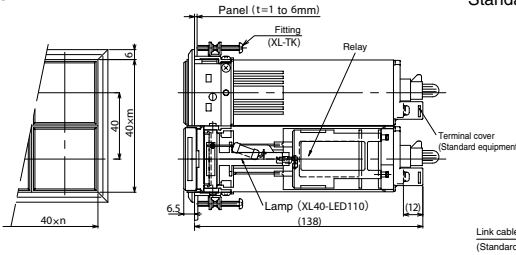
## STANDARD PRODUCTS

### XK44M-03

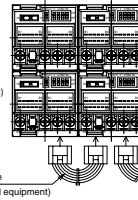
#### ■ Lamp, Inner element



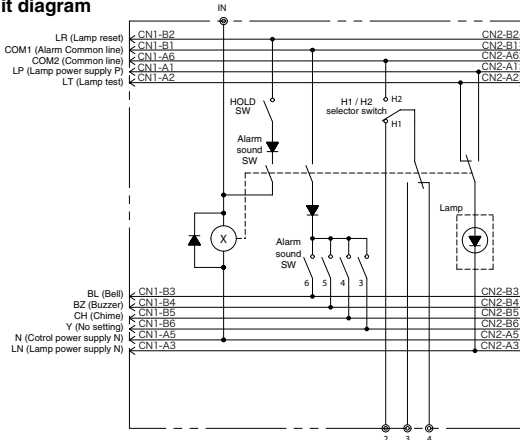
#### ■ Outline



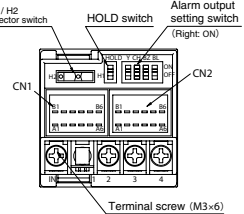
Standard attachment : fitting tool (XL-TK), terminal cover (XK-CV)



#### ■ Circuit diagram



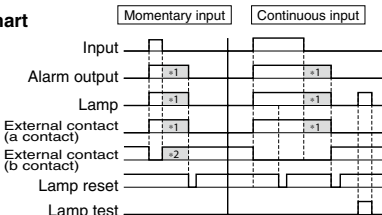
#### ■ Rear side



#### ■ Function

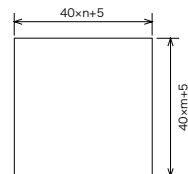
Alarm	External output	1 c contact
	Output	a contact
	Type	Sync with input
	Sound	4 type (BL, BZ, CH, Y)
	Input holding circuit	available

#### ■ Operation chart



When HOLD switch is ON, the operation is shown as +1 and +2 shadows.  
When HOLD switch is OFF, the operation is not shadows.

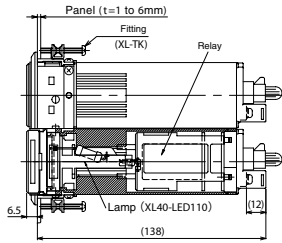
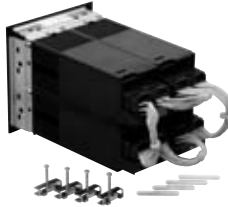
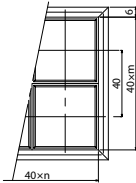
#### ■ Mounting hole size



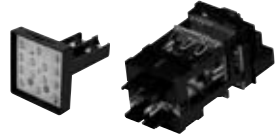
## XK44M-04



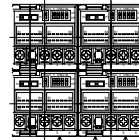
### ■ Outline



### ■ Lamp, Inner element

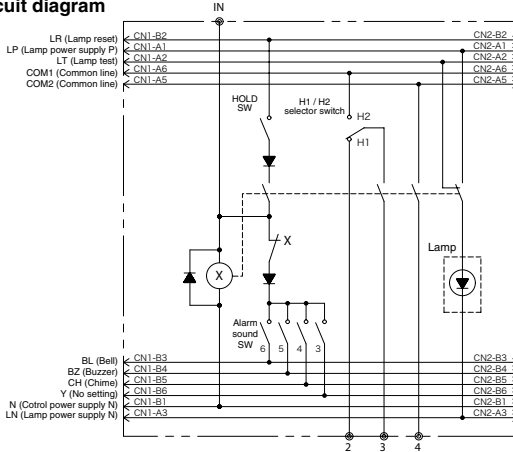


Standard attachment : fitting tool (XL-TK), terminal cover (XK-CV)

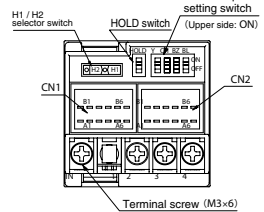


Link cable (Standard equipment)

### ■ Circuit diagram



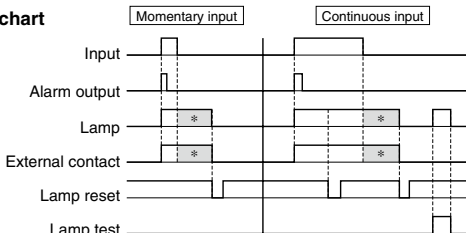
### ■ Rear side



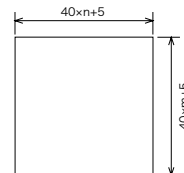
### ■ Function

External output	2 a contact	
Alarm	Output	b contact
	Type	Pulse output
	Sound	4 type (BL, BZ, CH, Y)
Input holding circuit	available	

### ■ Operation chart



### ■ Mounting hole size





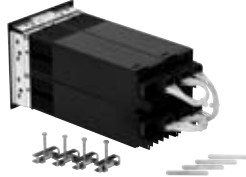


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## STANDARD PRODUCTS

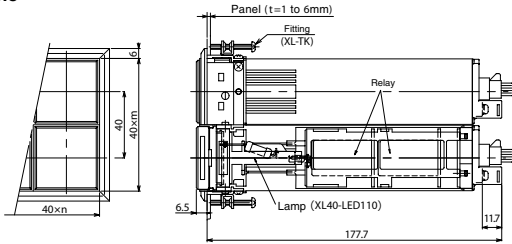
### XK44-05



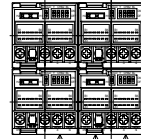
#### ■ Lamp, Inner element



#### ■ Outline

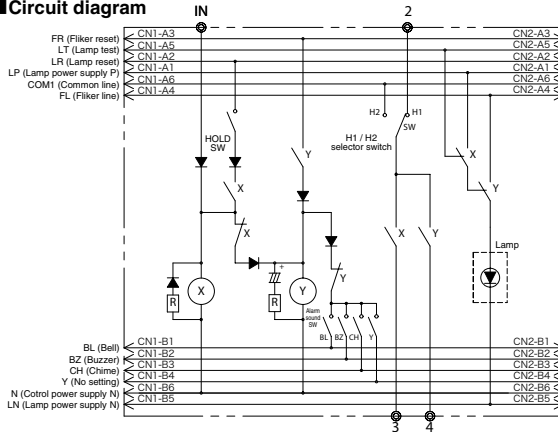


Standard attachment : fitting tool (XL-TK), terminal cover (XK-CV)

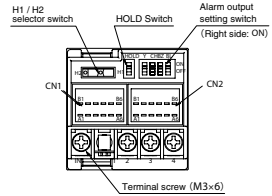


Link cable (Standard equipment)

#### ■ Circuit diagram



#### ■ Rear side

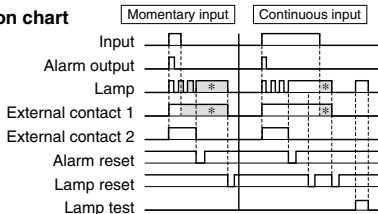


#### ■ Function

External output	2 a Contact	
Output	b Contact	
Alarm	Type	Pulse output
	Sound	4 type (BL, BZ, CH, Y)
Input holding circuit	available	

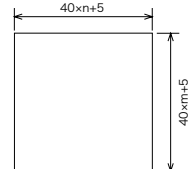
\* Rated operating voltage: 100 / 110V DC

#### ■ Operation chart



\* When HOLD switch is ON, the operation is shown as \* shadows.

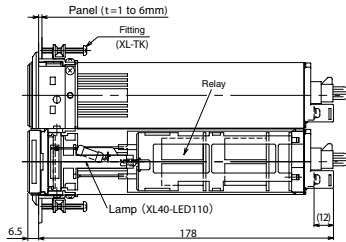
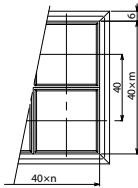
#### ■ Mounting hole size



## XK44-06



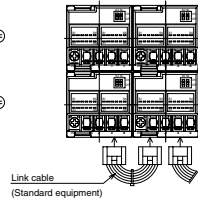
### Outline



### Lamp, Inner element

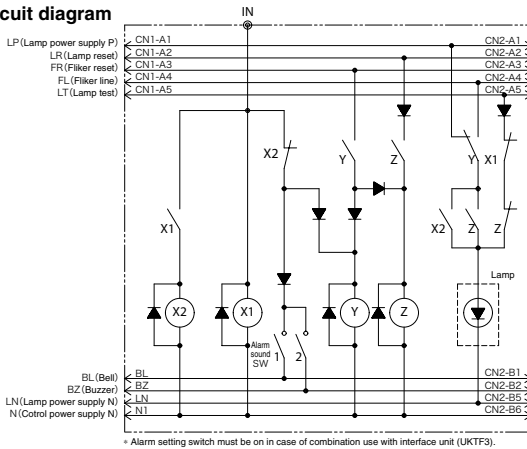


Standard attachment : fitting tool (XL-TK), terminal cover (XK-CV)

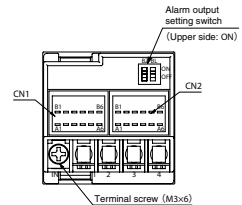


Link cable (Standard equipment)

### Circuit diagram



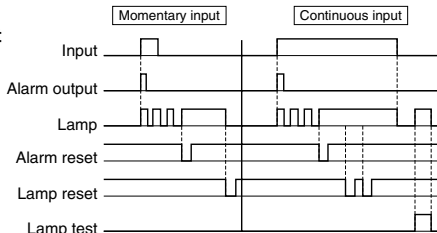
### Rear side



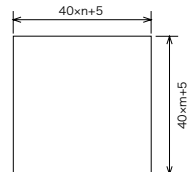
### Function

External output	-	
Alarm	Output	b Contact
	Type	Pulse output
	Sound	2 type (BL, BZ)
Interface unit	UKTF3	

### Operation chart



### Mounting hole size





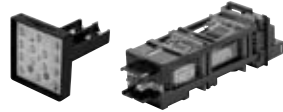
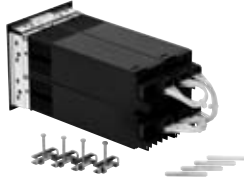
ANNUNCIATOR RELAY

# XK TYPE

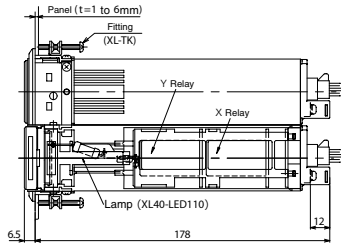
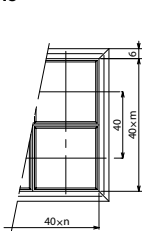
## STANDARD PRODUCTS

### XK44-07

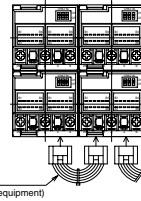
#### ■ Lamp, Inner element



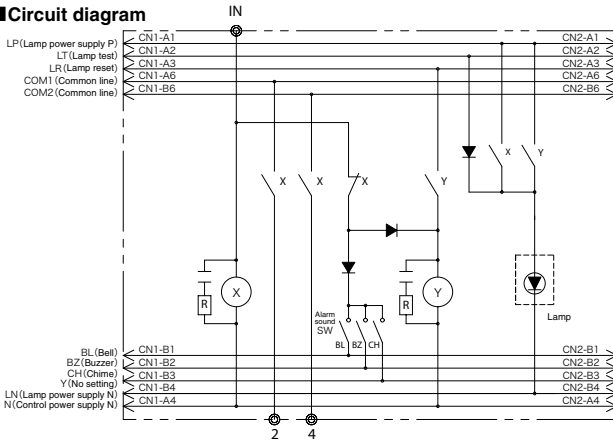
#### ■ Outline



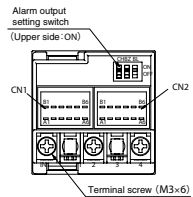
Standard attachment : fitting tool (XL-TK), terminal cover (XK-CV)



#### ■ Circuit diagram



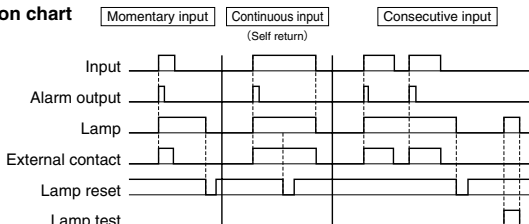
#### ■ Rear side



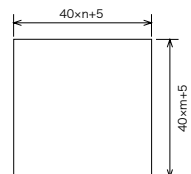
#### ■ Function

External output	2 a Contact
Output	b Contact
Alarm Type	Pulse output
Sound	3 type (BL, BZ, CH)
Input holding circuit	available

#### ■ Operation chart



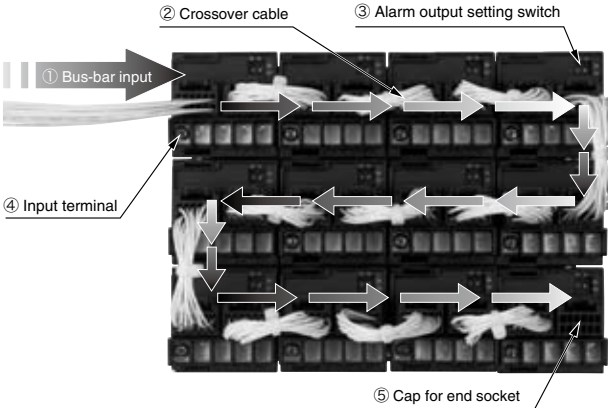
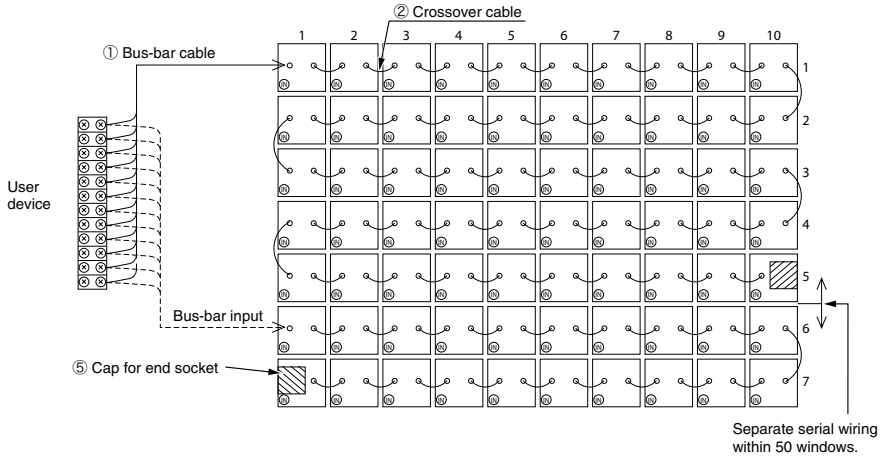
#### ■ Mounting hole size



## TECHNICAL DATA

Please refer to the following examples for many unit wiring ways.

### Example of wiring (XK44)



- ① Bus-bar cable (Individual sale)  
Code : XKK44-□□-14□□□
- ② Crossover cable (Attachment)  
Code : XKK44-11008Y
- ③ Alarm output setting switch  
BL/BZ/CH/Y
- ④ Input terminal
- ⑤ Cap for end socket (Individual sale)  
Code : XK44-CAP

\* Maximum unit number of skipping with standard crossover cable.

XK22	2 units
XK33	1 unit
XK44	1 unit

### Precautions

- Install products and alarm output setting switch under the no voltage condition.
- Use applicable wires for connection.
- Install this product considering heat influence to adjacent products.
- When many input signals come at the same time, relay characteristics change by temperature rise.
- In case of many unit installation, consider vibration or shock among transportation, and reinforce the mounting panel or do other operation.
- This product is exchangeable partly such as a element (relay and terminal) and an LED unit. In case of exchange caused by malfunction, disconnect them by using applicable tools.



# XK TYPE

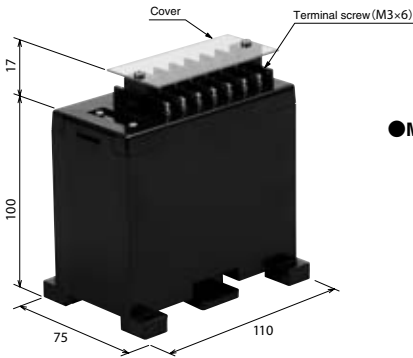
## ACCESSORIES

### Interface unit

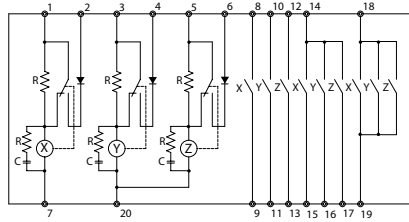
●How to order

**UKTG-S DC110V**

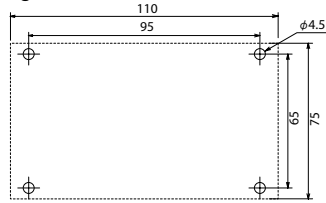
Basic type    Terminal type    Rated voltage



●Circuit drawing



●Mounting hole size



\* Mounting on DIN rail is also available

### Interface unit

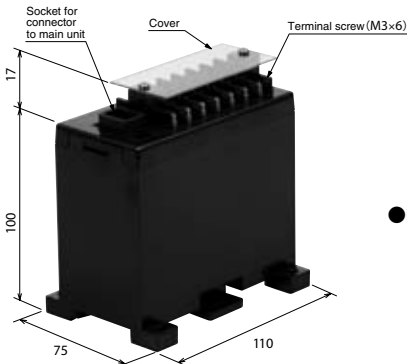
●How to order

**UKTF  -S-DC110V**

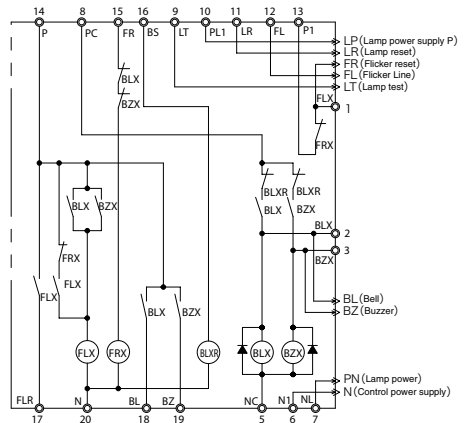
Basic type    Terminal type    Rated voltage

**Specification**

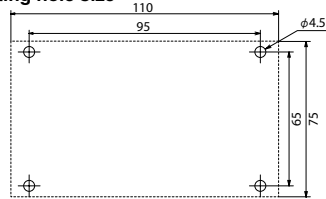
- 2 Only for XK22-02
- 3 Only for XK44-06



●Circuit drawing



●Mounting hole size



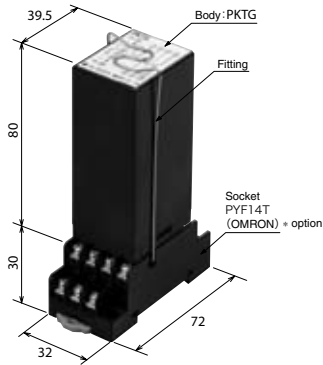
\* Mounting on DIN rail is also available

## Interface unit

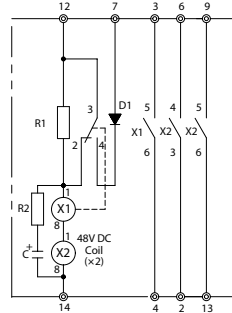
### ●How to order

**PKTG - DC110V**

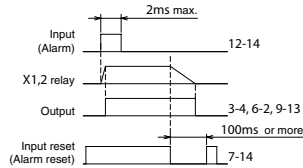
Basic type      Rated voltage (110V DC: 100 / 110V DC)



### ●Circuit drawing



### ●Time chart

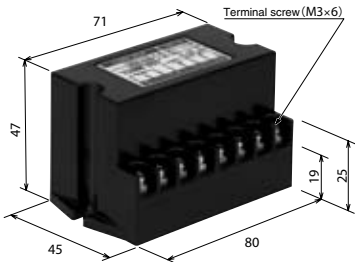


## Flicker relay unit

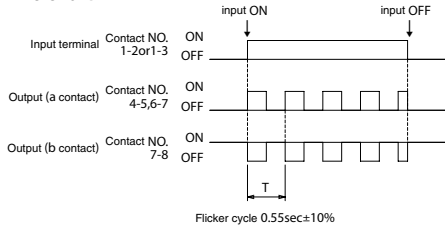
### ●How to order

**FK - 110/220**

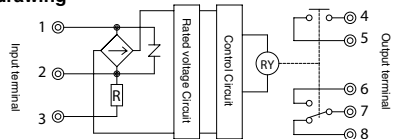
Basic type      Rated voltage (common AC / DC)



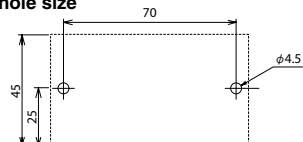
### ●Time chart



### ●Circuit drawing



### ●Mounting hole size





ANNUNCIATOR RELAY

# XK TYPE

## ACCESSORIES

**LED Unit** (Applicable type :XK22, XK33, XK44)

(Order unit: 10)



● How to order

### XL40-LED024-R

Basic type

Type	Code	Size (mm)
XK22	XL20	24×24
XK33	XL3040	30×30
XK44	XL40	40×40

Rated voltage

Code	Voltage
024	24V DC
110	100 / 110V DC

Display color

Code	Color	Code	Color
R	Red	G	Green
O	Orange	Y	Yellow
W	White	B	Blue

\* Check the main circuit voltage for power supply voltage.

**Inner element** (Applicable Type: XK22, XK33, XK44)

(Order unit: 1)



● How to order

### XK22-01S DC024-ELMT

Basic type

Type	XK22	XK33	XK44
XK22	01	-	01
XK33	02	-	03
XK44M	-	04	04
XK44	-	-	05
	-	-	06
	-	-	07

Circuit code

Terminal type

Code	Spec
S	Screw
F	Faston

Rated voltage<sup>2)</sup>

Code	Voltage
024	24V DC
110	100 / 110V DC

\*1 Basic type is XK44M.

\*2 Check the main circuit voltage for power supply voltage.  
Only 100 / 110V DC is available for XK44-05.

**Lens**

(Order unit: 10)



	Applicable Type		
	XK22	XK33	XK44
Red	XL20-LENS-R	XL30-LENS-R	XL40-LENS-R
Orange	XL20-LENS-O	XL30-LENS-O	XL40-LENS-O
White	XL20-LENS-W	XL30-LENS-W	XL40-LENS-W
Green	XL20-LENS-G	XL30-LENS-G	XL40-LENS-G
Yellow	XL20-LENS-Y	XL30-LENS-Y	XL40-LENS-Y
Blue	XL20-LENS-B	XL30-LENS-B	XL40-LENS-B

## Cap for end socket (Applicable type: XK44)

●XK44-CAP

(Order unit: 1)



## Terminal cover (Applicable type: XK44)

●XK-CV

(Order unit: 10)



\* Standard equipment

## Removal tool for inner element

(Order unit: 1)



\* XK44-Q1

code	Type
XK22	XK22-Q1
XK33	XK33-Q1
XK44	XK44-Q1

## Removal tool (Lens, LED unit)

●XL-NQ

(Order unit: 10)



## Fitting to a panel

(Order unit: 10)

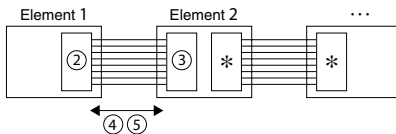
●XL-TK



\* Standard equipment

## Crossover cable

(Order unit: 1)



●How to order

**XKK44-11 008Y**

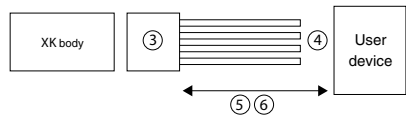
① ② ③ ④ ⑤

- ① : Basic type (XKK22, XKK33, XK44)
- ② : Element 1 side cable processing (1: Receptacle housing)
- ③ : Element 2 side cable processing (1: Receptacle housing)
- ④ : Cable length (008: 80mm, 01: 100mm, 02: 200mm)  
(05: 500mm, 10: 1000mm, 15: 1500mm)
- ⑤ : Cable color (Y: Yellow, BL: Blue)

(Standard equipment for XK44 is \*XKK44-11008Y<sub>1</sub>.)

## Bus input cable

(Order unit: 1)



●How to order

**XKK44-□□-1410Y**

① ② ③ ④ ⑤ ⑥

- ① : Basic type (XK22, XK33, XK44)
- ② : Circuit code (No need to choose for XK22 and XK33)
- ③ : XK body side cable processing (1: Receptacle housing)
- ④ : User device side cable processing (4: Cut off processing)
- ⑤ : Cable length (008: 80mm, 01: 100mm, 02: 200mm)  
(05: 500mm, 10: 1000mm, 15: 1500mm)
- ⑥ : Cable color (Y: Yellow, BL: Blue)\*

\* (Standard color for XK33 and XK44 are FY<sub>1</sub> and for XK22 is \*M (Mix)<sub>1</sub>.)





ANNUNCIATOR RELAY

# XK TYPE

## TECHNICAL INFORMATION

### STANDARD

JEM 1406	(2002)	Fault indication systems for switchgear and controlgear assemblies
JEC-2500	(1987)	Protective relays for electric power systems
B-402	(1997)	Digital Protective Relays and Protective Equipment
NECA C 8151	(2002)	Indicator lights for industry use
JIS C 2811	(1995)	Terminal Blocks for Industrial and Similar Use
JIS C 8201-1	(1998)	Low-voltage switchgear and controlgear -- Part 1: General rules

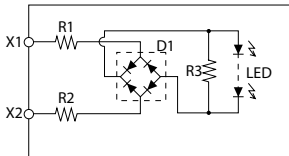
\* This product is tested by the applicable items in the above standards.

### XK'S INDICATOR

XL 2000 / XL 3040 / XL 4000 type standard LED are adopted for XK series. One point lighting spec and inclination window spec are available for XK44 as special specification. Parts exposed outside panels (Lens, Frame, Body case) are made from the anti-flammable material (oxygen index: 26 or more), and compliant to fire low.

### CIRCUIT INSIDE THE INDICATOR

■ Circuit diagram 24V DC, 100 / 110V DC rated voltage products

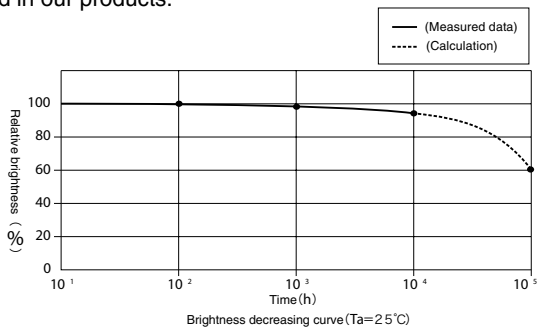


R1: Limit Resistor 1  
 R2: Limit Resistor 2  
 R3: Bypass resistor  
 D1: Rectifier diode  
 LED: Light Emitting diode

### LIFE OF LED

■ Lifetime curve of LED element used in our products.  
 (Representative case)

LED products usually decrease the brightness as electrifying time passes.  
 We estimates the point of time that LED brightness decreases by half from default as the lifetime.  
 (The decrease depends on the condition of temperature, humidity, etc.)



# Order sheet for XK Type Annunciator Relay

Date of order (month) / (day) / (year)

Company name					Person in charge									
E-mail Address					TEL									
Type code	Basic type		No. of columns		No. of rows	Power supply voltage		Indicator color	Lens color					
	XK	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	×	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	<input type="text"/>	<input type="text"/>
Quantity	units	Delivery time	DD / MM / YY		Order number									

- Please enclose the following layout drawing with a continuous line as the shape of an assembled unit.
- Please select indicator color from color codes R, O, W, G, Y, B.

## Drawing for indicator color and crossover cable

Indicator color in no sign is  color.

Rows \ Columns	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
01																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
02																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
03																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
04																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
05																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
06																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
07																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
08																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
09																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
10																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o

## Example

Indicator color in no sign is  color.

Rows \ Columns	01	02	03	04	05	06	07	C
01			G	W	O			
Crossover cable	o	o	o	o	o	o	o	o
02								
Crossover cable	o	o	o	o	o	o	o	o

\* Maximum unit number of skipping by standard crossover cable.

XK22	2 Units
XK33	1 Unit
XK44	1 Unit

A SWITCH

PILOT LAMP & INDICATOR

CONNECTING DEVICES

ELECTRONIC DEVICES

CONTROL CENTER PARTS

